



BANK OF ENGLAND

Speech

Whose Recovery?

Speech given by

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It is a great pleasure to be here in Port Talbot. I want to discuss the UK's economic fortunes. The past few weeks have been dominated by the run-up to the EU referendum vote and its aftermath. This has generated considerable uncertainty about the economy, about policy and about politics – a heady cocktail. I will come to those uncertainties, and their implications for monetary policy, at the end. But I wanted to start by assessing the UK's economic recovery so far, as this provides important context for what happens next.

Last year I visited Nottingham on one of my regular regional visits. As with today's, these visits are crucial for helping the Bank of England make sense of the economy. My first stop was a lunch for local business people. There, I spoke about the recovery in the UK economy over the past three years, the dramatic improvement in the jobs market and the high degrees of confidence among companies and consumers. This met with several knowing nods, a few furrowed brows and some gently probing questions. Overall it seemed we were all on the same economic page, if not always on the same paragraph or line.

My next visit was to a community centre in Nottingham with half a dozen local charities and community groups. This was something of a new departure for me. Typically, the Bank's regional visits have tended to focus on company contacts in the public and private sectors. I hoped speaking to this different group of organisations, drawn largely from the voluntary sector, might provide me with a different perspective on the fortunes of the economy, the jobs markets and degrees of confidence in the recovery. It did not disappoint.

I began by speaking about the UK's economic recovery. I never got as far as the improvement in the jobs market or surging confidence. I was stopped in my tracks by a forest of furrowed brows and a phalanx of probing questions, not all of them gentle. "What exactly do you mean by *recovery*?" one asked. "My charity is dealing with 50% more homeless people than three years ago." Every other charity in the room had similar stories to tell. Whether it was food banks, mental health problems or drug addiction, all of the numbers were up. The language of "recovery" simply did not fit their facts.

On subsequent regional visits, including this one in Wales, talking to companies, community groups and charities, I have encountered the same conundrum. For many, the economic recovery is visible and tangible - in sales, in jobs, in investment. But for others it is barely visible and for some non-existent. How to reconcile the macro data with these micro accounts? Were these stories outliers? Or was I neglecting an important missing ingredient in the UK's economic fortunes? Put differently, *whose* recovery were we actually talking about?

These questions have a particular resonance here in Port Talbot. Prior to the crisis, unemployment in the local area was similar to the Welsh and UK average at around 5%. But the region was hit hard by the recession, with unemployment peaking at 13% in 2014. Despite recent falls, it remains at 9% – well above its pre-crisis peak and levels in Wales and the UK. Today, over one in five households have no-one in work. Recent uncertainty about the future of the local steelworks, and the jobs of the 4,000 workers there, has further complicated the picture. Here in Port Talbot, the language of "recovery" may also fail to fit the facts.

Against that background, I want today to take a look at the performance of the UK economy over recent years. By slicing and dicing the data in different ways, it is possible to assess how different segments, sectors and regions of the UK have performed during the recovery. That means looking at aggregate metrics of economic health, such as income, employment and wealth. But a different lens is provided by looking at these metrics on a disaggregated basis and at non-standard measures of societal well-being.

Taken together, these disaggregated data tell a rather more nuanced story about the UK's recovery: a recovery which for most has been slow and low, for many partial and patchy and for some invisible and incomplete. This uneven economic surface helps reconcile the macro data and the micro stories from my regional visits – the “recovery puzzle”. It also has implications for what happens next to the economy in the light of the referendum, including monetary policy, on which I will conclude.

Why it Matters

Before turning to the data, it is worth spending a moment on why this matters. Why look at the distributional pattern of activity when monitoring the economy as a whole and when setting monetary policy? This might seem like a strange question. Surely the fortunes of different sectors and segments of society are important? Yet, at least viewed from one angle, the distribution of gains and losses across the economy and across society ought *not* to much matter, at least when it comes to setting monetary policy. Here is why.

The tools available to monetary policymakers, like the Bank of England, are small in number. The Bank can set only one interest rate – the interest rate on Bank of England money. This interest rate affects every region, every sector, every company and every individual that uses Bank money. In practice, this means pretty much everyone in the UK. In other words, monetary policy affects the fortunes of the *whole* of the UK economy and it does so *equally*. The Bank cannot set a different interest rate for the steel and the shipping industries, for Port Talbot and Portstewart, for Wales and West Lothian.

If monetary policy is singular, does that imply it should be set in a way which is single-minded? In other words, should monetary policy focus *only* on the economy-wide picture, taking no account of developments across different sectors or regions, income and age ranges, savers and borrowers? My answer to that, quite different, question is a resounding no. That is for four distinct reasons.

First, we know that official data on the economy are noisy and mis-measured. They also often fail to capture fully some areas of economic activity – for example, sectors of the economy that are either rising rapidly (such as the digital economy) or contributions that fall outside of the National Accounts framework (such as volunteering). Forming a picture of the whole economy from official statistics is rather like doing a jigsaw puzzle with half of the pieces missing and the other half slightly water-damaged.

This is not a criticism of statistical agencies: the UK's Office for National Statistics (ONS), down the road in Newport, do a fantastic job of tracking our economy, to say nothing of the help they have provided with this speech. It is simply that, in a dynamic economy, it is impossible to track everything with statistical precision.¹ Faced with those uncertainties, it is often useful to try to form pictures using disaggregated subsets of the jigsaw pieces – much as we do when completing a large jigsaw puzzle. As with a jigsaw, this can help in understanding the bigger picture.

Second, standard measures of economic activity, such as GDP, are not perfect metrics of societal well-being. This problem has long been recognised, including by the original architects of GDP.² It is one reason why statistical agencies in a number of countries, including the UK, have recently begun publishing a broader range of measures of well-being, social as well as economic, subjective as well as objective. These provide a different window on how economies and societies are performing over time and across sectors.

Third, even though monetary policy cannot discriminate between regions, sectors or individuals, that does not mean its impact is exactly the same across each of these groupings. It is not. The effects of interest rates, whether higher or lower, affect savers and borrowers very differently. And the impact of so-called Quantitative Easing (QE) is also likely to be different across cohorts of society.³ Understanding the differential impact of monetary policy across these sectors is important in general, as well as for gauging whether policy is working through its intended channels.

Fourth, and perhaps most important of all, the distribution of outcomes across different groups can matter greatly for the well-being even of the economy as a whole. To see that, consider a simple example. Imagine the economy comprises two regions, one with income of 10, the other with income of 90. Now imagine income falls by 5 in region one but rises by 10 in region two. At least as measured by GDP, the economy and society as a whole is 5% better off.

But is it? The income of the already-rich has risen by just over 10%, while the income of the already-poor has fallen by 50%. Does the former really swamp the latter when it comes to the well-being of society? There are grounds for doubt. Empirical studies show that every extra pound of income or wealth yields less satisfaction than the last. A millionaire values a £1,000 lottery win less than someone on the living wage. For economists, this goes by the name “diminishing marginal utility”. Yes, I know we should get out more.

If they are sufficiently unevenly distributed, income losses by the poor may more than offset gains by the rich in a social welfare sense, even if not in a GDP sense. In our simple example, imagine people's satisfaction has a logarithmic relationship with income, consistent with diminishing marginal utility. Then, we find that

¹ For example, see the recent review of the UK's statistical system (Bean (2016)).

² "The welfare of a nation can scarcely be inferred from a measurement of national income" (Kuznets (1934)).

³ Bank of England (2012).

social welfare is almost 10% *lower* after than before the changes, even though GDP is 5% higher. When it comes to assessing how societies are doing, the distribution of gains and losses really matters.

The role of the Bank of England is to serve the good of the UK people, as it has been since its inception in 1694. Monetary policy is very unlikely to be the most effective tool for changing the distribution of gains and losses across society – other macroeconomic tools are better placed. And, indeed, doing so would be inconsistent with the Bank’s monetary policy mandate. But policymakers, including central banks, do need to dive beneath the statistical surface to understand the economy region by region, city by city, town by town, sector by sector, household by household. Indeed, that is the very purpose of regional visits like this one.

The Economic Jigsaw

Before turning to the distribution of outcomes, let me start by looking at measures of economic health for the economy as a whole. When it comes to economy-wide measures of activity, economists typically look at metrics such as output (often measured by GDP), employment (such as the number of people in jobs) and wealth (financial, property *etc*). These are, essentially, different pieces of the same economic jigsaw.

Chart 1 plots these three measures over the past decade. All three suffered a severe set-back at the time of the global financial crisis: peak-to-trough, GDP fell by 6%, employment by 2% and wealth by 11%. These are significant falls. They are confirmation, if it were needed, that the UK entered a deep recession – indeed, a “Great Recession” – between 2008 and 2009.⁴

Since 2009, however, all three measures have begun to recover: GDP has risen by around 14%, employment by around 8.5% and wealth by around 35%. These are strong recoveries. Indeed, all three measures now exceed their pre-crisis peaks: GDP is 7% higher, employment 6% higher and wealth over 30% higher than in 2008. When economists refer to the UK’s “recovery”, these are the metrics they typically use to keep score: incomes, jobs and wealth have all “recovered” their crisis-related losses.

