The Foundation for Science and Technology
Debate Record Note

Measuring and improving productivity - what tools and levers can we use?

Date and Location: 19th June 2019 at The Royal Society

Chair: The Rt Hon. the Lord Willetts FRS
Chair, The Foundation for Science and Technology

Speakers: Professor Jennifer Rubin
Executive Chair, Economic and Social Research Council
Paul Johnson
Director, Institute for Fiscal Studies
Robert Jenrick MP
Exchequer Secretary, HM Treasury

Panellist: Annie Gascoyne
Director of Economic Policy, Confederation of British Industry (CBI)

Sponsor: Association for Innovation, Research and Technology Organisations (AIRTO)

Audio Files: www.foundation.org.uk

Hash tag: #fstproductivity . Twitter Handle: @FoundSciTech .

PROFESSOR JENNIFER RUBIN, Executive Chair of the Economic and Social Research Council (ESRC), noted that productivity has been a recurring – and pivotal – challenge for the UK economy. Tackling it will require input and insights from a range of diverse communities and viewpoints – including the contribution of the social sciences.

Productivity is essentially the output produced for a given amount of input. High productivity means working less to produce the same amount. We have a problem of low productivity in the UK, she continued. Low productivity has consequences, in turn, for wage growth and living standards.

This topic is one of great complexity, though, which has led some to question whether we are measuring the right things. For example, until recently, productivity calculations in the UK included days when people were not working. However, even after corrections have been made, the revised measures still offer no evidence that we are not under-performing in comparison with our major competitors.

So, if this is a persistent problem for the UK economy, what is causing it and – just as important – what can be done about it? With a rapidly changing society, is our education system adapting fast enough? If we need more R&D – the Government has adopted a target of 2.4% of GDP – what kind of research and development do we need? And then there is the part played by mental health – over half of all work days lost can be put down to stress, anxiety and depression.

It was over 50 years ago that the Heyworth committee made the case for public funding of social science. Over the intervening years, the need for research in this area has continued to grow. Government Departments are now publishing their Areas of Research Interest (ARI). Two thirds of these research areas are concerned with social sciences, specifically about people and behaviour. And many relate to the challenges surrounding productivity.

ESRC will be looking to provide the support needed to answer some of these questions. It is, for example, working with the Office of National Statistics to realise the potential of new data sources for policy analysis.

The Government has recently established the Industrial Strategy Council, an independent body that will inform the issues that the Industrial Strategy is addressing. It will need to draw on insights from academic research.

Professor Rubin concluded by acknowledging that, in attempting new solutions to persistent challenges like productivity, not every venture will be successful. The important thing is not to avoid mistakes completely but to recognise them when they do occur and to learn from them. Academic analysis will be an important part of that learning process.

PAUL JOHNSON, Director of the Institute for Fiscal Studies (IFS), pointed out that while UK productivity increased steadily in the 40 years up to the 2007 recession, it has flat-lined since. Interestingly, no-one saw this coming – all predictions have (mistakenly) foreseen a recovery in the rate of growth. Yet, we still have not returned to the pre-crisis trend of economic performance. In fact, since 2007, we have had the lowest interest rates for a century, the lowest productivity growth and lowest earnings growth. The whole G7 group of major economies has been hit by economic slowdown too, but not on the scale of the UK.

Yet employment levels have remained high, and the continued inclusion of low-productivity labour may be contributing to the overall effect.

Paul Johnson noted that there are only two factors that drive productivity growth. The first is efficient allocation of resources: people and capital have to be deployed in places where they can be most productive. There is some evidence of misallocation of resources, for example in some people being unable or unwilling to travel further for better-paid work which restricts their income.

The second is the technological progress created through investment in new ways of doing things. Since the recession there has been a substantial reduction in business investment, due at least in part to lower demand and greater uncertainty. Significantly, some larger firms have halted investment programmes completely. The Brexit vote, and subsequent uncertainty, has been a significant factor in the collapse in business investment.

While business investment is essential for increased productivity, in comparison with previous recessions it is recovering much more slowly. In fact, the most productive firms are precisely the ones who are expecting Brexit to have the greatest impact on their sales. Stable, well-functioning institutions provide the basis for business confidence and performance: the lack of such stability has a negative impact.

