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Productivity Growth, Investment, and Secular Stagnation

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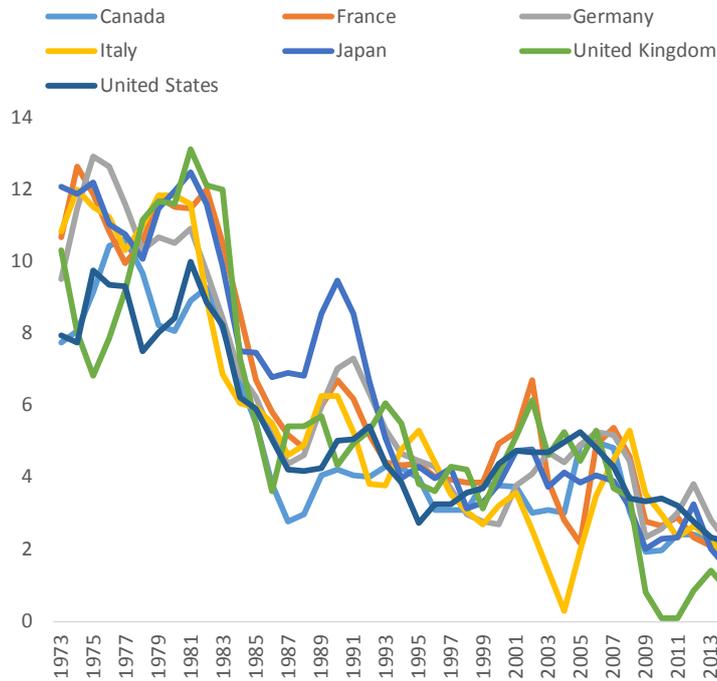
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In many advanced economies, the economic recovery from the financial crisis has been sluggish. In light of these developments, it has been argued by various economists that economic growth per capita has already been on a downward trend since the 1980s. Studies suggest that this is largely due to low productivity growth. While factors of production such as labor and capital are being used more productively than ever, growth has been slow in the past years by historical standards. In parallel to this low productivity growth, corporate investment in many countries has been subdued, especially since the financial crisis. In light of recent developments, low growth rates for gross domestic product, investment, and productivity are often predicted for the years ahead. This has prompted some economists to speak of a possible period of secular—i.e., long-lasting—stagnation. A detailed discussion has emerged among scientists and policy advisors about the possible causes of weak economic growth and the appropriate policy measures to prevent secular stagnation from happening. Better incentives for higher private investment, increased public investment, and promoting education are often mentioned as suitable policy measures to stimulate economic growth.

Over the past thirty years, most developed countries have seen a decline in economic growth per total hours worked—often described as labor productivity (see Figure 1). This has coincided with low gains in total factor productivity, which indicates how productively an economy utilizes its factors of production (see [Gordon \(2012\)](#), [IMF \(2015a\)](#), or [Furman \(2015\)](#)). The low economic momentum since the onset of the financial crisis in 2008 has intensified these developments. The low rise in total factor productivity does not just directly lower economic growth; it also decreases returns on investments, and may be an important factor for the subdued increase in corporate investment in many countries, often described using terms like *investment weakness* or *investment gap* (see [DIW \(2013\)](#) and [\(2014\)](#), [IMF \(2015b\)](#), and [OECD \(2015\)](#)). For the years ahead, economists have repeatedly predicted low growth rates in GDP, investment, and productivity (see e.g., [IMF \(2015b\)](#) and [OECD \(2015\)](#)). Against this background, a number of economists, such as [Summers \(2013a\)](#) und [\(2013b\)](#) and [Gordon \(2015\)](#) have put forward the hypothesis of potentially long-lasting economic stagnation. They have invoked the term *secular stagnation*, which was introduced by [Hansen \(1939\)](#) in the context of the Great Depression of the 1930s (for a summary and classification of this discussion, see [Baldi and Harms \(2014\)](#)).

Figure 1: Productivity Growth

measured as Gross Domestic Product per hour worked,
growth rates in %, three-year moving average



Source: OECD

In the face of low economic and productivity growth and concurrent accelerated technological change, many have identified a productivity paradox (see, e.g., [Baily und Manyika \(2015\)](#)). This technological change—often discussed using the terms *Digital Revolution*, *Robotisation*, or *The Internet of Things*—has indeed increased the quality of capital goods in recent decades; but, at least for the time being, it has not led to strong growth in total factor productivity (see [Jones \(2015\)](#) and [Eichengreen \(2015\)](#)). [Gordon \(2012\)](#) argues that the current technological change is unlikely to noticeably increase productivity and thus economic growth, as information technology is not a general purpose technology like earlier advancements such as the steam engine or electricity. This view contradicts that of economists like [Erik Brynjolfsson](#), [Andrew McAfee \(2014\)](#) or [Joel Mokyr \(2014\)](#), who argue that the digital revolution may considerably increase productivity in the coming years and decades. According to this line of thinking, fundamental technological revolutions initially only lead to minor improvements in productivity and are associated with considerable adaptation costs. But eventually corporations and the labor force adjust such that the technological shift works to increase productivity on a macroeconomic level. In particular, complementary processes and capabilities are created, while earlier investments and capabilities are revealed to be obsolete (see [Eichengreen \(2015\)](#) or [Mokyr \(2015\)](#)). For example, [Baily und Manyika \(2015\)](#) estimate that the digital revolution will increase global GDP by approximately 11 percent by 2025. However, in the meantime it may take a while for the effects to be visible on a macroeconomic level. Thus, according to these estimates, the productivity paradox and accompanying low economic growth could persist for a number of years. This could constitute a great challenge for monetary policy, as low productivity growth and low investment activity have a damping influence on interest rates, when the global propensity toward saving remains high. This restricts the leeway of central

banks and at the same time markedly increases the risk of bubbles in financial and real estate markets (see e.g., [Summers \(2015\)](#)).

Summary and proposed policy measures

Many advanced economies have seen reduced growth in GDP per capita in recent decades. This has been accompanied by low growth in total factor productivity and frequently subdued increases in corporate investment. Since the outbreak of the financial crisis in 2008, these developments have even become more pronounced and are interpreted as the beginning of a period of secular stagnation. The ongoing discussion indicates that policy measures which promote aggregate demand and productive utilization of resources may be appropriate to counteract this development (see e.g., [Summers \(2014\)](#)). Emphasis is placed on incentives for higher private investment and an increase in and more efficient use of public expenditure on education and investment. Against the background of current technological changes, there is especially an increase in the significance of education and training to improve the absorption capacity of new technologies. This would not only counteract possible increases in wage inequality and unemployment, but also reduce the period of weak economic growth.

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