So why has that recovery not been felt, at least by some? One explanation may simply be that this time’s recovery is slower than those in the past. At a corresponding stage of recovery after the UK recessions of the 1970s, 1980s and 1990s, GDP was 6%, 19% and 18% higher respectively than today (Chart 2). Even after the Great Depression of the 1930s, GDP was 16% higher. For those with a long enough memory, this time’s recovery is likely to feel quite anaemic, relative to those in the past.

A second potential explanation may lie in the fact that aggregate activity measures are sometimes a poor proxy for the average person’s income. GDP is a measure of the size of the economic pie, a pie that has grown substantially larger since 2009. But so too has the number of people eating it. Taking the two

⁴ Bernanke (2011).

together, GDP *per head* has risen significantly more slowly than aggregate GDP since 2009. Indeed, GDP per head today is only around 1% above its pre-crisis peak (Chart 3).

GDP measures income from all UK-based activities. But not all of that income flows to UK citizens. Some flows abroad to foreign owners of UK assets and some income is earned domestically on UK investments abroad. The amount of *net* income flowing overseas currently stands at around 3% of GDP. This is a record high. If we take net overseas income out of GDP, to give a measure of net *national disposable* income per head, it has recovered even more slowly than GDP per head. It is currently at levels little different than its pre-crisis peak (Chart 3). National income per head suggests there has scarcely been any recovery.

Moreover, not all the income earned nationally flows directly and immediately to households. For example, some accrues to companies who may save it rather than distributing it to households as wages or dividends. Net savings by UK companies currently stand at around 1% of GDP. That means, when we look at *household* disposable income per head, we find it has essentially flat-lined since 2009 (Chart 4). Even as GDP has recovered, household incomes have essentially stagnated.

Even the notion of the “average household” needs careful interpretation. Looking at a different “average” – the household in the centre of the distribution or *median* – suggests this flat-lining in disposable incomes may have *pre-dated* the crisis (Chart 4). Half of all UK households have seen no material recovery in their real disposable incomes since around 2005. Or, put more evocatively and provocatively, the majority of UK households have faced a “lost decade” of income.

Next let’s look at employment. The aggregate numbers here are hugely impressive, with 2½ million new jobs created since 2010. The UK unemployment rate has fallen like a stone, from 8.5% in 2011 to around 5% currently. And the news gets better. Chart 5 breaks down these new jobs into full-time, part-time and self-employment. It is clear that the lion’s share of the jobs’ increase over the past few years is accounted for by rises in full-time work. This has been not just a jobs-rich recovery, but a full-time, jobs-rich recovery.

Yet the *nature* of work may matter every bit as much as headline jobs numbers. Work is about more than just the money; it adds to life satisfaction and self-esteem and lowers anxiety and depression.⁵ And there have been several notable shifts in the nature of employment which may have affected people’s satisfaction with their job. One is in the changing nature of employment. The number of people in self-employment has risen from 3.6 million in 2005 to around 4.7 million today and so, less dramatically, have numbers of workers on temporary contracts. Those on zero-hours contracts have risen from 120,000 to 800,000.

Some of this shift in employment practices is likely to have been a voluntary choice by workers to increase their job flexibility – for example, those nearing retirement or returning to work after childcare seeking

⁵ Gallie D et al (2016).

part-time employment. But this is not the full story. Around 15% of those working part-time would prefer to be in full-time employment. And around a third of those on temporary contracts would prefer to be on permanent contracts. For those individuals, the dark-side of labour flexibility – job insecurity - may be being felt.

Some measures of job insecurity are consistent with that. For example, job insecurity would tend to lower the likelihood of people moving jobs.⁶ As Chart 6 shows, job-to-job flows began rising slowly after 2010 but remain at levels well below their pre-crisis levels. Meanwhile, surveys suggest around a quarter of workers currently are afraid of losing their jobs, the highest level in several decades.⁷ Citizens Advice has recently estimated that around 4.5 million workers in England and Wales are in insecure employment.⁸

Even those in a job, secure or otherwise, may not be working as much as they wish. Around three and a half million people, or almost 10% of the working population, say they would like to work longer hours (Chart 7). In 2007, that number was two and a half million. The number of extra hours these people would like to work – around 12 hours per week or 35% of the average working week – is also material. Even if these survey numbers overstate the *actual* number of extra hours people might wish to work, they leave a sizable fraction of the working population not unemployed, but *under-employed*.

When it comes to the pay of those in work, the picture is also a subdued one. Chart 8 plots mean and median weekly earnings growth for full-time UK employees, in nominal and real terms. Nominal earnings today are around 7% higher than in 2009. But in real terms earnings are still around 5% *below* this peak. This is the longest period of flat or falling real wages since at least the middle of the 19th century. Although the recovery of the past few years has been jobs-rich, it has been notably pay-poor.

Finally, let's look at household wealth. As with employment, the headline gains here have been impressive, with aggregate net wealth increasing by almost £3 trillion since 2009. Chart 9 breaks down these wealth gains by asset type – pensions, property, financial, physical. This suggests these gains have come principally from rises in property and pension wealth. In other words, the gains have been skewed towards those in society who own their own home or who have sizable pension pots.

That skewed wealth picture is confirmed if we look at measures of median, as opposed to mean, wealth using household-level data (Chart 10). Since 2006, average net household wealth has risen by around 25%, from £345,000 to £435,000. Over the same period, median household wealth has increased more modestly, by around 15%, from £200,000 to £225,000.

⁶ Gregg and Gardiner (2015)

⁷ Gallie, Felstead, Green and Inanc (2016)

⁸ Citizens Advice (2016).

Overall, then, although the aggregate data suggest a fairly robust recovery, a drill-down paints a more nuanced picture. The rising economic tide has not lifted all boats. Indeed, a sizable fraction of households have seen no recovery in their disposable incomes, a rise in job insecurity and at best modest rises in their wealth. For them, the “recovery puzzle” may not be so puzzling. These data also suggest that distributional factors may be important when understanding “whose recovery”. Let me now turn to those.

Disaggregating the Jigsaw

There are a number of ways in which the economic jigsaw can be rearranged to provide a different picture of the UK’s economic fortunes. Let me briefly consider four cuts of the data: by *region*; by *income*; by *age*; and by *housing tenure*. Each provides a somewhat different, though complementary, window on whose recovery we are talking about.

(a) Regional distribution

Chart 11 shows the regional pattern of real GDP per head since 2007. For most regions, these show a fall in 2008/09 followed by a recovery thereafter. The regional profiles of recovery are, however, quite different. For example, in only two regions – London and the South-East – is GDP per head in 2015 estimated to be *above* its pre-crisis peak. In other UK regions, GDP per head still lies *below* its pre-crisis peak, in some cases strikingly so. For example, in Northern Ireland GDP per head remains 11% below its peak, in Yorkshire and Humberside 6% below and here in Wales 2% below.

Regional patterns of real household disposable income show a broadly similar pattern: in most regions incomes are estimated to have broadly flat-lined since 2009 at lower than pre-crisis levels. In other words, disposable incomes in most regions have not experienced any real recovery. Perhaps it is not such a surprise, then, that the language of “recovery” fails to fit in many of them.

Another notable pattern in regional income gains and losses is that the largest gains have come in regions where income was already high – London (incomes more than 30% above the UK average) and the South-East (14% higher). Contrarily, some of the larger losses have been in regions where income was already-low – Northern Ireland (18% lower than the UK average) and Yorkshire and Humberside (14% lower). Put differently, since the crisis the regional distribution of incomes has widened.

This widening of the income distribution means that aggregate GDP figures may over-state somewhat the impact of the recovery on societal well-being: gains by the already-rich boost well-being by less than equivalent losses by the already-poor. To demonstrate that, Chart 12 plots an illustrative measure of “social

welfare”. This is constructed by aggregating up regional measures of well-being on the assumption they have a logarithmic relationship with GDP per head.⁹ This is plotted alongside aggregate GDP per head.

Although conventionally-measured GDP per head has recovered to above its pre-crisis peak, the same is not true of aggregate well-being, so defined. It fell after the crisis and has remained at those lower levels over the past three years; it currently stands just below its 2007 peak. In other words, in a subjective well-being sense, there may have been no real recovery in the UK over the past few years.

If we turn from income to wealth, the picture is much the same. Chart 13 plots median wealth on a regional basis since 2007. This has risen across all regions. But the pattern is again uneven, with the largest gains in London (47%) and the South-East (25%), whereas in Wales the gains are smaller (8%) and in the North East there has been a small fall in wealth. With wealth in the former regions already higher than in the latter, the upshot has been a widening in the regional distribution of wealth.

As with income, these wealth data can be translated into a measure of social welfare. Chart 14 plots that relative to aggregate wealth since 2007. The well-being benefits from higher wealth have been roughly half as large as would have been the case had these gains been evenly distributed regionally. This evidence goes some way towards reconciling the macro data and the micro stories from my regional visits. Whose recovery? To a significant extent, those living in London and the South-East of England.

(b) Income distribution

A different lens on recovery comes from looking at how income gains are distributed across households. Chart 15 plots real household disposable income per head across households grouped into five income categories. Because household spending differs materially depending on someone’s income – for example, poorer households spend proportionately more on food and energy – we deflate the income of each group using a price index which reflects their different spending patterns.

