Well-being: Human well-being and priorities for economic policy-makers

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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>2</td>
</tr>
<tr>
<td>Introducing well-being</td>
<td>2</td>
</tr>
<tr>
<td>What does the evidence show about the kind of economy we want?</td>
<td>5</td>
</tr>
<tr>
<td>The implications of this evidence</td>
<td>12</td>
</tr>
<tr>
<td>Endnotes</td>
<td>15</td>
</tr>
</tbody>
</table>
Abstract

We believe that economic policy should be designed to maximise well-being in a way that is sustainable and socially just. This paper is about some of the policy implications of targeting well-being. The first part introduces the concept, explaining why and what we are targeting; the second part presents some of the key empirical findings; and the third part draws together the implications for policy. This is work in progress: research is ongoing.

Introducing well-being

There is, of course, nothing new about striving for well-being: ‘well-being’ is the state created by ‘the good life’ and ‘the good life’ has been a goal for political economy since at least the fourth century BC.¹

Restating the goal, however, is timely. Over the 30 years to 2008, perhaps longer, the critics of capitalism were marginalised and mainstream progressive politics came to mean correcting a few market failures while maximising and, to some extent, redistributing output. This was the process that was to deliver (and to some extent did deliver) improved chances of a good life. Not everyone has abandoned this grow, tax, and spend model, but over the last two or three years it has become clear to a steadily widening group that it cannot deliver the combination of objectives we have set out: sustainability, social justice, and improved well-being.

Accordingly, the intermediate objective that dominated economic policy-making – maximising GDP – no longer does the job. Under the grow, tax, and spend model it was useful, for all the well-known imperfections of the metric. And who knows, perhaps in the future when we have new structures to channel capitalist energies more effectively, we will again find that maximising economic transactions is the critical intermediate objective (self-evidently it can never be the ultimate objective of policy). Now, however, when we are thinking about designing those structures, we need to go back to fundamentals and ask what all these transactions are for. In other words we need to ask how efficient different forms of economic (and other social) activity are at delivering what we really want (i.e. well-being, the good life). Well-being may be a function of economic activity, but it is clearly not a simple one: there are other variables involved as well. In addition, if we also ask what impact these forms of activity have on the environment, we can start to manage the trade-off between well-being now and well-being in the future (‘delivering well-being in a way that is sustainable’). These relationships are represented in Figure 1.

This paper is about the relationship between economic activity and well-being and what that activity needs to be like to maximise well-being now. The paper Ecological efficiency as the goal of the Great Transition discusses the relationship between well-being and the environment, and thus what is needed to ensure sustainable well-being.
First of all though, we need a more substantive account of well-being than ‘the state created by the good life’.

The old debate between utilitarians, who equate well-being with happiness, i.e. the existence of positive feelings and the absence of negative feelings, and Aristotelians, who equate it with fulfilment or flourishing, still rages. In 2008, nef (the new economics foundation) developed a dynamic model of well-being which combines these different conceptions, equating well-being with happiness and fulfilment; this is possible because the evidence suggests that, for the most part, happiness results from fulfilment or flourishing.

In psychological theory, fulfilment is sometimes described as ‘good functioning’, but perhaps a more intuitive definition is a good relationship between an individual and the world. The relationship may be with other people or the community, or it may be manifest in the individual’s physical and mental engagement with the world more broadly; this then gives rise to feelings not just of happiness, but more precisely of security, self-efficacy, self-esteem, purpose, vitality, autonomy, freedom, and so on.

This account of fulfilment may not be universally shared but it is evidence based:

1. It is consistent with both ancient and modern scientific accounts of what contributes to the good life.
2. There are strong correlations between subjective and objective reports of these features of life and subjective reports of overall happiness and satisfaction with life.

Furthermore, the various components of well-being in this account can be measured, making them potentially useful for policy making. nef has prepared some initial recommendations on how governments might do this to gain a rounded picture of the state of well-being – and to monitor progress during any Great Transition.
None of this is conclusive. In the end it is always open to someone to define the good life differently. The answers we choose, as so often with political questions, depend on an amalgam of ethics and survey data.

