

Atlantic Aspirations: What does the US get for being a third richer than the UK?

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Many political observers have bemoaned the UK's relatively low income compared to the US. This paper dives into consumption patterns in both countries to see how far this gap translates into a genuinely higher standard of living.

KEY POINTS

- The US is around 30% richer than the UK – that means the average American enjoys more of most goods and services than the average Briton.
 - There are some exceptions: British people spend more on clothing and footwear and consume similar levels of recreation, culture and education
- Four categories – health, transport, housing, miscellaneous (largely private insurance) – account for 95% of the American advantage over the UK in living standards.
 - Healthcare spending accounts for 12 of the 30 percentage point gap; housing 9 percentage points; transport 4 percentage points.
- In the case of healthcare and transport, it can be argued that the US wastes its economic advantages with socially inefficient and ineffective spending:
 - Higher healthcare consumption (even accounting for cost differences) might buy more convenience for many, but a range of poor social choices mean that outcomes are on average worse.
 - Similarly, with transport, bigger cars and lack of walkability greatly increase the risk of death or injury on the road.
- The same cannot be said of housing: British people spend a comparable amount of money, but American dwellings are 60% larger on average.

HOW MUCH RICHER IS THE US THAN THE UK?

Britain's relative economic decline has been a source of angst in the country since the late 19th Century, with a further resurgence in the 1960s and 1970s.¹ However, with economic growth slowing to a crawl over the past 15 years, the UK's failure to match higher incomes across the Atlantic have drawn particular attention and generated greater concern. Almost a decade ago, observers were suggesting that if the UK were an American state it would be the second poorest, behind only Mississippi.² More recently, commentators have used the gap to argue that "Britain is a developing country",³ or that the "hard working US is getting rich while the UK struggles on benefits".⁴

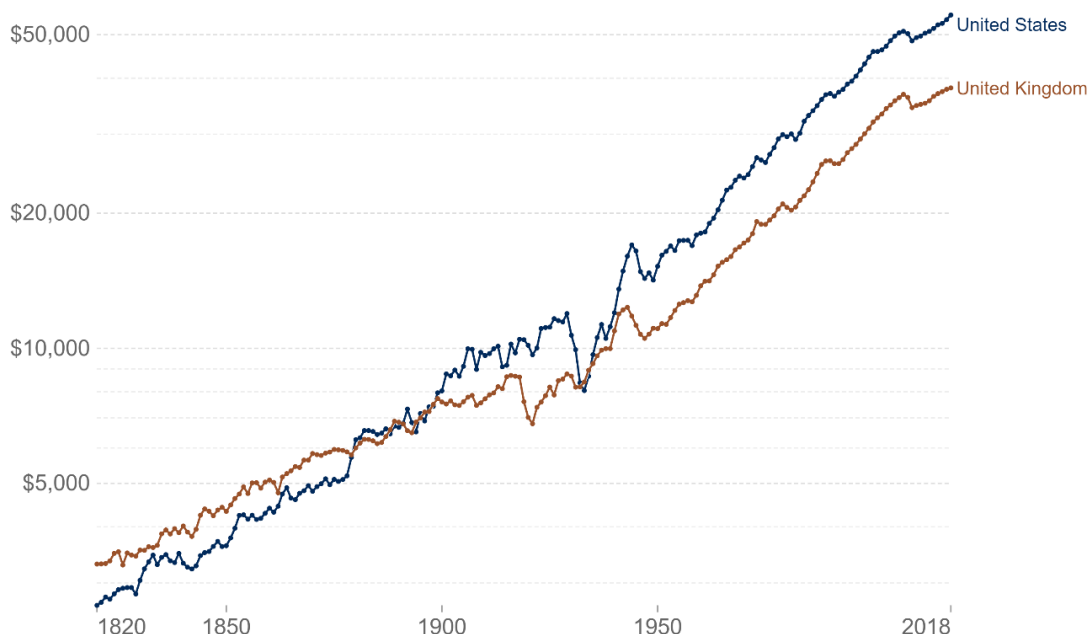
Nevertheless, it is plain to see that the US is not some sort of utopia. Sceptics may ask what good all that money is for the average American when they have to pay so much for healthcare and what looks like relatively meagre public support and services. This paper seeks to explore that question, and to understand just what precisely Americans get for their money, and whether the grass is in fact greener on the other side of the Atlantic.

