

# Economic well-being - Framework and indicators

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## Abstract

Presents the framework for Economic Well-being as well as a dashboard of headline indicators that together give a more rounded and comprehensive basis for assessing changes in economic well-being.

## Key Points

- Economic well-being is a multi-dimensional concept.
- This article presents a regular set of indicators of economic well-being that supplement more traditional measures such as GDP to give a more rounded and comprehensive basis for assessing changes in economic well-being.
- From 23 December 2014, ONS will publish these indicators in a new quarterly release.

## Introduction

This article:

- Presents a new set of headline indicators that will in future be published quarterly at the same time as the Quarterly National Accounts (starting on 23 December 2014)
- Sets these indicators within a structured framework, derived from the Stiglitz Report and designed to give a better picture of trends in economic wellbeing than can be given by traditional measures such as GDP alone
- Presents supplementary indicators which will also be available, albeit not within the headline set
- Shows ONS's future work plans to develop the statistics and analysis.

In the UK, the National Accounts, and Gross Domestic Product (GDP) in particular, currently have the highest profile. In its own terms, this prominence is fully warranted. GDP measures the sum total of the final output that the economy produces (equivalently, it measures the income that is earned from that production or the amount that is spent on the final goods and services produced).

Given that it measures aggregate activity in the economy, GDP, supported by other information, inevitably and correctly plays a central role in discussions about monetary and fiscal policy and about the state of the economy generally. It is therefore of vital importance.

While it is right that GDP plays a central role in monetary and fiscal policy, it has long been recognised as presenting an incomplete picture of how our society is doing. This article presents a complementary framework for economic well-being to shine light on broader socio-economic measures.

The framework has been developed with strong links to the recommendations coming from the [Stiglitz report](#) and therefore many of the adjustments and supplementary indicators can be directly linked to the Stiglitz recommendations. Economic Well-being focuses on the first of the Stiglitz Reports three pillars – providing a fuller understanding of the economy and how it impacts on the well-being of a nation. It is a subset of the overall issue of measuring well-being and recognises that many dimensions of well-being are outside of the material sphere (see, for example, [the ONS Measuring National Well-being Wheel](#)).

From 23 December 2014, ONS will publish the set of indicators implied by this framework each quarter together with the Quarterly National Accounts.

## Headline Indicators

The indicators outlined here are those that have been chosen as the headline indicators that together give a more rounded and comprehensive basis for assessing changes in economic well-being. The indicators have been selected based on coverage of the framework for economic well-being (discussed in detail in the Framework section), their timeliness (the amount of time between the end of the reporting period and the availability of the estimate) and their frequency (where possible we have considered quarterly data sources).

### Headline Economic Well-being Indicators<sup>1</sup>:

- **GDP per head** (Real Gross Domestic Product per capita). Growth in GDP could merely reflect a larger population. It is therefore important to account for population growth by considering GDP per head.
- **Income available to residents of a country per head** (Real Net National Disposable Income per capita). The total income available to residents of a country is an important indicator as not all income generated by production (GDP) in the UK will be payable to UK residents. Real NNDI per capita is also adjusted for capital consumption, which is generally not regarded as contributing to economic well-being.
- **Household Income per head** (Real Household and NPISH Gross Disposable Income per capita). Not all of the income available to residents of a country is available to households – some of it is the income of businesses and the government. This indicator focuses on the income that is available to individuals. This indicator has been chosen as it gives a full picture of income available to households.
- **Household Spending per head** (Real household and NPISH final consumption expenditure per capita). The importance of looking at both income and consumption was highlighted in recent ONS analysis on the impact of income and spending on personal well-being. The analysis showed spending had a stronger relationship with happiness and life satisfaction than income.
- **Median Household Income** (Real Median Equivalised Household Disposable Income deflated using the HHFCE Implied deflator). Additionally, while average measures of household income

per head are helpful, they give no indication about how available resources are distributed. Median income is a measure of the income of a 'typical' household.

- **Whole Economy Net Wealth** (Net financial and physical assets). This indicator considers the sustainability of current flows of income and expenditure for the economy as a whole.
- **Household Net Wealth** (Net household and NPISH financial and physical assets). This indicator considers the sustainability of current flows of income and expenditure for households.
- **Unemployment rate** (Unemployment rate, all aged 16 and over). Unemployment has been shown to have a detrimental impact on personal well-being. In addition, unemployment has long been used as a measure of the state of the economy.
- **Inflation rate** (Consumer Prices Index). Inflation is included for its potential to impact on household income and net wealth.
- **Financial situation of households** (Financial situation of households over the last 12 months from the Eurobarometer). It is important to consider individuals perceptions of their income, as well as the reality. It is their own perceptions of income that shapes how well off they consider themselves to be.

