

WHY THE UK GROWTH RATE IS LOW AND HOW WE CAN INCREASE IT

Since 1990, the G7 group of nations, comprising the world's largest industrialised economies, have all shown declining rates of economic growth. Over the same period, growth in many developing countries has been extremely fast, especially among a group of rapidly industrialising countries (the so-called I6) that includes China, India, Indonesia, Poland, South Korea and Thailand. One consequence of these two trends is that the G7's share of the world's gross domestic product – the total value of goods and services produced – has fallen from two-thirds in 1990 to half today.

Neoclassical economists who since the 1960s have dominated economic policy debates in the G7 countries, make no connection between these two sets of figures, describing the slowing growth of the G7 countries as a “productivity puzzle”.

This, when one steps back and thinks about it, is an extraordinary situation. When faced with one of the most basic questions in economics, why do the growth rates of countries vary, the economics profession cannot agree on an answer, even though the decline of the G7's rate of economic growth rather obviously involves a loss of competitive advantage in the face of the rapid rate of innovation of the I6 countries.

Why can't the neoclassical economists who advise the G7 governments explain our low rate of productivity growth? I think it is because their thinking about economic growth is based on a mathematical model of economic growth which has built into it three assumptions which are completely unrealistic, and which would be rejected by any businessman if they were asked about them.

They are that the capabilities of firms don't matter, and that we can think in terms of the representative firm. That firms are managed by rational managers, and that consequently entrepreneurs play no part, and that we are dealing with perfectly

competitive markets where everyone is selling the same product or service at the same price. In such a world the only variable left is the overall efficiency of the market, and the performance of firms is not a variable which can be used to explain the economic growth of countries.

Also since the marginal analysis revolution in about 1870, mainstream economists have not been able to deal in a satisfactory way with what virtually all economists and economic historians agree is the central feature of modern economies since the British Industrial Revolution of the late eighteenth century, namely the regular generation of inventions and their absorption into the economy as profitable innovations.

Technological change cannot easily be incorporated into an aggregate production function, and as a result when economists seek to explain the determinants of the rate of increase in output they do so by throwing technological change into a residual left after measuring the supposed contributions of labour and capital inputs.

But a modern economy is not driven forward by some sort of productivity factor operating incrementally and evenly across the board, be it called capital deepening, the marginal capital-output ratio or the residual. It is driven forward by a limited number of rapidly expanding leading sectors within which new technologies are being efficiently absorbed and diffused. Equally a country's rate of growth will slow down if other countries innovate faster and it loses competitive advantage in higher value-added sectors.

This is clearly the case if, for example, we look at the performance of the different sectors of the UK economy during the period 2000-2019, as shown in the following chart.

Chart 1: Comparative performance 2000 – 2019 of aggregated sectors excl. real estate

All Sectors	2010 Constant Prices £ per hour	% of GVA 2010	All Sectors	2019 Constant Prices £ per hour	% of GVA 2019
High Value services	57.51	33.26%	High Value services	58.09	31.44%
Production	150.19	10.11%	Production	85.55	9.72%
Manufacturing	55.73	10.64%	Manufacturing	52.20	9.65%
Low value services	22.37	33.07%	Low value Services	24.78	35.47%
Agriculture	12.84	0.69%	Agriculture	16.42	0.68%
<i>Median Productivity Level</i>	30.92		<i>Median Productivity Level</i>	31.97	
Production Subsectors			Production Subsectors		
Oil & gas	681.06	1.51%	Oil & gas	546.07	0.72%
Utilities	111.34	3.00%	Utilities	90.33	2.80%
Construction/civil engineering	28.36	5.60%	Construction/civil Engineering	30.20	6.20%

Between Effect -2.44%

What the data in the chart shows is that the slow growth rate of the economy was due to the performance of three major sectors of the economy, manufacturing, financial services, and oil and gas, and a shift in economic activity from high value-added sectors to low value-added sectors as shown by a negative 'between effect' (-2.4%).

In the case of manufacturing it suffered a fall in GVA from £55.73 to £52.20, and also saw a fall in its percentage share of total GVA from 10.64% to 9.65%. This was caused by firms in foreign countries rapidly innovating and increasing the competitive advantage of their manufacturing industries faster than our manufacturing industries were doing.

