UK productivity

1. Ignoring the perturbation in the data caused by the pandemic from 2020 Q2-Q4 (with the temporary increase in productivity potentially caused by low-productivity service industry employees like hairdressers and cashiers being more likely to stop working than, for example, those in the professional services sector who could continue to do so from home), productivity growth post-2008 has been significantly weaker than over the course of the previous 35 years (the blue time series is below the dotted orange trendline).
2. The ONS projection of productivity growth extrapolates from what was observed in roughly the decade pre-crisis. This leads to a larger gap between what they call the “pre-crisis trend” and current productivity than is seen when comparing current productivity to the trendline in my graph for (at least) two reasons. First, as we can see from my graph, productivity growth from 1999-2007 was faster than was historically the case (the blue line is steeper than the trendline in this period). As a result, using this particularly rapid period of productivity growth as the pre-crisis trend will naturally lead one to conclude that the gap in productivity is larger. Also, since the trendline I am using is fitted to the entire dataset, rather than just the pre-crisis data, it is pulled downwards by the very post-crisis data that we are trying to compare it to, making the gap between the curves smaller. For this reason, the ONS graph gives a better (or more useful) description of reality if we’re trying to compare how much productivity has grown post-crisis compared to pre-crisis.
3. One potential reason for weak post-crisis productivity growth may be the low levels of investment in the economy. Confidence in the economy may have been reduced by the 2008 crisis, leading to a smaller savings rate , which would in turn result in a lower steady-state level of capital according to the Solow model. Since more capital allows more output to be produced for every hour of labour (by a Cobb-Douglas production function of the form ), dampened business confidence could translate into weaker productivity growth by inhibiting the development of new ideas by workers in the idea portion of the economy (as described in the Romer model). Also, there may be lasting effects from the 2008 crisis due to hysteresis – if workers who became temporarily unemployed suffered from a permanent atrophying in their skills, we might see productivity growth remain weak even after the shock is over.

There is a sudden drop in output per worker during the pandemic, which is considerably larger than the drop in output per hour worked. At first, this might seem surprising, but realising that many workers were furloughed by their employers helps to explain the difference. The ONS says that “employees who are furloughed will be classified as employed, but temporarily away from work.” This means that although many fewer hours were worked, there would not be a corresponding reduction in the number of workers, since all those furloughed still counted as employees. The rapid recovery of output per worker is also not particularly surprising – once government-mandated restrictions on businesses were eased, and firms adjusted to the new ways of operating (e.g. with remote working or other adaptations), workers could return from furlough and be much more productive than producing no output at all.