Policy-makers also need to know what influences well-being, of course. Here we distinguish between internal psychological traits (such as optimism, introversion, and so on) together with individual physical health, and external enabling conditions. Both of these influence how people behave, how well they relate to the world. This in turn influences how people feel, which may be more or less happy. The direction of causality is not all one way: how people feel feeds back into their psychological traits and health, and people can, through how they behave, influence the conditions they find themselves in as well as their health.

**Figure 2. A dynamic model of well-being**

Enabling conditions include, of course, economic conditions, and in the next section we will review the evidence linking these with well-being. For the most part the evidence reveals direct links between economic conditions and feelings, judgements about feelings and life satisfaction judgements, rather than with good functioning in its various aspects, although we do have some evidence on this. As we shall see, however, the theory just set out helps to make sense of these links, and helps us to draw out the policy implications.
What does the evidence show about the kind of economy we want?

We believe the evidence supports the following seven propositions which are relevant to economic policy. In some cases the support from the evidence is very direct, in others the proposition is the best explanation of complex or even apparently paradoxical data.

1. Income is important to well-being, but only up to a certain level which varies from society to society.
2. Equality is positively associated with well-being, although the relationship is complex.
3. Economic instability is negatively associated with well-being and unemployment is very damaging to well-being.
4. The various components of a ‘good job’ are strongly associated with well-being; but increases in national income do not necessarily translate into better jobs in this sense.
5. The way we consume does not optimise our well-being, and advertising may contribute to this.
6. Some types of personal debt are associated with low levels of well-being.
7. There are other features of society, such as the strength of personal relationships, which are strongly associated with well-being and which, while themselves ‘non-economic’ are influenced by the design of the economy.

For policy purposes what matters, of course, is how to trade off income, equality, stability, good jobs, and those other outcomes influenced by the design of the economy. Desirable outcomes generally suffer from declining marginal value so the optimal trade-off will depend on where the society sits on the curve. We cannot give definitive answers, but the evidence in this section will point to the kind of decision making framework and shift in priorities recommended in the next section.

1. Income is important to well-being, up to a certain level which varies from society to society.

There is a myth about well-being science that it shows that ‘money doesn’t matter’ once people have escaped from poverty. This is not true. There is a positive relationship between an individual’s income and his or her level of well-being when measured at any given time in a particular country (developing or developed). The relationship is strong when well-being is defined as how satisfied people say they are with their lives, although it weakens significantly in the UK when income reaches somewhere between £20,000 and £30,000. Recent evidence shows that in the USA the relationship can hold at very high income levels – above $150,000 household income – when life satisfaction is qualified as relative to the best possible life. This US evidence also shows a relationship, although a weaker one, when well-being is defined in terms of the levels of happiness.
(positive feelings, absence of negative feelings) people record. This relationship declines with rising household income, with an inflexion point in the curve at around $50,000, and disappears when this reaches $75,000.

At nef we have also identified the inflexion points in the curves describing the relationship between income and the various components of well-being in Europe. These are summarised in Figure 3.

Evidence of the kind presented in these paragraphs and figures is often contrasted with time series data which suggests that in the UK, the USA and some other developed countries, well-being (measured in terms of life satisfaction or self-assessment of overall happiness) has not risen over the last 30–50 years despite substantial increases in national income (the ‘Easterlin paradox’ named after the academic who identified it).

There are a number of possible explanations for the paradox. The most common – and the one that we on balance think looks most plausible – is that in developed economies, at least, it is levels of relative not absolute income that drive well-being. I am happier than you because I am richer than you, but if your income doubles and my income doubles nothing changes: I am no more or less happy. This is not just a matter of schadenfreude: there are a number of goods whose supply cannot rise in line with economic activity and access to which will therefore always depend on relative income, on where in the income distribution one sits. Examples of these are status symbols, houses with large gardens, holidays in beautiful and deserted nature reserves, and places at the top 10% of state schools. It may be that access to these has far more influence on well-being than access to the kinds of goods whose supply does rise in line with economic activity such as consumer durables, computer games and books (abstracting from any status or exclusivity they confer).

