

TOUCH
STONE
EXTRAS

Fairness and Prosperity

By Howard Reed



Contents

<i>Introduction</i>	4
<hr/>	
<i>1 The evolution of inequality in the UK</i>	5
<hr/>	
<i>2 Income inequality and health and social outcomes</i>	11
<hr/>	
<i>3 Why does greater equality not mean worse economic performance?</i>	13
<hr/>	
<i>4 Why does greater inequality mean worse health and social outcomes?</i>	17
<hr/>	
<i>5 Conclusions and implications</i>	20
<hr/>	
<i>Bibliography</i>	22
<hr/>	
<i>Notes</i>	25

Howard Reed

Howard Reed is Director of the economic research consultancy **Landman Economics**, which specialises in complex econometric modelling work and policy analysis. He is also a research associate for both the Institute for Public Policy Research and Demos, and a trustee of the New Economics Foundation. His recent projects include *Where the Money Goes* (with Tim Horton of the Fabian Society), funded by the TUC and UNISON, which looked at the distributional impacts of the spending cuts announced by the coalition government in the 2010 spending review, and a previous Touchstone pamphlet *The Red Tape Delusion* (with Stewart Lansley), which showed that there is little, if any, link between labour market deregulation and increased economic performance. Other recent clients for Landman Economics research include Action on Smoking and Health (ASH), the Welsh Government, Unite and Compass.

Fairness and prosperity

The UK is a far more unequal society now than it was 30 years ago, and three-quarters of the public agree that the gap between rich and poor in the UK is too high. But if policymakers were to enact policies to reduce inequality, would this jeopardise the UK's economic performance? This Touchstone Extra pamphlet reviews the latest evidence on the relationship between inequality and economic performance across countries and finds no support for the idea that there is a 'trade-off' between inequality and prosperity. Indeed, there is strong evidence that countries with higher inequality have worse performance on a range of health and social outcomes. The report also discusses theories that can rationalise these findings, and recommends policies which would help reduce inequality from its current very high level in the UK.

Touchstone Extra

These pamphlets are designed to complement the TUC's influential Touchstone Pamphlets by looking in more detail at specific areas of policy debate raised in the series. Touchstone Extra publications are not statements of TUC policy but instead are designed, like the wider Touchstone Pamphlets series, to inform and stimulate debate. The full series can be downloaded at www.tuc.org.uk/touchstonepamphlets

Introduction

This Touchstone pamphlet asks whether a more equal distribution of income would jeopardise the UK's economic prospects. Indeed, is more equality just what we need to *improve* our prosperity and well-being?

The assertion that less inequality is "part of the good society" resonates strongly with most people on the left and centre-left. This pamphlet shows that this is a sensible belief:

- The UK is a very unequal country, and this inequality is the result of a major shift in income distribution in the 1980s and 90s.
- There is a conventional economic view that asserts that inequality is a price a country has to pay to achieve economic success. But a comparison of the performance of equal and unequal countries does not back this up.
- Indeed, there is evidence that some redistribution *enhances* economic performance.
- International comparisons provide very strong evidence that inequality is linked to poor health and social outcomes.
- The theories to explain this relationship are still being developed. This pamphlet outlines two of these – that inequality has harmful psychological effects and that poor outcomes follow on from deprivation, which is more common in unequal societies.

1 The evolution of inequality in the UK

Inequality has not been a priority concern of governments for thirty years. Mrs Thatcher famously said we should “let our children grow tall and some taller than others if they have the ability in them to do so.” For most of the New Labour period there was little evidence that the government cared about inequality – though reducing *poverty* (which is obviously linked to inequality at the bottom end of the income distribution) was certainly a priority. The coalition government’s June 2010 budget was regressive overall, with the poorest households paying a larger share of their income in additional taxation due to an increase in VAT from 17.5 per cent to 20 per cent, combined with benefit cuts for certain groups¹. This regressiveness was compounded by additional cuts in benefits and tax credits announced in the October 2010 Spending Review, while the recent March 2011 Budget did nothing to redress the balance².

Inequalities of income in today’s Britain are larger than most other developed countries, and much bigger than they were thirty-five years ago. Figure 1 uses data from the Organisation for Economic Cooperation and Development (OECD) on an index of inequality known as the **Gini coefficient** (a higher Gini coefficient corresponds to greater inequality.)³

Figure 1. Inequality in OECD developed countries, mid-2000s

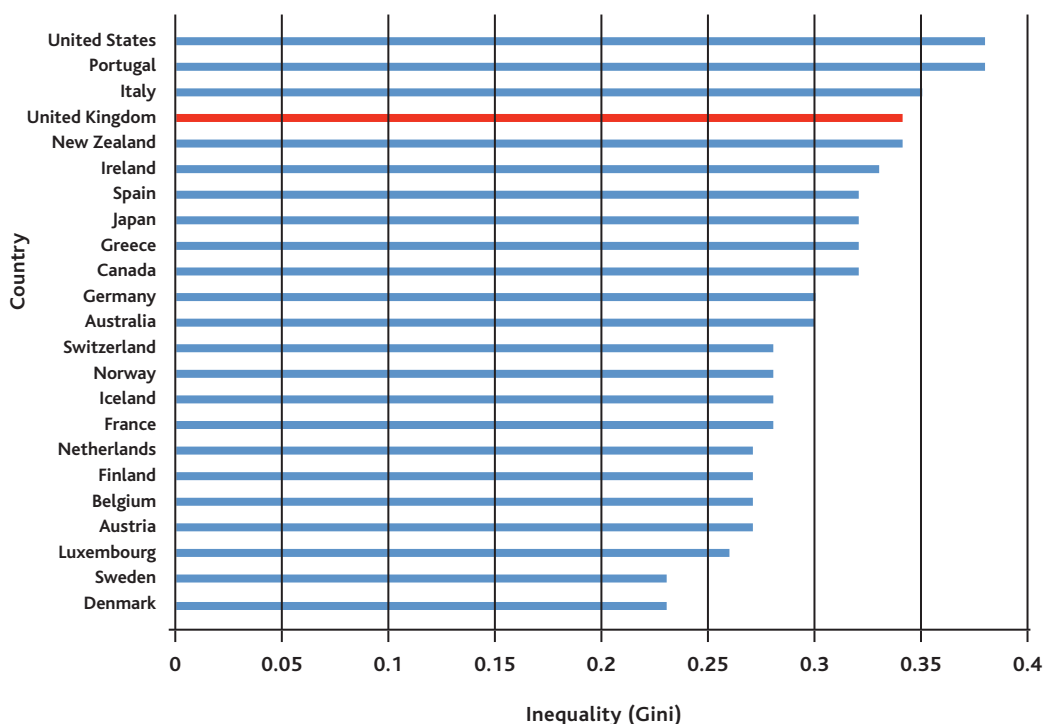
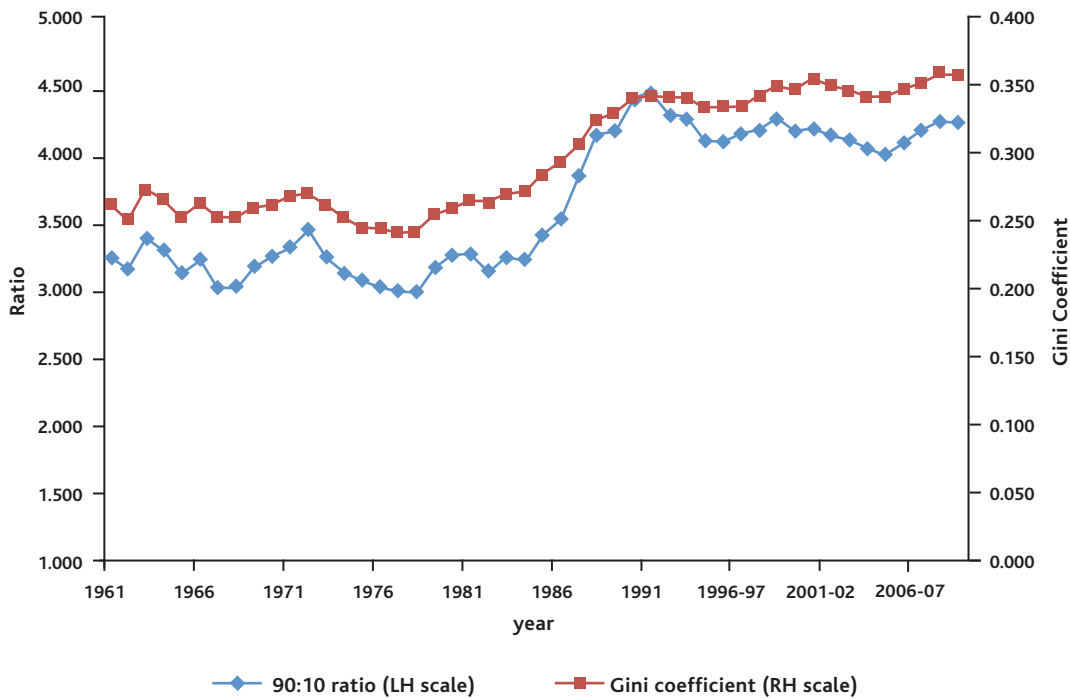


