

PESTON LECTURE, MARCH 3 2015

I am the proud son of an economist, Maurice Peston, who I am honouring today – in what looks hideously self-referential, but isn't at all – by giving the annual Peston lecture here at Queen Mary College. Dad is a world class economist, who stayed firmly rooted in the economic landscape originally discovered, charted and developed by Keynes. A man of uncommon good sense, dad waited, through the long years of establishment obsessions with the madder versions of monetarism and spuriously scientific computer-based forecasting, for opinion to come back to him. Over more than half a century, he has been more right than most.

What I also admire in dad is the consistency of his commitment to the Arsenal, though like me, he would not describe himself as a fan of the economics graduate who manages the club – and then to public service and social justice. He worked for successive Labour governments as a special adviser, campaigned for comprehensive schools with my mother, Helen Peston, and he created the superb economics department, here at Queen Mary in the Mile End Road – which is so close to where he grew up. One of the nicest, and now most predictable parts of my life, is being accosted by all sorts of impressive people who tell me they were taught by my father, how he encouraged them to make the most of themselves, and how fond they are of him. Only yesterday I was assaulted by a duo on social media, one moaning years after about the “D” grade that my dad awarded the entire class and the other about his habitual 9am start to lectures on a Monday morning – and both asking fondly after him. I cannot recall any student of his that I've encountered being anything other than lovely about my dad. That, in my view, is the mark that all of us should wish to leave on the world.

Now what I thought I would talk about, given what I think of as my parental inheritance, is in the territory of social justice, and in particular the widening gap between rich and poor. I've given this lecture the title *Who Owns Britain, Who Owns Us*, as a way to explore why the working of the global economy has for years now been enriching small numbers of people in the rich developed world – and way beyond their or anyone's wildest dreams – but failing to serve the interests of the vast majority, who have been getting a smaller and smaller share of the income and wealth being generated. Let us start with the well-known research of Emmanuel Saez of Berkeley and Gabriel Zucman of the London School of Economics, which shows that 160,000 families in the US – whose net worth is \$73m on average – they are the top 0.1% wealthiest Americans – own 22% of America's wealth. This is not far off the peak of the share of wealth they controlled in 1929 – which (and probably no coincidence this) was the year of the Wall Street Crash. But perhaps most importantly it is exactly the same share of wealth held by the bottom 90% of Americans. If you haven't thought about it before today, think about that statistic now. The top 0.1% own the same as the bottom 90%. Even for those of us who believe Soviet style command economies are always the road to penury, that degree of inequality is not exactly an advert for the American model of capitalism.

One important thing to note of course is that for most of the 20th century, and especially from the 40s to the mid 80s, the bottom 90% did much better, and accumulated a significantly bigger share than the top 0.1%.

Anyway that is the story of wealth distribution in America. Now let's take a look at income. In the years since the crash, the top 10% of Americans got more than 100% of all the increased economic output and the bottom 10% got a lot poorer. As for what we now call the super rich, in the 1950s the top 1% got what many would see as their just deserts, 1% of the growth in national income. But that

rose to 45% in the 1980s, and then to an astonishing 95% in the four years after the 2008 crash. Or to put it another way, as the economic cake got bigger, almost all of the increase in recent times has been scooped by those who were already best fed.

Now the trends in the UK have been similar. The majority did pretty well relative to the very rich from the end of the war to the advent of Thatcher and Reagan. But there has been widening inequality – a growing income and wealth gap – in the years since then. The trends here in Britain are probably less extreme than in America – although it is hard to be sure because we have less comprehensive and robust data. But it is clear that in the UK wealth inequality is much more pronounced than income inequality.

As for the world as a whole, it is challenging to argue that wealth distribution is equitable – with 0.7% of the global population – those with assets greater than a million dollars – owning 44% of the wealth.