The United Kingdom has been poorer than the United States since it lost technological frontier status in the late 19th Century. Except for a brief period in the 1930s when the US was struggling with the Great Depression, British GDP per capita has been approximately 30% below the United States since the end of the First World War. The gap has widened by about 5 percentage points since 2019, but it is too early to tell how much of this reflects a long-term reduction in relative prosperity and how much is an artefact of differences in how non-market output is measured,⁵ the costs of dealing with a large shock to the terms of trade,⁶ or other short to medium-term factors.

Figure 1: GDP per capita for the US and UK, 1820-2018

GDP per capita, 1820 to 2018

This data is adjusted for inflation and for differences in the cost of living between countries.



Source: Maddison Project Database 2020 (Bolt and van Zanden, 2020)
Note: This data is expressed in international-\$¹ at 2011 prices.

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1. International dollars: International dollars are a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards. Figures expressed in international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries. The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent. Read more in our article: [What are Purchasing Power Parity adjustments and why do we need them?](#)

After a few years of decent growth in the late 1990s and early 2000s, Britain's relative performance since the global financial crisis in 2008 has been exceedingly poor. In 2022, labour productivity in the non-farm business sector of the US economy (i.e. excluding production by the government, households, non-profits, and farms) was 22% higher than its 2008 level.⁷ The equivalent figure for the UK, which includes agricultural output but excludes the NHS, is a meagre 6.8%.⁸ⁱ

To understand the real-life consequences of this growing divide between the UK and the US, I use data from the purchasing power parity (PPP) benchmarks produced by the International Comparison Program (ICP). In this paper, I will take the latest PPP benchmark from 2017 (unfortunately the data is updated infrequently) as a reference point and then dive deeply into each area of considerable difference.

ⁱ NB: The definition of 'market sector' differs slightly between the Office for National Statistics (ONS) and the Bureau of Labor Statistics (BLS) owing to the different structures of the UK and US economies, particularly in the healthcare industry, but this shouldn't make a big difference here.

For the purposes of this paper, I focus on actual individual consumption (AIC) instead of GDP. This is because we are primarily interested in differences in living standards, which are better captured conceptually by consumption than investment. AIC includes both consumption by households and non-profit institutions that serve households, and consumption done by governments on behalf of households – specifically, individual services like education and healthcare but not collective ones like defence. Actual individual consumption is split into 12 categories called the Classification of Individual Consumption According to Purpose (COICOP). Table 1, below, shows the level of per capita consumption in each category as of the 2017 PPP benchmark in the US and the UK. Each category has been adjusted for the price of *that category*, so this reflects the actual value of goods and services consumed in each category and not just differences in spending patterns.