There are also cases, as Amartya Sen puts it where ‘absolute deprivation’ in our ability to lead the life we choose to lead ‘may follow from relative deprivation in the space of commodities’. He amplifies this idea by quoting Adam Smith:
A linen shirt, for example, is, strictly speaking, not a necessary of life. The Greeks and Romans lived, I suppose, very comfortably, though they had no linen. But in the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a linen shirt.\textsuperscript{19}

In short, the level of income necessary to participate satisfactorily in a society may depend on the overall levels of income in that society.

This explanation of the paradox is in some ways counterintuitive. It seems to run against the common sense feeling that having a bit more money in absolute as well as relative terms may increase opportunities for the kind of activities that encourage fulfilment and happiness (pursuing a hobby, having friends to stay, going on holiday, etc.) or remove some of the obstacles (poor childcare facilities, poor medical care, poor transport, the daily struggle for survival). In fact, when analysed, it turns out that many of these increased opportunities result from increased relative income; nonetheless we need to consider at least two other explanations of the paradox which are less counterintuitive.

First, there may have been other negative influences on happiness that have counterbalanced the positive impact of higher incomes in the countries where time series data suggests well-being has been flat. There is evidence that some of the most likely candidates for these influences, such as the sharply increased social isolation in the USA,\textsuperscript{20} or increased workplace stress, are probably linked in some way to rising incomes. However this does not show that rising incomes are valueless, just that rising incomes delivered in the way they have been are valueless.

Second, there are a number of measurement problems which may mean that survey results don’t pick up underlying changes. I won’t go into the details but just mention a couple. Responding to questions such as ‘would you say that you are very happy/pretty happy/not too happy’ which are often used in surveys involves making judgements about those experiences. In making those judgements people will apply a frame of reference, and that frame of reference may be the current world, i.e. one that moves with the times and rises with general income levels. For example, our ideas about what constitutes ‘participating satisfactorily in society’ may rise with income, and we may judge our happiness against that standard.\textsuperscript{21} In this case, even if rising incomes had made people happier, it would not be picked up in the survey data. In addition the judgement may be influenced by norms about how to answer such questions – for example, it may be that while not everyone will answer 7 out of 10, many people think that 7 out of 10 is an appropriate response for a normal person, which reduces the sensitivity of the measurement tool. On balance most academics in the field do not think these measurement problems are enough to explain the paradox but we acknowledge that they exist and may be part of the story.

We draw the following conclusions from this:

- In any society at any given time income increases will have a significant impact on well-being up to a certain level, although what this level is and how easy it is to define this level tightly (how sharp the inflexion point is) will vary from society to society.
It is quite likely – but not proven – that increasing a society’s overall income reduces the well-being associated with any given level of income - i.e. moves the income thresholds in Figure 3, thereby reducing or eliminating the gains in well-being created by increases in income ‘up to a certain level’.

2. **Equality is positively associated with well-being, although the relationship is complex.**

The standard textbook case for equality is that marginal utility falls with rising income – an extra £1 brings more utility to a poor person than to a rich person. Therefore other things being equal the more equality the more utility. However other things are not equal: too much equality blunts work incentives (or so goes the standard argument) and therefore reduces output and utility. The optimum level of equality (leaving aside any social justice considerations) is therefore at the point where ‘the gains from further redistribution are just outweighed by the losses from the shrinking of the cake’. The same case applies substituting well-being for utility.

The discussion in the previous section suggests that the optimum level of equality is high. For example, in the USA, happiness stops rising at household income levels above $75,000 – the marginal utility of an extra £1 for people above this level is not just low but zero (when measured in terms of happiness) – and the curve flattens quite significantly at $50,000. The UK data are consistent with similarly inflected curves.