Chart 15 paints a fairly reassuring picture. In general, lower income groups have fared somewhat *better* than higher income groups since the crisis: the lowest income quintile has seen disposable incomes rise by around 5% since 2007, while the highest quintile has seen income fall by around 5%. Those in the bottom half of the distribution have seen incomes rise since 2007, while those in the top half have seen them fall. This reflects the impact of the benefits and pensions system in supporting lower income households.

⁹ In other words, this is a standard “Benthamite” (Bentham (1789)) social welfare function of the form :

$$SW = \sum_i \ln GVA_i \text{ where } GVA_i \text{ is gross value-added for region } i$$

See, for example, Sen (1970). Other forms of social welfare function – such as those proposed by Rawls (1974) and Sen (1973) – place greater weight on those with lower initial levels of well-being. They would suggest weaker profiles for social welfare than those shown here.

As a result, the distribution of incomes across the UK has probably narrowed a little since 2007. Income inequality has, if anything, fallen. That means, when we look at measures of social welfare aggregated across different income groups, we find it has not performed very differently than aggregate real disposable income since the crisis (Chart 16).

These patterns of gains and losses are, however, very different when we turn to wealth. Chart 17 plots the distribution of wealth gains since 2010 across income quintiles. It suggests a dramatically uneven pattern. Those in the bottom two-fifths of the income distribution have seen virtually no gains in their wealth since 2010. Indeed, those in the bottom 20% have seen their wealth *fall* over this period. By contrast, those in the top quintile have seen their wealth increase by almost 20%.

This uneven pattern of gains and losses in wealth has widened what was already a fairly wide wealth divide: in 2010, those in the bottom income quintile had average net wealth of £70,000, compared with £587,000 for those in the top quintile. That means the gains in social well-being since 2008 are likely to have been considerably more modest than the rise in headline wealth would imply: these gains have largely been harvested by the already-asset-rich and not at all by the already-asset-poor.

Looking across the income distribution, then, it is clear that recovery has been associated with both the incomes and, more strikingly, the wealth of the least well-off having broadly flat-lined. Recovery has not lifted all boats, especially some of the smaller ones. This pattern may go some further way towards solving the recovery puzzle. Whose recovery? To a significant extent, those already asset-rich.

(c) Age distribution

A third dimension of recovery is how it has affected different age groups. Chart 18 looks at the evolution of nominal average hourly earnings across different age groups. It suggests a significant inter-generational income shift has been underway over recent years. Nominal earnings of those under-30 have risen by a cumulative 6% since 2007, while those over-50 have seen cumulative gains of 22%.

Household-level data, which looks at all sources of income, suggests an even more striking inter-generational divide. Chart 19 plots average real disposable income across three household types: pensioners and working age adults with and without children. Since 2007, pensioners have seen their real disposable incomes rise by 9%. Over the same period, incomes for working age households with children have increased by 3% while those for working age adult households without children have *fallen* by 3%.¹⁰

These aged-related disparities in income are mirrored, and amplified, when we look at the distribution of wealth. Chart 20 looks at the evolution of wealth across the age distribution since 2007, while Chart 21

¹⁰ The IFS and Resolution Foundation have both highlighted the divergence of income growth between pensioners and working-age households. See, for example, Belfield et al (2015) and Corlett et al (2016).

shows a breakdown of the gains. All of the £2.7 trillion rise in wealth since 2007 has been harvested by those over the age of 45, two thirds by those over the age of 65. By contrast, those aged 16-34 have seen their wealth *decline* by around 10% over the period.

Given this evidence, it seems likely perceptions of recovery will differ radically according to age. Those over 50 have seen material gains in both income and, notably, wealth. For them, recovery will have felt tangible. By contrast, those under-40 have seen their disposable incomes and wealth fall. For them, recovery is likely to have felt invisible. Whose recovery? To a significant extent, those over the age of 50.

(d) Housing tenure distribution

Finally, consider the impact of housing tenure. This has undergone seismic shifts over recent years. Charts 22 and 23 show the proportions of UK households renting or with a mortgage. Those under 50 have seen a secular rise in renting and a fall in mortgaged households. Among young adults, these shifts have been dramatic. In 1977, one in four 25-year-olds were renters. By 2014, that fraction had risen to two-thirds. The number of households aged 21 to 25 with a mortgage has fallen by a factor of three.

While these trends in housing tenure are long-lived, the financial crisis has clearly amplified them. Since 2007, the share of renters among those aged between 25 and 34 has risen by 12 percentage points. Among 35-49 year olds, the share of renters has increased by over two thirds. By contrast, those over 50 have seen a much smaller change in housing tenures. These shifts are likely to reflect the combined effects of a rise in UK house prices relative to income and, since the crisis, a reduction in mortgage availability for the young.

Whether someone owns or rents a property need not affect their well-being, other things equal. But when it comes to the UK housing market, other things are rarely equal. The combination of rising demand for rental property, and constrained supply, has led to more rapid rises in rents than in household incomes. As a fraction of household income, rents have doubled since the early 1980s from around 10% to over 20% today. For the rising fraction of households who are renting, this will have eaten into their disposable incomes.

Chart 24 shows a measure of household income which subtracts the amount spent on housing by each household. The conventional measure of household disposable income, using average mortgage costs across households, has increased by 1-2% since 2007. Over the same period, the housing cost-adjusted measure of household disposable income has increased by less than 1%. Once housing costs are taken into account, the improvement in household living standards is even harder to discern.

The impact of housing costs is also likely to have fallen unevenly across different cohorts and regions. Chart 25 show rents as a fraction of income across different regions. What stands out is the much larger than average rent proportion in London and, to a lesser extent, the South-East and South-West. These additional

housing costs would go some way towards undoing the over-performance of these regions in disposable income terms since the crisis.

What is true across regions is also true across income and age cohorts. Charts 26 and 27 look at the change in household income and wealth across different housing tenure-types since 2007. Gains in both income and wealth have been far larger for owner-occupiers than for renters. This helps explain the uneven pattern of wealth gains by age since the crisis, as older cohorts are more likely to be owner-occupiers.

Taken together, then, the rising cost of rents, and the rising share of renters, appears to have caused a further erosion of some households' income since the crisis, particularly renters, the poor and the young. For those cohorts, rising housing costs are likely to have contributed to the sense of this being an invisible recovery. Whose recovery? To a significant extent, those owning their own home.

The Social Jigsaw

So far, we have looked at relatively standard measures of economic health and wealth, the staple diet of economists like me. But there are now many studies showing that objective measures of economic health and wealth do not always correspond well with individuals' subjective sense of well-being and fulfilment.¹¹ Let me give a simple example to bring this point home.

The highest per capita income region in the UK is London, where the average person earned £24,000 per year in 2014. At the bottom of the per capita income league table was Northern Ireland, where the average person earned £15,000 per year in 2014. Yet when it comes to measures of life satisfaction, the tables are completely turned. London ranks at the bottom of the regional league table of happiness, while Northern Ireland occupies (by some distance) pole position.

In part for those reasons, a number of countries have over recent years developed indices of well-being, drawing on a much wider array of economic, social and environment factors. For example, in the UK the Office for National Statistics (ONS) has begun tracking 43 separate measures of well-being grouped into 10 categories: personal well-being, relationships, health, participation in civic society, where we live, personal finance, the economy, education and skills, governance and the natural environment.

These different metrics are slightly apples and oranges – and some may be bananas. Nonetheless, a variety of empirical studies have found these categories to be important determinants of individuals' subjective well-being.¹² A good starting point is personal well-being - people's sense of whether their lives are satisfying. Chart 28 plots an index of personal well-being since 2012. At an aggregate level, it suggests a

¹¹ Fitoussi, Stiglitz and Sen (2009).

¹² Fitoussi et al (2009).

rising tide of well-being, consistent with a growing economy. There are also few clear distributional differences in this pattern of well-being, with different regions, ages and income groups all rising.

Other measures of well-being paint a more mixed picture. Of the 43 measures of well-being tracked by the ONS, 17 have seen some improvement since 2012. Many of these improvements are among economic indicators – employment, income and wealth. In some ways more interesting, however, the majority of these well-being measures have *not* improved during the recovery, while a fifth have deteriorated. Interestingly, the areas of weakness chime with some of the messages I heard from charities in Nottingham last year.

One area of perceived deterioration in levels of satisfaction concerns accommodation. Some of this probably reflects trends in housing tenure, with far fewer young people on the housing ladder than in the past and with renting offering a lower quality, higher cost, alternative. Another factor reducing satisfaction may be that, facing these costs, larger numbers of young adults are still living with their parents: almost a quarter of 21-34 year olds now live with their parents, up from 20% in 2007 (Chart 29).

For some people, these housing problems are more acute and appear to have worsened during the recovery. For example, official estimates of the number of people sleeping rough have been on a rapidly rising trend since at least 2010. Over the same period, the number of people classified as “statutorily homeless” (in accommodation they have no legal right to occupy) has also drifted steadily higher, largely due to a surge in London and the South-East.

A second area of perceived deterioration is health. While objective measures of health, such as life expectancy, have improved, subjective measures have deteriorated during the period of recovery. So too have measures of anxiety and depression. Among other factors, these trends may be linked to changes in the nature of work, in particular greater job insecurity for some groups. They may also be linked to the stagnation, or in some cases falls, in disposable incomes in some regions, age groups and income cohorts.