Table 1: Actual consumption per capita at PPP by COICOP category

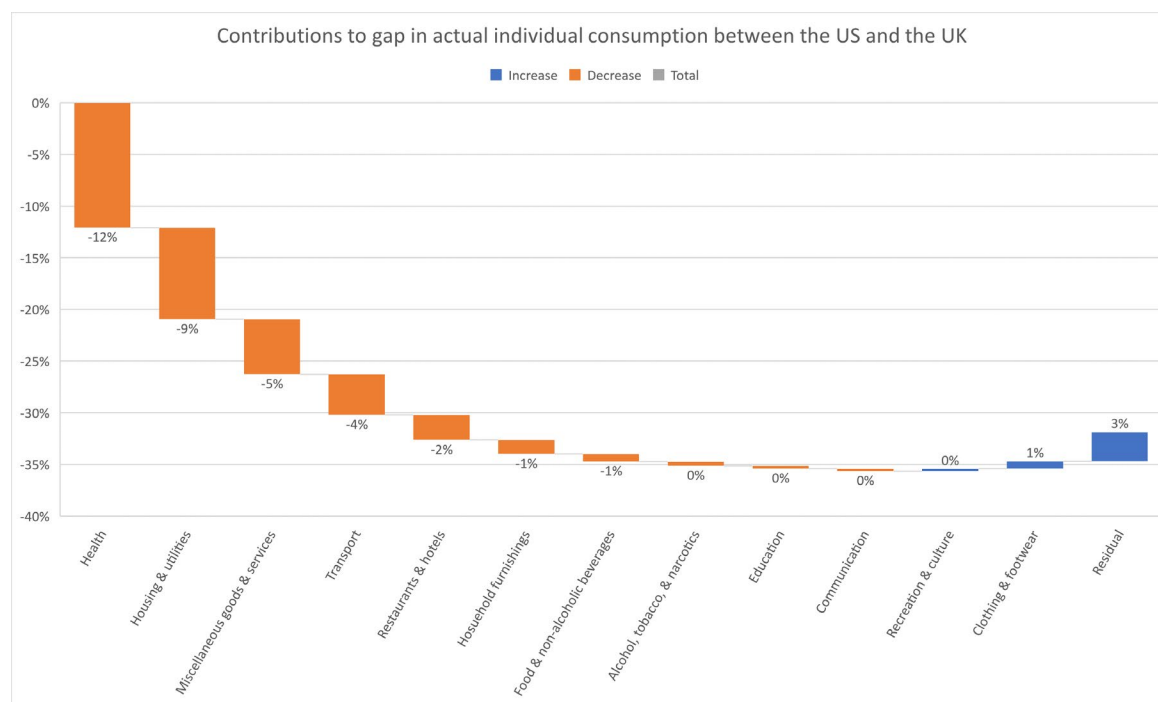
COICOP category	United Kingdom	United States	% difference
Clothing & footwear	\$1,495	\$1,206	24%
Recreation & culture	\$3,831	\$3,745	2%
Education	\$3,614	\$3,745	-4%
Food & non-alcoholic beverages	\$2,262	\$2,556	-11%
Communication	\$706	\$819	-14%
Alcohol, tobacco & narcotics	\$591	\$716	-18%
Household furnishings	\$1,157	\$1,667	-31%
Miscellaneous goods & services	\$4,553	\$6,636	-31%
Restaurants & hotels	\$1,911	\$2,808	-32%
Transport	\$2,532	\$3,842	-34%
Housing & utilities	\$4,800	\$7,629	-37%
Health	\$4,358	\$9,365	-53%
Actual individual consumption	\$32,445	\$44,620	-27%

Source: ICP 2017 PPP benchmark, net purchases abroad not included

We can see that British consumption levels were lower across most expenditure categories, sometimes by considerable amounts. The main exceptions are clothing and footwear, where British people consume considerably more than Americans, and recreation & culture and education, which are at comparable levels. The largest gap is in healthcare, where the UK consumed 53% less per person than the US. Overall, actual individual consumption in the UK was 27% lower than the level in the United States, quite similar to the long-run gap in GDP per capita.

Just as chain-weighting in the national accounts makes individual components of GDP no longer additive outside of the reference year, the PPP benchmark consumption levels are not additive outside of the reference country (the United States). The Törnqvist approximationⁱⁱ makes it possible to determine how much each expenditure category contributes to the total gap in consumption levels between the US and the UK. Figure 2 shows the contribution (in log points) of each expenditure category to the total gap in AIC per capita between the UK and the US.

Figure 2: Contributions to gap in actual individual consumption between the US and the UK



Source: ICP 2017 PPP benchmark, author's calculations

ⁱⁱ In national accounting, this involves taking the average expenditure share across two periods and multiplying it by the real compound growth rate; in this context I take the average expenditure share across two countries and multiply by the gap in logarithms.

By far the biggest contributors to the gap are health and housing, followed by miscellaneous goods and services (a large portion of which is private insurance services) and transportation. Together these four categories add up to 95% of the gap in consumption levels. The PPP benchmark is very useful for identifying the broad areas of consumption that suffer because of Britain's poor productivity performance but does not tell us very much on what these look like in practice. Since they make up the vast majority of the difference in consumption, our focus will stay on healthcare, housing, and transportation. In healthcare and transportation, the story is more nuanced than a straightforward shortfall in living standards.