## Notes

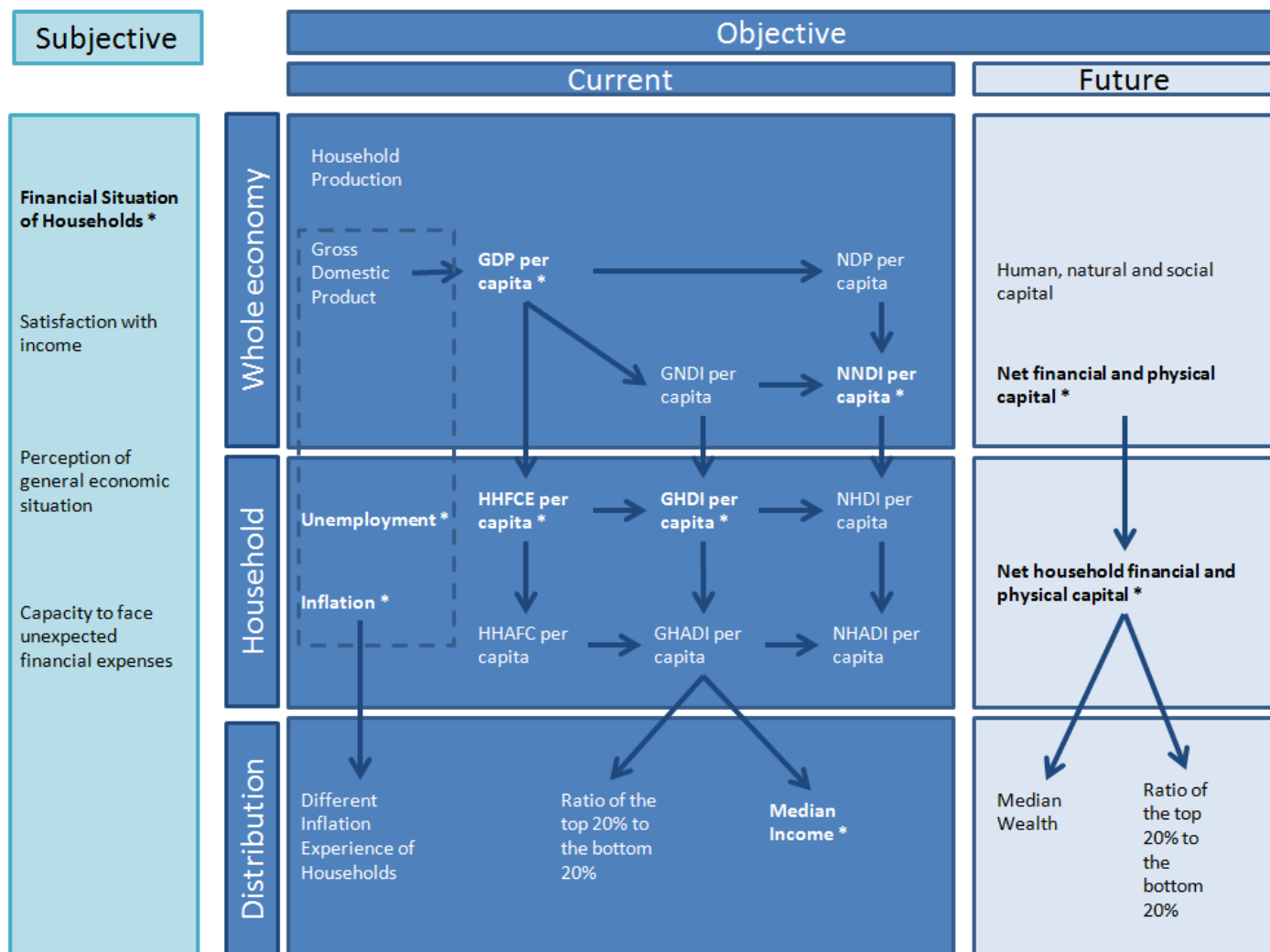
1. Further detail on these indicators can be found in the 'Framework' section of this article.