Figure 1 shows that the UK is well above average in terms of its level of inequality. Only three OECD developed countries – the USA, Portugal and Italy – have higher inequality.

UK inequality hasn't always been at such a high level. Figure 2 shows trends in the Gini coefficient and the 90:10 ratio (the ratio of the income of the household at the 90th percentile of the income distribution to the income of the household at the 10th percentile). For both measures, the 1980s were a decade of rapidly rising inequality, coinciding with the period of Conservative Government under Margaret Thatcher. Under the premierships of John Major, Tony Blair and Gordon Brown, inequality on the 90:10 ratio fell slightly in the early 1990s before stabilising at a much higher level than that of the 1960s and 1970s. The Gini coefficient shows similar trends except that there was no decrease in the early 1990s and if anything, inequality has risen very slightly over the last 20 years.

Figure 2. UK inequality: trends in summary measures, 1961-2008/09



Source: Institute for Fiscal Studies

The conventional economist's view: the equity/efficiency trade-off

According to the British Social Attitudes Survey (the main source of information on attitudes in the UK population over time), 75 per cent of people surveyed in 2008 said that the gap between rich and poor in the UK was too high⁴. If inequalities are so vast, why not do more to reduce them?

Most conventional economists would agree: they would say that a given increase in income is worth more to a person the poorer he or she is and that this implies that, other things being equal, social well-being is maximised when the distribution of income is completely equal.

Nonetheless, few economists call for complete equalisation of incomes as a policy choice⁵. Why is this? The answer is that traditionally economists have believed that redistribution of income *reduces overall levels of output in the economy*, and hence that there is a trade-off between equality and efficiency.

Economists have normally argued that redistributing income reduces the level of efficiency in the economy and hence economic output, through several mechanisms:

- **Reducing the rewards for work.** Progressive taxation of earned incomes reduces the effective return to work, i.e. the net wage. This makes work less financially attractive relative to not working, and so it is possible that people will work fewer hours, or less hard, if net wages are reduced.
- **Reducing the return to investments.** Progressive taxation of income from investments reduces the net return to investments and hence reduces the incentive to undertake investments and this could reduce economic growth.
- **Reducing the return to entrepreneurship.** Progressive taxation of capital gains reduces the net return to entrepreneurs who start up small companies in the hope of selling them later. This reduces the incentive to innovate and create high-growth companies.
- **Increasing the incentives for tax avoidance, tax evasion and emigration.** High marginal rates of tax increase the incentive for people and firms to attempt to avoid tax. To the extent that taxes are higher here than elsewhere they also increase the incentive for workers or companies to leave the UK.

Few economists argue that these costs limit the scope for any redistribution whatsoever. But there is a consensus that there is a point where the amount of redistribution reduces output so much that poorer people could end up worse off in absolute terms.

The view that there is a trade-off between equality and efficiency is widespread in economic textbooks and in public debate⁶. It is, for example, the driving force behind Labour's reductions in corporation tax and George Osborne's first two Budgets. It may also be the reason why, although large sections of the UK public feel that inequality is too high, there is much less support for government action to reduce the gap between rich and poor beyond the amount of redistribution that goes on already. In 2008, only 38 per cent of respondents agreed that the government should redistribute income from the rich to the poor, with 35 per cent disagreeing. If the UK is already at the point where further redistribution would be economically damaging, then we will have to live with the existing level of inequality or accept lower levels of economic performance (growth for example) as a price of greater equality.

Empirical evidence on the relationship between inequality and economic performance

Where does the UK stand in relation to the equality/efficiency trade-off? Would reducing inequality carry a cost in terms of lower growth? There is a large amount of empirical research on this topic, and this section summarises the state of knowledge so far.

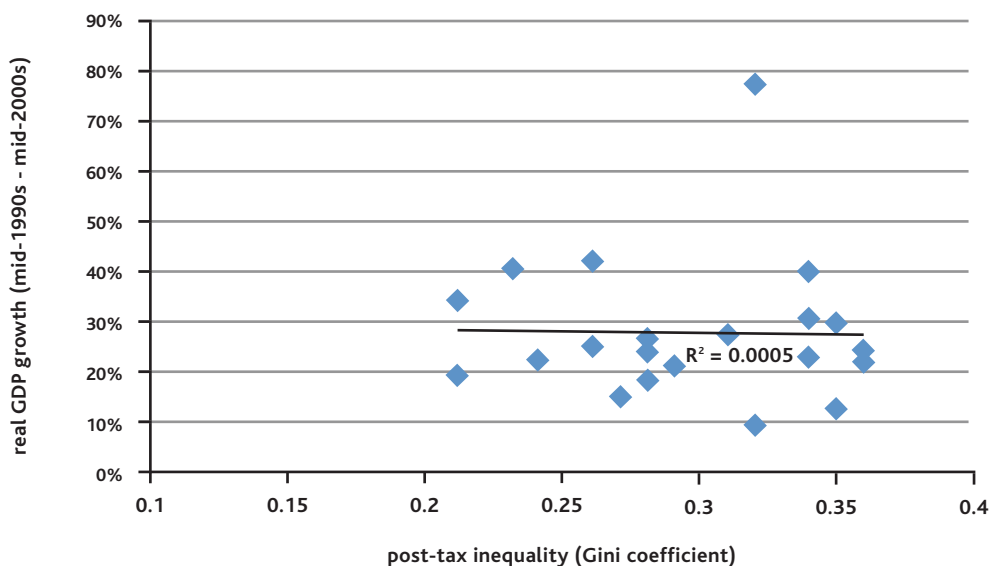
While the 'state of the art' in terms of modelling the relationship between inequality and economic performance uses advanced regression techniques on cross-country data, it is useful to start with a basic two-way 'scatterplot' of the relationship between income inequality and economic growth in a selection of developed countries using the most up-to-date data available⁷.