Before exploring in more detail why the worsening inequality has happened, whether it is inevitable and irreversible, and what its social and political consequences may be, it is important to note that the economic woes of the majority in the rich West are anomalous. Global capitalism in recent decades has had the paradoxical consequence of widening the gap between rich and poor people almost everywhere, but narrowing the gap between rich and poor nations – and creating a massive new middle class in much of the developing world. The most important economic story of our age has been the rise and rise of China since Deng's economic counter-revolution in 1980. Its economy became 20 times bigger over the subsequent 30 years, while America's expanded only a bit more than two times. And today China is either the world's biggest or second biggest economy, after America's, depending on how you measure it. The point of course is that in the course of this economic miracle, not far off a billion Chinese people were lifted out of extreme poverty – even while China created a new plutocratic class of billionaires at the top. The gap between rich and poor widened in China, but that probably mattered much less than in the West, because of the sheer numbers of Chinese who broke free from a precarious existence subsisting on the bare minimum. And nor was China an exception – although it has been the extreme example of globalisation spurring dramatic rises in living standards for astonishing numbers of people. All over Asia – increasingly in India under Modi right now – patchily in South America and latterly and sporadically in Africa – there have been important rises in living standards for numbers of people vastly in excess of the populations of Europe and the US, whose incomes and wealth have been stagnating.

There are a couple of important points here. One is that – in my view – the Chinese economic miracle is almost over. The accumulation of new debt there – equivalent to 100% of GDP over the past six years since the crash – has been dangerously rapid. It has fuelled the mother of all investment sprees – with investment in housing, offices, transport and other infrastructure replacing exports as the engine of growth after demand from the west collapsed in 2008. And with investment there running at around 50% of GDP, this mind-boggling and unprecedented debt-funded construction spree brings a big risk of financial crisis – as borrowers struggle to repay debts. & even if bust can be avoided, the economic model is conspicuously unsustainable. So if the authorities belatedly succeed in rebalancing the economy more towards household consumption, the pace of growth – currently on unreliable official statistics around 7% a year – and down from the 10% of the preceding three decades – would plummet – probably in my view to 3%-ish per annum. And for

those who still believe in Chinese exceptionalism, that it is the one economy in the history of capitalism that will never revert to the global growth mean, we can see the extent to which the Chinese economy is slowing down much faster than official statistics show from the past year's falls in commodity, food and energy prices, which are a true barometer of Chinese appetite and activity. And then there's the collapse in the Baltic Dry goods index – which was the canary in the coalmine in the autumn of 2008, just before Lehman went pop – and which today shows that the vast ships that are supposed to take coal and all those other basic materials to China are empty.

What is very striking of course is that as China slows down, and as the vast majority become richer much more slowly, the enormous gap between China's new elite of super billionaires and the rest is becoming something of a sore point for hundreds of millions of Chinese. It is no coincidence that the government of President Xi Jinping is conducting an almost Mao style crack down on corruption, especially among party officials, for whom graft is a way of life.

Now thanks to the wonderful way in which everything fits together in our Heath-Robinsonesque global economy, China's boom years after 1980 – its glory years – were a direct contributor to deteriorating equality here. Because – and you surely don't need telling this – Chinese manufacturers took western jobs. And the advent of this vast new supply of labour in Asia in general massively reduced the earning power of workers in the developed world: there was a dramatic ten percentage point fall in the US over 40 years in the share of economic output that has been distributed to people in the form of wages rather than to owners of assets. And the trend in the UK is again almost identical. Of course this pattern of more of the fruits going to the providers of capital, including intellectual property, was accelerated by the way that Thatcher crushed the bargaining power of trade unions.

Nor are these the only important industrial and economic trends shifting rewards from employees to owners. Another is automation – the triumph of the robots. And at the moment there is widespread pessimism that this so-called second machine age is going to put further downward pressure on the earnings of most of us. So to look on the gloomy side for a moment, it is the case that artificial intelligence and algorithms are replacing traditionally middle class jobs, from paralegal and medical diagnostic work, to serving at MacDonal'd's, to almost any human involvement in manufacturing. But right now – and perhaps unusually for me – I am feeling pretty optimistic about this technological shift. Because I think over time it will empower us to make more of our individual skills and assets. In theory at least we should be able to keep more of the product of our labour and other resources – though this will lead to diminishing returns for the owners of traditional companies. In fact if I am right, it will be Armageddon for the traditional manager and corporate structure.