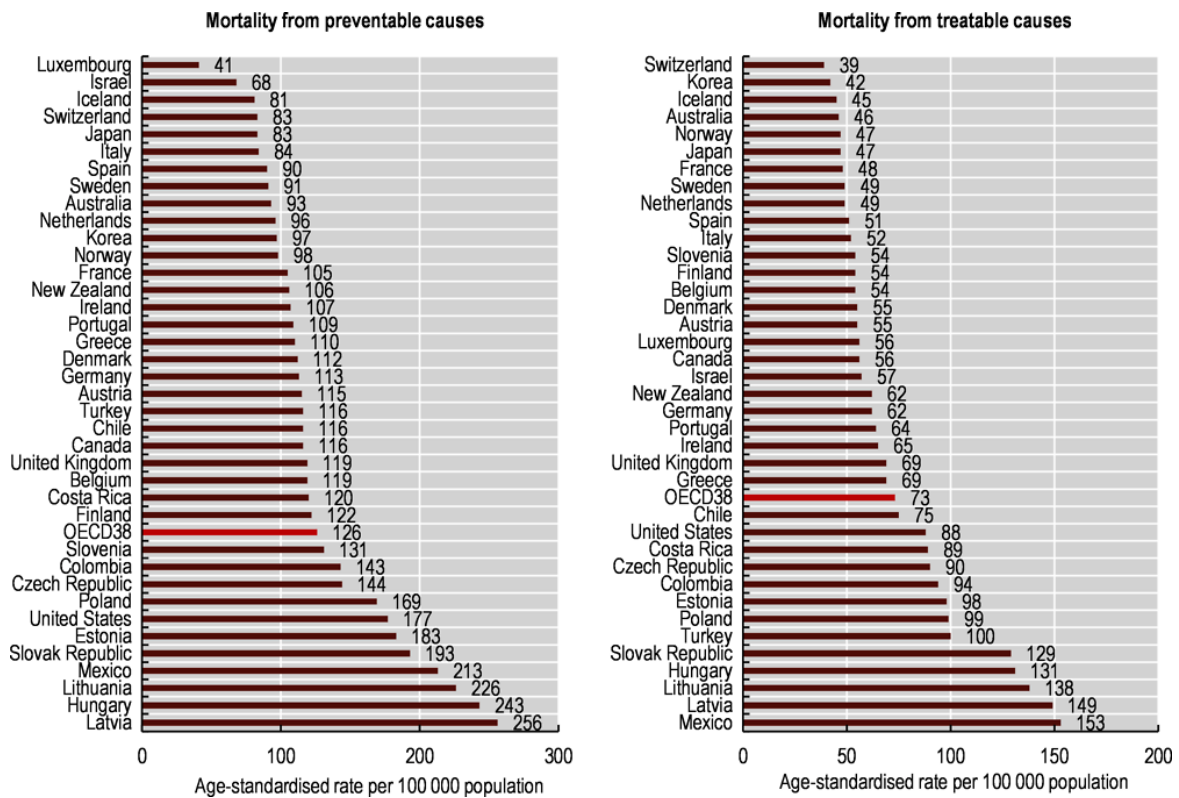
HEALTHCARE

Despite spending less on healthcare, it's well known that Britons have considerably higher life expectancy at birth than their American counterparts. The way healthcare consumption is measured in the ICP focuses on tangible outputs like GP visits or surgeries performed rather than the health outcomes that this care produces. People in the UK generally live healthier, less dangerous lifestyles and have more equitable basic healthcare provision, which makes for lower rates of preventableⁱⁱⁱ and treatable^{iv} mortality than the United States. Despite these advantages, I don't want to paint too rosy of a picture of healthcare in the UK. Mortality rates are worse than many other developed countries and actual health consumption (\$4,358) is commensurately lower than the levels seen in France (\$4,680) and Germany (\$4,862). Not all extra GP visits and operations are a waste, and the current levels of waiting lists and semi-permanent NHS crisis are an indication that Britons get much less from the health service than they could.

ⁱⁱⁱ Based on the 2019 OECD/Eurostat definitions, preventable mortality is defined as causes of death amongst people aged under 75 years that can be mainly avoided through effective public health and primary prevention interventions (i.e. before the onset of disease/injury, to reduce incidence).

^{iv} Treatable (or amenable) mortality is defined as causes of death that can be mainly avoided through timely and effective health care interventions, including secondary prevention and treatment (i.e. after the onset of disease, to reduce case fatality).