Figure 3 uses data from the Organisation for Economic Cooperation and Development (OECD), which has spent considerable time putting together consistently defined data on inequality for a selection of countries. The figure includes data for all Western European countries in the OECD database, plus the USA, Canada, Japan, Australia and New Zealand. The horizontal axis of the scatterplot shows post-tax inequality in the mid-1990s for each country (measured using the Gini coefficient) while the vertical axis shows total growth of GDP per head over the decade between the mid-1990s and mid-2000s⁸. Inequality in the OECD sample ranges between the most equal countries, Denmark and Sweden (both with Ginis of 0.21) and the least equal, the US and Portugal (both with Ginis of 0.36). Meanwhile, compounded growth rates over the decade ranged from 11 per cent (for Switzerland) to 77 per cent (for Ireland).

If there is a simple trade-off between equality and efficiency at the levels of redistribution in the OECD countries, the idea is that this diagram should show that. Countries that were “too equal” in the mid-1990s would be expected to grow more slowly than countries that were more unequal.

In fact, Figure 3 shows *no relationship whatsoever* between equality and economic growth. The straight line through the points on the graph is a trend line: it is almost completely flat. There seems to be no trade-off whatsoever from this simple look at the evidence. (Extending the series for GDP growth to 2009, to take account of the recent global economic crisis and recession, makes almost no difference to the results.)⁹

Figure 3. Inequality (mid-1990s) and growth (mid-1990s to mid-2000s) in developed OECD countries



“R²=0.0005” means that only 0.05 per cent – five ten-thousandths – of the variation in the points on the graph can be explained by a linear relationship between inequality and growth.

Of course, this is a simplistic analysis which does not control for any of the other factors which might affect growth (or inequality). Fortunately, there is a large amount of academic research using *regression models* (which control for other factors, such as industrial structure and population demographics) to analyse the impact of inequality on economic growth in a more systematic way.

Overall, the empirical evidence is mixed. Over the last 15 years or so, the papers showing a positive relationship between inequality and growth (as inequality rises, growth rises) have been outnumbered by those showing a negative relationship (as inequality rises, growth falls)¹⁰. But the minority of papers showing a positive relationship – or no relationship at all is not negligible. The empirical analysis of the relationship is complicated by several factors:

- **The direction of causality.** It is fairly clear that causation could run both ways – i.e. it is entirely possible that economic growth will affect inequality. For example in the UK the distribution of pre-tax income has changed markedly over the 1980s, 1990s and 2000s as top incomes have pulled away from the rest. But in the wake of the financial crisis of 2008/09 incomes at the very top actually *fell* (Joyce *et al*, 2010).
- **The quality of data.** There is a good deal of controversy about how good the data on inequality are for different countries, and whether they are comparable (see Deaton 2003 for an excellent survey).
- **Conflation of developed and developing countries.** Ever since the pioneering work of Kuznets (1963) it has been widely believed that countries will go through a stage of increased inequality as they industrialise and workers move from low-paid agricultural jobs to (relatively) high paid industrial jobs. In fact, there is widespread evidence from development economics that the relationship between growth and inequality in developing countries is more complex than this¹¹. Nonetheless, many cross-country regression studies use countries at vastly different stages of economic development in the same regression and this makes them much less useful for drawing policy conclusions about the relationship between inequality and growth in an advanced industrialised country like the UK.

The cross-country econometric evidence on the relationship between inequality and economic growth offers a degree of support for the idea that there might in fact be a 'negative trade-off.' In other words, redistribution of income might *increase* economic performance - at least for the amounts of redistribution typically seen in advanced industrialised countries. But we should note that the evidence is not wholly conclusive – as we have seen, the evidence base is very mixed and there are methodological problems with much of the research.

An alternative empirical strategy for looking at the relationship between inequality and growth specifically in advanced countries is taken by the sociologist Lane Kenworthy in his recent book *Jobs With Equality* (Kenworthy 2008). Kenworthy focuses on a set of twelve developed countries¹² chosen to reflect a range of political and socio-economic institutional settings, and combines graphical analysis of the type shown in Figure 3 of this paper with more sophisticated econometric techniques to tease out the causal links (if any) between greater equality, economic growth and also other economic outcomes such as the degree of employment in each economy.

Kenworthy's overall findings are that there is essentially no strong relationship between income inequality and either economic growth or labour market performance. He argues that countries can achieve good performance on economic growth with *either* a 'Anglo-Saxon' economic system based on relatively unregulated labour markets and prioritising

growth in low-end service jobs (such as we see in the USA for example), or a 'Nordic' model based on increased redistribution through the tax and benefit system, greater reliance on public sector employment, and state support for childcare and employment regulations such as paid maternity leave which encourage high levels of employment among mothers (as is typified by countries like Sweden). Both these types of economy seem to perform well in terms of growth and employment creation, but the Nordic countries manage to combine strong economic performance with low inequality in a way that seems impossible in the USA or Britain¹³.

As regards purely economic measures of countries' performance, there seems to be no support for the notion of a trade-off between greater equality and greater economic efficiency – indeed, depending on which empirical results we choose to believe, there may even be a trade-off in the reverse direction, whereby countries with lower inequality do slightly better controlling for other factors. How could standard economic theory have got it so wrong? This pamphlet examines alternative economic models which can rationalise the empirical results shown below. But first it is useful to look at relationships between inequality and other, not purely economic, outcomes.

2 *Income inequality and health and social outcomes*

There is a huge amount of academic research looking at the relationship between inequality and various dimensions of health across different countries and by geographical area within individual countries (for example, across US states). Most of this literature is from the academic discipline of epidemiology (the science which looks at factors affecting the health and illness of populations), although there are also substantial contributions from economics and other social sciences.