A third area of perceived deterioration concerns income. With a sizable fraction of households having seen their disposable incomes stall, especially once account is taken of housing costs, that should perhaps come as no surprise. One metric often looked at here is poverty. For example, Charts 30 and 31 look at the fraction of households whose incomes are below a fixed threshold (“absolute poverty”) and below 60% of median incomes in the UK (“relative poverty”), in both cases after housing costs.¹³ It does so for three cohorts: under-16s, those aged 16-65 and the over-65s.

Whether in absolute or relative terms, the story is roughly the same. Among those over-65, levels of poverty have declined steadily both prior to and following the crisis, if at a less rapid rate over the past few years. That is not true, however, of the 16-65 cohort. Their levels of poverty have tended if anything to drift

¹³ Belfield, Cribb, Hood and Joyce (2015)

upwards slightly over the past few years. In other words, poverty levels among those of working age have increased at the same time as the economy as a whole has recovered fairly robustly. This, too, puts a somewhat different gloss on whose recovery this has been.

Monetary Policy Implications

What, then, does this mean for monetary policy?

Around a year ago, my assessment of the UK economy was a cautious one.¹⁴ The economy was growing at a solid, if unspectacular, rate. There were signs growth was slowing, albeit gently, towards trend. Meanwhile, price pressures remained weak. Energy prices had fallen, and sterling had risen, in both cases sharply. This had lowered inflation significantly below target. Domestic wage growth was also weak, despite the significant improvement in the jobs market. I was doubtful, then, there would be any significant pick-up in wage pressures, dampening the reflationary process necessary to return inflation to target.

With the risks to costs and prices to the downside, my view a year ago was that maintaining Bank rate at its historically low levels was necessary to provide support to the recovery and momentum to the reflationary process. Indeed, given the asymmetry of risks to growth and inflation, my view was that monetary policy should stand ready to move in either direction, with the chances of a rate rise or cut broadly balanced.

A year on, in the run-up to the referendum, my view on both the economy and on the stance of monetary policy was essentially unchanged. The UK economy had continued to grow, steadily if unspectacularly. At the same time, there had been accumulating evidence, from surveys and from GDP figures over a period of three years, of growth continuing to slow gently to the point where it was little different than trend. That meant the output gap was no longer shrinking at any pace, if at all.

Meantime, price pressures had remained weak. External deflationary forces – from energy prices and sterling's earlier appreciation – have started to wane. But domestic wage growth had not picked up discernibly. Wage inflation had remained in the “2-point-something” zone it had occupied for much of the preceding 5 years. Indeed, this looked increasingly like a new, post-crisis, “going rate”. Given job insecurity, and given slowing employment growth, that new going-rate seemed unlikely quickly to dislodge.

This has been an uneven economic recovery, looking across regions, income and age cohorts. Large parts of the UK – many regions, those on lower incomes, the young, renters - have not experienced any meaningful recovery in their incomes or in their wealth. Perhaps it is not so surprising, then, that reflation in spending, prices and wages has been modest over the past few years and interest rates, contrary to financial market expectations, have hence remained on hold.

¹⁴ Haldane (2015).

Over the past month, the outcome of the EU referendum has added another important ingredient to this mix. It has increased materially the degree of uncertainty – economic, policy, and political – around the UK’s economic recovery.¹⁵ And while some of this uncertainty may dissipate, a good chunk is likely to linger throughout the Bank’s two to three-year policy horizon. This uncertainty is likely to weigh on domestic spending by both companies and households for the foreseeable future.

It is still far too early to be drawing strong conclusions on the precise path of the UK economy from here. At present, we have only the smallest trail of data breadcrumbs on which to base any assessment of how companies and consumers are responding to the referendum news. The Monetary Policy Committee will have a chance to offer its own comprehensive macro-economic assessment in a month’s time, with the *August Inflation Report*. But let me offer a few general reflections on the likely economic path ahead.

First, and in some ways most importantly, this is not (underlined, italicised, capitalised and repeated in bold) a re-run of the financial crisis of 2008/09. Then, the fault-line was an undercapitalised and illiquid banking system which, having folded under pressure, then pulled the credit rug out from under the feet of companies and consumers. When the banks sneezed in 2008, the whole economy caught a cold – and atishoo, atishoo, we all fell down.

The situation today could not be more different. The UK banking system is, by an order of magnitude, better capitalised and more liquid than then. That is in large part a reflection of the post-crisis regulatory reform agenda which has strengthened banks’ capital and liquidity standards. Since the referendum, the Bank of England has augmented these capital and liquidity buffers by making available more than £250 billion of liquidity and by lowering banks’ Counter-Cyclical Capital Buffer to facilitate an extra £150 billion of lending.

That underlying balance sheet strength has meant, despite some sharp gyrations in their share prices, the cost of UK banks funding themselves has scarcely budged since the referendum. That means the cost of credit to companies and consumers should not be expected to rise either. And nor, with balance sheets strong, is there any reason for banks to constrict credit to customers. This time the credit rug will not be pulled. So while the past few weeks have been a drama, there is no reason to expect this to turn into a crisis, or at least a financial one.

Second, even though the economy is unlikely to crash, it *is* likely to slow, perhaps materially, in the quarters ahead. While companies and consumers might not be slamming on the brakes and going into reverse, as in 2008, some are likely to be going down a few gears, perhaps even moving into neutral. External economists expect the UK economy to tread water over the next few quarters. That means the amount of slack in the UK economy is likely to begin steadily rising in the period ahead, perhaps causing unemployment to rise.

¹⁵ Carney (2016).

The main reason for that likely slowdown is uncertainty. And with uncertainty having risen sharply, caution may once more become the watchword for companies and households, as it has for most of the period since the crisis. This increases the incentive to delay making and executing plans. This delaying effect is likely to be greatest for those spending decisions which are largest, lumpiest and most difficult to reverse.

There is already some evidence of this delaying effect among companies' lumpy decisions. Surveys conducted since the referendum, including by the Bank of England's regional agents, suggest a significant number, perhaps even a majority, may be pausing or trimming their hiring and investment plans. A great many others are still huddled around their board tables, re-thinking their strategic plans. There is no sense of slash and burn. But there is a strong sense of trim and singe.

Meanwhile, among households there are signs of a significant slowing in both confidence and in the housing market, which are often inter-twined. The latest survey from the Royal Institute for Chartered Surveyors (RICS), covering the period since the referendum, showed the weakest three-month-ahead house price expectations balance since 2010 and the sharpest fall since 2004. This feels like a market braced for disappointment. And where housing leads, the economy often tends to follow.

Third, counterbalancing to some degree this downdraught to domestic demand, there has been a sharp fall in the sterling exchange rate of around 9% in trade-weighted terms since the referendum. This will provide a shot in the arm to the UK's net exports. And, through higher import prices, it will also help the process of lifting inflation back towards its 2% target, from its current level close to zero. Indeed, given the scale of the exchange rate shock, it is possible inflation could overshoot this target in the period ahead.

In principle, this combination of inflation-above-target and output-below-capacity poses a dilemma for monetary policy. Tighten to counter the first or loosen to cushion the second? In practice, in my personal view, there is no real policy dilemma here and little ambiguity about the appropriate monetary policy response, either in direction (easing) or scale (significant).

One reason for saying that is because I do not think the risk of higher inflation becoming entrenched is especially great. Even before the events of the past month, the Phillips curve here in the UK (the relationship between wages/prices and unemployment/output) was as flat as a pancake. In a world of potentially stalling output and rising unemployment, I find it hard to imagine wage and price pressures will intensify greatly in the period ahead.

Indeed, it is striking that despite the sharp fall in the exchange rate and the temporary boost this will provide to inflation, there are no indications so far of this having dislodged medium-term inflation expectations. The most direct measure we have is from financial markets where they have shown few signs of ticking-up

(Chart 32). Indeed, at longer maturities inflation expectations have nudged down from already fairly low levels. With household and company measures of inflation expectations also at historically low levels, in my personal view the risk of inflation expectations being dislodged to the *downside* is greater than on the upside.

Fourth, there is an important asymmetry in the risks facing the UK economy at present, which needs to be weighed when judging the appropriate monetary policy response. With expectations and animal spirits fragile, and uncertainty high, maintaining confidence among companies and consumers is key. Indeed, a failure to do so could itself become self-fulfilling in its negative impact on activity. In this environment, policy leadership and action has a particularly important role to play in buttressing expectations and supporting confidence. That includes, but is not confined to, monetary policy leadership and action.

There is also an asymmetry in the potential effectiveness of monetary policy. If there is greater uncertainty about the effectiveness of tools for easing than tightening, then the monetary policy implication is clear: more should be done to cushion the effects of negative shocks, the like of which we have just seen, than positive ones. This is sometimes referred to as the “risk management” approach to monetary policy.¹⁶ And in the current environment, with risk elevated, I think it has particular force.

Put differently, I would rather run the risk of taking a sledgehammer to crack a nut than taking a miniature rock hammer to tunnel my way out of prison – like another Andy, the one in the Shawshank Redemption. And yes I know Andy did eventually escape. But it did take him 20 years. The MPC does not have that same “luxury”.

