

The Great Stagnation, and what we can do to kickstart growth.

In the last few decades, there has been a growing concern among economists and technologists about a phenomenon known as the "Great Stagnation." Coined by economist Tyler Cowen, this term refers to the perceived slowdown in technological progress and economic growth. Despite the rapid advancements of the past, we find ourselves in an era where innovation seems to have hit a plateau. The Great Stagnation can be attributed to various factors, each playing a significant role in impeding progress. One key factor is diminishing returns on technological advancements. In the past, breakthrough innovations like electricity, the automobile, and the internet sparked transformative growth, but today's technological advancements often focus on incremental improvements rather than revolutionary changes. Regulatory complexities and increased bureaucracy have made it more challenging for small businesses and entrepreneurs to navigate the landscape and bring their ideas to fruition. This has stifled competition and hindered the entry of disruptive innovations into the market.

The productivity slowdown of current concern is much more specific and has a precise start-date in the first quarter of 2008 as can be seen in the chart below. Output per hour which had grown reasonably consistently throughout the postwar period suddenly slumped in 2008 and has struggled to expand ever since. Productivity growth was a little slower in the post-1980 Thatcher era than previously, but nothing like the current slowdown has been seen since records began three-quarters of a century ago.

It is true that current UK productivity is lower than some major competitors, but this is generally an old, rather than new, phenomenon. Per capita GDP at purchasing price parity in the UK has been around 75% of the US level since World War II. The US pulled ahead during that war when its huge resources and economies of scale were fully utilised in such things as aircraft production while a war-bankrupted Britain struggled to modernise for decades.

According to the most recent ONS labour productivity statistics, Labour productivity, measured by output per hour worked, increased in 26 of 41 International Territorial Level (ITL) 2 subregions and in 96 of 179 ITL3 subregions between 2019 and 2021; in each case, both output and hours declined, but hours declined more. Output per hour worked is the preferred measure of labour productivity, as hours worked are a more precise measure of labour input than jobs. Productivity growth was higher than the UK productivity growth in over a quarter of ITL2 subregions (12 out of 41) over the period from 2004 to 2021. They include the ITL2 subregions of Berkshire, Buckinghamshire and Oxfordshire and Northeastern Scotland. These subregions recorded the highest growth with labour productivity rising over 20% since 2004, while productivity in some regions, such as Outer London - East and Northeast and North Yorkshire declined over the period.

2011 to 2019 saw growth in hours worked and output, with most areas registering productivity growth and only 8 out of 41 areas registering small falls in productivity. Only a couple of areas saw a relatively high productivity growth, such as Lincolnshire, and East Yorkshire and Northern Lincolnshire, both of which grew around 2% per year. However, it was more typical for areas to have experienced a smaller increase in productivity over the period. The annual average productivity growth was between 0% and 1% in 24 out of the 41 ITL2 subregions.

In 2019 to 2021, the pandemic caused a decline in hours worked and output in nearly all ITL2 areas. In the majority of areas, the decline in hours worked was greater than the decline in economic output. As a result, output per hour worked increased in more than half of the 41 ITL2 subregions.

In order to overcome the Great Stagnation, we must identify and address the barriers that are impeding innovation. Firstly, fostering an environment that encourages entrepreneurship and reduces regulatory burdens is crucial. The government and institutions must streamline bureaucracy, create favourable policies, and invest in education to equip the workforce with the skills necessary to thrive in a rapidly changing economy.

Sustained investment in research and development (R&D) is also paramount. Public-private partnerships can help channel resources into areas with the greatest potential for transformative change, such as renewable energy, artificial intelligence, and biotechnology. By incentivizing R&D through tax breaks, grants, and other mechanisms, we can encourage private sector involvement in driving innovation. The UK has enviable strength in the Tech Sector. We attract more private investment into AI than any country other than the US and China. We are one of only three countries in the world to have produced over 100 tech Unicorns or companies valued at more than \$1bn. And tech

innovation by UK companies like Astrazeneca through their Covid Vaccine have made a palpable difference to people's daily lives.

However, harnessing that technology across the wider economy is easier said than done. There is a world of difference between the skills, investment, organisational design and culture between the digitally native firms and the analogue firms who see IT as a specialism to be bolted on to their existing operations. In the UK, the tail of unproductive firms is larger and longer than in most other countries, and it is growing.

The second industrial revolution of the early 20th century gives us a model for our contemporary challenges. The new technology was not AI but electricity. Initially, it was an expensive and disappointing investment for factory owners. Stripping out the steam turbines and replacing them with electric wires did little to raise the productivity of those firms. It was not until the business architecture was reformed that the productive potential of those factories was transformed. Previously, workstations were arranged linearly along the central shaft of the steam turbine. But it was not until entrepreneurs like Henry Ford used the freedom that electricity provided to change that organisational model to follow the logic of the production line, with stations arranged and distributed much more flexibly across the factory floor, that productivity improved.

The Great Stagnation poses significant challenges for our society and economy in the UK. However, by understanding the underlying causes and taking proactive measures, we can reignite the fires of innovation. It requires a concerted effort from policymakers, entrepreneurs, and industry leaders to invest in R&D, and foster collaboration. By doing so, we can unlock the full potential of human ingenuity and pave the way for a brighter and more productive future.