The most important single contribution to the epidemiological research base comes from Richard Wilkinson and Kate Pickett, whose book *The Spirit Level* presents evidence developed countries with high levels of inequality perform worse on a range of health indicators than developed countries with lower levels of inequality (Wilkinson and Pickett 2010a). The analysis is based on a combination of two-way scatterplots (of the type used in Figure 3 of this pamphlet) and detailed meta-analyses of existing academic studies¹⁴. *The Spirit Level* shows clear correlations between greater income inequality and worse outcomes on a range of health measures across countries. In particular, Wilkinson and Pickett find that more equal developed countries have lower rates of mental illness, higher average life expectancy, lower levels of infant mortality and a lower incidence of obesity than highly unequal developed countries.

Wilkinson and Pickett also apply the same technique to a range of social outcomes outside the health sphere and find equally strong correlations between income inequality and worse outcomes on most of these other indicators. For example:

- Levels of trust in other people are lower in countries that are more unequal.
- Countries with more inequality have lower women's status (on a composite measure of women's political participation, women's employment and earnings, and women's social and economic autonomy).
- Countries with more inequality spend less on foreign aid as a proportion of GDP.
- Maths and literacy scores for schoolchildren are lower in countries that are more unequal.
- Teenage birth rates are higher in countries that are more unequal.
- Countries with greater inequality have higher rates of homicides relative to population size.
- Countries that are more unequal have larger numbers of prisoners per head of the population.
- The extent of social mobility is lower in countries with higher inequality. This means that children born into relatively poor families in more unequal countries are more likely to remain poor as adults than children raised in equivalent circumstances in more equal countries.

Very recently, the analysis in *The Spirit Level* has been subject to strong criticism from researchers on the right of the political spectrum, which Wilkinson and Pickett have responded to in detail (see this appendix [www.tuc.org.uk/Spirit_Level_Criticisms] for details).

Recent research from the OECD published in its *Society At A Glance* report in April 2011 also examines the relationship between inequality and performance on a number of social indicators for a sample of over thirty developed countries across the world. The OECD research finds correlations that support Wilkinson and Pickett's arguments across a number of indicators including trust and confidence in national institutions, infant mortality and life expectancy, using more up-to-date data than were available to Wilkinson and Pickett.

If the analysis in *The Spirit Level* and the OECD's recent work – and the large volume of research from epidemiology and other social sciences such as criminology that backs it up – is correct, it makes a powerful case for greater equality in developed countries. After all, national income per head is far from being the only measure of well-being that people care about. The kind of health and social outcomes that Wilkinson and Pickett analyse are important indicators of quality of life, progress and social cohesion in any economy. It seems likely that there would be strong public support for reducing inequality from the levels we see today in the UK if there were proven health and social benefits, *and* no economic costs to greater redistribution (as seems to be the case – at the very least – from the survey of the economic evidence earlier in this pamphlet).

This pamphlet has established that:

- there appears to be no trade-off between greater equality and economic efficiency in developed economies
- as *The Spirit Level* and OECD research suggest, greater equality is actually linked to *better* health and social outcomes across a range of different measures for different economies.

3 Why does greater equality not mean worse economic performance?

The first section of this pamphlet looked at why the conventional economist's view of the inevitable trade-off between equality and efficiency is not borne out by the empirical facts. This section looks at theories across the social sciences that might be able to explain why greater equality is good for developed economies. Although the pamphlet discusses the economic and social spheres of research separately, it is important to remember that there are clear links between the two. For example, one reason why there seems to be no trade-off between equality and economic efficiency may be because the improved health and social outcomes that result from greater equality counterbalance any adverse incentive effects of greater redistribution. Unfortunately there is (as yet) no empirical study or meta-analysis which attempts to assess economic, health and social factors "in the round" to ascertain the relative importance of these effects (probably because the data requirements for such a study are so stringent).

The big surprise (to conventional economists, at least) emerging from empirical evidence on the relationship between inequality and economic efficiency in developed economies is that *there is no trade-off* between the two as far as we can tell. Countries that are more equal do no worse on growth than less equal countries. Indeed, to the (limited) extent that the evidence does suggest a pattern, it is that countries that are more equal have *better* economic performance. Fortunately, there are a range of more sophisticated theories that predict that economies that are more equal will perform *better* (in some specific way) than less equal economies. It may well be that some combination of conventional theory and newer theories can explain the empirical results we see; the beneficial effects of greater equality cancel out (or perhaps more than cancel out) any adverse incentive effects of redistribution. This section briefly discusses the main theories that associate greater equality with better economic performance.

Inappropriate rewards

One of the drivers for the alleged trade-off between equality and efficiency in conventional economic thinking is that redistributive taxation reduces net earnings and hence distorts the incentive to work. This analysis starts from the premise that in an unregulated (and untaxed) labour market, workers' pay is equal to the value of the output they produce – the so-called 'marginal productivity theory' of remuneration.

However, the marginal productivity theory of wages raises several big issues in both the UK and US, which have seen increases in remuneration for top business executives unmatched in any other developed economies. Between 1980 and the mid-2000s, the ratio of CEO pay to average factory worker pay in the US rose from around 50:1 to about 400:1 (with a peak of over 500:1 during the 'dot com' boom of the late 1990s (Institute for Policy Studies, 2008). In the UK, the ratio of CEOs' pay to average workers' pay rose from 10:1 in 1980 to about 75:1 in 2006 (Isles, 2007). Can these huge remuneration packages be justified in terms of increased productivity for business executives since 1980? It seems most unlikely. For one

thing, there is little evidence that UK and US businesses have performed significantly better than continental European or Japanese businesses over the last few decades – certainly a simple comparison of GDP growth rates for countries with different remuneration practices for their executives does not show any clear pattern either way.

The most significant challenge to the notion that mega-salaries at the top end of the labour market are deserved on productivity grounds emerged in the financial crisis of autumn 2008, when the global banking system came close to collapse. Banking executives like the Royal Bank of Scotland's Sir Fred Goodwin and Northern Rock's Adam Applegarth, who had presided over losses of billions of pounds and a corporate failure of catastrophic proportions, walked away from the crisis with multi-million pound payoffs. Arguably, if Sir Fred Goodwin had been remunerated according to his "marginal productivity" his salary should have been *negative*.

If the rewards for high earners are completely out of kilter with the value of what they actually produce, a key assumption of the conventional economic analysis is invalid, and it is not surprising that we find no relationship between net earnings and economic performance¹⁵.

Recent work by the economists Ian Dew-Becker and Robert Gordon (2008) finds that in the US, the huge increases in CEO pay of recent decades can only be explained partially, at best, by increased productivity – the rest is explained by "a managerial power hypothesis that drives executive pay well above the market solution"¹⁶. To a lesser extent, the same is almost certainly true in the UK.

The true effects of taxation

The evidence from empirical analysis of the impact of high marginal rates of income tax is that the impacts on work effort are limited but that there can be substantial impacts on tax *revenue* because of tax avoidance and evasion. However, many of the avenues for avoidance and evasion can be closed off, or at least minimised by good tax system and design. For example, a 28 per cent top rate of Capital Gains Tax, while the top rate of income tax is 50 per cent (as was the case from June 2010 onwards¹⁷) vastly increases the incentive for high-paid people who are able to receive their remuneration as capital gains rather than income, to do just that (e.g. private equity partners). Thus, the main issue is how to design the tax system to maximise tax revenues rather than needing to increase efficiency. (See the linked Touchstone blog post on *The Impact of the 50p Income Tax Rate* for more details on this topic.)

