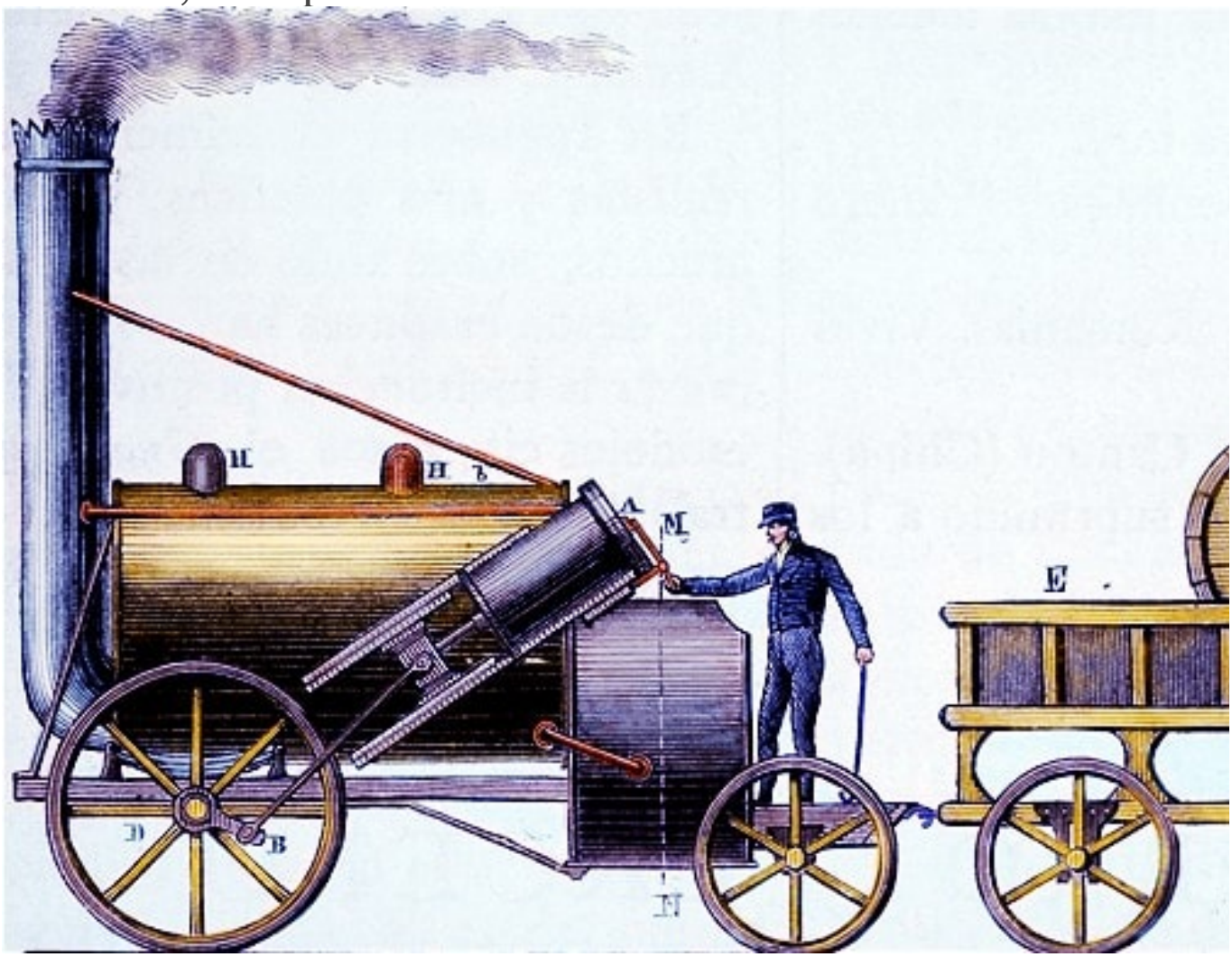
Want more inventors? Then try lowering the top rate of tax

Countries with modest top rates of income and business tax attract a greater number of star scientists, entrepreneurs and inventors



Low rates of tax are appealing to the world's innovators and inventors Photo: ALAMY

By Matthew Lynn
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What drives an innovative economy? Great universities, churning out world-class science? Companies investing big sums of money in research and development? Clusters of technology businesses that spark ideas off each other? A government that pumps money into hi-tech projects? They probably all play a part in creating the conditions in which new ideas flourish and new products make their way to the market.

But there is another factor that is easily over-looked. Lower taxes. A ground-breaking new paper from the National Bureau of Economic Research in the US has discovered something very interesting. Inventors are very mobile people – indeed some of the most important breakthroughs of all time have been made by immigrants. Where they choose to settle and work is highly influenced by top tax rates. It turns out that higher taxes mean fewer inventors coming to your country. Governments spend a lot of time discussing how they can make their economies more innovative, when in fact the easiest way of doing it may simply be to cut the top rate of tax.

