



The Search for Solutions

Policy Learning in Britain and Germany

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PRODUCTIVITY LEVELS IN GERMANY AND THE UK: MEASUREMENT, COMPARISON AND POLICY ISSUES

Background

The level of productivity has been a subject for concern for more than a century in the UK, as it has always lagged behind major competitors on the world market such as the US, Germany and Japan. By contrast, German productivity levels have traditionally been relatively high. However, since reunification a serious productivity gap between eastern and western Germany has opened up. For this reason, raising productivity either on the country level or regionally has to be considered a major task for economic policy in both Germany and the UK.

Essentially, the level of productivity and its development are important for a country for two reasons. In microeconomic terms, productivity is a measure for the efficiency of a company's production process. A relatively low level of productivity means that inputs are not used in the most sensible way and that the company is not producing on the efficiency frontier. Without reorganising or modernising the production process the company cannot withstand competitive pressures in the long run. A similar picture can be seen in macroeconomic terms. A waste of a country's resources exerts an adverse impact on its current account and hampers the potential for economic growth. Increasing productivity and accelerating growth create room for manoeuvre for policymakers for instance to increase public investment or to redistribute additional income.

Inevitably, the question of how to measure productivity itself divides economists. The most general measure is GDP per capita. However, GDP per capita hides information such as the contribution of individual factors of production to economic growth. In particular, public discussion of productivity has focused most strongly on labour productivity, due to its more obvious links to the prevailing labour market situation and the hotly debated issue of unemployment. But even with labour productivity things are not that simple. For example, in an international comparison, different levels of labour productivity may have various reasons such as different capital endowment per workplace, different production technologies, or different labour market institutions, to mention but a few.

The productivity gap in the UK and in Germany

When it comes to an international comparison of productivity the US, as the most productive and most innovative country, has always been used as a yardstick. Table 1 provides different measures of productivity in Germany, the UK and the US, namely GDP per capita, output per hour worked and output per employee.

Table 1: Productivity measures for Germany, UK, US and EU-15 (2002)

	GDP/capita (PPP)	Output per hour worked	Average annual hours worked^a	Output per employee	Employment rate
	<i>USA = 100</i>	<i>USA = 100</i>	<i>hours</i>	<i>USA = 100</i>	<i>% of pop. 15-64</i>
USA	100	100	1815	100	71.9
UK	74	79	1707	74	72.7
D	75	101	1444	80	65.3
EU- 15	73	91	n.a.	80	64.3

^a 2000. Source: OECD

The three different measures do not show a uniform picture. In terms of GDP per capita and output per employee the USA is significantly ahead of Germany and the UK. There has been a remarkable catch-up process in the UK in terms of GDP per capita to the German level which is observable to a lesser extent also in terms of output per employee. However, the UK is still lagging far behind the EU-average in terms of output per worker, a measure for which Germany is even outperforming the USA. How can these findings be explained?

Taking into account differences in the annual work time and in the employment rate helps to solve the puzzle. On average a German works about 15% less per year than a Briton and about 20% less than his/her US counterpart. Thus, in the US and UK, past increases in labour productivity have been used to generate more production and income, whereas Germans have opted for more leisure time, for instance by reducing weekly hours of work or by increasing the number of holidays per year. Given diminishing marginal returns, a lower number of hours worked per year at least partly explains higher per capita labour productivity in Germany.

The last column of Table 1 shows that the employment rate in the US and UK is significantly higher than in Germany and the EU. This reflects lower unemployment, a higher rate of labour market participation among women and a higher average pension age. Intended or not, German economic policy, such as high-wage policy and early retirement schemes, have led to systematic displacement of the least productive workers. Those policies have kept average productivity per employee high but they have reduced the utilisation of labour as a production factor. Jobs with low productivity hardly still exist in Germany. As a corollary, unemployment is particularly high among unskilled workers.

Why is the USA ahead?