So I am thinking of innovations like Uber, AirBnb and their equivalents, that allow us to go direct to the market place to earn a return on our skills – like driving – or stuff we own, like our homes. Take Uber. For all the extraordinary behaviour of its bosses, and even as governments struggle to know how to react to the social disruption it causes, it seems to me to represent an exciting and positive commercial revolution, that empowers millions of people. Uber naturally wipes out the owners of rival taxi firms. But it gives greater returns to drivers. And in cities it more or less eliminates the need to own a car, which should mean far better use of motor vehicles and should reduce CO2 and emissions that are increasingly known to be carcinogenic. So the challenge now is to create other technological networks that will allow millions of people to take greater control of their earning

ability and lives – that will make inflexible routine employment for companies very much a thing of the past, replaced by more flexible and more rewarding self employment.

There is a second exciting possibility here. I talked about what many would see as the pernicious impact on the earning power of millions of people of the castrating of trading unions. But there is now an opportunity via the internet – and especially social media – to foster the creation of new mutuals, or perhaps trade unions for the digital age. For example I was told the other day of an exciting idea to bring together a bunch of unemployed people in the north who would collectively be lent money to buy cars and would then become self-employed Uber drivers. OK so not everyone in this green and pleasant land can be a taxi driver. That would not be a heart-warming vision of our industrial future. But the point is that technology doesn't just have to promote individualism and corporate fragmentation. It can also facilitate the empowerment of people by giving them the ability to unite and challenge the status quo faster and more effectively than ever. If it hasn't happened yet, that's not in my view because it won't happen but simply because it is very early days in this industrial revolution

So not all technology is bad for our incomes and wealth. But there is little doubt that the kind of new machine age we are living through is creating billionaires – like the owners and backers of Uber – at a speed we have never seen before. And that is one reason why the top 0.1% and top 0.01% are pulling away from us. It is worth thinking for a second why that is. You will know it took decades of big and patient investment, and the employment of tens of thousands of people, for a Henry Ford to become stupendously wealthy and powerful – because of the nature of the heavy industries being created at the time. By comparison the Google and Facebook founders and their ilk have become billionaires on the back of employing relatively few people – a few tens or a few hundreds of people – and with investment which has frequently been as little as a few million dollars. Adair Turner has given a neat illustration of why this is. He points out that the creation of a network like Facebook, which connects hundreds of millions of people across the world, is the equivalent of magic. Imagine he says that you invented a spell like abracadabra – or in my case the magnificent Sooty's catchphrase – “izzy wizzy let's get busy” – which allowed people to see and talk to each other all over the world for free. If Sooty could have patented his spell, and could have charged a tiny amount for each time we used it to speak to each other, he would today be the richest little bear in the world. The point is that the likes of Google, or Uber, or Facebook are exactly like magic in that sense. Because having developed their initial software, for a cost usually much smaller than building a Ford plant, each download of that software by you and me is essentially free. So even if they charge you and me just a penny for using their service, that is a penny of pure profit. And when you connect the world via this network, those pennies soon turn into billions of dollars or pounds. So if you can create a technological network that we all want to use, you are creating what the venture capital industry calls a unicorn, a business worth at least a billion dollars – and probably vastly more – and in the process hugely enriching the creators and those fortunate enough to have backed it early.

All that said, most of us probably don't begrudge the creators of these businesses their rewards – although we may worry about the difficult-to-check political power that comes with becoming a multi-billionaire, and I will come back to that – because they have given us services and products that have made and are making our lives better. But here is the thing. The bulk of the super-rich in the top 1% and top 0.1% are not the Google and Facebook boys. They are managers of public companies, and finance workers – investment bankers and those working for hedge funds and

private equity firms. In both cases there are reasons to question whether their rewards are their just deserts.

Research by the London School of Economics has found that during the decade leading up to the great crash of 2008, finance industry workers here in the banking-dominated UK accounted for almost two-thirds of the increase in the income share of the top 1%. In America too, thanks to the bonuses they made during the boom years of the lending bubble, bankers and investment managers were swelling the ranks of the super-rich. Here are some reasons why we should question whether the financialisation of our economies – and the rewards it gushes to bankers and hedge fund managers – are healthy. First the reckless behaviour of the bankers was the biggest cause of the worst recession since at least the 1930s and probably longer. Now we may have recovered in respect of overall GDP or national income, but we are still some way from recovering in respect of GDP per head or net national disposable income per head – which adjusts for all the money that's shipped abroad to the foreign owners of so many of our prize assets. And our inability to growing without shipping in debt manufactured by the bankers has left us with a legacy of record debts – which is hobbling growth and will continue to do so for years. And to be clear, the British government – or at least its economic forecasting agency, the Office For Budget Responsibility – has explicitly acknowledged that maintaining any reasonable momentum of growth in the economy over the next five years will require large rises in mortgage and personal debts – as house prices rise and consumption remains the engine of GDP rises – such that the indebtedness of households is forecast to return to the dangerously high record levels we saw in 2009.