If we accept the ‘relative income’ explanation of the Easterlin paradox then, in the long run, the optimum level of income equality may be higher still: there is no real value in increasing the size of the cake beyond its current size so the work incentives point is less important. However this is not to deny that in the short to medium term, growth is needed to avoid reductions in the economy’s size, economic instability and unemployment and a degree of inequality, may be the price needed to ensure this.

There is some evidence that inequality may be damaging to well-being in ways that go beyond the effect of declining marginal utility. In some unequal societies, material aspirations are particularly strong, and cannot all be met. The result is not just a zero sum game but a negative sum game: the dissatisfaction of those with unmet high aspirations outweighs the satisfaction of those with met high aspirations. Where this is true, social comparisons are in effect making happiness more expensive; inequality even if it increases income may reduce happiness.

The evidence for this is not conclusive. It is largely qualitative and there isn’t a statistically significant correlation between the Gini coefficient of a country and levels of well-being. Latin American countries, for example, boast relatively high levels of well-being and high levels of inequality while there is evidence that some low-income but potentially mobile groups actually like inequality. The situation is complex and probably depends on the shape of the Lorenz curve (i.e. where inequality falls in the income distribution), the geographic distribution of inequality, and the cultural significance of inequality.

There is, however, quantitative evidence that controlling for income levels, inequality has a negative impact on both mental and physical health,
which in turn are strongly correlated with well-being. Another potential consequence of inequality is insecurity: intuitively, we would expect more equal societies to produce a greater sense of security amongst their members, which we know contributes to well-being. So, for example, a higher ratio between unemployment benefit rates and an estimate of the expected wage increases life satisfaction for both the unemployed and the employed.  

3. Economic instability is negatively associated with well-being and unemployment is very damaging to well-being.

The evidence on this is particularly clear cut:

- Loss of income damages well-being significantly more than a comparable gain enhances it.  

- Well-being is negatively associated with very high growth rates, presumably because of the disruption almost always accompanying very high growth.  

- Job security is the job feature most commonly cited by employees as desirable. Casual workers enjoy lower levels of well-being than full-time workers.  

- The unemployed have sharply lower life satisfaction scores (5–15 per cent lower), are 19 per cent less likely to have a high life satisfaction score and 15 per cent less likely to have a high overall happiness score; these results are stronger than those associated with the equivalent income loss.  

- The unemployed do not adapt to their circumstances in the way that those who gain or suffer income changes generally do – the impacts just described are long lasting.  

- High levels of unemployment are associated with loss of well-being amongst the employed, presumably because they create fear of unemployment.  

- There is a positive association between doing at least some work and well-being amongst the otherwise retired.  

- Inflation is also negatively associated with well-being, although the overall impact of inflation is significantly less than the impact of unemployment; volatile inflation rates rare worse than steady inflation rates.  

- Levels of wealth are more strongly related to levels of life satisfaction than are levels of income; this may partly be because wealth allows consumption above income, but may also be because of the value of economic security which wealth provides.  

4. The various components of a ‘good job’ are strongly associated with well-being; however, rises in national income do not necessarily translate into better jobs in this sense.

The evidence on this consists partly of correlations of certain features of jobs and subjective measures of well-being and partly of survey data on the features of jobs that people value. The following are key findings:
- Most people in Europe say they would like to work fewer hours – a survey a few years ago revealed that over 50 per cent of European Union workers wanted to reduce their working week to an average of 34 hours and that they would ‘even accept a corresponding drop in income to achieve this’. However, there is also data showing that part-time workers enjoy lower levels of well-being than full-time workers. Consistent with these findings, the limited amount of evidence suggests there is an inverse u-shaped curve relating life satisfaction and hours worked; i.e. that well-being rises as hours worked rise but only up to a certain point before it starts to drop as hours become excessive.

