

The £100bn+ productivity opportunity

Public sector productivity is difficult to measure

Productivity in the public sector is notoriously difficult to estimate accurately. More details can be found on page 4 – [here](#).

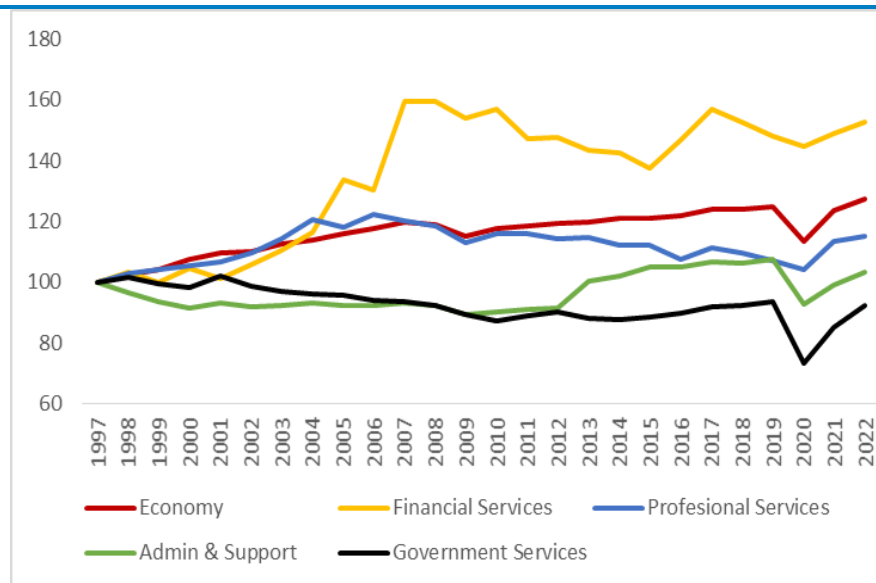
Thus, the following data needs to be treated with care. But they are the official data which the Office for National Statistics has done its best to refine over the years in order to give what it considers to be the most accurate analysis.

All the assumptions made here are extremely cautious.

But ONS data show public services have a poor productivity record

The chart below, based on ONS data, shows that between 1997 and 2022 economy wide labour productivity increased by 27%. However, public sector labour productivity declined by 8% over the same period.

UK productivity. Output per worker economy and key sector 1997=100



Source ONS

The poor performance of the public sector is all the more striking when technological advance has been so rapid over this period, especially in digitisation and AI fields. It would have been reasonable to expect productivity in all public services to have improved, not the opposite.

Quantifying the financial impact of poor productivity in public services

Not all areas of government activity are subject to significant productivity improvements. Interest payments on the national debt and most welfare payments are two clear examples. There will be other legal obligations and contingent liabilities which should also be excluded.

Calculating how much of current government spending is liable to productivity improvement is therefore more of an art than a science. The figures overleaf are based on the following assumptions:

- Debt interest payments and the social protection budget are both assumed to be **outside** the scope productivity improvement.
- A further £250bn of cost are also **not** factors of production (this would include, for example, accrued public sector workers pensions or other contractual obligations)
- Then of the total 2022-3 of £1155bn of total managed expenditure only around half the budget is addressable to productivity improvement.

The table below outlines for each department the scope within each departmental budget that can potentially be addressable with productivity improvements; and the potential gains from 1%, 10% and 20% productivity improvements.

UK productivity opportunity – hypothecated savings potential £bn

| | £ billion | 2022- 23 outturn | % potentially addressable | Estimated saving Productivity gain % saving £bn | | |
|--|--------------|------------------------|---------------------------------|--|------|------|
| | | | | 1% | 10% | 20% |
| General public services | 163.7 | | | | | |
| <i>of which: public and common services</i> | 26.8 | | 80% | 0.2 | 2.1 | 4.3 |
| <i>of which: international services</i> | 8.5 | | 10% | 0.0 | 0.1 | 0.2 |
| <i>of which: public sector debt interest</i> | 128.4 | | 0 | 0.0 | 0.0 | 0.0 |
| Defence | 55.5 | | 80% | 0.4 | 4.4 | 8.9 |
| Public order and safety | 43.9 | | 80% | 0.4 | 3.5 | 7.0 |
| Economic affairs | 125.0 | | | 0.0 | 0.0 | 0.0 |
| <i>of which: economic development</i> | 63.8 | | 50% | 0.3 | 3.2 | 6.4 |
| <i>of which: science and technology</i> | 7.2 | | 80% | 0.1 | 0.6 | 1.2 |
| <i>of which: employment policies</i> | 3.8 | | 80% | 0.0 | 0.3 | 0.6 |
| <i>of which: agriculture</i> | 6.7 | | 25% | 0.0 | 0.2 | 0.3 |
| <i>of which: transport</i> | 43.6 | | 25% | 0.1 | 1.1 | 2.2 |
| Environment protection | 13.9 | | 25% | 0.0 | 0.3 | 0.7 |
| Housing and community amenities | 17.8 | | 25% | 0.0 | 0.4 | 0.9 |
| Health | 211.6 | | 80% | 1.7 | 16.9 | 33.9 |
| Recreation, culture and religion | 14.0 | | 85% | 0.1 | 1.2 | 2.4 |
| Education | 105.5 | | 80% | 0.8 | 8.4 | 16.9 |
| Social protection | 318.8 | | 0% | 0.0 | 0.0 | 0.0 |
| Accounting adjustments | 87.4 | | | 0.0 | 0.0 | 0.0 |
| Total Managed Expenditure | 1154.9 | | | 4.3 | 42.9 | 85.7 |

Source: ONS, PESA 2023 Chapter 4 and EGF calculations

The table suggests that, using the ONS approach to productivity, each 1% productivity gain from the addressable portion of public spending could yield in the order of £4bn of efficiency savings.

Conclusion: what is it reasonable to expect in terms of public sector productivity?

The above analysis indicates that the potential for efficiency gains in the public sector is immense:

- The ONS estimates that public sector productivity is 8% lower today than it was in 1997 despite significant advances in, and availability, of technology. Together, these ought to have improved productivity in the public sector.
- In comparison, productivity across the whole economy over the same period grew by 27%.
- The ONS shows that between 2019-2020 and 2023-4 government spending in real terms increased by £152bn, or 17% of total government spending, with no sign of any equivalent productivity increase.

At a simple level, the data here suggest that if the public sector were to match the increase in productivity of the whole economy, then it would increase by 35%. That in turn would result in government spending being £137 billion lower in 2023.

This level of productivity improvement may or may not be possible to achieve within a reasonable time frame. But if a 1% improvement potentially yields £4bn of savings every year, then the potential benefits from a 25% improvement could yield over £100bn of efficiency gains. And it would still, on the ONS measure, leave the public sector significantly less productive than the whole economy.

Measuring public sector productivity

While using statistical measures of inputs and outputs is relatively straightforward in some economic sectors such as manufacturing, inputs and outputs in public services are by definition more difficult to measure. Some sectors, for example the police or armed forces, are not subject to classical market pressures and pricing. In some cases, the ONS simply assumes inputs equal outputs. Thus, a constant productive factor of 100% is assumed so that in these sectors, extraordinarily, there can never be any productivity growth or fall. Clearly such a methodology is imperfect.

Further, many public service outputs are difficult to quantify reasonably. Is a 'highly productive' teacher who teaches children in a class of 30 more productive than one where the class size was just 20? Similarly, in the NHS, is a higher number of anti-biotic prescriptions a sign of higher productivity (more activity by doctors) or a sign of lower productivity (worse public health)?