The Problem of Economic Incompetence.

Inequality, as measured by incomes, has fallen in the UK over the past 20 years. This will probably come as a surprise to many as the debate on inequality has become more strident as the situation has improved. The problem is that incomes have stagnated. Our sense of wellbeing does not just depend on our current standard of living but on the expectation that it will improve. Hopes of a better future for ourselves and our children have been dented and, unless the economy becomes less incompetently managed, these hopes will be abandoned. Populism, which depends upon separating "them" from "us" and promising the unattainable, will then flourish. You can promise "affordable houses for all and no new development", but you can't deliver it. People of goodwill would like "higher living standards combined with greater fairness in their distribution", but this cannot be delivered unless the economy grows faster. Median incomes are likely to fall rather than rise if tax rates are increased to pay for more government financed consumption. Investment will fall if consumption rises, growth will slow further and living standards will decline rather than just stagnate.

Economic incompetence has been demonstrated by the financial crisis, the deep recession which followed and the weakness of the subsequent recovery. The inability to prevent the crisis and then to engender a recovery strong enough to meet voters' expectations are both intellectual failures. The prominent physicists David Deutsch and Artur Ekert have claimed that physicists are culpable of much bad science.1 Economics is a science which, even more than physics, is often pursued unscientifically. The financial crisis was one example and the subsequent weak recovery another. The former was due to the widespread acceptance of the myth, known as the Efficient Market Hypothesis, that financial markets were efficient. This was unscientific because in its original "random walk" form, it was testable but failed when tested. With sadly few exceptions, economists were nonetheless reluctant to discard this myth and policy was based on a patched up form of it, which has proved to be nonsense in practice. It was also unscientific in theory because it was untestable and thus fell the wrong side of Karl Popper's famous demarcation between science and non-science. The policy implications were disastrous. If financial markets were efficient, it followed that assets were always correctly priced and could therefore never rise to excessive and dangerous levels. A similar blindness applied to the dangers of excessive debt levels. The recent financial crisis was, in common with previous ones, the result of excessive debt and overblown asset prices. As this possibility was denied the dangers were ignored by the policymakers, despite the strong warnings of those who showed the hypothesis to be unscientific. The financial crisis has, for the most part, destroyed the myth because events, as so often, convince more readily than argument.

¹ Beyond the Quantum Horizon by David Deutsch and Artur Ekert, published in Scientific American (September, 2012).

I hope that it will not take another crisis to alter the policies which allowed the subsequent stagnation of labour productivity, and which are another example of an unscientific approach to economics. The failure to understand and address the causes of poor productivity has several sources. The first error was to assume that it was the result of the financial crisis but, as this belief was unaccompanied by any rational explanation, its causality was mysterious and poor productivity has been regularly deemed to be inexplicable. The second error followed logically from the first one: as we cannot undo history we can do nothing to improve productivity. This supposed inevitability has sometimes been termed the hysteresis effect. In certain circumstances hysteresis can explain how weak demand damages future potential supply. For example, prolonged unemployment can render people unemployable. But the sharp and quick decline in unemployment since 2008 makes this explanation untenable. Slow growth in the capital stock through low investment will also damage productivity. But the weak growth of the capital stock long predates the financial crisis. Neither prolonged unemployment, nor the low level of recent investment can therefore be sensibly ascribed to hysteresis. This unfamiliar term borrowed from physics has been used to avoid explanation rather than provide it. Without a tenable hypothesis that explains how the financial crisis has constrained productivity, the assumption that it has is an example of the logical fallacy known as post hoc ergo propter hoc (after this therefore because of this).

Before 2008 both in the UK and the US, the working age population, defined as those between 15 and 65, grew more rapidly than the total population, so living standards rose faster than productivity. Since then the total population has been growing faster than those of working age and living standards have fallen behind any improvement in labour productivity. We can neither undo the decline in the birth rate which peaked in the 1960s, nor the accompanying large rise in longevity, which have been the main causes of this adverse change in demography. We could alleviate the problem by increasing the rate of immigration, as a high proportion of immigrants are of working age, but this will only work if there is a sufficient increase in investment to offset the fall that would otherwise occur in productivity. It is also unlikely to be politically acceptable for good as well as bad reasons.