It is also through financialisation, the leveraging of our economies, that growing inequality leads to instability – booms and busts – that impoverish almost all of us. As Mian and Sufi have shown, people on low and stagnating incomes have a huge incentive to take on excessive debts to purchase assets such as homes they can't afford, in an attempt to improve lifestyles they can't better through employment. And bankers in feeding that natural desire for a better life by supplying subprime debt that could never be repaid – and is shipped off to naïve investors in the form of collateralised debt obligations and other bonds – enriched themselves at the expense both of the borrowers and the lenders. And we shouldn't forget the lenders were often us, as purchasers of these worthless bonds through our hedge funds. And of course where the lenders were the banks themselves, taxpayers bailed them out on a colossal and unprecedented scale. So it is perhaps hard to argue that inequalities spurred by the growth of City and Wall Street have been a social price worth paying.

And then there is Mr Fat Cat, who we first met in the 1990s. Here is the thing. Those in the top 1% don't tend to be the creators of brand new businesses that change our lives with wonderful new products and services, such as the Google and Facebook lads, Gates of Microsoft, Jobs of Apple or James Dyson of vacuum cleaner fame. The typical plutocrat is in fact those who lead established businesses, many of whom aren't entrepreneurs at all, but are – and I don't say this in a denigratory way – managers, stewards of big public companies that were created by their predecessors. And they don't risk their own money when growing their businesses. Actually they take risks with our money, since it is our pension funds and saving schemes that back them. What is striking is that although bosses' pay is more closely connected to performance – through bonuses and incentives than it was thirty years ago – the overall trend to their remuneration has been up and up and up. So as recently as 2000 a typical FTSE100 chief executive earned 47 times UK average earnings. Today he – and occasionally she – earns £3.3m, equivalent to 120 times the pay of a typical UK employee

times. And no one claims that the performance of the British economy over the past few decades has improved markedly – quite the reverse in fact. What on earth is going on?

There have been three contributory causes – two of which on their own were supposed to be good for the economy, for us, but collectively they turned out to be good only for the executives who run public companies, for our fine feline friends. First, those who run big companies became less and less accountable to owners, as more of them became listed on the stock market, and shareholders – institutional shareholders, pension funds and insurance companies, which look after our money, plus hedge and sovereign wealth funds – became more and more short termist. The shareholders became in effect absentee landlords, obsessed only with today's share price movements, rather than taking a more fundamental interest in whether the companies they own are being run properly and sustainably. And in the absence of anyone to keep them in check, chief executives became the union barons de nos jours, more or less able to pay themselves what they like. But to rein them in a bit, two governance changes were forced on them. One was linking pay to performance, through bonuses and so called long term incentive schemes. But because in theory the bosses were taking more risk – they weren't in practice – the amount they could earn through these incentives rose exponentially. And here is the most tragic or comic paradox of the lot. Governments and regulators forced companies to disclose much more about what the bosses actually earn, to be more transparent about remuneration. But the consequence of this disclosure was to inflate bosses' pay even more, because they could now see what their direct peers and rivals were being paid, and could therefore insist that they should be paid just a bit more to reflect their – often spurious – putative superior performance. Just like unions' obsession with differentials in the inflationary 1970s, CEOs insisted on paying just that little bit more than the one in the next door business. As many have said to me, it wasn't the pay itself that mattered, but it was the public acknowledgement of being supposedly the best. So remuneration disclosure has led to an obscene ratcheting up of pay at the top.

What should be clear, I hope, is that globalisation per se is not what has led to a widening gap between rich and poor. It is the way that globalisation has been configured – the shockingly poor governance and regulation around globalisation – that has led to this worsening inequality. Another example is in the realm of taxation – where the superwealthy have gamed nation states through parking their money where taxes are lowest. Part of the service offered by banks to their wealthiest clients is not only managing and investing money, but sheltering it from tax. Around 8% of the world's financial wealth is parked in offshore tax havens, such as banks in Switzerland and Cayman. In the UK it is estimated that 10% of financial wealth is held offshore – which is one of the reasons, according to Gabriel Zucman of the London School of Economics, that it is so hard in Britain to assess just how wealthy our super rich really are. By contrast only 4% of US wealth is held offshore.