In my personal view, this means a material easing of monetary policy is likely to be needed, as one part of a collective policy response aimed at helping protect the economy and jobs from a downturn. Given the scale of insurance required, a package of mutually-complementary monetary policy easing measures is likely to be necessary. And this monetary response, if it is to buttress expectations and confidence, needs I think to be delivered promptly as well as muscularly. By promptly I mean next month, when the precise size and extent of the necessary stimulatory measures can be determined as part of the August *Inflation Report* round.

Yesterday, the minutes of the July meeting of the MPC were published. Broadly consistent with my personal view, they noted: “In the absence of a further worsening in the trade-off between supporting growth and returning inflation to target on a sustainable basis, most members of the Committee expected monetary policy to be loosened in August”.

So whose recovery? So far at least, this has been a recovery for the too few rather than the too many, a recovery delivering a little too little rather than far too much. Nowhere is that more evident than here in

¹⁶ Evans (2015).

Port Talbot. Yet it is evident, too, in sectors from steel-making to shipping, in towns like Portstewart as well as Port Talbot, from Wales to West Lothian.

Monetary policy cannot do everything to counter the impact of the referendum which is, after all, an economic regime shift for the UK. And monetary policy of course needs to be mindful of the potential adverse consequences of administering ever-larger doses of the monetary medicine. Nonetheless, my personal view is that it has an important role to play in cushioning the effects of any relapse in recovery in the months and quarters ahead and, beyond that, in helping making the future recovery everyone's.

Thank you.

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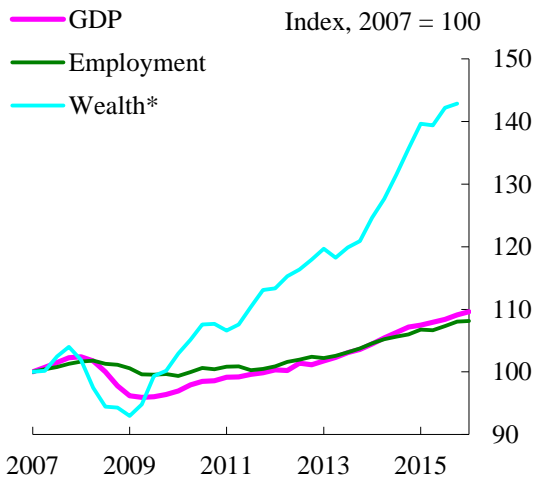
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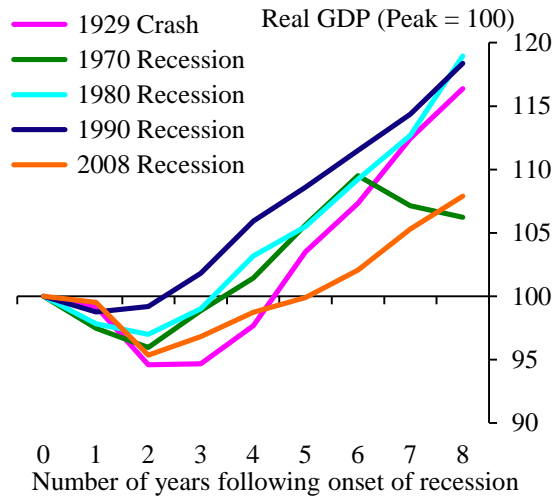
Appendix

Chart 1 – GDP wealth and employment



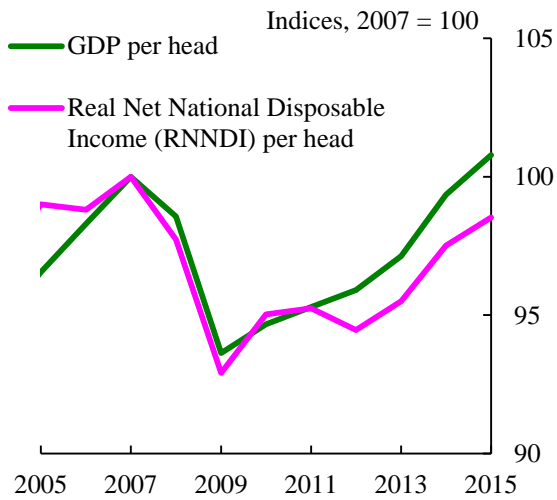
Sources: ONS and Bank calculations.
 * Total net wealth; the property component of wealth is estimated for 2015 using by growing the 2014 figure by the rate of increase in house prices.

Chart 2 – GDP in different recessions



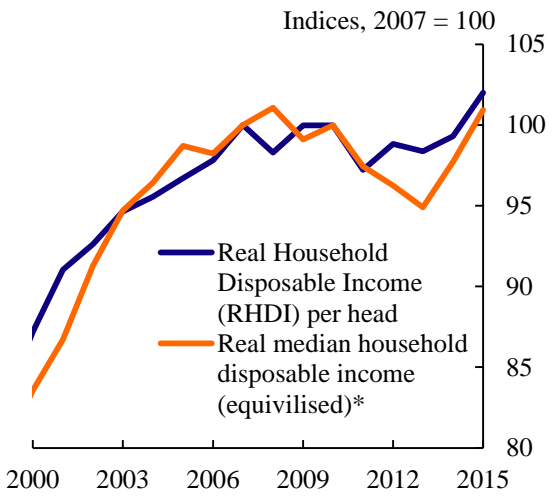
Sources: ONS and Bank calculations.

Chart 3 – GDP and disposable income per head



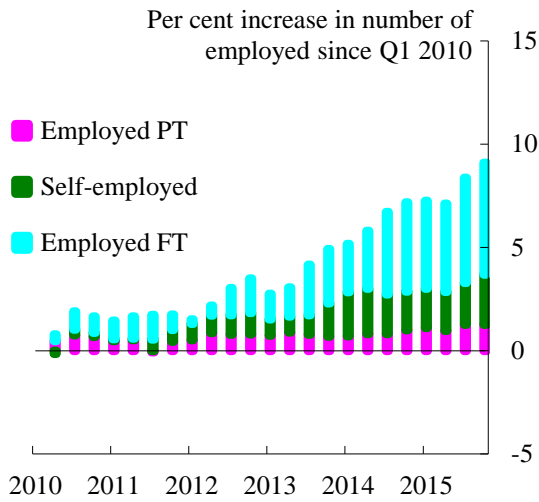
Sources: ONS and Bank calculations.

Chart 4 – Measures of disposable income per head



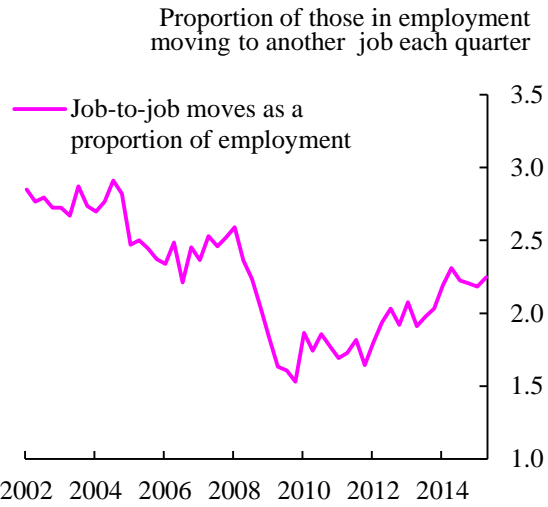
Sources: ONS.
 * Data show income per households with these equivalised in size to make them comparable. Changes in the size of the average household could affect this series.

Chart 5 – Full time, self-employed, part time



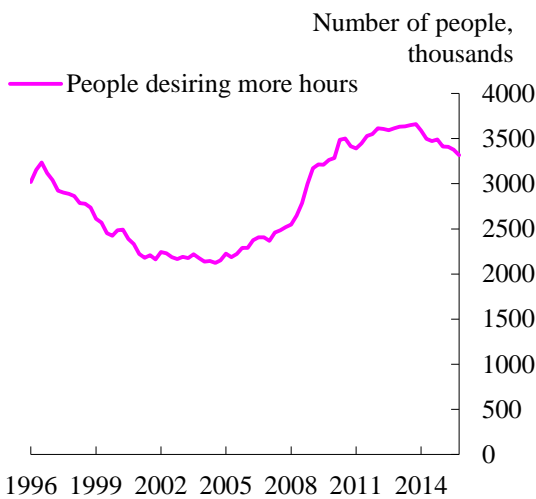
Sources: ONS.

Chart 6 – Job to job moves



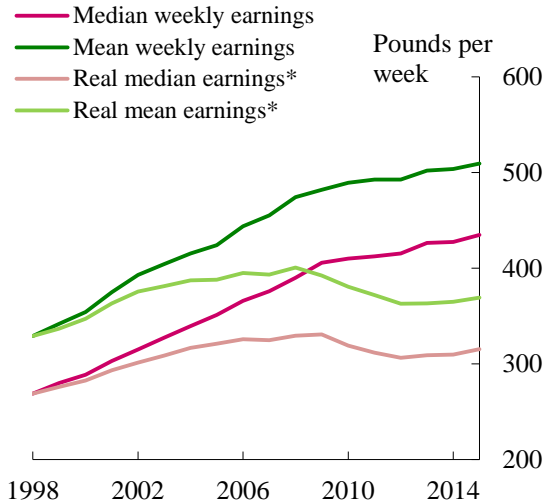
Sources: Labour Force Survey, ONS and Bank calculations. Data shown on a seasonally adjusted basis.