In the case of Financial Services, which is one of the UK's high value-added services, the GVA per hour grew by 3.45% between 2010 and 2019, but as a percentage of the country's total GVA it fell from 5.44% to 3.99%. The average revenues of the leading listed four UK banks fell by 17% between 2010 and 2019 as

lower aggregate demand in the economy resulted in less demand for financial products. In addition, many of the financial products which had flourished in the boom conditions leading up to the Financial Crash were seen to have little economic value after the crash.

Finally, the oil and gas sector saw a fall in GVA per hour from £681 per hour to £546 GVA per hour, while its percentage share of the country's GVA fell from 1.51% to 0.72%. The latter figure was due to the fall in GVA per hour, and a fall in output by a quarter from the end of 2010 to the end of 2019.

Output is predicted to fall further in the future, and downward pressure on the oil price because of the growth of renewable energy and the relatively uncompetitive nature of the sector due to higher extraction costs, means that there is little chance of the sector stimulating UK productivity growth in the future. It is, I think, surprising in view of its importance for the national growth figures, that so little attention has been paid by economists to the impact of North Sea Oil.

In summary the reason we have had a slow rate of productivity growth is that because of global competition the high value-added per capita sectors of our economy are today a smaller share of our economy than in 2000, and the only way we can improve our rate of growth is by increasing the innovation and competitive advantage of the high value-added per capita sectors of our economy.

Given the inability of neo-classical economists to explain the poor productivity growth rates of the US and UK economies we need, I believe, a new theory of economic growth which explains why different sectors have different levels of value-added per capita and different rates of growth. And in my book 'Windows of Opportunity – How Nations Create Wealth' I set out such a theory which I have called a 'production-capability theory of economic growth'.

Before I describe the production-capability theory of economic growth, there is one technical issue which it is important to understand. When economists talk about the productivity of the economy, they are not talking about production efficiency as most business people think. They are not talking about the number of man-hours used to

produce the economy's output. What they are talking about is the value-added per capita of firms, taken from the National Accounts and inflation-adjusted.

This is important because the value-added per capita of firms in an economy depends not only on its production efficiency but also on its innovation and competitive advantage in the market place, and the price it can charge its customers.

The essential question then that economic growth theory raises is how do firms gain a competitive advantage over their rivals. There are two major ways. They can reduce the cost of their product or service through innovations in their production methods, or use innovation to make their products more attractive to their customers by better meeting their needs through enhanced performance, more functionality or improved design.

Henry Ford's development of the production line or Taiichi Ohno's development of lean manufacturing are examples of using innovation to increase production efficiency, while Steve Job's development of the Apple iPhone is an example of using innovation to create competitive advantage. As these examples make clear innovation is, therefore, the engine of economic growth.

The ability of firms to innovate in turn depends on their capability to take advantage of market opportunities created by new technologies, new customer demands or both. This will vary between sectors, which is why understanding the growth performance of a country requires looking at what is happening in its different sectors. The reason it varies between sectors is not difficult to explain, and depends on the ease with which competitive advantage can be created and appropriated, and production efficiency increased in different sectors. In manufacturing, there have historically been many windows of opportunity that enable firms to use their technological and organisational capabilities to create and appropriate competitive advantages.

This has not been the case in agriculture. And only a few service areas, such as financial and professional services and information technology, have experienced

windows of opportunity that have enabled firms to create competitive advantages through use of high level skills and the spill-over of knowledge in clusters.

I also want to make the point that the production-capability theory of economic growth which I have outlined in my book has implications for the regional leveling-up agenda of the government. There are substantial regional differences in wealth in the UK. But as the work of the Centre for Cities has shown, this divide is not simply due to geography. It is not due to the workers in the North working less hard than in the South or being less efficient. Nor is it the case that all cities in the North are less prosperous than those in the South. It is on the contrary due to the ability of cities in different parts of the country to respond to economic change and reinvent themselves.

Government policies in the past which have explicitly attempted to reduce the North-South divide, and which can be traced back to the 1930s, have not been effective because the majority of interventions have tended to reinforce the existing industrial structure by supporting low-knowledge routine activities to reduce unemployment, as opposed to supporting the reinvention of cities by increasing the number of knowledge-intensive businesses in them. As a result, in many cities in the North jobs in declining industries have been replaced by low-skilled routine jobs which are vulnerable to foreign competition and technological change. Cotton mills and dockyards have been replaced by call centres and distribution sheds. What we need to do now urgently is create more high value-added per capita firms and jobs in the lower income regions of the country.