There is one other thing we need to think about – which is the extent to which the western economies main economic response to the slump of 2008 – massive money creation and record low interest rates – have made inequality worse, by pumping up the price of assets, especially property and shares, that are typically owned by the wealthy. If the governor of the Bank of England worked directly for the Duke of Westminster and the Earl of Cadogan, he could not have done a better job for them, in the way he has significantly increased the value of their multi-billion pound estates – by cutting interest rates to lows the world has never seen. If there is one memorial to the failure of the pre-crash economic consensus it is that only the most tepid of global recoveries has been

engineered by cutting the price of money by more and for longer than in recorded history. With central banks in Denmark, Switzerland and the Eurozone now all experimenting with imposing negative interest rates for the banks they borrow from, it is now unclear whether we are at the lower bound of how cheap money can become. Almost certainly not I would say – even if there is something surreal about being charged for parking cash at the central bank. And this for me is the most important – though not easiest to interpret – financial statistic of our time. Which is that the UK government, and governments of Japan, the US, and Germany, can borrow for up to 50 years at negative interest rates. As investors are prepared to take a loss on making the supposedly safe investment of lending to AAA-ish rated governments, rather than investing for long term economic growth by putting their money into proper risk capital, we can see that the economies of the developed world are a very long way from being mended.

The rich have got richer because quantitative easing pumped up the price of assets – which it was designed to do, to bolster economic confidence and thus reinforce a recovery in spending and investment. But it has had worryingly regressive distributional consequences. It has rewarded those with houses and other assets, who tend to be older. Which means it has widened the already significant wealth and income gap between old and young, as well as the gap between rich and poor. Now whenever I broadcast or write about this sort of stuff, there is a near pavlovian reaction from the government. A cabinet full of old Etonians and other alumni of our leading public schools feels vulnerable to the charge that inequality has worsened on its watch. So they and their spin doctors tend to text immediately to point out, which is true, that over the past five years the UK has become a less unequal place on a number of measures – and that if you ignore the extremes of the very richest and very poorest, there has not been any significant worsening in equality for more than 15 years. But apart from the problem that we ignore the top and bottom 1% at our peril, for reasons I will come back to, the reasons why income inequality has got a bit less extreme since the crash are not remotely encouraging, and are probably best not shouted about.

They stem from the operation of what are called the automatic stabilisers, namely that benefit payments and tax credits went up very sharply in the recession, when people lost their jobs and earnings for those in work were squeezed. And at the same time there was a bit of an increase in the tax burden on top earners.

Here is the best way of understanding why this reduction in inequality has been both dangerous and may prove unsustainable: the ballooning of the government's deficit – the gap between tax revenues and public spending – after the 2008 debacle to an unsustainable 10% of GDP. In monetary terms, that gap has come down only about a third and is still a very large £90bn a year. What is very striking is that although the thrust of government policy to reform the benefits system is intended to reduce the huge social security bill, and in that way – according to the Institute for Fiscal Studies – almost certainly widen inequalities again over the coming few years, the mad structure of our housing market has so far made that impossible. The inflating of house prices, in part by quantitative easing, has encouraged private landlords to put up rents – which in turn has meant that even with new caps on housing benefit, the bill for housing benefit has continued to rise. In that sense, there is a direct link between worsening wealth inequality and the unsustainability of the public finances. And for all the recent bashing of the Green Party because of the stumbling and mumbling of its leader, the Green's policy of abolishing the huge public subsidy for buy to let landlords – the absurd fact that they can offset their interest payments against tax – looks anything but bonkers.

The other really important trend is the flatlining of tax revenues. Again that is associated with a worsening of inequality at the pre tax and pre benefits level. In this case what matters is that we have been living through a recovery which has seen productivity and wages flatlining, which has meant that the operational gearing that normally takes hold when an economy comes out of recession, the fact that wages rise faster than tax thresholds, hasn't kicked in. In fact the reverse seems to have happened. The increase in the tax free allowance to more than £10,000 may have actually created a perverse incentive for some to keep their meagre earnings below the threshold at which any tax would be paid.