Chart 7 – People desiring more hours work



Sources: Labour Force Survey, ONS and Bank calculations.

Chart 8 – Mean and median wages



Sources: Annual Survey of Hours and Earnings, ONS, Bank calculations. * 1998 prices

Chart 9 – Wealth by type

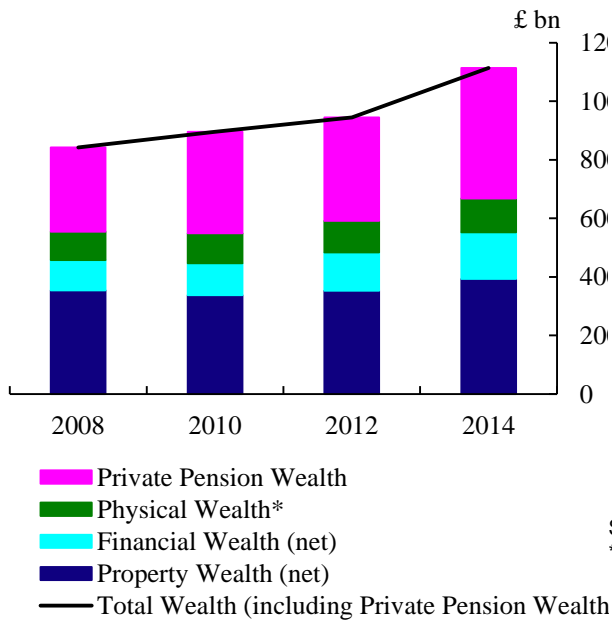
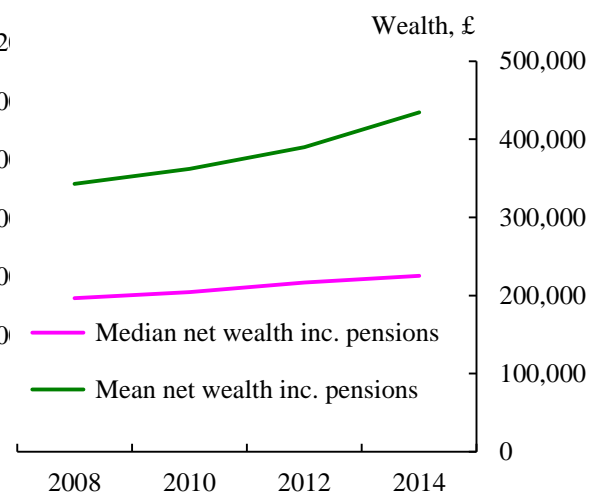


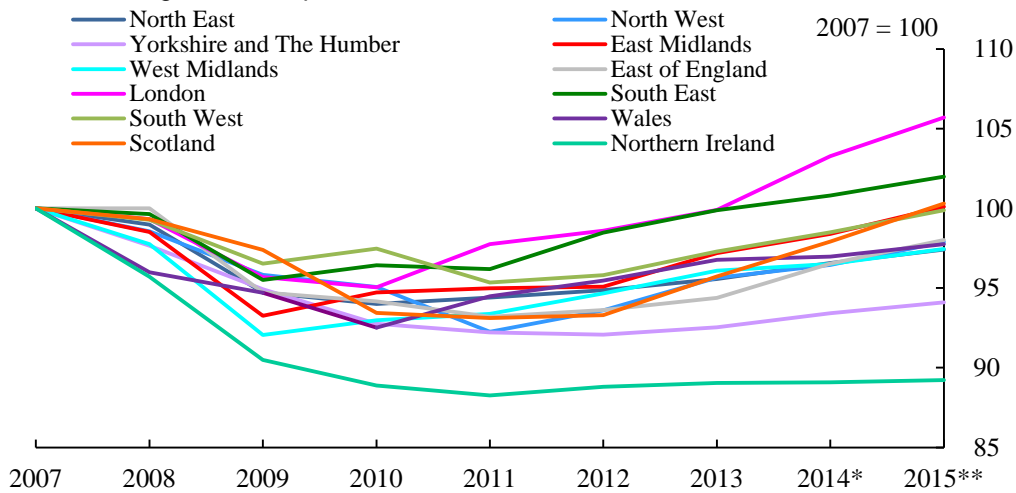
Chart 10 – Mean versus median wealth*



Sources: Wealth and Asset Survey, ONS, Bank calculations.
* Property, physical and financial wealth excluding private pensions.

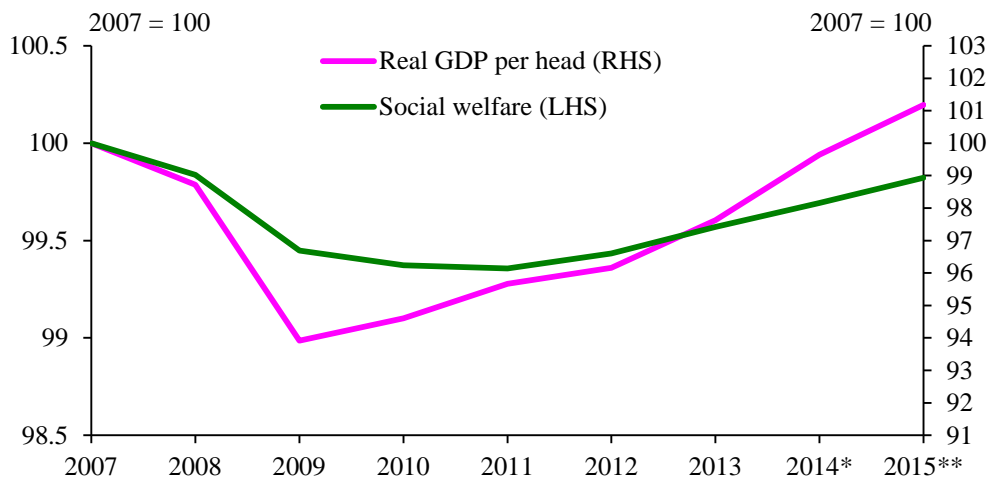
Sources: Wealth and Asset Survey, ONS, Bank calculations.
* July 2006 to June 2008 estimates for physical wealth are based on half sample.

Chart 11 – Regional GDP per head*



Sources: ONS, Bank calculations.
* Regional GVA (income approach) deflated using the GDP deflator. 2014 is provisional ONS estimate. 2015 figure is indicative, estimated using the average annual growth rate from the preceding two years.

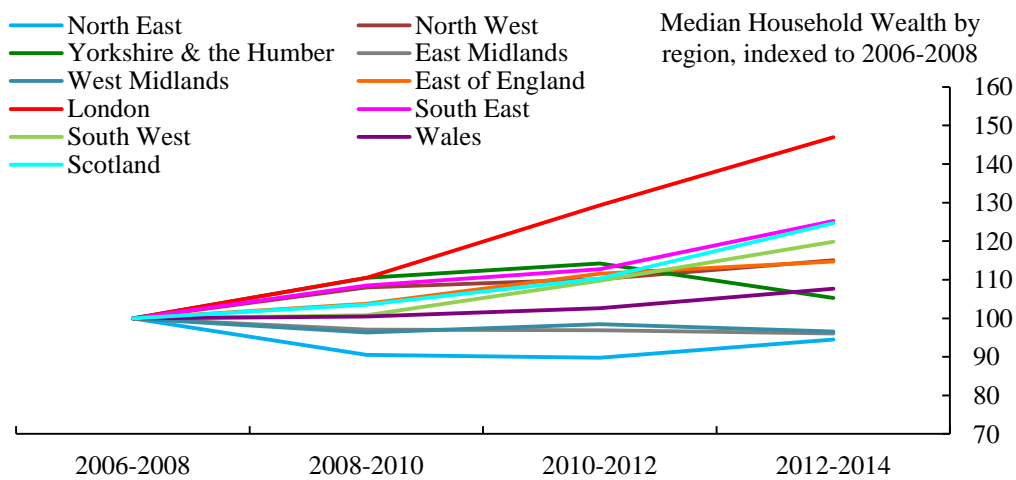
Chart 12 – Social welfare by Regional GDP*



Sources: ONS and Bank calculations.

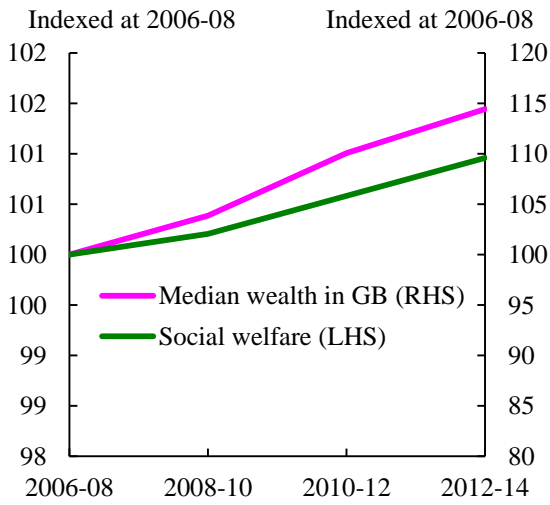
* Social welfare is calculated as a sum of the natural logs of GVA by region (see for example, Sen A (1970)).

