

## **OECD Forum 2001: Sustainable Development and the New Economy**

### **Policy Implications of the New Economy**

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Last year at this Forum, in a session on the “new economy”, I asked myself whether it was fact or fiction. I concluded that it was still too early to say for sure how much of the recent pick-up in productivity in the United States and a few other countries had to do with a new economy and how much of it was just due to a powerful cyclical effect. But I also observed that there was certainly something new in the role of information and communication technologies (ICT) on productivity, as well as a real possibility of important spillover effects linked to communications networks (the Internet). Today I shall briefly consider the implications of a new economy for economic policies. This might perhaps be considered a sign of diminished agnosticism on the existence of a new economy. One needs, however, to be, to the extent possible, specific about what is meant by a new economy and the countries for which a higher productivity performance has been achieved. Thus, it seems proper to first say a few words on these issues and then speculate on how changes over the past decade, especially the latter half of the 1990s, may have led us to better understand how to improve the structural response of market economies to changes in the economic environment. In particular, how important are traditional framework conditions for the way markets operate? As it is also often pointed out that the rise in trend productivity levels, and possibly growth rates, especially linked to ICT changes, may have altered the characteristics of the business cycle, the implications this may have for stabilisation policies are also worth considering. For instance, to what extent has faster growth expanded the scope to reduce taxes or accelerate the pace of fiscal consolidation? Does a new economy imply lower interest rates and, more generally, how should monetary policy respond?

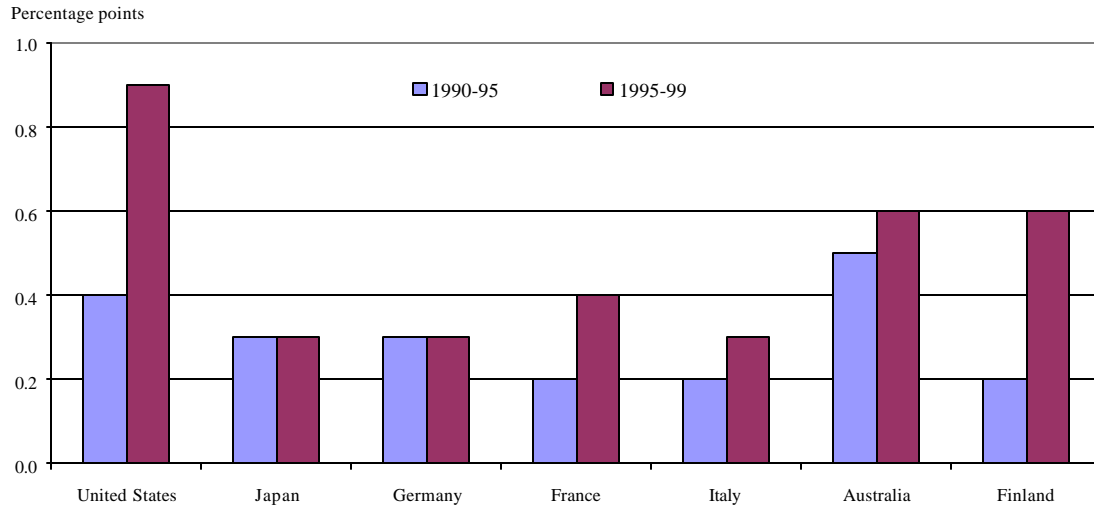
As you are probably aware, the OECD has just completed its own two-year study exploring the causes of differences in growth performance in the OECD area and the institutions and policies which may promote increased productivity and output. The final report, entitled *The New Economy: Beyond the Hype*, will be presented to Ministers tomorrow. In this report, the notion of a new economy is closely tied to the effects of technical progress on economic growth. In this respect what may be particularly new is the role played by rapid innovation and diffusion of information and communications technologies. It is not about, as some have proclaimed, the end of the business cycle or the so-called “death” of inflation. Indeed, recent economic developments have by now, I dare say, effectively killed such views.