Looking at the Industrial Strategy, he noted that it places great store by the growth in small businesses. Sole-traders and small businesses now make up around 15% of the labour market. However, the data suggests that this trend is not leading to greater productivity. In fact, average business profits for these smaller enterprises have actually been falling. That, in turn, has had a downward impact on measured productivity.

ROBERT JENRICK, Exchequer Secretary at HM Treasury, started by recording that most of his working life has been in the post-crisis business world. He recalled that at the time it was happening, most people were concerned about the short term – what would happen next – and very few understood the scale of the impact or the long shadow it would cast over the economy.

The event significantly affected the UK's productivity. While it is not unusual to see sluggish growth after a recession, the length and depth of the slowdown are almost unparalleled. He remarked that the UK has exchanged productivity growth for very high levels of employment. However, raising productivity levels is important for improving living standards. And ensuring that any improvements are reflected across the country will be a priority for the next Prime Minister.

Economists have long taken GDP as a proxy for well-being, he continued. That might work in a traditional market for goods and services. However, so many services today are free that we are seeing a net fall in GDP and in consequence a fall in the measure of productivity. The fuel that powers the digital economy for example is data, but data can be replicated for free.

However productivity is measured, the problem remains that we need to improve it. For Government, there are a number of policy levers at its disposal but there are no easy fixes.

There is, clearly, persistent under-investment by business. The Government has introduced a number of incentives but their impact has not been as impressive as hoped.

There is an increased focus on the lived experience of people across the country. The most successful places have links to good universities and R&D facilities, they have deep pools of talent and, crucially, they are places where people want to live.

One aspect that often gets too little attention is local transport. Birmingham's productivity is estimated to be significantly lower than it should be largely because of poor transport, he said. Local transport provision in the UK lags well behind the rest of Europe. Lyon for example has four metro lines with Birmingham has just one.

ANNIE GASCOYNE, Director of Economic Policy at the Confederation of British Industry (CBI), said that without an improvement in productivity, we will not see increases in living standards.

Yet even when there has been significant investment, there has still been under-performance in the UK economy. Interestingly, some of the most productive firms have been export-focussed. Having to compete internationally has forced businesses here to up their game.

Yet there are a number of areas where we should examine our current policies and programmes with a view to improving them. And here the local dimension, whether local transport, education provision or other day-to-day issues can make a more immediate difference than some of the bigger, more long-term initiatives.

Ultimately, though, she said, improving productivity is very much a shared challenge. Success will depend on the joint involvement of business, Government and academia.

IN THE DEBATE THAT FOLLOWED it was suggested R&D can in fact reduce productivity levels by making products more efficient and cheaper. That kind of anomaly needs to be addressed when considering the best means of measuring productivity.

While a great deal of research is devoted to improving technologies, much less is focussed on the psychology and behaviours of employees – and the training managers need in order to run their teams better. Effective management is a key part of improving productivity, yet in a recent survey, only 25% of managers taking part had received any training on this issue and even fewer had any interest in further training.

The quality of British management has been an issue. How businesses treat their workers has an impact on success – if staff feel engaged, they will be more productive.

The 2010s are very different from the 1980s. In those earlier days, the economy recovered with very fast earnings growth for a large percentage of the population but with high unemployment as well. By contrast, today there is low earnings growth but high levels of employment. One result is that some sectors have been able to defer investment in new technology through reliance on lower-skilled – and lower-paid – workers.

It should be remembered that wage levels do not always reflect the value of the work being carried out – the care industry is a case in point. Social value should be included somehow in measuring productivity rather than just economic return.

The Industrial Strategy is finalising a number of sector deals to incentivise different parts of the economy. The recent Construction Industry sector deal aims to help the sector move to productivity levels similar to those in manufacturing but that will need stability and business confidence – which are hard to come by at present.

People will be happier and more productive if they like and value the environment where they live. S o one challenge facing Government, both central and local, is how to make more our towns and cities more attractive places to live.

Simon Napper

Useful Reading:

The UK's Industrial Strategy:
www.gov.uk/government/topical-events/the-uks-industrial-strategy

Construction sector deal:
www.gov.uk/government/publications/construction-sector-deal

ESRC, The Social Sciences Arrive:
https://esrc.ukri.org/files/about-us/the-social-sciences-arrive/