- Long commutes significantly reduce well-being.

- As already noted, the job feature most widely valued by employees is security; casual work is damaging to men’s mental health and women’s life satisfaction.

- Also highly valued are good social relations at work and the opportunity to do work that is interesting and stretches the employee but which he/she is good at. These are linked to overall job satisfaction.

- Overall job satisfaction in the UK fell between 1989 and 1997 and then rose back to 1989 levels by 2005 – in other words it has not risen in line with national income. Similarly job satisfaction fell or was flat between 1997 and 2005 in 9 of 15 OECD while rising in 6.

5. **The way we consume does not optimise our well-being, and advertising may contribute to this.**

There are three points here. The first is that our decisions about how to consume and spend our time do not maximise our well-being. This is possible because people are not very good judges of what will make them happy. As a result we spend a relatively large amount of our time on passive pursuits such as watching television, even though the evidence is that active pursuits contribute disproportionately to well-being; there have also been suggestions that passive pursuits actively induce low levels of well-being. Similarly, our decisions may be driven by goals which themselves make us unhappy: there is evidence that those who value material goals relatively highly are less happy than those who value other things. Such effects may be best detected at the level of society as a whole: it has also been shown that societies such as the UK that are relatively more materialistic have higher levels of mental ill health and lower levels of child well-being than societies (such as some in continental Europe) that are less materialistic.

The second point is that advertising may make our consumption decisions (even more) sub-optimal. It is well known that advertisers aim to create emotional associations with products to drive sales. In the words of one business magazine citing recent research:

> Consumers’ purchasing decisions are driven in large part by implicit associations with the imagery connected to a brand – and rely on the subconscious emotional appeal of a product much more than consumers may suspect.
In itself the lack of conscious awareness referred to here does not show that the decisions are sub-optimal. However, the research referred to also shows that when consumers are given the chance to consider the practical merits of alternative products as well as being subjected to the emotional message, the influence of the emotional message is significantly weakened: practical rather than emotional features dominate the decision. In other words, brand advertising makes our never very good judgement about what will maximise well-being even worse: it only works because it can exploit and exacerbate imperfections in our information processing.

The third and more controversial point is an attempt to combine the first two points. Advertising induces sub-optimal decisions because it encourages materialism and passive pursuits at the expense of active pursuits. It is thus potentially damaging to well-being. However this is disputed, we at least do not have clear cut evidence, and more work is needed to confirm or reject this hypothesis.

6. Some types of personal debt are associated with low levels of personal well-being.

Short-term debt, such as credit card debt or payday debt, has a negative effect on well-being. However longer-term debt, such as mortgages or debts taken out to invest in assets have not been found to impact negatively on life satisfaction.

7. There are other features of society which are strongly associated positively or negatively with well-being and which are influenced by the design of the economy.

- There is a positive correlation between well-being and participation in the community and volunteering, although in some studies when the personality variable of extraversion was added to the model the effect disappeared; in other words while it is likely (and intuitively plausible) that there is a causal relation, it is possible there is not.
- Seeing family and friends is positively associated with well-being.
- Social trust (i.e. trust in most other people) is positively associated with well-being, positive responses in the UK to the question ‘do you think most other people can be trusted’ fell from c. 60 per cent in the 1950s to c. 30 per cent in 2002.
- Children’s well-being, both as children and later in life, is negatively associated with frequent moves of home.
- As already noted, there is evidence that active leisure pursuits requiring some effort or concentration are much more conducive to well-being than passive leisure pursuits such as watching television or shopping.
- Living close to open green space has been shown to enhance people’s well-being.
- Negative externalities such as pollution and aircraft noise are (unsurprisingly) negatively associated with well-being.
The implications of this evidence

In this section we argue that the evidence in the previous section points towards five main priorities for economic policy:

1. A target band of income for everyone (propositions 1 and 2).
2. Economic and social stability and minimal unemployment (proposition 3 and parts of proposition 7).
3. Satisfying work for all (parts of proposition 4).
4. Work for all in the right quantities (parts of propositions 4 and 7).
5. Ensuring active forms of consumption and correcting the biases created by advertising (propositions 5 and 6 and part of proposition 7).