In order to identify reasons for the productivity gap common to the UK and to Germany, it is instructive to consider the driving forces of productivity in the US. Firstly, there has been a significant acceleration of productivity growth in information and communication technology (ICT) sectors. What is even more important is the productivity growth in ICT-using industries, most notably financial services, wholesale trade, logistics and distribution. Secondly, agglomeration of economic activity has been important. Clusters of vertically or horizontally linked firms allow for the spill-over of knowledge and best-practice techniques; create large and growing markets for the products of these companies in their immediate neighbourhood; and let 'thick' labour markets emerge to ensure the availability of high-skilled workers in the region. There are a number of examples of innovation clusters in the USA, such as those which have emerged around universities such as Harvard and Stanford.

Productivity in the UK

In the case of the UK it is particularly puzzling that growth has been much higher than for instance in Germany throughout the last fifteen years but the productivity gap could not be narrowed significantly. The UK's government has identified five drivers of productivity: skills, enterprise, competition, investment and innovation. Policies on the national level largely focus on these drivers.

Although Britain's productivity gap to the US exists in manufacturing, it is more pronounced in the services sector, where it attains only about two thirds of the US level. The gap is particularly high in wholesale and retail as well as in financial intermediation. In addition, the gap has been widening in these industries and in other services' sub-sectors. Interestingly growth of employment in these sectors has been particularly high during the catch-up process of the UK in terms of income per capita in the last two decades. The UK could narrow the gap to the US in network industries such as electricity, post and telecommunications.

In wholesale and retail part of the productivity problem may be due to an inefficient size of British supermarkets which is smaller than in the US. Both regulations and land planning by local authorities may be blamed for this. But it may also be due to entry barriers set by powerful incumbent players in the market. In the latter case, rigorous implementation and enforcement of competition policy on the national level may help to reduce those barriers and ultimately to boost productivity.

Just as the UK is lagging behind international competitors, regional productivity differences are more pronounced in the UK than in other countries of the EU including Germany. London (+17.5%), the Eastern (+7%) and the South Eastern (+5%) are much more productive than the UK average. All other regions are below average with the North Eastern (-9.5%) and Northern Ireland (-13%) doing worst. Sub-regional variations of GDP per capita and productivity respectively are even higher. Different levels of skills and human capital account for a good deal of regional productivity differences. However, increasing educational attainment in an area does not necessarily improve the situation because high-skilled labour is mobile within the UK. In addition improving the ability of a disadvantaged region to adopt innovation appears crucial because the gap in innovative activities is particularly high. However, with a few exceptions in particular in the south of the UK, policy has not been particularly successful in creating innovation clusters in the similar way to the US. Devolution and the allocation of competences for parts of economic policy to the regional and local level has been the answer in terms of structure.

Indeed, a bottom-up concept appears more suitable to address the problem of regional disparities in productivity.

Productivity in (eastern) Germany

In macroeconomic terms, Table 1 does not give much reason to worry about German productivity. However, Table 1 also suggests that the relatively low employment ratio and the high unemployment rate in Germany are closely linked to productivity. If Germany manages to reduce its most pressing labour market problems, namely high unemployment among unskilled workers as well as persistently high long-term unemployment, productivity figures will drop. Currently, a low-wage sector for less productive workers in Germany is virtually non-existent.

These problems are particularly pronounced in eastern Germany where the unemployment rate is more than double the western German figure. This is still largely a legacy from the German currency union of 1 July 1990, when the West German Mark was adopted by the GDR at a 1:1 exchange rate, despite labour productivity in the East being only around one-third of western levels. Indeed, labour productivity in eastern German manufacturing was only around one-fifth of the western German level in 1991, although it had increased to some 70% by 2002. Like in the west, this increase in productivity can at least in part be linked to a steep increase in unemployment over the same period.

However, there are positive developments in eastern Germany as well. In recent years, job creation and economic growth have been high in knowledge-intensive industries thereby narrowing the gap to western Germany. Innovation clusters have emerged in some areas of eastern Germany, particularly near Berlin as well as in some regions of Saxony and Thuringia. Nurturing these clusters, many of which consist of very small companies, as well as providing an environment which is conducive to entrepreneurial activities, e.g. in terms of business regulation or access to funding for investment, must continue to be a priority for economic policy in these areas.

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