The new OECD study confirms that information and communication technologies have contributed to more rapid growth. As I observed last year, three channels are identified. The first is through the ICT-producing sectors themselves, which contribute directly to overall growth by virtue of their own (increasingly efficient) output. The second channel is via 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 contribution to GDP growth in the United States through this channel is estimated to have doubled between the first and second half of the 1990s to reach about 1 percentage point (it has tripled, over the same period, for Finland; see Figure 1). The third channel is through so-called spillover effects, of which a prime example is the Internet and applications such as e-commerce and e-government. Statistical support for the first two channels is convincing, but the third -- which would show up in the data as an acceleration in multi-factor productivity, MFP (the increase in that part of growth not accounted for by an increase in the quantity and quality of labour and physical capital used in the production process) -- is less clear-cut.

However, differences in growth performance among OECD countries are not, by any means, solely because of differences in ICT diffusion and productivity gains in its production. Policies to bolster these technologies will not on their own steer countries on to a permanently higher growth path. In fact, a very important reason for superior growth performance in some OECD countries throughout the 1990s appears to be linked to the increased use and quality of traditional production factors, notably that of labour. The countries that were most successful in this area are predominantly those which had earlier implemented reforms in social benefit

policies, labour taxation, education and training designed to strengthen the flexibility of the labour market.

Figure 1. **ICT Capital and GDP Growth**  
(Percentage points contribution to annual average GDP growth, business sector)



Source: OECD, *The New Economy: Beyond the Hype*, Final Report on the OECD Growth Project, Paris, 2001.

Greater efficiency in how capital and labour are combined, that is higher multi-factor productivity growth, also played a significant role. In this respect, while ICT may have helped boost MFP, numerous other factors are relevant. In particular, the OECD report points to the important effects of innovation and technology diffusion, and highlights the relevance of research and development, together with that of strong links between science and industry. More generally, a considerable dynamism in the creation and expansion of firms seems essential. In this regard, the critical roles of regulatory and administrative frameworks, of effective financial systems and of an adequate degree of competition in product markets are emphasised.

The policy conclusions from this work are multifarious and summarised in the box below. Indeed, growth is not the result of a single policy or institutional arrangement, but of a comprehensive and co-ordinated set of developments and actions designed to create the right conditions for change and innovation.

### **Key policy recommendations from the OECD growth project**

1. ***Strengthen economic and social fundamentals***, by ensuring macroeconomic stability, encouraging openness, improving the functioning of markets and institutions, and addressing the distributive consequences of change.
2. ***Facilitate the diffusion of ICT***, by increasing competition in telecommunications and technology, improving skills, building confidence and making electronic government a priority.
3. ***Foster innovation***, by giving greater priority to fundamental research, improving the effectiveness of public R&D funding, and promoting the flow of knowledge between science and industry.
4. ***Invest in human capital***, by strengthening education and training, making the teaching profession more attractive, improving the links between education and the labour market and adopting labour market institutions to the changing nature of work.
5. ***Stimulate firm creation***, by improving access to high-risk finance, reducing burdensome administrative regulations and instilling positive attitudes towards entrepreneurship.

*Source: OECD, The New Economy: Beyond the Hype, Final Report on the OECD Growth Project, Paris, 2001.*

These conditions depend to a large extent on improving the quality of human capital and responding to the changing demands of the workplace and, more broadly, society. Enhanced adaptability of labour market policies and institutions is indeed key to harness the potential of faster economic growth and to limit the transitional costs implied by rapid structural changes. In particular, it is crucial to improve the school-to-work transition, to establish closer links between education and the labour market, and to put in place effective training systems to develop and adapt the skills of the labour force. But it is also critical to provide more scope for risk-takers to explore the new business opportunities that come with economic change. In this regard, then, the importance of fundamentals has not lessened. Indeed, the significance of openness to trade, investment and ideas, as well as well-functioning economic and social institutions has been clearly reaffirmed in the OECD Report and the analysis on which it is based. It has also been forcefully established that stable macroeconomic policies aimed at fiscal discipline, low inflation rates and limited variability of inflation have a critical role to play in enabling economic changes which are conducive to higher growth of GDP per capita and MFP.