Of course those on highest earnings contribute a disproportionate share of the nation's tax revenues. But perhaps what HSBC's little Swiss embarrassment has shown – the fact that for many wealthy people, including HSBC's own CEO, it is normal to hide a very large amount of money out of plain sight of the British taxman – demonstrates they could pay more without feeling crippling pain – or at least only psychological rather than material hurt, perhaps.

So we've identified a couple of reasons why worsening inequality may be a problem for all of us: that it makes economies less stable, more volatile, as those with least try to borrow more than they can afford in desperate attempts to maintain or improve their living standards; and the flatlining earnings of the majority, and the consequential flatlining of tax revenues, undermine the affordability of the public services we take for grant.

And there are other less economic reasons to be concerned about the concentration of huge wealth in a few hands. One is that it undermines democracy. What do I mean? Well it's conspicuous in the US that Congress will not legislate against the material interests of the wealthy individuals who finance senators and representatives' election campaigns, especially Wall Street and the arms lobby. In this country, policies are not bought so explicitly. But part of the explicit fund raising philosophy of the Conservative Party is that major donors – those who pay £50,000 a year or more and join the so-called "Leaders Group", a kind of platinum card membership of the Tory Party – get privileged access to the prime minister and chancellor at private dinners, lunches and drinks. And although the purchased ability to bend the prime minister's ear of a hedge fund superstar or investment banker does not mean the prime minister will do what's asked by the financial plutocrats, that does not really seem to be an example of democratic equality of access to the executive arm of the government. And I should say this is not me being stupidly fastidious, or at least not just me. Anxieties about the access of the hedge fund industry to policymakers has been expressed to me by senior civil servants. For the sake of balance, I should state the obvious, that the union donors to the Labour Party have equally had privileged access to Labour's leadership over generations. The point is only that a well run country, and a healthy democracy, is not necessarily one in which a prime minister hears more and much more frequently from hedgies or union barons than from the rest of us.

By the way, it won't have escaped your notice that some of the mind-bogglingly rich, like Bill Gates and Warren Buffett, do amazingly good things with their accumulated wealth – such as funding improvements in public education in America and the eradication of diseases like polio in developing countries. Jolly lucky we are too that they want to spend their fortunes for good. But there's the rub. Saving the world should not be down to luck, but should be the execution of the will of the people revealed through the ballot box. For all that we can admire the philanthropy of Gates, Buffett and

the more public-spirited of our home grown hedgies, there is something unsettling about their ability to change the world completely separate from any public institutions, without being subject to any kind of democratic accountability. It is brilliant that they want to do stuff that we all think of as good. But they might have been Dr Evils, pursuing agendas antipathetic to the interests of most us. And I think we can all think of billionaires who remind us of Austin Powers' nemesis. The more we rely on the billionaire class for good works, the more susceptible we are to their caprice.

Which brings me to my favourite argument for narrowing the gap between the plutocracy and the rest, which is it turns out we would be doing the super-wealthy a huge favour – in a moral sense – by levelling them, by cutting them down to size. There is now a large body of social psychological research that we become worse people when we become – for these purposes – too rich. As it happens, this is no revelation for me. One of the things that always struck me from decades as a professional luncher and diner was that the very wealthiest, notably the billionaires, never carry cash and never offer to pay. Now I recently met a social psychologist based at Berkeley in California, Dacher Keltner, who devotes his life to assessing how individual prosperity affects our behaviour. And he claims to be able to prove that we should pity rather than resent the super-wealthy, because they are less human than most in important ways. For example Keltner organised a bunch of students to monitor cars going through a pedestrian zone where the cars were supposed to slow down. There was an unambiguous correlation between the price of the vehicle and a refusal to slow down. Those driving Porsches and BMWs did not apparently believe the rules applied to them. Which again was not a surprise to me. Because years of observation of the very rich has shown me that they are frequently characterised both by extreme impatience and the notion that mores and laws are for others.

But perhaps my favourite of Keltner's experiments concerned a bowl of sweets in the reception of his lab, where he had gathered together a bunch of people from different social backgrounds, some well off, some impecunious. As the subjects were leaving the lab, they passed by a big bowl of sweets, on which was very clearly written 'For the children of the Institute of Human Development'. And what Keltner found was that the wealthy participants were much more likely to take candy from children.