Chart 13 – Median regional net wealth



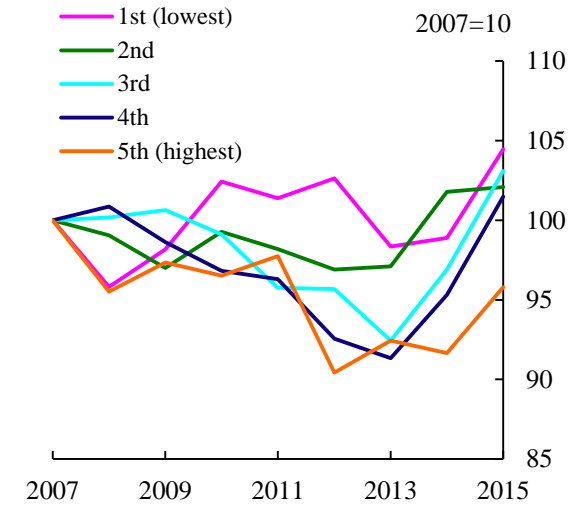
Sources: Wealth and Asset Survey, ONS, and Bank calculations.

Chart 14 – Social welfare by regional wealth*



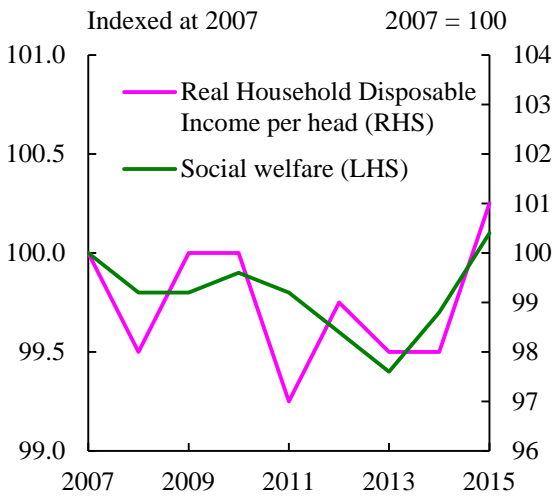
Sources: Wealth and Asset Survey, ONS, and Bank calculations.
 * Social welfare is calculated as a sum of the natural logs of net wealth by region.

Chart 15 – Real disposable income per head by income quintile



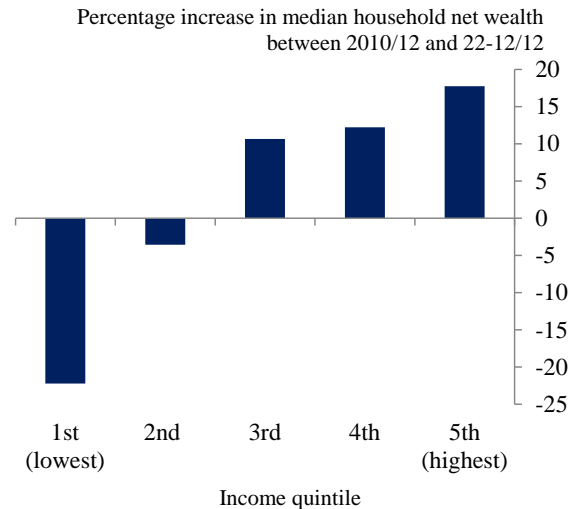
Sources: Wealth and Asset Survey and Bank calculations.

Chart 16 – Disposable income and social welfare*



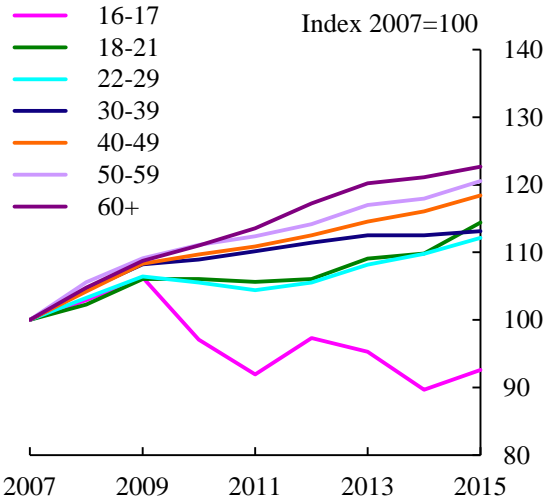
Sources: ONS and Bank calculations.
 * Social welfare is calculated as a sum of the natural logs of household disposable income per head by decile.

Chart 17 – Wealth gains by income quintile since 2010



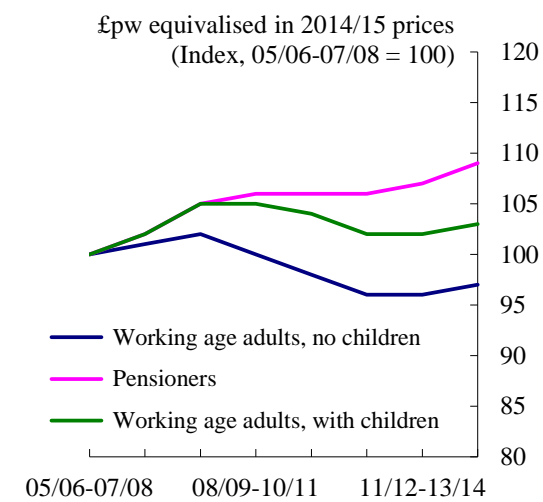
Sources: Wealth and Asset Survey, ONS, and Bank calculations.

Chart 18 – Median nominal hourly earnings by age



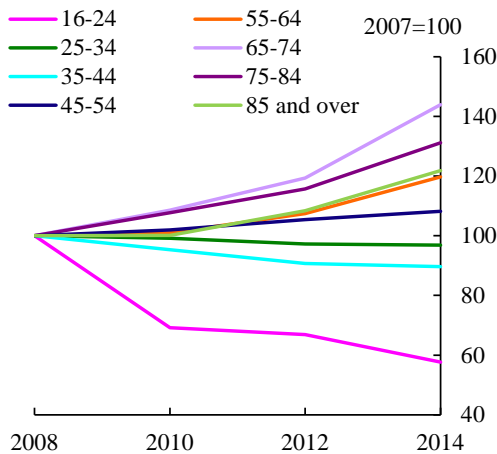
Sources: ASHE and Bank calculations.

Chart 19 – Real income after housing costs by household type



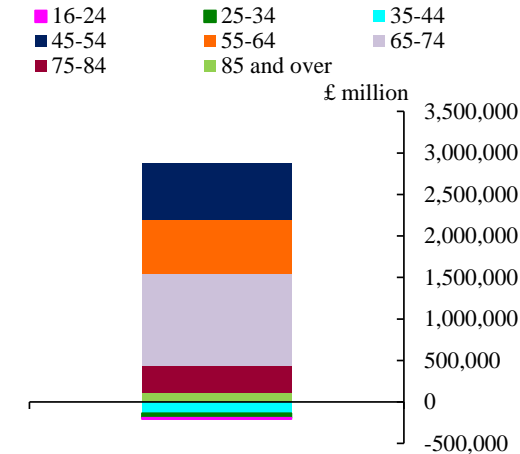
Sources: Household Below Average Income and Bank calculations.

Chart 20 – Total net wealth by age



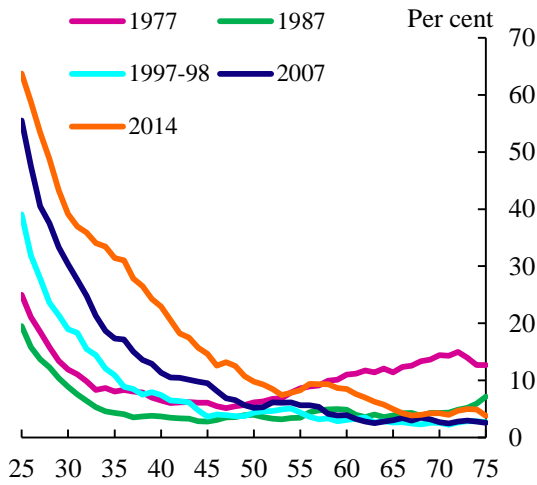
Sources: Wealth and Asset Survey, ONS, and Bank calculations.

Chart 21- Total net wealth gains by age group 2006/08 to 2012/14



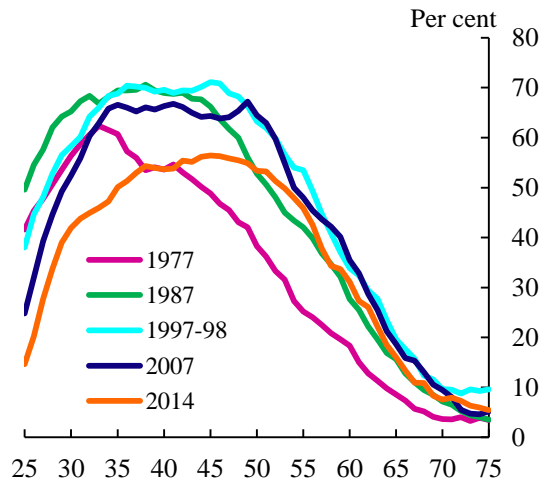
Sources: Sources: Wealth and Asset Survey, ONS, and Bank calculations.