It is also important to understand that in the world economy there is a ladder of economic development, whose rungs represent products that require increasing amounts of organisation and technological capability, and which produce increasing amounts of value-added per capita due to fewer companies being able to reach the higher rungs. It is a ladder that developing countries have to climb by increasing their organisational and technological capabilities if they want to increase their standard of living. No countries start growing by creating a pharmaceutical industry, and no country has ever achieved a high GDP per capita by having a cheap garment industry, although that is often a good early step on the ladder.

With a narrow view of national competitive advantage involving only input costs and economies of scale, it is very easy for policy debates to degenerate into an “us versus them” conflict. However, if developed countries understand that there is a ladder of economic development, and that they can increase the growth of their economies by rapidly innovating and creating new high value-added products and services, while ceding lower value-added products and services to developing countries, then all countries can increase their national standards of living. If the pie is bigger everyone can have a larger slice, and the “race to the top” enables a country to avoid a zero-sum confrontation with other countries at a similar stage of development.

It is, therefore, important that countries avoid thinking that the best way to compete is by reducing the wages of their labour force or engineering a favourable exchange rate to achieve competitiveness, but instead understand that the way to achieve economic growth is by developing products and services that command premium prices in international markets and can, therefore, support high wages.

Finally, if we want to create a dynamic, high value-added economy in our country it is necessary to understand the enabling role that governments can play in their economies. Neoclassical economists tend to condemn government efforts to catalyse their innovation through government policies as so-called industrial policies that attempt to “pick winners”, and claim such efforts have repeatedly failed. But it is important to distinguish between Soviet-style attempts at economic planning that have universally failed, and strategic efforts by many countries to intervene appropriately in support of innovation.

The key challenge is, of course, to define precisely what sort of role the government should play. In making this choice, it is useful to think in terms of the continuum proposed by Robert Atkinson and Stephen Ezell in their book ‘Innovation Economics’. The continuum runs from the political right to the political left, moving from leaving it principally to the market; supporting necessary inputs, such as science and skills; to supporting key broad industries and technologies; to finally

picking specific firms, technologies, and products. Only this last category is equivalent to what neoclassical economists describe as industrial strategy.

No country that has gone from poverty to wealth has done it through market forces alone. At the other end of the spectrum, most economists who have studied national economic growth policies would agree that countries that have depended on picking specific firms, technologies or products have not been successful. Picking products that are likely to be commercially successful, or picking companies that are going to be profitable, requires deep insights into market dynamics, competitive conditions, and customer needs. These are capabilities that even the best civil servants do not have. And once such decisions are in the hands of government, they become subject to the distortion of the political process, including pressures from special interest groups and political constituencies.

When, however, governments have supported the necessary inputs for innovation as well as key broad industries and technologies, they have generally been successful. In the United Kingdom today firms have seen their ability to innovate and gain competitive advantage in world markets eroded by three major institutional failures: in the education and training system, in the national system of innovation, and in the financing and corporate governance system. And, if we want to increase our rate of growth we will need to reform our institutions in these three areas.

We live in a world of opportunity and fierce global competition. Many windows of opportunity are being opened up by advances in science and technology, and this means that countries with firms that have the capabilities to take advantage of them will be able to innovate, raise their level of competitive advantage, and increase their rates of growth. But if the United Kingdom want to be a winner in this race to the top, it will have to reform key institutions in its economy.

Finally, I would like to suggest some questions I think we should debate this afternoon. When I finished writing my book 'Windows of Opportunity – How Nations Create Wealth' the one thing I was certain about was that I was saying something different from neoclassical economics or standard textbook economics. I also thought that there was a good chance that during the presentations I made about my

book some distinguished economist would get up and say that the central theory in the book was wrong.

What I did not expect was that most economists would say that what I was saying was not that different from what many economists today think. I have to say I found this response very surprising because the policy ideas put forward in my book are clearly very different from the policy advice given to government and what academic economists teach their students. So there are four questions I would like to propose this afternoon for discussion:

- (1) Is the central argument right, and can the slow rate of growth of the G7 countries be largely attributed to a loss of competitive advantage in world markets?
- (2) Is it correct that the only way to increase the UK rate of growth long term is by increasing the production efficiency and competitive advantage of UK firms by innovation?
- (3) Is it correct to say that we will only be able to level up the UK's regional economies by creating more high value-added per capita firms in the poorer regions?
- (4) Is it correct to think in terms of a ladder of economic development in the world economy, and that the G7 countries can only escape a zero-sum confrontation with the developing world by rapidly innovating and creating new higher value-added per capita goods and services, while ceding lower value-added per capita services to developing countries?