Inequality and volatility

Several cross-country empirical studies find a positive relationship between the degree of economic inequality and *volatility* in economic performance across time in different countries¹⁸. That is to say, countries with higher levels of inequality tend to have more pronounced business cycles than countries with greater equality.

George Irvin (2008) and Stewart Lansley (2008) have pointed to the growth in the numbers of super-rich people in countries like the US, UK and Ireland; this may contribute to increased volatility because of the increase in the proportion of savings in these countries going into high-risk investment funds. These funds tend to rely on funding from a small number of very wealthy investors and this funding is then leveraged to a great degree through investment strategies involving complex financial instruments (such as derivatives or Collateralised Debt Obligations) which contribute towards greater

likelihood of a financial collapse such as happened in 2008. While it is important to realise that high risk funds were *not* the sole cause of the banking crisis of 2008 – there were much bigger commercial banks involved in the same kinds of investments – they can accentuate volatility in some circumstance (for example by 'short-selling' shares in banks and other companies that are known to be vulnerable to insolvency).

Increased volatility is generally held to be bad for economic growth because it increases uncertainty and reduces business investment¹⁹. Thus, high degrees of inequality could reduce growth via their effect on volatility.

Inequality of life chances

As Wilkinson and Pickett have shown, and several other studies have confirmed²⁰, countries with greater inequality of incomes tend to be less socially mobile, in the sense that children from poor backgrounds are more likely to stay poor in later life and vice-versa for children from rich backgrounds. This lack of social mobility could have an economic cost if it means that jobs in a country are more likely to be allocated on the grounds of parental background – for example, if the "old school tie network" is strong – rather than on a more meritocratic basis. In other words, lower social mobility could lead to inefficient "sorting" and "matching" of the working population into job openings that are suitable for them²¹.

Innovation

Wilkinson and Pickett's work in *The Spirit Level* shows a significant positive correlation between how equal a country is and the degree of *innovation* that takes place there (measured as the number of patents per head of population)²². Given that innovation is believed to be a key determinant of the rate of economic growth by most economists, a higher level of innovation in more equal countries would fly in the face of the conventional orthodoxy.

Recent work in the academic discipline of business studies suggests that it may be that the 'social distance' between workers in different professions and disciplines and at different levels of the company hierarchy in workplaces may be an important determinant of the capacity of firms to innovate²³. Research by Lundvall (2006) suggests that national economies with larger degrees of 'social distance' between different sections of the workforce may find it harder to be innovative because the complementarities between people in the workplace with different skills and knowledge bases are not fully exploited. In the same vein, Arundel *et al* (2007) find a positive correlation in cross-country data between the proportion of employees engaged in advanced forms of learning at the workplace and the percentage of private sector enterprises successful in the forms of innovation requiring high levels of in-house creative activity.

If these findings are correct, then a move towards greater equality which puts workers and managers in UK workplaces on a more equal footing – for example, greater participation by the workforce in decision-making processes – could facilitate more innovation and higher rates of growth. Furthermore, to the extent that inequalities of pay and status between managers and workers in firms increase, this could actually have a negative impact on firm performance because it creates greater 'social distance' between different parts of the workforce, and hence less innovation.

Unequal political influence

In countries like the UK and the US where there are relatively few restrictions on the amounts individuals, corporations or other organisations can donate to political parties, increases in income and wealth inequality are likely to have a knock-on impact on inequalities in political campaign financing, perhaps helping wealthy individuals and/or corporations spend their way to victory against less generously financed opponents. For example, the Conservatives were much better funded in 2010 than either the Labour Party (which is now around £20 billion in debt) or the Liberal Democrats. This funding imbalance – partly a result of substantial funding from the Conservative deputy chairman Lord Ashcroft – may have affected the result of the General Election.

In countries like the US, where inequality is more extreme than the UK, there is clear evidence that the imbalance in political funding led to the promotion of tax breaks which benefited the richest one per cent or so of the population much more than any other group; for example, reductions in the top rate of federal income tax, and the phased abolition of the estate tax (see for example, Galbraith 2008). These tax cuts have clearly contributed to the large structural federal budget deficit that currently exists in the US, which is likely to have adverse consequences for growth if not reduced. To the extent that imbalances in political funding and influence cause policies to be followed which are not in the interests of the majority of voters, this can have an adverse effect on prosperity.

4 Why does greater inequality mean worse health and social outcomes?

If the failure to find any negative relationship between equality and economic efficiency is challenging to the conventional economists' view, the strong evidence for a *positive* relationship between equality and a host of beneficial health and social outcomes is potentially revolutionary. For it implies that by introducing policies to reduce economic inequalities, policymakers can actually *increase* the efficiency of the economy. Moreover, there is a wide range of theories in the academic literature as to what the causal links between greater equality and better health and social outcomes are. This section briefly outlines two alternative theories – which could both be true to some extent.

An evolutionary instinct for fairness?

As Wilkinson and Pickett point out, the extreme levels of income and asset inequality in modern industrialised societies are the exception, rather than the norm, within the long sweep of human history. For over 90 per cent of the total period when humans have been in existence (somewhere between one and two million years according to the latest scientific estimates), they lived in highly egalitarian hunter-gatherer societies. It was only the invention of agriculture and technologies for storing food – and much later, the development of industry – that gave rise to societies that could produce a surplus over and above the amount necessary to meet basic human needs.

If humans evolved to be psychologically comfortable with egalitarian social groupings, then the extreme inequalities that are characteristic of modern capitalism may be quite unnatural to us. There is some evidence from a number of different disciplines that many people find inequality troubling. To give two examples:

- **Neuroscience.** Experiments using brain scans have shown that in people who experience a high degree of social exclusion the same areas of the brain are stimulated as when someone experiences physical pain (Eisenberger and Lieberman, 2004).
- **Experimental economics.** Evidence from an economic experiment known as the 'ultimatum game' suggests that most people are not completely self-interested individuals, but rather that they have a natural aversion to inequality. [For more information about the 'ultimatum game' see www.tuc.org.uk/experimental_economics]

These kinds of results have led academics in several different disciplines to endorse the idea that there may be an "instinct for fairness" as first postulated by the evolutionary biologist Robert Trivers in his paper "The Evolution of Reciprocal Altruism" (Trivers 1971)²⁴. If this hypothesis is correct, then it could be an important factor explaining why greater inequality is correlated with increased health and social problems.

Although the circumstantial evidence for this link is strong, researchers in the social sciences still have relatively little understanding of the exact causal mechanisms by which greater inequality translates into worse health, increased crime or other bad outcomes. Nonetheless,

we would be extremely foolish to dismiss the notion of an instinct for fairness as some critics on the right have done. As the volume of research and the quality of data available to look at this issue increases it is quite possible that the existence of a fairness instinct will be explicitly proven in the future.

