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Secular stagnation: between supply and demand

Marie-Hélène Duprat
Senior Advisor to the Chief Economist

As Paul Krugman, winner of the 2008 Nobel Prize in Economics, pointed out: "Productivity isn't everything, but, in the long run, it is almost everything." Productivity growth has slowed markedly in advanced countries since the mid-2000s. For Robert Gordon, persistent weakness in productivity gains should lead to secular stagnation in the United States (and elsewhere).

Secular stagnation can have two very different causes: weak growth in aggregate demand and/or weak capacity of the economy to growth. The factors affecting demand have notably been highlighted by Lawrence Summers, who points to an excess in the appetite for savings relative to the appetite for investment[1]. But an economy can also grapple with weak growth when the factors affecting the supply weigh on potential output growth, due in particular to the deceleration or decline in the growth of the working-age population (population ageing, etc.) and/or a decline in productivity growth[2].

Decline in productivity growth

The stagnation of potential output growth was highlighted by Robert Gordon, who predicts an erosion in long-term growth under the effects of headwinds such as population ageing, rising inequalities and the weight of debt[3]. For him, the third industrial revolution - that of information and communication technologies (TIC) - which began in the 1970s, cannot relaunch productivity gains (and therefore growth), because it does not have the amplitude and the capacity for action and economic transformation of the two industrial revolutions of the previous era, which saw a wave of disruptive innovations (the steam engine, electricity, railways, the internal combustion engine, etc.).

Productivity growth has substantially declined in advanced economies since the mid-2000s. There is no consensus in the academic literature on the causes of this slowdown, which cannot be explained as a simple measurement problem. The explanations proposed range from the secondary impact of the TIC revolution (Gordon) to delays in the spread of innovations and the shift of jobs from the industrial sector to the tertiary sector (where productivity growth is slower overall), and market rigidities that block the reallocation of production factors to more innovative

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[1] See Marie-Hélène Duprat (2021), "Secular stagnation", Economics for all, February.

[2] Productivity measures productive efficiency, that is, the ratio between the volume of production and the means necessary for its realization (i.e. the quantities of factors of production). It breaks down into labour productivity, capital productivity and total factor productivity (generally due to technical progress).

[3] See Robert J. Gordon (2012), "Is U.S. economic growth over? Faltering innovation confronts the six headwinds", National Bureau of Economic Research, working paper, no. 18315, August.

sectors and prevent the diffusion of technological innovations throughout the economy as a whole.

COVID-19 and the big bang of digital acceleration

The digital transition has considerably accelerated under the effect of the pandemic, as digital innovations have played a decisive role in the management of the health crisis. These innovations have made possible the social distancing required to combat the spread of the virus, while maintaining virtual social connections, allowing both companies and employees to continue their activities. Based on the production and use of huge volumes of data – “Big Data” – the digital transformation underway (ubiquitous computing, near-universal connectivity) affects entire segments of the economy.

Will the acceleration of the digital revolution boost productivity? This is the conviction of Erik Brynjolfsson and Andrew McAfee, two economists at MIT, who think that Gordon’s pessimism is unwarranted[4]. For them, information technologies are entering a new era in which innovations are introduced at an exponential rate. Schumpeter showed how technological revolutions give rise to “clusters” of innovations and generate productivity growth through what he called “creative destruction”, that is, the destruction of obsolete activities based on old technologies and the creation of new, more productive activities/methods of production, based on new technologies.

The challenge of upscaling human capital

Stagnation (or decline) of productivity growth or a major rebound on the horizon? One of the most fundamental economic debates for the future of our societies remains unresolved to this day. While Gordon considers Brynjolfsson and McAfee to be “techno-optimists”, he is himself often described as a “techno-pessimist”. If studies show that the digital transformation can have significant positive effects on the productivity of many companies, its translation into productivity gains for the entire economy remains, for the time being, unsubstantiated.

The digital revolution, made up of particularly sophisticated technologies, is based above all on knowledge – “Knowledge Based Capital” (KBC). One of the most daunting challenges posed by the digital transformation is that of widespread and high-level training of populations (engineers, designers, programmers, marketing experts, etc.). But today, advanced and specialized skills are sorely lacking – which largely explains why the digital revolution has only partially spread across the whole economy. The distance our societies have yet to travel to enjoy a broad base of high-level human capital being particularly long, the transition to a world in which digital skills are considerably more widespread seems in no way guaranteed.

[4] See Erik Brynjolfsson and Andrew McAfee (2014), The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies, Norton, 306 pp.

Contacts

Michala Marcussen
Group Chief Economist
+33 1 42 13 00 34
michala.marcussen@socgen.com

Olivier de Boysson
Chief Economist Emerging Countries
+33 1 42 14 41 46
olivier.de-boysson@socgen.com

Marie-Hélène Duprat
Advisor to the Chief Economist
+33 1 42 14 16 04
marie-helene.duprat@socgen.com

Ariel Emirian
Macroeconomic Analyst
+33 1 42 13 08 49
ariel.emirian@socgen.com

François Letondu
Macrosectoral and Macrofinancial Analyst
+33 1 57 29 18 43
francois.letondu@socgen.com

Constance Boublil-Groh
Central and Eastern Europe
+33 1 58 98 98 69
constance.boublil-groh@socgen.com

Olivier DENAGISCARDE
Macrosectoral Analyst
+33 1 58 98 74 22
olivier.denagiscarde@socgen.com

Juan Carlos Diaz Mendoza
Americas
+33 1 57 29 61 77
juan-carlos.diaz-mendoza@socgen.com

Clément Gillet
Africa
+33 1 42 14 31 43
clement.gillet@socgen.com

Erwan JAIN
Macrosectoral Analyst
+33 1 58 98 05 35
erwan.jain@socgen.com

Alan Lemangnen
Eurozone, France, Germany
+33 1 42 14 72 88
alan.lemangnen@socgen.com

Simon Ray
Macrofinancial Analyst; UK
+33 1 4213 70 80
simon.ray@socgen.com

Valérie Rizk
Macrosectoral Analyst
+33 1 58 98 82 85
valerie.rizk@socgen.com

Gabriel Roux
Economist Assistant, Editing
+33 1 58 98 21 76
gabriel.roux@socgen.com

Danielle Schweisguth
Western Europe
+33 1 57 29 63 99
danielle.schweisguth@socgen.com

Edgardo Torija Zane
Global economic forecasts
Middle East, Turkey and Central Asia
+33 1 42 14 92 87
edgardo.torija-zane@socgen.com

Bei Xu
Asia
+33 1 58 98 23 14
bei.xu@socgen.com

Yolande Narjou
Assistant
+33 1 42 14 83 29
yolande.narjou@socgen.com

Societe Generale | SG Economic and Sector Research | 75886 PARIS CEDEX 18 | France
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