Before considering the possible new economy implications for macroeconomic policies, one further point should also be stressed. While it appears that ICT has played a significant role in fostering growth, having an important ICT-producing sector is not a prerequisite. What is crucial for benefiting from ICT is to focus on policies that foster its use, such as the removal of barriers to network access, rather than on incentives to encourage its production. It is, then, particularly important for markets to be able to respond effectively to changes and innovations and for regulatory frameworks to be adopted, which allow for these changes to take place at low costs for society. Indeed, if we consider the implications of a new economy for structural policy, a feature of many technological changes and innovations over the past decade or so is how quickly they have influenced and modified market structures and made certain regulatory frameworks redundant.

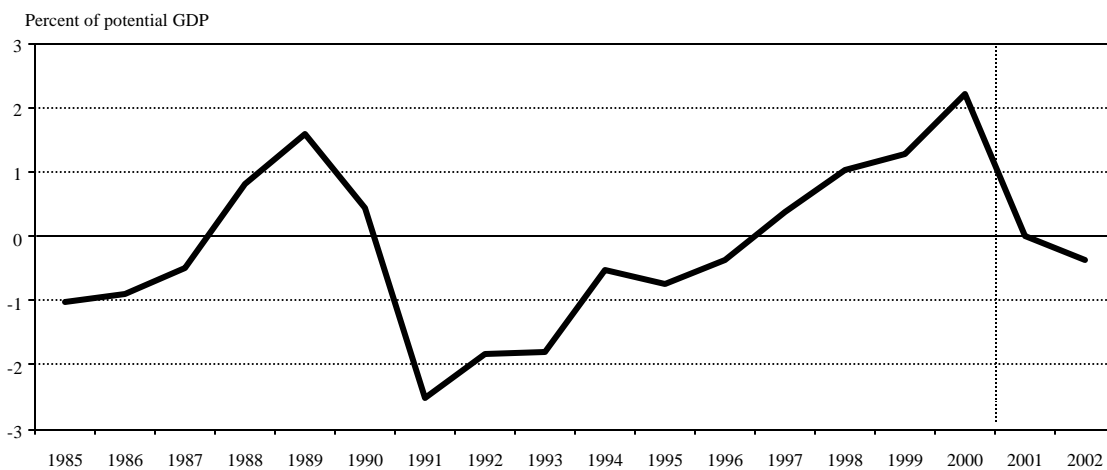
For example, breakthroughs in telecommunication technologies have undermined the rationale for state-run monopoly providers of telephony services. Most OECD economies have adapted their regulatory frameworks and today only a small minority maintain a monopoly. In fact, policies that intensify competition in the telecommunication sector have been identified as a spur to the diffusion of information technology and the development of e-commerce. There are also features of IC technology that pose new challenges to competition and competition policies: certain products become more useful as more people use them (e.g. networks or software) and economies of scale in their production can be large, both factors making it more difficult for other enterprises to enter a market where an incumbent is already established. These developments need to be continuously monitored and competition policies adapted so as to ensure they remain supportive of competitive and innovative product markets.

Let me now turn to a discussion of the implications of the new economy for the conduct of stabilisation policies. A number of arguments exist as to why structural and cyclical properties of economies may have changed, with possible consequences for the setting and operation of monetary policy. First, the diffusion of IC technologies is propitious for more efficient stock management, leading to lower inventories as a ratio of sales and possibly also modifying the stock-building cycle. (This of course did not prevent stock building from playing a role in the current U.S. slowdown.) In addition, the nature of innovations in information technology is such that substantial changes in the size and quality of the capital stock are quick to materialise due to its rapid depreciation. In the case of capital stock overhangs this should accelerate the process of adjustment towards the desired level of the capital stock. Finally, increased price competition in

product markets, facilitated by the development of communication networks, may allow the economy to sustain more jobs without stoking inflation for a period of time. It might also put greater pressure on companies to curb costs and thereby modify the cyclical responsiveness of inflation.