Relative incomes and deprivation

One puzzle in the epidemiology literature which Wilkinson and Pickett devote time to addressing in *The Spirit Level* is that for each developed economy, a range of health and social problems have an 'income gradient' within the economy – that is to say, the higher an individual's income in the UK (for example), the higher their life expectancy is. However, across economies, for developed (rather than developing) countries, differences in average income for each country appear to have no strong link with the same range of health and social problems. Thus, across developed countries there is no relationship between average income per head and average life expectancy at any one point in time (although life expectancy is growing in developing countries *over time*). Why should differences in income matter for health and social outcomes within a society but not across societies? The implication is that it is the level of income that a person or household has *relative* to others in society – rather than in absolute terms – which affects health and social outcomes.

One possible mechanism to generate this could be the "instinct for fairness" discussed above. But it is important to realise that there are other potential causal channels for a relative income effect that do not necessarily involve psychological mechanisms. Take, for example, healthcare provision. In many countries healthcare is provided through insurance schemes of some kind, and the level of care provision depends to an extent on household income²⁵. If inequality increases, by definition it is likely to increase the number of people with incomes a long way below the average income in a society. If the average quality of healthcare (or other social provision) which a household has access to depend on the household's income relative to the average, increases in inequality will leave the poorest further behind the rest. If the quality of outcome depends on *relative* incomes, this will inevitably mean that quality of service provision suffers for the least well off. This type of effect can also occur in services where quality of provision depends on location – for example state education, where there is a large body of research indicating that house prices in the catchment areas for good schools are much higher²⁶. Increases in income inequality are likely to feed into house price differentials, leaving poor households with even less chance of moving into areas with high-quality service provision.

Increases in inequality that leave the poorest households further behind everyone else can explain why inequality affects health and social outcomes for people below average incomes. However, Wilkinson and Pickett find that health and social outcomes are worse *across most of the income distribution* – including for households at average income and even above average incomes – in countries with greater inequality. Can relative income effects explain this finding? Possibly, if increased inequality is partially due to big increases in the incomes of the richest segment of the population – the "super-rich". If increased inequality is driven by very fast income growth among a small number of super-rich, most people will find themselves relatively worse off, even if their incomes increase in absolute terms.

Robert H Frank (2005) suggests that something of this kind occurred in the US in the 1990s and early 2000s, as huge increases in remuneration for the super-rich increased the demand for top-end housing. This fed through into higher house prices across the board in the US, even though median incomes in the US rose much more slowly than top incomes over this period²⁷. This led to increased debt in the US which meant households had to spend more

money servicing their mortgage payments and had less available for other commodities. A similar mechanism was almost certainly at work in the UK during the years leading up to the financial crisis of 2008.

Psychological effects or relative income effects?

In summary, increased inequality in a society means, at the very least, a larger number of people with lower *relative* income compared with the average. To the extent that *relative* incomes are important determinants of health and social outcomes in developed countries (which seems to be the case from a large body of empirical work in epidemiology, economics, and other social sciences), increased inequality can make large sections of society worse off. This is essentially an alternative interpretation of Wilkinson and Pickett's results that does not rely on psychological negative impacts of inequality resulting from an "instinct for fairness."

These explanations are not incompatible, and they may both be true to some extent. For the moment, it is still not clear from existing empirical evidence just what the relative importance of psychological and resource-based explanations of the link between inequality and worse health and social outcomes is. However, whatever the exact mechanism through which inequality has an effect, there is no doubt it has an effect. And given that the existence of the negative relation between inequality and outcomes seems certain, the most important question for policymakers is: what can the UK government do to reduce levels of inequality?²⁸ It is to this question that we finally turn.

5 Conclusions and implications

Based on a thorough review of the empirical evidence on the links between inequality and a range of economic, social and health outcomes in developed countries, this paper concludes that reducing inequality would have widespread positive benefits to the UK.

We do *not* have to tolerate greater inequality to ensure enhanced economic performance. Quite the reverse in fact: there is good evidence that the high level of inequality in the UK is responsible for lower life expectancy, increased infant mortality, higher homicide rates, lower degrees of trust between citizens, and a range of other negative outcomes in the nation's health and social cohesion.

Reducing inequality should be a priority for government policy. In particular, if at all possible, policymakers should look at limiting the extent to which the super-rich are allowed to continue 'racing away' from those on average incomes in the United Kingdom, as there is considerable evidence that this particular feature of the last thirty years of British economic history is particularly damaging, leading to a range of problems including greater inequality of life chances, inequalities in political influence and quite possibly lower growth and lower innovation than if we were a more equal society.

At the top end of the pay distribution, there is a need to look at whether top incomes really do reflect productivity and economic performance, given the considerable volume of empirical evidence that casts doubt on this possibility. The recent launch of an independent High Pay Commission²⁹ is a very promising idea in this regard.

It is also important to address loopholes in the tax system that allow certain highly paid workers to pay a lower rate of effective tax than other people on the same gross earnings. For example, the top rate of Capital Gains Tax should be much more closely aligned with income tax than it is at the moment, to close an obvious loophole in the tax system. (The Coalition Government's decision to increase the top rate of CGT to 28 per cent in the June 2010 Budget is an important first step in this regard. We also need to look at the taxation of self-employed people and one-person companies (both of whom pay a lower aggregate rate of tax than employees).

Policymakers need to look at other dimensions of inequality as well. For example, the Fawcett Society requested a judicial review of the June 2010 Budget on the grounds that the government failed to conduct a proper audit of its impact on gender inequalities (although this was eventually rejected by the courts on the grounds that it was not a suitable subject for such a review). Around the same time, an analysis requested by Yvette Cooper (then the Shadow Work and Pensions Secretary) from the House of Commons library suggested that the Budget redistributed from women to men.

At the same time, it is important to consider the implications of policy for equality of *resources* more widely than just income. For example, recently published TUC-funded research by Tim Horton and Howard Reed³⁰ has shown that the £71bn of spending cuts planned by the

current government by 2014/15 will have a much bigger effect on the poorest households than the richest. On top of cuts in benefit for some of the most vulnerable people, there is a real risk that the coalition government's policies could hugely increase inequality in the UK, with damaging consequences for prosperity and social cohesion in future decades. And subsequent analysis by Horton and Reed for the Women's Budget Group has confirmed that the spending cuts will exacerbate gender inequalities³¹.