As noted, there may be trade-offs between these. It is beyond the scope of this paper to discuss how this should be managed, but analysis of well-being impacts is likely to play a useful part. We do not discuss the levers or policies needed to achieve these priorities.

1. **A target band of income for everyone.**

The discussion of income and well-being concluded:

- In any society, at any given time, income increases will have a significant impact on well-being up to a certain level, although what this level is and how easy it is to define this level tightly (how sharp the inflexion point is) will vary from society to society.

- It is quite likely – but not proven – that increasing a society’s overall income reduces the well-being associated with any given level of income - i.e. moves the income thresholds in Figure 3, thereby reducing or eliminating the gains in well-being created by increases in income 'up to a certain level'.

This, together with the arguments for equality that followed make clear that simply targeting growth is not the most efficient way of maximising well-being. We believe targeting an income band is a potential alternative, in so far as it is compatible with both the evidence and our model of well-being, and has a good chance of being politically viable. What follows is, of course, only a starting point for discussion, and does not take into account the need for sustainability or other potential requirements of economic transition.

For public policy purposes there should be a target band of income based on the current income/happiness curve. The headline indicator would be the proportion of the population living within this band.

Achieving the lower end of the band would mean that you could participate actively in society, could ‘function’, could pursue a fulfilling life without the distractions of insecurity and poverty; at the upper end of the band the relationship with happiness would (almost) disappear.

This account of the lower end of the band is essentially the idea set out by Amartya Sen who argued nearly 30 years ago that an adequate 'living
standard’ for individuals is one which allows positive answers to questions such as:

\[
\text{Can they take part in the life of the community? Can they appear in public without shame and without feeling disgraced? Can they find worthwhile jobs? Can they keep themselves warm? Can they use their school education? Can they visit friends and relations if they choose?}^{23}
\]

The lower end of the band is considerably above subsistence and we suspect, but cannot (as yet) prove that it is equal to the inflexion point of the kind shown in Figure 3. Its value, and that of the upper end, vary from society to society and, as the Easterlin paradox shows, over time within societies. In the USA, if our assumption about the inflexion point is correct, the lower end appears to be around $50,000 household income and the upper end appears to be $75,000.\(^{74}\)

One way of getting more people into the band is by moving the whole curve to the left – and as the paper on ecological efficiency will argue, this could also become a key target for sustainability reasons. On the other hand, one of the arguments for growth is that it makes increasing equality easier: while growth is often accompanied by increases in inequality it does allow egalitarian policy makers to increase equality without reducing the absolute incomes of the better off. It also allows social mobility upwards without too much mobility downwards: having a standard of living which is much worse than one’s parents at the same age has a negative effect on overall happiness.\(^{75}\)

We recognise that a challenge to this position is that it may appear to sanction inequalities between societies. This needs looking at, but broadly in an inter-connected world you might expect convergence over time.

2. Economic and social stability and minimal unemployment.
This falls directly out of the evidence. High well-being is associated with low levels of unemployment and high levels of job security.

In some circumstances there is a trade-off between these two desirable outcomes. France, for example, is said to have chosen relatively high levels of both unemployment and job security, the UK relatively low levels of unemployment and job security. The challenge is thus to improve the levels of security and unemployment at which this trade-off takes place, to shift the curve as it were, or perhaps even to eliminate the reasons that the trade-off exists. This should be an explicit objective of economic policy and could be captured in some compound measure of these two desirable components of economic security.

