What is "the new economy"? For the economist, there are three core propositions to examine: that advanced economies are less inflation-prone and more stable; that the world economy is on the brink of an innovation-driven "long boom"; and, most radical of all, that markets will be transformed, forever.

Start with stability. One rationalisation for the US equity valuations of recent years has been the argument that business cycles are things of the past. This is a strikingly parochial vision. Just ask a Japanese, an east Asian or a European. There are, in fact, several reasons why the argument that technical change, globalisation and improved macro-economic policymaking have eliminated cyclical instability is wrong.

One, as Willem Buiter, a member of the Bank of England's monetary policy committee, pointed out in a speech of October 27, is that "structural changes have no straightforward, obvious implications for inflation". In other words, whatever the improvement in the real economy, central banks can still be over-optimistic. If so, they will end up with excessively high inflation and then need to tighten monetary policy.

Another is that some of the ways in which new economic relationships curb inflation postpone it, instead. Imports, in particular, constrain domestic inflation only if the exchange rate is stable. But a soaring trade deficit is hardly consistent with such stability.

Last and most important, as Victor Zarnowitz of New York's Foundation for International Business and Economic Research, argues in spring's Journal of Economic Perspectives: "The interaction of profits, investment, credit and financial markets is an enduring feature of market economies, that plays a central role in business cycles." Can monetary policy eliminate the destabilising impact of these forces? The answer must be no.

Turn then to growth. The Organisation for Economic Co-operation and Development has just produced The Future of the Global Economy, that asks whether there could be another "long boom". Previous long booms occurred between 1870 and 1913 and then between 1950 and 1973. These are at least rare economic events, albeit not altogether new.

A splendid article in the OECD book, by Richard Lipsey of Canada's Simon Fraser University, concludes that, over any extended period, "technological change is the main determinant of long-term, global economic growth. So the problem of explaining growth over times and across countries is mainly one of explaining the generation, adaptation within one country, and international diffusion of new products and process technologies."

How then do the technologies of today compare with the ones that delivered the vast increases in output per head of the past two centuries, under British and then US leadership (see chart)? Favourably, is the answer. Professor Lipsey focuses his attention on what he calls "general purpose technologies" - those that transform the "economic, social and political structures of the societies that have developed them". The historic list includes domestication of crops, domestication of animals, writing, bronze, iron, the water-wheel and windmill, the three-masted sailing ship, the moveable-type printing press, automated textile machinery, the steam engine, electricity, the internal combustion engine and the computer.

Today, we have the transformation of information and communication technologies (see chart); tailor-made materials; and biotechnology. On the horizon, we can discern new fuels and nanotechnology. Taken together, argues the author, these are revolutionary enough to fuel a long boom.
In the case of information technology, the US may already have gone through the structural upheavals attendant on the arrival of any new general-purpose technology. If so, he argues, the US economy may again be where it was in 1945, although then for electricity and the internal combustion engine: on the verge of a long period of sustained dynamism. The new technologies could even bring economic, social, political and cultural changes as profound as those of the industrial revolutions of the 18th and 19th centuries.

The wider impact of the "knowledge economy" is discussed by Peter Schwartz and colleagues at Global Business Network, in the OECD book. The implications, they argue, include: a borderless world, at least for information; a rapidly declining ability of governments to track and tax transactions; and a shift from hierarchical organisations, modelled on armies, to geographically scattered networks.

Yet the most profound impact of this brave new world may be not on governments and corporations, but rather on the market economy itself. This — the third area to be considered — may also best deserve the epithet "new".

Bradford De Long of the University of California at Berkeley and Michael Froomkin of the University of Miami argue that the case for the market system rests on three pillars: excludability, or the ability of sellers to force users to pay; rivalry, or a cost structure in which more output means at least proportionately greater cost; and transparency, or the possibility of knowing what one is buying. A knowledge economy subverts all three: it is difficult to exclude new users; the marginal cost of reproduction of knowledge is zero; and it is, by definition, difficult to know what one is buying when knowledge is the object of purchase.

The Microsoft case, on which a judge has just pronounced, is just one result of these new economics. With zero short-run marginal costs, monopolies in given product classes are almost inevitable. But, because monopolies can keep prices above marginal costs and still deter potential entrants into their markets, they can also make excess profits. The amount of the knowledge that is purchased will then be less than it should be (given the zero marginal costs). Yet, if producers charged short-run marginal costs, they would inevitably be bankrupt in the long run.

What then does the economics of the "new economy" amount to? The answers, in ascending order of importance, are: the decidedly implausible hypothesis of unprecedented economic stability; the less implausible hypothesis of another sustained period of high growth; and the quite plausible hypothesis of a change in our ideas of how our market economies will behave in central areas of activity. Competition will lead to monopoly.

The US department of justice is going to be very busy.

References can be found at www.ft.com.

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