Bibliography

- Aghion, P., E. Caroli and C. García-Peñalosa (1999), "Inequality and Economic Growth: The Perspective of the New Growth Theories", *Journal of Economic Literature*, Vol 37, pp 1615-1660.
- Arundel A., Lorenz E., Lundvall, B.-Å. and Valeyre A. (2007), "How Europe's Economies Learn: a comparison of work organization and innovation mode for the EU-15", *Industrial and Corporate Change*, vol. 16, no. 6.
- Axelrod, R. and W. Hamilton (1981), "The Evolution of Co-operation", *Science*, Vol 211 No 4489, pp 1390-1396.
- Barro, R. (2000), "Inequality in a Panel of Countries", *Journal of Economic Growth*, Vol 5 No 1, pp 87-120.
- Blanden, J., P. Gregg and S. Machin (2005), *Intergenerational Mobility in Europe and North America*. London: Centre for Economic Performance, London School of Economics.
- Bloom, N. , S. Bond and J. Van Reenen (2007), "Uncertainty and Investment Dynamics", *Review of Economic Studies*, Vol 74, pp 391-415.
- Bourguignon, F. (2004), "The Poverty-Growth-Inequality Triangle", paper presented at the Indian Council for Research on International Economic Relations, New Delhi, 4 Feb 2004.
- Bowles, S., R. Boyd, E. Fehr and R. Gintis (2003), "Explaining Altruistic Behavior in Humans", *Evolution and Human Behavior* Vol 24, pp 153-172.
- Breen, R. and C. García-Peñalosa (2005), "Income Inequality and Macroeconomic Volatility: An Empirical Investigation", *Review of Development Economics*, Vol 9 No 3, pp 380-398.
- Charness, G. and E. Haruvy (2002), "Altruism, Equity and Reciprocity in a Gift Exchange Experiment", *Games and Economic Behavior*, Vol 40 No 2, pp 203-231.
- Deaton, A. (2003), "Health, Inequality and Economic Development", *Journal of Economic Literature*, Vol 41, pp 113-158.
- Dew-Becker, I. and R. Gordon (2008), "Controversies about the Rise of American Inequality: A Survey". NBER Working Paper 13892. Cambridge, MA: National Bureau of Economic Research.
- Eisenberger, N. and M. Lieberman (2004), "Why Rejection Hurts", *Trends in Cognitive Science*, Vol 8, pp 294-300.
- Fehr, E., U. Fischbacher and S. Gächter (2002), "Strong Reciprocity, Human Cooperation and the Enforcement of Social Norms", *Human Nature*, pp 1-25
- Frank, R. (2007), *Falling Behind: How Rising Inequality Harms the Middle Class*. Berkeley: University of California Press.

- Galbraith, J. (2008), *The Predator State: How Conservatives Abandoned the Free Market and Why Liberals Should Too*, New York: Free Press.
- Gallucci, M. and M. Perugini (2002), "Information Seeking and Reciprocity: A Transformational Analysis", *European Journal of Social Psychology*, Vol 33, pp 473-495.
- Gibbons, S. and Machin, S. (2003), "Valuing English Primary Schools", *Journal of Urban Economics*, Vol 53 No 2, pp 197-219.
- Glyn, A. and Harrison, J. (1980), *The British Economic Disaster*. London: Pluto Press.
- Horton, T. and Reed, H. (2010) "The Distributional Impact of the 2010 Spending Review", *Radical Statistics*, Issue 103.
- Irvin, G. (2008) *Super Rich: The Rise of Inequality in Britain and the United States*. Cambridge: Polity.
- Joyce, R., A. Muriel, D. Phillips and L. Sibieta (2010), *Poverty and Inequality in the UK: 2010*, London: Institute for Fiscal Studies. Online at www.ifs.org.uk/publications/4877
- Kenworthy, L. (2008) *Jobs with Equality*. Oxford: Oxford University Press.
- Kraay, A. (2006), "When is Growth Pro-Poor? Evidence from a Panel of Countries", *Journal of Development Economics*, Vol 80,
- Krugman, P. (2009) *The Conscience of a Liberal: Reclaiming America from the Right*. London: Penguin.
- Kuznets, S. (1963) "Quantitative Aspects of the Economic Growth of Nations", *Economic Development and Cultural Change*, vol 11 no 2, pp 1-80.
- Lansley, S. (2008), *Do the Super-Rich Matter?* TUC Touchstone Pamphlet No 4. London: Trades Union Congress.
- Layard, R. (2005), *Happiness: Lessons from a New Science*, London: Penguin.
- Le Grand, J. (2006), "Equality and Choice in Public Services", *Social Research*, Vol 73 No 2, pp 695-710.
- Lotem, A., M. Fishman and L. Stone (2002), "From Reciprocity to Unconditional Altruism Through Signalling Benefits", *Proceedings of the Royal Society*, Vol 270, pp 199-205.
- Lundberg, M. and L. Squire (2003), "The simultaneous evolution of growth and inequality", *Economic Journal*, Vol 113, pp 326-344.
- Lundvall, B.-Å. (2006), "Interactive Learning, Social Capital and Economic Performance", in D. Foray and B. Kahin (eds) *Advancing Knowledge and the Knowledge Economy*, Cambridge, MA: Harvard University Press.
- Institute for Policy Studies/United for a Fair Economy (2008), "Executive Excess 2008: The 15th Annual CEO Compensation Survey". Washington DC: Institute for Policy Studies. Online at www.faireconomy.org/files/executive_excess_2008.pdf
- Isles, N. (2007), *The Risk Myth: CEOs and Labour Market Risk*. London: The Work Foundation. Online at www.theworkfoundation.co.uk/assets/docs/publications/146_The%20risk%20myth.pdf
- Organisation for Economic Cooperation and Development (OECD) (2011), *Society at a Glance*. Paris: OECD.

Rawls, J. (1971), *A Theory of Justice*. Harvard University Press.

Saunders, P. (2010), *Beware False Prophets: Equality, the Good Society and the Spirit Level*. London: Policy Exchange. Online at www.policyexchange.org.uk/publications/publication.cgi?id=195

Snowdon, C (2010), *The Spirit Level Delusion: Fact-Checking the Left's New Theory of Everything*, Democracy Institute/Little Dice.

Taxpayers' Alliance (2010), *The Spirit Illusion: A Critical Analysis of How "The Spirit Level" Compares Countries*, London: Taxpayers' Alliance. Online at www.taxpayersalliance.com/spiritillusion.pdf

Trivers, R. (1971), "The Evolution of Reciprocal Altruism", *Quarterly Review of Biology*, Vol 46, pp 35-57.

Wan, G., M. Lu and Z. Chen (2006), "The Inequality-Growth Nexus in the Short and Long Run: empirical evidence from China", *Journal of Comparative Economics*, Vol 34, pp 654-667.

Wilkinson, R. and Pickett, K. (2010a), *The Spirit Level: Why Equality is Better for Everyone*. London: Penguin.