Several other desirable features of society contributing to high levels of well-being – stronger relationships, social trust, community involvement, children who are able to ‘put down roots’ – are associated with stable communities. A good economy is one which strengthens existing communities rather than requiring people to uproot themselves. The impact of economic development on communities and the extent to which it encourages dysfunctional geographic mobility should also be a priority for economic policy-makers.
3. **Satisfying work for all.**
Economic policy at the moment is almost entirely concerned with increasing output, although creating employment is seen as a desirable consequence of that. In fact the evidence suggests that economic policy should be concerned with the quality of the jobs created as well as the quantity. The level of job-satisfaction should be a specific target.

4. **Work for all – in the right quantities.**
Long working hours are damaging to well-being. They may also make constructive use of leisure time difficult, reducing the time and energy available for the kinds of active pursuits and community engagement which are associated with high levels of well-being. Reducing the average number of hours worked should therefore be an explicit target for economic policy.

5. **Ensuring active forms of consumption and correcting the biases created by advertising.**
The evidence shows that the quality as well as the quantity of consumption matters to well-being, and as we have seen, it is at least likely that individuals are exposed to pressures which result in sub-optimal consumption decisions. Just as a well-being-driven economic policy will target the quality of jobs, so too will it target the quality of consumption, with a view to steadily increasing the proportion devoted to those activities strongly linked to well-being. This does not of course imply state direction of leisure activities, pioneer camps, and the banning of television. It does, however, imply identifying the biases and barriers which result in sub-optimal decisions, and, where possible within the constraints of a liberal society, attempting to remove these.
Endnotes

1 Aristotle is normally credited with developing the concept of eudaimonia. In Asia, the Indian emperor Ashoka wrote, in the third century BC, on his ‘Pillar of Ashoka’ (now in the British Museum) ‘I consider how I may bring happiness to the people [even] … to those who are far removed from me’.


3 Ibid. and associated science reviews.

4 From Aristotle, Nicomachean Ethics, to, amongst many others Maslow op cit, Foresight op cit


7 Foresight (2008) op. cit.


12 When positive affect, the absence of negative affect (‘not blue’), and stress are considered. Identifying inflexion points will always be a matter of judgement.


19 Smith A (1776)An inquiry into the nature and causes of the wealth of nations.

20 Between 1984 and 2004 the number of Americans with ‘no-one to talk to’ rose from 8% to 24%. For the link with economic growth see Bartolini S and Bilancini E (2010) If not only GDP, what else? Using relational goods to predict the trends of subjective well-being. International Review of Economics 57:199–213.
This is similar to the point Sen makes that ‘the level of capabilities that are accepted as ‘minimum’ may themselves be upwardly revised as the society becomes richer’ (Sen (1987) op. cit. post script).


Kahneman and Deaton (2010) op. cit.

nef (2007) op. cit.


Layard (2005) op. cit.


Dolan P, Peasgood T and White M (2006) Review of research on the influences on personal well-being and application to policy making. Final report for Defra(London: Defra), p60. I have drawn extensively from this literature review and have referred to the relevant pages rather than the articles cited, which can of course be identified in the review.


Dolan et al. (2006) op. cit. p50.

Ibid. p49.

Ibid. p50.

Clark (2010) op. cit.

Ibid.

Dolan et al. (2006) op. cit. p50.

Clark (2010) op. cit.

Dolan et al. (2006) op. cit. p51.

Ibid. p60.

Ibid. p42.


Dolan et al. (2006) op. cit. p50

Ibid. p51.

Ibid. p51.

Ibid. p49.

Clark (2010) op. cit.

Clark (2010) op. cit.


Clark (2010) op. cit.

Clark (2010) op. cit.


Foresight (2008) op. cit.

nef (2004) op. cit.


nef (2004) op. cit.

Dolan et al. (2006) op. cit. p42.

Foresight (2008) op. cit.

Dolan et al. (2006) op. cit. p52.


Dolan et al. (2006) op. cit. p59

Ibid. p55.


Dolan et al. (2006) op. cit. p61.

Sen (1884) op. cit.

Obviously these figures need to be adjusted to take into account the number of adults and children in the household.

Dolan et al. (2006) op. cit. p42.