The quest for supersonic travel was heavily subsidised by the British and French governments

If any of us had a tenner for every time a government somewhere has launched a drive to improve innovation we'd be spending our days browsing through private jet brochures. The 'knowledge economy' is one of the staples of any politician's stump speech – even Ed Miliband, when he wasn't proposing price controls, was in favour of it. Go back half a century and then Labour prime minister Harold Wilson was promising to re-make the British economy in the 'white heat' of the technological revolution, and just about every government since then has had some whizzy scheme or other to encourage companies to invest more in research. In the 1960s and 1970s it usually consisted off spending a few billion on grand projects such as the supersonic

passenger plane Concorde in the hope it would create world-beating businesses. Gordon Brown, in typically fiddly fashion, had his R&D tax credits, which gave companies a tax break for money they spent in the lab (although ideas had to be generated in a way proscribed by the pen-pushers at HMRC, which, not surprisingly, rather defeated the point). Even this government, which is more free market than most, has its 'patent box', which offers tax breaks on innovation.

There is nothing wrong with the attempt. In fact, one of the few things economists can agree on is that lots of innovation is a very, very good thing. Companies that invent new stuff earn far higher rates of return than run of the mill copycats. Their productivity is usually far higher, they export a lot more, and they re-invest much of the cash they earn in trying to come up with even more new products. We can see that all around us. The UK has a very successful pharmaceuticals industry because it has some great science. **Apple** became the biggest company in the world because it had a fantastic run of new products that re-defined the market. **Google** is pumping an extraordinary $10bn a year into R&D, and even though much of it will be wasted, it will only take one or two big hits to justify that expenditure.

And yet, while everyone can agree it is a good thing, the question is how do you create a more innovative economy? Grand projects don't seem to work – if they did, France would be the most successful economy in the world by now. Fiddly tax breaks may make some difference at the margin, although they are just as likely to be turned into avoidance schemes by clever accountants as they are to divert money into the lab – which isn't exactly the kind of innovation governments are looking for.

But top tax rates will make a significant difference. The new paper for the NBER by Ufuk Akcigit, Salomé Baslandze and Stefanie Stantcheva took data from the World Intellectual

Property Organization from the 1970s onwards, and looked at the impact of higher top marginal tax rates on the numbers of patents filed. It placed particular emphasis on ‘superstar’ investors – that is, those with the greatest number of patents, and the most valuable ones. It found that higher taxes meant fewer patents and vice versa.

Not all inventions take off

So how great is the effect? The paper estimates that a 10 point reduction in the top rate of tax leads to a 38pc increase in the number of ‘superstar’ foreign inventors, as well as a one point increase in the rate at which your own inventors stay in the country. For inventors working in multi-national companies, the results were even more pronounced, perhaps because it is easier to move from one office to another. But right across the spectrum, there is a massive ‘brain gain’ for lower tax countries.

Another NBER paper found a similar impact within the United State, which has varying regional tax rates. The research estimated that, for example, New York’s 2006 reduction of 0.65 percentage points in its top marginal

income tax rate led to net increase of 2.1pc in the number of star scientists working in the state. The same was true across the country. There was also a correlation between business taxes and the numbers of patents filed – once again, lower taxes equalled more patents.

The reason is not hard to figure out. Inventors, like any kind of fresh thinker, are often outsiders, and are very often immigrants as well. That is certainly true historically. Take **Alexander Graham Bell**, for example, the inventor of the telephone – he was Scottish by birth, but created the phone in Canada and the US. James Kraft migrated from Canada to the US, where he invented processed cheese (not the most important invention of all time, admittedly, but an incredibly profitable one). But it is also true in our own time. Charles Simonyi migrated from Canada to the US, where he created Microsoft Office. Our own Sir Jonathan Ive, the design genius at Apple, has done his most important work in the US. Sergey Brin was born in Russia but did the work on search algorithms that led to Google in the United States.

Google's Sergey Brin was born in Russia but worked in the United States

By definition, immigrants are highly mobile, and the smartest ones are probably going to have a choice of where they do their best work. They are probably always going to choose a modestly taxed country to base themselves in – after all, there isn't much point of doing all the work of creating a new product if the government is going to confiscate half of the wealth it creates.

Most analysis of the impact of high top rates of tax looks only at the amount of revenue collected, and the incentives to work more or less. But the greatest damage may well come from destroying innovation, and that is not going to be easily captured by that kind of data. It is very hard to quantify the impact of smart Russians or South Africans choosing to

base themselves in the US, or Switzerland, or Singapore, rather than this country. There will be a loss, however – and an even greater one once you take account of the British inventors who move abroad. At 45pc, we still have one of the highest top rates of personal tax in the world. If a lower rate made the UK a magnate for global inventors, then we'd all be better off very quickly - even if there was some short-term loss of revenue.