Chart 22 – Proportion of individuals by age that rent



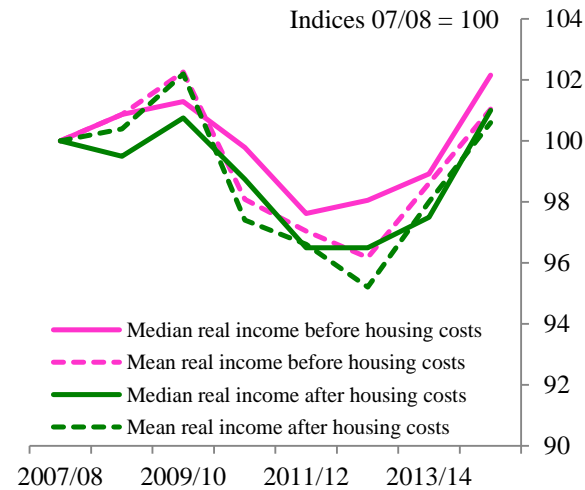
Source: ONS.

Chart 23 – Proportion of individuals by age that have a mortgage



Source: ONS.

Chart 24 – Real income before and after housing costs



Sources: HBAI and Bank calculations.

Chart 25 – Rent as proportion of disposable income in 2014*

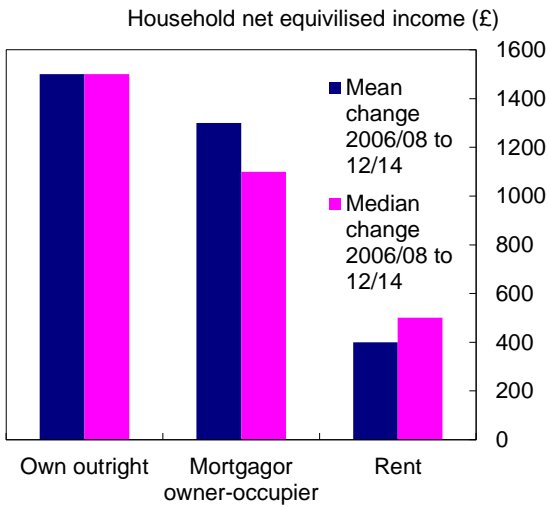


Sources: Living Costs & Food Survey, Expenditure & Food Survey, National Food Survey.

* Disposable income is measured after benefits and direct taxes are paid, consistent with the Effects of Taxes & Benefits publication.

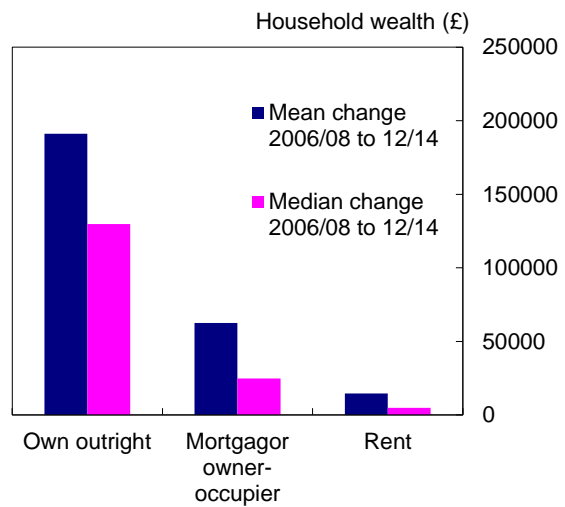
¹ Yorkshire and the Humber

Chart 26 – Changes in total income by housing tenure



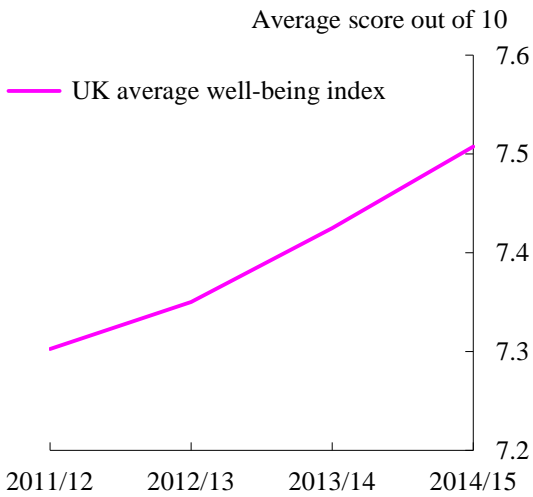
Sources: Wealth and Asset Survey, ONS.

Chart 27 – Changes in total net wealth by housing tenure



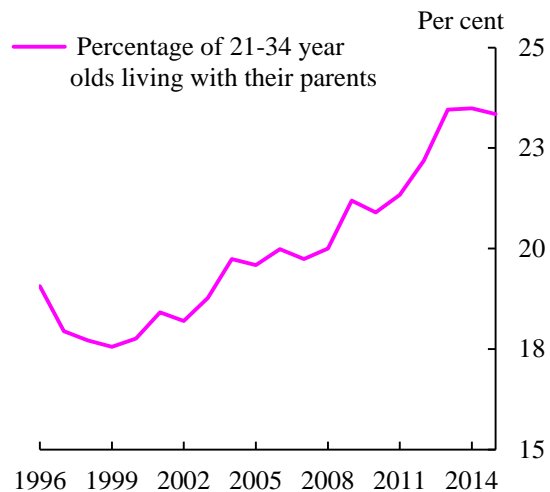
Sources: Wealth and Asset Survey, ONS.

Chart 28- Personal well-being



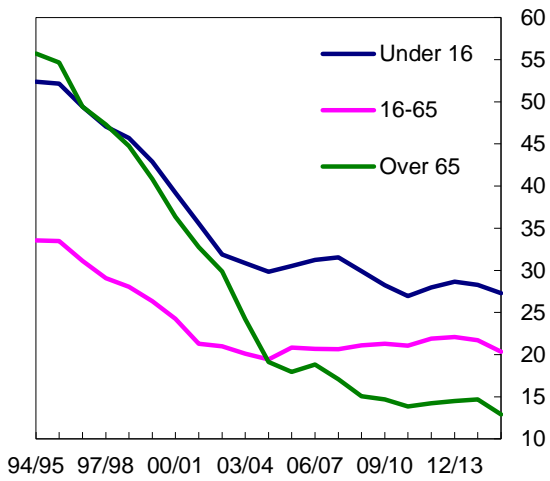
Sources: Annual Population Survey, ONS, and Bank calculations.

Chart 29 – Young adults living with parents



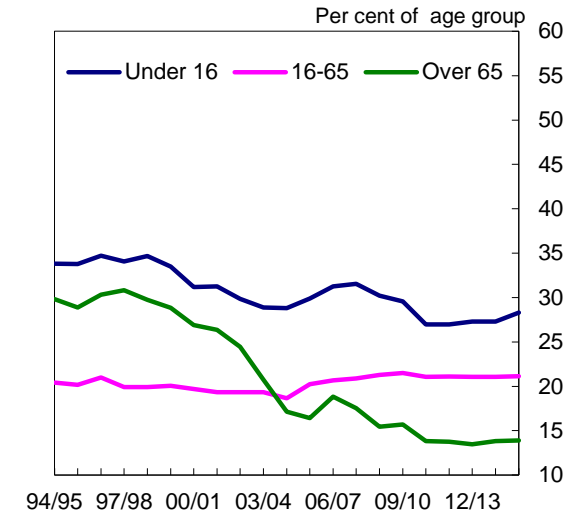
Sources: ONS and Bank calculations.

Chart 30 – Share of people living in absolute poverty after housing costs*



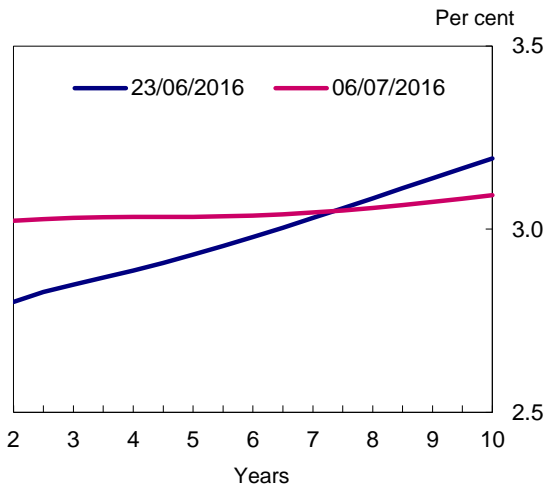
Sources: ONS and Bank calculations.
 * A household is defined as living in absolute poverty where their income is less than 60% of 2010/11 median income held constant in real terms.

Chart 31 – Share of people living in relative poverty after housing costs*



Sources: ONS and Bank calculations.
 * A household is defined as living in relative poverty where their income is less than 60% of median income.

Chart 32 – Financial market measures of inflation expectations



Source: Bloomberg and Bank calculations.
 * Instantaneous RPI inflation implied from swaps.