Such arguments may have then implications for the conduct of monetary policy. In particular, the last argument might appear, *ceteris paribus*, to bode well for an easier monetary stance, at least for a while. They depend, however, on a particular, not necessarily well-established assumption, that the increase in supply potential has not only taken place but it has also come without a substantial increase in actual demand. The output gap (the difference between actual and potential output) would in this case have moved upwards, and “testing the waters” in connection with the possible increase in the economy’s inflation speed limits would actually make sense. But this is not what has happened for instance in the United States, where the new economy effects (through the stock market and the cost of capital) have in the second half of the 1990s very likely pushed up consumption and investment expenditures by a considerable extent, possibly above the already substantial increase in potential (as can be appreciated by a simple glance at the estimated output gap; see Figure 2).

Figure 2. **Output Gap in the United States: Estimates and Projections**  
(Deviation of actual GDP from potential GDP)



Source: OECD, *Economic Outlook* No. 69, 2001, forthcoming.

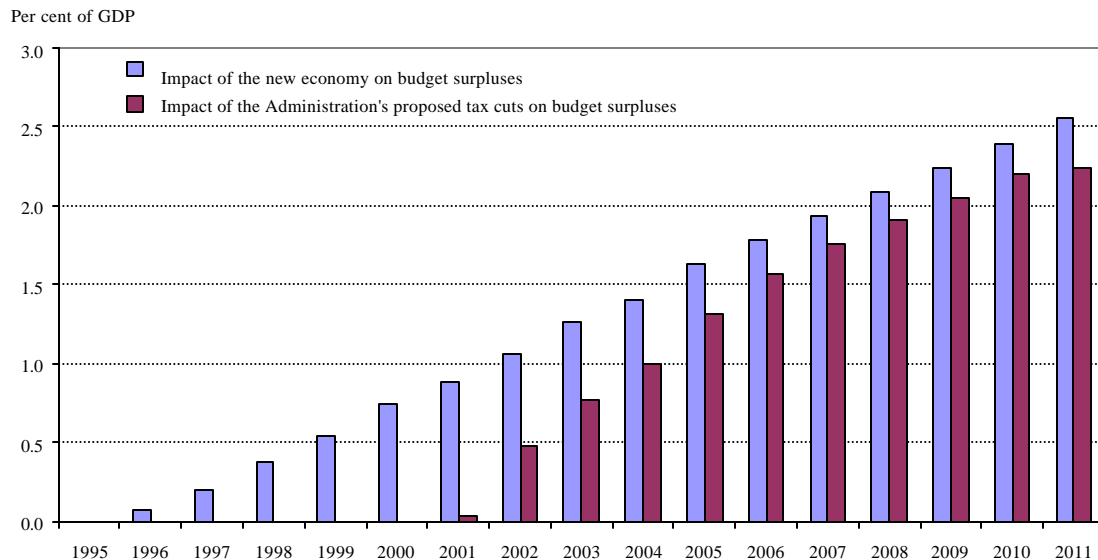
In this situation, the case for an initially easier monetary policy stance in the face of the “advent” of the new economy would be obviously much weaker. (Observe that this does not say anything with respect to counter-cyclical actions, such as the most recent cuts in interest rates in the face of the current cyclical slowdown: also in a new economy world, in fact, the business cycle seems well alive, even if possibly important modifications in its characteristics have still to be assessed.) Furthermore, a permanently higher return to capital investment implies an increase in the real interest rate and hence a period of adjustment towards the higher level.