Wilkinson, R. and Pickett, K. (2010b), "Reply to Critics", London: Equality Trust. Online at www.equalitytrust.org.uk/docs/responses-to-all-critics.pdf

Notes

- 1 Two good examples are: (a) Nick Pearce, 'A defining budget II: It is simply incredible to call this "fair"', 22 June 2010, www.opendemocracy.net/ourkingdom/nick-pearce/defining-budget-ii-it-is-simply-incredible-to-call-this-fair and (b) James Brown and Peter Levell, 'The distributional effect of tax and benefit reforms to be introduced between 2010 and 2014: a revised assessment', IFS Briefing Note, www.ifs.org.uk/publications/5246
- 2 For more evidence on the distributional impact of tax, benefit and tax credit measures introduced in the June 2010 Budget and October 2010 spending review, see James Browne, 'Distributional impact of tax and benefit changes, IFS post-Spending Review presentation, October 2010, www.ifs.org.uk/publications/5313
- 3 The Gini coefficient is a measure of the inequality of a distribution, ranging from 0 for complete equality (a situation where all households have the same income) to 1 for complete inequality (where one household has all the income and all other households have nothing). See en.wikipedia.org/wiki/Gini_coefficient.
- 4 Source: British Social Attitudes Survey, accessed online at www.britisocat.com
- 5 Although there have been exceptions; see for instance Glyn and Harrison (1980).
- 6 Although based in neoclassical economics and the philosophical tradition of utilitarianism, the equality/efficiency trade-off has had an influence well beyond either sphere. For example the Harvard philosopher John Rawls's argument that inequalities are justified only to the extent that they improve the position of the least well-off person or group in society (Rawls, 1971) is profoundly non-utilitarian, but nonetheless justifies some degree of inequality in society because too much redistribution reduces economic efficiency to the point where the poorest are actually made worse off.
- 7 We restrict the analysis here to developed countries because, as the economist Simon Kuznets (1963) pointed out, there are good reasons to think that inequality might rise temporarily in industrialising countries as a large proportion of the workforce moves from agriculture (where wages are relatively low) to urbanised manufacturing and services (where wages are higher). Later on, once this process is well advanced, inequality is likely to fall again because most of the workforce has moved out of the agricultural sector.
- 8 To smooth out year on year fluctuations in income, the analysis uses growth between the average of GDP for the years 1993-97 inclusive and 2003-07 inclusive.
- 9 If GDP growth from 1995 to 2009 is used on the horizontal axis, the R² is virtually unchanged at 0.0003.
- 10 Aghion *et al* (1999) present a comprehensive review of empirical regression studies on the relationship between inequality and growth in the 1990s. For more recent results see Barro (2000), Lundberg and Squire (2003), Kraay (2006), Bourguignon (2004), Wan *et al* (2006).

- 11 See Aghion *et al* (1999) and Lundberg and Squire (2003) for more details.
- 12 Specifically, Kenworthy analyses four “Anglo” countries (the UK, US, Australia and Canada), four “Nordic” countries (Denmark, Finland, Norway and Sweden) and four “continental European” countries (France, Germany, the Netherlands and Italy).
- 13 It should be pointed out however that the UK is different from the USA in some important respects. The degree of redistribution through the benefit and tax credit system is higher and there has been greater growth in public sector employment over the last decade in the UK compared with the USA, as well as a modest re-regulation of the labour market.
- 14 A meta-analysis is a review of all the relevant academic research on a given topic – considered more reliable than a single piece of empirical evidence because it takes a large number of empirical studies into account rather than just one study.
- 15 More evidence for this position is provided by the fact that the one-off bankers’ bonus tax raised substantial amounts of money – perhaps as much as £2bn – despite predictions that its yield would be minimal. See for example “Tax yield from bankers’ bonuses will top £2bn”, *The Guardian*, 28 Feb 2010. www.guardian.co.uk/business/2010/feb/28/bonus-tax-receipts-exceed-estimate
- 16 To elaborate, Dew-Becker and Gordon point to “the ample literature arguing that CEO pay is not set by the market, but rather is set by gifts from peer CEOs who sit on compensation committees, and because the bulk of CEO and top-executive compensation since the late 1990s consists of stock options which in a significant number of cases have been fraudulently manipulated.” (Dew-Becker and Gordon, 2007)
- 17 The top rate of Income Tax was raised to 50% in the March 2009 Budget, but the increase did not come into effect until the 2010-11 tax year. Meanwhile, the top rate of Capital Gains Tax was increased from 18 to 28 percent by George Osborne in the June 2010 Budget, following discussions with the Liberal Democrats, whose manifesto contained a proposal to increase taxes on capital gains.
- 18 See for example Breen and Garcia-Penalosa (2005).
- 19 See for example Bloom, Bond and Van Reenen (2007).
- 20 The most recent evidence for the UK comes from Blanden, Gregg and Machin (2005).
- 21 Obviously, this kind of analysis assumes a closed economy and it may be that increased immigration of skilled workers could compensate for poor matching of domestic-born workers in the event of skills shortages.
- 22 The number of patents is only one measure of innovation and misses out many important innovative activities that firms, employees, managers and higher education institutions do (see for example NESTA 2008). Nonetheless, it is one of the most commonly used measures of innovative activity in empirical work.
- 23 I would like to thank Stian Westlake at NESTA for alerting me to the existence of this strand of literature.
- 24 The existence of and implications of reciprocal altruism have been studied in many different social sciences. See for example economics (Alexrod and Hamilton 1981, Bowles, Fehr and Gintis 2003) and psychology (Charness and Haruvy 2002, Gallucci and Perugini 2002). For more on the implications of reciprocal altruism in evolutionary biology see Fehr, Fischbacher and Gächter (2002) and Lotem, Fishman and Stone (2002).

- 25 This is not true – at least in theory – for NHS healthcare in the UK, which is free at the point of use. However, there is some evidence that people from higher social classes are better at finding their way round the NHS system and securing higher quality treatments (see for example Le Grand (2006)). Also, even in the UK important aspects of health care are means tested – old age care, for example (apart from in Scotland). In these areas, there is a clear income gradient in terms of quality of provision.
- 26 See Gibbons and Machin (2003). The research finds that on average, a one percentage point increase in the neighbourhood proportion of children reaching the government-specified target grade pushes up neighbourhood property prices by 0.67%.
- 27 And median earnings in real terms in the US have actually fallen since the early 1970s. See Krugman (2008).
- 28 Whether the effects of inequality arise through psychological channels or not is an important question for commentators who advocate certain types of policy response that would help if this were true, but not otherwise. For example, Layard (2005) advocates an expansion of Cognitive Behavioural Therapies (CBT) through the NHS to improve well-being in the population. To the extent that the effects of inequality are manifesting through psychological channels, effective provision of CBT could improve health and social outcomes without reducing inequality – treating the “symptom” rather than the “disease”, in a manner of speaking. But if inequality is having an effect largely through reductions in relative incomes for a large proportion of the population, CBT will be completely ineffective as a response to the health and social problems caused by inequality.
- 29 Online at www.highpaycommission.co.uk
- 30 TUC, “Where the Money Goes”, September 2010. Online at www.tuc.org.uk/extras/wherethemoneygoes.pdf. See also the updated analysis of the impact of the 2010 Spending Review by Horton and Reed (2010).
- 31 Women’s Budget Group, “WBG Response to Coalition Government’s Spending Review 2010”, www.wbg.org.uk/RRB_Reports_4_1653541019.pdf

The TOUCHSTONE Blog

Go to www.touchstoneblog.org.uk for informed and lively progressive comment on the big policy issues of the day. Blog posts are written by TUC experts with a passion for social justice.



Trades Union Congress
Congress House
Great Russell Street
London WC1B 3LS

www.tuc.org.uk

© 2011 TUC

Cover illustration: Lo Cole