Labour productivity, measured by the change in GDP per hour worked, has grown over the past five years in both the UK and the US, at rates which are slower than their prospective demographic deficits. (Demographic deficits are the rate at which the growth of the total population exceeds that of the working age population.) Since the recession of 2008 unemployment has fallen sharply, and this has boosted output, despite the problems of demography and productivity. As it is unlikely that unemployment can now fall much further, we are faced, in the absence of any increase in productivity and given the likely size of the demographic deficit, with the prospect of rising poverty as GDP per head falls.

Labour productivity depends on investment and companies invest when it becomes profitable. This point depends on the interaction between technology and the other variable factors which affect profitability. To increase investment and thereby labour productivity, we must either improve technology or these other variables. Unfortunately the economic debate has not addressed the problem in this way. Discussion on improving productivity has been sidetracked by bad science. The post hoc ergo propter hoc fallacy is one distraction and another is the fashion for models which Gordon Brown presumably had in mind when he talked about "endogenous growth theory". Despite these models being generally recognised as unsatisfactory², they have nonetheless led to a widely accepted error which assumes that growth depends solely on advances in technology which are internally generated (endogenous).

To expose this mistaken but widely held view I have produced a new model,³ which uses official data, ignored in previous ones, to avoid their unsatisfactory features, and which I show to be testable and robust when tested. The model can therefore claim to be scientifically valid unlike the earlier ones which, being untestable, were not.

Combined with a careful examination of the data, the new model makes clear the policy options which are open to us if we are to avoid having the UK and US economies stagnate. The first lesson is that we cannot accelerate the rate at which technology improves, at least by the method tried in the past, which has been to use tax subsidies to encourage spending on research and development. A large rise in such spending has been accompanied by a fall in the rate at which technology has improved. Either there is no relationship between such investment and improved technology or spending on research is badly measured. The latter is highly likely and can readily result from companies reallocating expenditure, so that some expenses previously ascribed to management are relabelled research. This causes corporate tax payments to fall without any real increase occurring in research and development, which is nonetheless assumed in the official data to have occurred. If we can't speed up technology, productivity will only improve if we can increase tangible physical investment. The model shows that all the variables, which together with technology drive investment, have changed in a helpful way since the financial crisis, with one exception. Due to the perverse incentives of modern remuneration there has been a disastrous rise in the "hurdle rate", which is the minimum return on equity which companies require before they sanction new investment. This has been sufficient to depress investment despite the beneficial changes in the other variables which are profit margins, corporation tax, leverage and interest rates.

The public debate on pay has concentrated on the unfairness of the absurd sums paid to management. While this is both rotten and important, it has deflected attention from the more vital one of the damage to the economy that has come from the bonus culture. Another distraction has been the assumption that the cure can come from shareholders, despite the massive indifference they have shown. Management

² See for example *Measuring growth in total factor productivity* by Swati R. Ghosh and Aart Kraay, published by the World Bank PREM notes No. 42 September, 2000.

³ Building a New Testable Model to Estimate Total Factor Productivity by Andrew Smithers published in World Economics Vol 18 No 2 April-June 2017.

incentives are designed to boost share prices and we should not be surprised that shareholders favour this. The point is not that the bonus culture damages shareholders; it is that it damages the economy. The bonus system is similar in this way to a decline in competition when monopoly power increases. In both cases shareholders benefit and the economy is damaged. Preventing economic damage is a matter for governments not for shareholders.

Improving labour productivity is our major economic challenge, but the cause of its weakness is seldom discussed and thus not yet generally understood. We need much more public debate and it must move away from the foolish and defeatist belief that poor productivity is inexplicable. It is the result of low investment caused by the bonus culture, which must therefore be reformed. If we fail, we face a high risk of falling living standards and bitter political acrimony over the division of declining resources.

Andrew Smithers London July 2017