## Session 12 – Is the New Economy Overrated?

## **Coordination: Lionel Ragot**

During the nineties, the recovery in US economic growth, together with the development of new information and communication technology (ICT), gave rise to the concept of a "new economy". The distribution of these new technologies across all economic sectors, and their resulting productivity gains, should have led to a new, long cycle of prosperity. However, in reality it turned out to be much shorter than expected, barely longer than the period of stock market euphoria generated by these new technologies, which ended with the collapse of the Nasdaq. A new wave of innovations related to these technologies (connected objects, artificial intelligence, blockchain etc.) means this concept is now resurfacing and thus gives rise to the hope of a new period of sustainable growth. As more than 30 years have now passed since the beginning of this process, it is difficult to describe this transformation of the economy as "new" and in order to better identify what it encompasses, it is now more commonly referred to as "the digital economy".

While similar, the rise of digital technology is not a third industrial revolution but does have a certain analogy with the distribution of electricity in the 19th century (one of the main drivers of the second industrial revolution). Digital technology has given rise to new goods and services and new jobs, but beyond that it has also profoundly changed production and sales processes in all sectors of economic activity and is omnipresent in virtually every household. As can be seen with electricity, it is not so much the size of the information and communication technology sector (**digital sector**) that leads to this all-encompassing concept of a **digital economy**, but rather the role it plays in transforming the economy and, more generally, society as a whole (**digital transformation**).

In the condensed version of the country's national accounts, the **digital sector** includes computing, telecommunications and electronics companies; in other words those companies producing goods and services which underpin the digitalisation of the economy. Today, this sector accounts for an average of between 5% and 6% of GDP in developed countries (with a maximum of 12% in Ireland) and between 3% and 4% of jobs. Its share in international trade (up to 32% of goods exported in China in 2015) and in research and development (more than 25% in OECD countries and 1/3 of global patent registrations in 2015) is even more significant. These figures do not make this a huge sector but neither do they suggest it is an economic midget. Measuring the digital sector in this way raises many problems, which, for the most part, can lead to it being undervalued. Because of the resulting economic spinoffs, it is something that is regularly open to public debate. This is largely due to the difficulties in being able to clearly identify places of production, since such activities are often carried out at a distance by economic agents scattered across several countries and who collaborate via computer networks. Another relates to the transition from values to volumes, a recurring problem in the national accounts and one which is amplified by products that are very diversified (horizontal and vertical differentiations) and which are renewed more and more quickly. Between 2005 and 2016 the price of goods and services in the United States grew at an average annual rate of 1.4% while those in the ICT sector decreased by 0.4%. Many economists believe that this fall in prices is undervalued, reducing even further the real wealth creation capabilities of this sector. The main problem lies in the fact that not all activities generated by the increasing number of collaborative platforms are taken into account when calculating GDP, as the service is free (zero marginal cost). Without a doubt, they create well-being which is not reflected in the level of GDP. On the contrary, these free platforms often replace existing products, reducing the measurement of wealth creation by national accounting. Is this 'economic midget' label actually just a reflection of the inability of our statistical devices to accurately measure the digital sector and the resulting new collaborative economy?

However, from the point of view of national accounting, this 'economic midget' is leaving an evidence trail (or more precisely a byte trail) throughout the economy and society and is today making itself at home in every business and household across the country. What we are witnessing today is a true **digital transformation** of the economy which goes far beyond what we saw with the wave of new information and communication technologies in the nineties. The internet of things, Big Data, artificial intelligence, blockchain, cloud computing and ecosystems like Google, Amazon, Facebook, Uber, BlaBlaCar, Airbnb etc., all are revolutionising the way in which we produce and consume, which justifies this being called a third industrial revolution. Once again, we are seeing stock market enthusiasm surrounding the prospects being offered by the new economy. In 2016, for the first time in its history, the Airbnb platform achieved a positive result; while its market valuation is 2.6 times higher than that of the Accord Group. We are currently only at the beginning of the transformation process, and therefore are somewhat limited to only being able to provide a prospective analysis as opposed to a descriptive one. Amongst economists, two visions clash on this subject. With its further development (especially for artificial intelligence and autonomous vehicles) and its distribution in all sectors of activity, techno-optimists foresee considerable productivity gains which should put an end to the fear of secular stagnation. These beneficial effects should already be at work; after all they are already a part of our everyday lives. However, the measurement problems mentioned above mean they are not yet apparent in public statistics. On the other hand, techno-sceptics, like R. Gordon, see the digital revolution as a minor diversion in comparison to the economic transformations and rising standards of living that resulted from the second industrial revolution, which is corroborated by the continual sluggishness of labour productivity. The question remains open: is this a real third industrial revolution or simply an avatar of the myth of a new economy?