Finally, considering fiscal policy, a virtuous development in a number of OECD economies in recent years has been the consolidation of fiscal imbalances. In the early 1990s the structural budget deficit in the OECD area was above 4 per cent of potential GDP, but by the end of the decade the area budget was close to balance. Some of the biggest improvements were achieved in those countries which recorded increased growth over the period, notably in the United States. The US fiscal position crossed into a surplus in 1998 and has since steadily increased, mostly due to an expansion of the tax base as a result of higher incomes and capital gains. To the extent that faster growth is mostly considered to be the result of a long-lasting structural improvement, further increases in tax revenues are expected. Indeed, it is estimated that by 2010 the US fiscal surplus could be some 2½ per cent of GDP higher than a projection based on the lower rate of potential output growth prevailing through the first half of the 1990s (see Figure 3). The US administration plans to distribute this new economy “fiscal dividend” through tax cuts and has scope to do so without jeopardising fiscal propriety. This is a political choice, even if there might be other possibilities. Higher tax revenues, as a result of faster growth, also provide an opportunity to increase expenditures in high priority areas such as health and education. Yet another option is to pay down the level of government debt.

But it is perhaps still premature to assess reliably whether output growth is now permanently higher. Also, the size and nature of spillover effects linked to communication networks remain uncertain. Moreover, capital expenditures on ICT, especially in the United States, have dropped sharply this year. If these lower expenditure levels were maintained over the next couple of years, it would have a noticeable impact on the potential growth rate. Indeed many commentators currently advocate a substantial degree of fiscal easing in a counter-cyclical stabilisation framework. Against this background, on the other hand, it will be crucial to see how economic developments unfold over the next couple of years, as structural changes to public

finances will have to come to terms with the possible, but by no means certain, permanent increase in trend productivity growth.

Figure 3. **The New Economy Impact on U.S. Budget Surpluses and the U.S. Administration's Proposed Tax Cuts**<sup>1</sup>



1. The impact on budget revenues is calculated based on an estimated 0.7 percentage point increase in potential output growth since 1995 and its budget sensitivity as estimated by the CBO. The tax cut is equivalent to \$1.6 trillion over the period.

Source: OECD and CBO (2001), *The Budget and Economic Outlook*, 2002-2011.

Moreover, long-term fiscal sustainability pressures are expected to build over the coming decades, as low fertility rates and welcome improvements in life expectancy in the OECD area imply a declining and ageing population. This will lead to an increase in spending on old-age public pensions and health care. Projections of the fiscal impact of ageing populations for OECD countries over the next half-century, given current policies and institutions, suggest age-related spending could increase on average by about 6 per cent of GDP and by considerably more in some countries over the projection period.<sup>1</sup> It is clear that substantial reforms will be required to address these pressures. Higher growth will certainly help to increase the scope and provide a window of opportunity to implement major public pension reforms while allowing the affected population to bear their burden more easily. But, perhaps contrary to what is sometimes claimed, faster growth in itself does not represent a response to the problem of ageing populations. To illustrate, under current institutional arrangements in 12 OECD countries, including most of the

large economies, 1 per cent a year higher output growth over the next 50 years is estimated to ease the increase in the level of pension expenditures to GDP by only about  $\frac{3}{4}$  of a percentage point.

To conclude, yes, a permanent increase in productivity may have taken place because of ICT in the United States and a few other countries. Similar gains might be reasonably expected in other economies as well, in particular in the major European countries. Even some increase in trend growth from spillover effects of networks in communications might be in the making. But perhaps, as in Ludwig Wittgenstein's "motto" to his *Philosophical Investigations* (1953), "It is in the nature of progress that it looks much greater than it really is!"<sup>2</sup> This is certainly true for the implications of the new economy: "traditional" framework conditions for flexible and competitive markets are very much needed, as are sound macroeconomic policies, evolving, as necessary, in response to changes in our understanding and perception of the structural functioning of an economy. At the present time, and given the still extensive uncertainty as to the precise nature and implications of a new economy, this does not necessarily imply a change in the stance of monetary policy nor a substantial easing of fiscal conditions.

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<sup>1</sup> The June 2001 edition of the OECD Economic Outlook will include a special chapter on the fiscal implications of ageing populations.

<sup>2</sup> The motto comes from the 19<sup>th</sup> century play *Der Schützling* (*The Protégé*) by Johann Nestroy (act 4, scene 10).