## Framework

Figure 1 presents the framework that has been proposed. The rest of this section discusses the considerations, particularly in the context of the Stiglitz Report, that underpin it. It embraces:

- Objective and subjective measures
- Current and future measures
- Measures of activity at the whole economy level, household sector level and individual household level

### Figure 1: Economic Well-being framework



### Notes:

1. Please click on the image to view a larger version.
2. \* indicates headline indicators.
3. GDP – Gross Domestic Product, NDP – Net Domestic Product, GNDI – Gross National Disposable Income, NNDI – Net National Disposable Income, HHFCE – Household Final Consumption Expenditure, HHAFC – Household Actual Final Consumption, GHDI – Gross Household Disposable Income, GHADI – Gross Household Adjusted Disposable Income, NHDI – Net Household Disposable Income, NHADI – Net Household Adjusted Disposable Income, Median Income – Median Equivalised Households Disposable Income

### 1. Consider income rather than production or consumption.

GDP per capita can be adjusted so that the focus is on the total income available to residents of a country rather than the total production of an economy.

First, not all income generated by production in the UK will be payable to UK residents. Some of the capital employed will be owned by non-residents and they will be entitled to the return on that

investment. Conversely, the UK's residents receive income from production activities taking place elsewhere, based on their investments overseas. Adjusting for these flows gives a measure better focused on income rather than production. Making this adjustment to GDP per capita results in Gross National Disposable Income (GNDI) per capita.

Second, it can be adjusted for capital consumption. GDP is "gross" in the sense that it does not adjust for capital depreciation - that is to say the day-to-day wear and tear on vehicles, machinery, buildings and other fixed capital used in the productive process. It treats such consumption of capital as no different from any other form of consumption. But most people would not regard depreciation as adding to their material well-being. This adjustment results in 'net' rather than 'gross' measures – transforming GDP per capita into Net Domestic Product (NDP) per capita and GNDI per capita into Net National Disposable Income (NNDI) per capita.

## 2. Emphasise the household perspective.

The second recommendation from Stiglitz was to consider the household perspective, and therefore, the next adjustment is to take the part of these aggregates that can be allocated to the household sector – household income and expenditure. The importance of looking at both income and expenditure was highlighted in recent ONS analysis on the impact of [income and spending on personal well-being](#) which showed spending had a stronger relationship with happiness and life satisfaction than income. It is also worth highlighting however, that income had a stronger relationship with anxiety.

Here, we introduce another three possible indicators:

- Household Final Consumption Expenditure per capita (HHFCE) – the element of GDP per head calculated by the expenditure approach which can be attributed to households
- Gross Household Disposable Income per capita (GHDI) – the part of Gross National Disposable Income (GNDI) per head that can be attributed to households
- Net Household Disposable Income per capita (NHDI) - the part of Net National Disposable Income (NNDI) per head that can be attributed to households. NHDI is also GHDI adjusted for the capital consumption of households

However, Stiglitz also highlighted that "properly defined, household income and consumption should also reflect in kind services provided by government". We can therefore adjust each of the three household measures previously mentioned to account for benefits in kind:

- Household Actual Final Consumption per capita (HHAFC)
- Gross Household Adjusted Disposable Income per capita (GHADI)
- Net Household Adjusted Disposable Income per capita (NHADI)

This adjustment is particularly important for international comparisons, where these services differ between countries.

## 3. Consider wealth in conjunction with income and consumption.

The indicators discussed so far focus on current income and consumption - the flows of output or income but not the corresponding stock of wealth and net assets. Thus, it is possible that a nation

might be increasing its output and consumption while running down its assets, and it follows that this output and consumption would not be sustainable. Equally, the reverse might be the case and GDP would then underestimate the true position in regard to sustainable future consumption and thus well-being.

The UK, along with several international bodies and in line with recommendations in the Stiglitz Report, considers sustainability through the “capitals approach”. The capitals approach states that economic, natural, human and social capitals are all resources that matter for the present and future well-being of individuals. The approach aims to monitor whether these capital assets are sustained over time for future generations. Indicators of human, natural and social capital are currently under development, and their importance for economic well-being is highlighted here.

Indicators of financial and physical capital (sometimes called economic capital) are better developed and are included in the National Accounts:

- Net financial and physical assets
- Net household financial and physical assets

#### **4. Give prominence to the distribution of income, consumption and wealth.**

Additionally, while average measures of household income per head are helpful, they give no indication of how available resources are distributed across people and households.