Figure 3: Mortality rates from avoidable causes, 2019



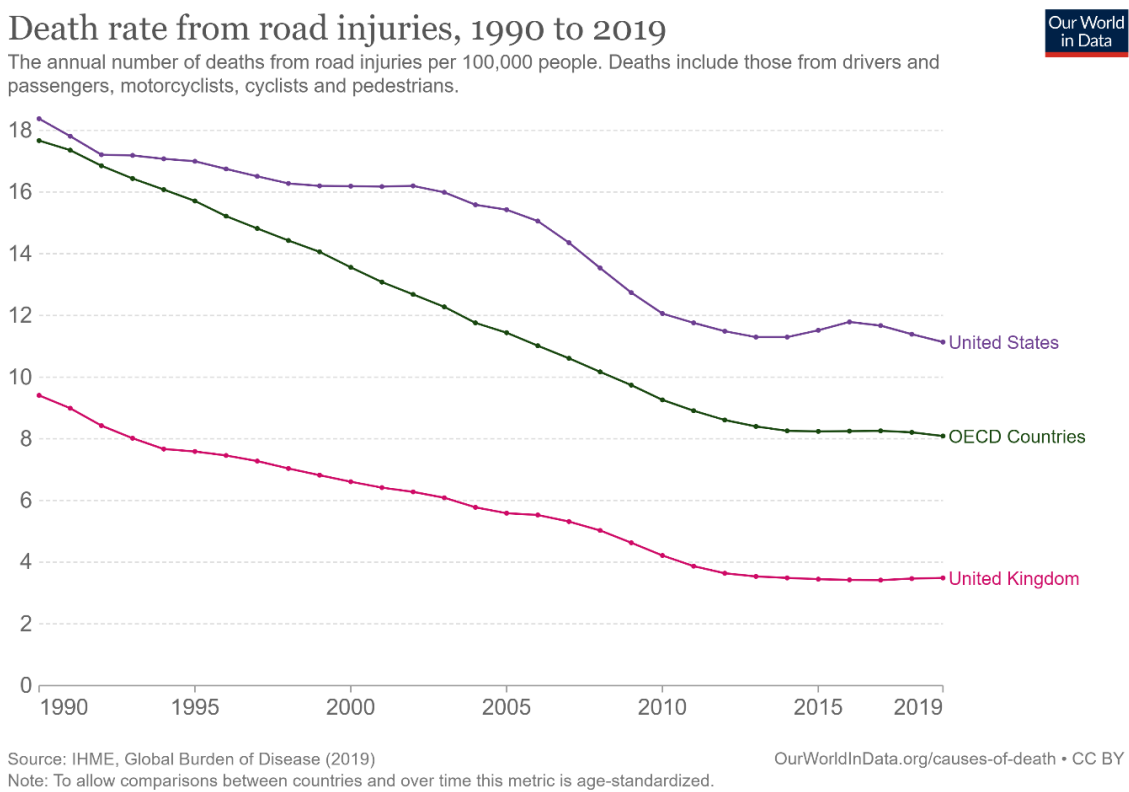
Source: OECD Health at a Glance, 2021

TRANSPORTATION

Transportation is another area where consumption by Americans is substantially higher than consumption by Britons but with perhaps a more mixed picture in terms of practical differences in living standards. The PPP benchmark allows us to break transport further down into net purchases of vehicles and transport services – i.e. buses, trains, etc. The US buys considerably more cars on net than the UK (\$1,375 vs. \$964) but consumes less in the way of public transport (\$466 vs. \$577). There isn't a separate breakdown of the remainder, but it largely consists of petrol costs. What we see, perhaps unsurprisingly, is that Americans buy more cars and use public transport less.

This higher level of car consumption is a double-edged sword: Americans drive considerably more in larger cars fuelled with cheaper petrol,^v but this comes with the cost of less walkable neighbourhoods and considerably more traffic-related injuries and deaths. Figure 4 shows the level of deaths from road injuries in the US, the UK, and the OECD average from 1990 to 2019. British roads are much safer than the OECD average, let alone the United States. In contrast, the US had an average number of road injury deaths in 1990 but is now one of the worst performers in the OECD. The recurring theme with both transport and healthcare is that the United States has a massive economic advantage which enables it to absorb the costs of engaging in socially inefficient and often dangerous and deadly practices. This is not so much a trade-off as it is a waste.