Keltner believes he has proved that those with less money empathise more with people who are in trouble. Here perhaps is his most dramatic finding. When most people see an image of a starving skeletal child in a famine, there is an automatic activation of the Vagus nerve, part of the wiring that connects brain with vital organs, and which slows the heart and facilitates a sense of connection with any terrible image. It turns out that poorer people have a strong Vagus nerve reaction to people suffering, whereas wealthier people in the lab absolutely had no reaction. In Keltner's words, there was a massive compassion deficit in the more well heeled.

But even if loads of money makes us worse people, maybe we should tolerate all financial inequality, if Reagan and Thatcher were propagating an absolute truth, that decent economic and business performance requires monetary incentives, and the bigger the better. But this turns out to be neurologically dubious. Offering people huge rewards, especially in the form of bonuses, seems to make them perform less rationally and thoughtfully – or worse in other words – because a very old system in the brain, the nucleus accumbens, is activated. It generates loads of dopamine, which in turn makes us crave the money, as if we were craving sex or some delicious food – in other words in

an irrational animalistic way. The tantalising prospect of a bulging bonus therefore undermines our ability to patiently engage in complex innovative thought. The dopamine suppresses the analysing functions of the frontal lobe. Or to put it another way, it is no accident that a financial industry run on huge bonuses was an industry where huge and dangerous risks were taken: the prospect of huge bonuses turned traders and financial engineers into primitive, dwarf throwing, money hungry monsters (if you've seen the Wolf of Wall Street, you'll understand that I have chosen my words with scientific precision).

I want to finish therefore by talking a little bit about why it is no longer coherent to be simply a believer in equality of opportunity, with no interest – to paraphrase Lord Mandelson – in whether a minority become pharaonically wealthy. Inequality of outcome, of the extreme sort we see today, reinforces inequality of opportunity. The concentration of wealth in a small number of hands makes it more likely that inequality of opportunity will cascade perniciously through the generations. When the wealthy become disproportionately wealthier than ever, they have the capacity to draw the ladder up behind them, and keep the rest in their lowlier place – by for example throwing extraordinary sums of money at the health and education of their children, such that elite schools and universities become dominated by the children of the super wealthy, who then go on to occupy all the positions of influence in the apparatus of public and private sectors. It is naïve to argue that you can ignore inequality of outcome to concentrate exclusively on reducing inequality of opportunity: the ability to raise up the poorest and most disadvantaged is directly related to how far below the top they may be.

But none of this is grounds for pessimism and fatalism. There is plenty we can do to stem and reduce the widening gap – even in the face of a media and political establishment which is conveniently wedded to the idea that inequality is the price of freedom and growth. The damage to a nation's prosperity from imposing higher taxes than elsewhere has been exaggerated – as demonstrated by the economic success of Germany, the Netherlands and the Scandis.

What's more the very internet technologies that are enriching so the technology pioneers give the taxman the ability better than ever to assess who is and who isn't paying their fair whack of tax. All that is really required is for governments of the major economies to properly recognise – as they are beginning to do – that in an era of globalisation, it is insane for countries to act unilaterally when it comes both to setting tax rates and pursuing tax avoiders and evaders. Some degree of harmonisation of taxation between Japan, China, the US and Europe would broadly give the super-wealthy and big corporations nowhere to hide their cash. We are very gradually supranational coordination of taxing, but progress is – some would say – lamentably slow.

As for the taxes that we need, plainly with inequality so pronounced in the distribution of assets, it is irrational that the assets of the super rich are so lightly taxed. New taxes on property and financial assets would make a huge contribution to the ability of the state to correct inequalities through the provision of public services. And Bill Gates' idea, of imposing a higher rate of sales tax or VAT on luxury items – a Fendi handbag tax, as it were – seems difficult to argue against, unless you think it matters that the state would be making some positional goods even more the preserve of those with most money.

There is absolutely no reason to assume that a return to nineteenth century levels of inequality is a return to the natural order of things. Worsening inequality can be addressed and reversed if

governments have a will to do so. What's required is a rethinking of which elements of fiscal or tax policies are appropriate for the nation state and which should these days become the stuff of supranational decision making. Global economic governance needs to become truly global, to catch up with the transnational realities of global commerce