With this in mind the framework also has a dimension for distribution of income and wealth. Work is ongoing in ONS, as part of an OECD expert group, to produce breakdowns of National Accounts aggregates by income quintile and household type. However, indicators currently exist from micro-data which can be used:

- Real Median Household Income
- Ratio of the income of top 20% against the bottom 20% of the income distribution
- Real Median Household Wealth
- Ratio of the 20th percentile against the 80th percentile of the wealth distribution

The definition of income to be used in this release is equivalised disposable income. Disposable income is the amount of money that households have available for spending and saving after direct taxes (such as income tax and council tax) have been accounted for. It includes earnings from employment, private pensions and investments as well as cash benefits provided by the state. In order to make comparisons over longer periods of time, disposable income is equivalised. Equivalisation is the process of accounting for the fact that households with many members are likely to need a higher income to achieve the same standard of living as households with fewer members.

In addition to the distribution of income and wealth it also important to consider the inflation rate experienced by different sub-groups of the population. This work has important implications for measuring standards of living and therefore has been included within the framework.

#### **5. Broaden income measures to non-market activities.**

The final classical GDP recommendation from the Stiglitz report was to broaden income measures to include non-market activities, in particular, the services that households produce for themselves.

Due to the unpaid nature of this production, conventional National Accounts measures such as GDP do not generally take into account the production of these goods and services. Nonetheless, if these goods and services were paid for, they would contribute to GDP. For example, if the household members cleaned their house themselves, this service would be unpaid and therefore excluded from GDP. However, if the household members paid somebody else to clean their house, this service would be included in GDP as it involves a market transaction.

The Household Satellite Account provides a means by which unpaid work on the economy can be measured. Just over 10 years ago, ONS developed such a Household Satellite Account using existing survey and administrative data sources. This is currently being updated and developed and, following its completion, can be included within the framework.

## **6. Additional considerations**

One key adjustment is to reflect population changes. We therefore adjust flows of production, income and consumption to reflect population growth, meaning, where relevant, the measures are on a per head basis. Additionally, where possible, indicators have also been adjusted to reflect the impact of inflation. As a result we consider the indicators in 'real' terms.

The Stiglitz Report also said that 'Measures of both objective and subjective well-being provide key information about people's quality of life'. Here we have included indicators on perceptions of the economy and household income.

## **Supplementary indicators**

There is a balance to be struck between reflecting all possible dimensions of economic well-being and keeping the headline set of indicators to a manageable number to reflect the most important dimensions.

For this reason, in addition to the headline measures, the quarterly economic well-being information will provide a number of supplementary indicators, not however considered as important as the headline set.

### **The whole economy perspective**

The release will include Net Domestic Product per capita (which adjusts GDP per capita for capital consumption) and Gross National Disposable Income per capita (which adjusts GDP per capita for the income from production that is not payable to residents of the UK).

### **The household perspective**

It will also include indicators making adjustments for benefits in kind and capital consumption:

- Household Actual Final Consumption per capita

- Gross Household Adjusted Disposable Income per capita
- Net Household Adjusted Disposable Income per capita.

While these are not headline indicators they are recommended for use when comparing household incomes and expenditure internationally.

## Distribution

The headline indicators include a measure of median income. Supplementary indicators include:

- Ratio of the income of top 20% against the bottom 20% of the income distribution
- Real Median Household Wealth
- Ratio of the 20th percentile against the 80th percentile of the wealth distribution

As with the measures of household income from the National Accounts, it is also possible to adjust median income for benefits in kind (the goods and services that are provided by others on behalf of households, for example, education and healthcare). This will therefore also be included as a supplementary indicator.

Additionally, when available, the release will also draw on information on the rate of inflation experienced by different sub-groups of the population. This work is ongoing within ONS and will be included where relevant following its completion.

## Subjective measures

In addition to the headline indicator 'Financial situation of household over the last 12 months' from the Eurobarometer, the release will also cover more detailed indicators such as perception of general economic situation over the last 12 months, savings and perception of climate to make major purchases.

Where available the release will also cover indicators from Understanding Society and EU Survey of Living Conditions such as:

- satisfaction with income
- those that report finding it difficult to get by financially
- capacity to face unexpected financial expenses
- ability to make ends meet

Although these indicators are similar to those from the Eurobarometer, the larger sample sizes allow further breakdowns and analysis. However, the timeliness of these indicators means that they are not considered as headline indicators.

## Future Developments

This section of the article outlines some of the development work that ONS is undertaking within the Economic Well-being framework. Following the completion of these areas of work, there is scope within the framework for their inclusion.