Figure 4: Road injury deaths in the US, UK and OECD



HOUSING

Unlike transport and healthcare, it is difficult to minimise the UK’s disadvantage in housing consumption. The UK spends a similar amount of money on housing as the US in nominal terms – \$6,600 vs. \$7,630 – but the extremely high cost of housing in the UK turns a 16% gap in nominal spending into a nearly 60% gap in real consumption. The way housing PPPs work involves finding the rent price for housing that is equivalent in terms of floor space and amenities like central heating, electricity, etc. Some of the difference is caused by differences in the cost of utilities – though the gap

^v GlobalPetrolPrices.com has UK petrol prices at \$1.85 per liter and US petrol prices at \$1.04 per liter as of 24 July 2023

in energy prices was much smaller in 2017 than it is today – but effectively this means that Britons have much less floor space per person than Americans. Looking at the English Housing Survey and the HUD American Housing Survey from 2021, we can indeed verify that this is the case. Regardless of tenure, the average American dwelling has about 60% more floorspace per resident than the average English dwelling. This wouldn't necessarily be a problem if it reflected different preferences between Britain and the US, but the available evidence suggests this is not the case. Britons devote a higher share of their overall consumption spending to housing than Americans (21% vs. 17%) and face much higher housing costs than Americans (2.34 times the global average vs. 1.7 times the global average).

Table 2: Floor space (sqm) per resident by tenure

Tenure	England	US	US / England
Own	46	74	160%
Rent	31	47	153%
Total	41	66	161%

Source: English Housing Survey 2021-22; England and Wales Census 2021; HUD American Housing Survey 2021

France, Germany, and Japan all consume less housing per capita than the US in the ICP data (though still more than the UK) but have housing costs similar to or lower than the US. Getting the price level of housing down to US levels would enable the UK to either consume 38% more housing per head – exceeding France, Germany, and Japan – or free up British households to spend more on other goods and services while holding living space constant.

Table 3: Housing cost and consumption

Country	Price level of housing services (world = 100)	Real consumption of housing services per capita
Japan	164	\$5,505
France	169	\$5,666
Germany	161	\$5,566
United Kingdom	234	\$4,800
United States	170	\$7,629

Source: ICP 2017 PPP benchmark

DISCUSSION AND CONCLUSION

Recent coverage of the UK's relative economic decline over the last decade tends to overlook just how persistent and consistent the gap to the US has been. As a result, catastrophising may be inappropriate. That said, there is no denying that Britons really do lag behind Americans in terms of the amount of housing, transport, and healthcare consumption. Americans may not always spend their riches wisely, but their higher incomes allow them the luxury of choices that we in the UK lack.

Addressing the gap, which has only grown in the six years since the 2017 PPP benchmark, should be a priority for any government. First and foremost, this requires increasing productivity. This is much easier said than done! But it is the fundamental driver of the difference in living standards across the Atlantic.

Housing is a special case. Differences in healthcare and transport consumption are largely a function of how each society chooses to spend its resources (and in each case, there is a plausible argument the US chooses poorly). The gap in housing is a more direct reflection of dysfunction in the UK housing market. The surefire way to increase real housing consumption is to increase the size and quality of the housing stock. This is not to say that doing so would be a panacea. In a full employment environment, building more housing means investing or consuming less elsewhere in the short- to medium-term. That means making do with even less for a time in order to build a better future.

Ultimately, as long as the UK's productivity remains below peer countries, it is likely to continue to suffer from lower living standards. Without more investment – including business investment, residential investment, and public sector investment – it is hard to see a way out.

ENDNOTES

¹ See Weldon, D. (2022). Two Hundred Years of Muddling Through. Chapter 6.; Edgerton, D. (2018). The Rise and Fall of the British Nation. Chapter 15.

² <https://www.washingtonpost.com/blogs/govbeat/wp/2014/08/26/if-the-uk-was-a-u-s-state-it-would-be-the-second-poorest-behind-alabama-and-before-mississippi/>

³ https://www.sambowman.co/p/britain-is-a-developing-country?utm_source=profile&utm_medium=reader2

⁴ <https://www.telegraph.co.uk/business/2023/07/22/us-economy-productivity-salaries-higher-uk-growth/>

⁵

<https://www.ons.gov.uk/economy/economicoutputandproductivity/output/methodologies/internationalcomparisonsofthemeasurementofnonmarketoutputduringthecoronaviruscovid19pandemic>

⁶

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/thepurchasingpowerofgdpuk/2022>

⁷ U.S. Bureau of Labor Statistics, Nonfarm Business Sector: Labor Productivity (Output per Hour) for All Workers [OPHNFB], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/OPHNFB>, July 21, 2023.

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<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/datasets/outputperhourworkeduk>