## Developing estimates of human, natural and social capital

In 2010, ONS published the first estimates of human capital. Following updates to these, a full public consultation, and redevelopment of the system, ONS published further estimates in December 2013 and August 2014.

Following the responses to the consultation we are currently undertaking to look into the feasibility of regional estimates of human capital. Given the sample sizes of the data source and the number of necessary ways of splitting the data, this is not a simple task. Work is ongoing, and we hope to consult users on developments in early 2015.

Additionally, in May 2014, ONS published a first attempt to develop UK [natural capital estimates](#) using wealth accounting approaches. Following further development, these estimates will be incorporated into the UK Environmental Accounts - a 'satellite account' to the main National Accounts.

The UK is actively taking part in international initiatives to compile guidelines for the measurement of human and natural capital on an internationally comparable basis.

In November 2014, following a public consultation, ONS published a set of [social capital indicators](#). Analysis of this set of indicators is planned for early 2015.

## Developing measures of household production

In 2002 ONS published the first Household Satellite Account using an output methodology for the UK. We are currently working to update these estimates and develop the methodology as we proceed. Throughout 2013 and 2014, articles were published on the child care, adult care, voluntary activity, transport, clothing and laundry components. Currently, we are developing the housing and nutrition components. Completion of all the components will allow us to pull together the full accounts.

In April 2014, The Centre for Time Use Research (CTUR) and NatCen launched the fieldwork of the 2014-2015 UK national sample Harmonised European Time Use (HETUS) Survey. ONS continues to work with the CTUR. Availability of time use data will be beneficial for the measurement of national well-being in a number of ways including opening the possibility to develop measures of household production on an input based methodology allowing reconciliation of methods.

## Improving the timeliness of ONS income distribution analysis

Publication of household income data from official surveys normally occurs around 15 months after the end of the income reference period. The absence of more timely and regular data on median household income has been identified by ONS and external stakeholders as an important gap and it has previously been agreed that the feasibility of delivering improvements should be investigated as soon as possible.

In the case of ONS's Effects of Taxes and Benefits publication, it has been identified that producing estimates on indirect taxes and benefits in kind take longer to produce than the other components of income (original income, cash benefits and direct taxes) due to the large number of external data

sources used. As it should be possible to produce and fully quality assure figures up to and including disposable income by an earlier date it is proposed that this publication will be published in two separate releases.

ONS are therefore publishing a new short annual bulletin in starting in early March 2015. The aim of this release will be to provide users with key income statistics for 2013/14 at the earliest opportunity (11 months after the end of the reference period), along with longer term trends, going back to 1977. The statistics in this release will include measures such as median disposable income, inequality measures such as the Gini coefficient, and breakdowns of the components of disposable income by quintile and decile groups.

The full Effects of Taxes and Benefits on Household Income 2013/14 data and release, including indirect taxes and benefits in kind will be published in June/July 2015.

### **Measuring disparities within a National Accounts framework**

The OECD has recently launched a new Expert Group on Distributional Information on Income Consumption and Savings within the System of National Accounts. The aim of the group is to survey micro-data to produce breakdowns of National Accounts aggregates by income quintile and household type. This will allow analysis of the distribution of National Accounts household income, expenditure and savings figures for the first time. ONS is participating actively in this group, with the development of appropriate methods currently underway and initial data due to be submitted to the OECD in 2015.

### **References**

[Measuring National Well-being interactive wheel of measures](#)

[Report of the Commission for the Measurement of Economic Performance and Social Progress \(Stiglitz Report\)](#)

[The impact of income and expenditure on Personal Well-being](#)

[Household Satellite Accounts](#)

[Human Capital estimates for the UK](#)

[Measuring Social Capital](#)

[Initial estimates of Natural Capital for the UK](#)

[Households Below Average Income](#)

### **Background notes**

#### **1. Source of information on the distribution of income**

The source for the information on the distribution of income is 'The Effects of Taxes and Benefits on Household Income'. This has been chosen over other sources for a number of reasons:

1. The definition of income and the deflator used in the Effect of Taxes and Benefits on Household Income are more closely aligned to those used in the National Accounts.
2. Indicators of the distribution of income and wealth are currently lagged, published at best around 15 months after the end of the reporting period. Work is ongoing within ONS to improve the timeliness of indicators of the distribution of income coming from the Effects of Taxes and Benefits on Household Income release (further details are available in the 'future development' section of this article).

Should further breakdowns be required (for example income distribution by region or type of household) then the larger sample size of [Households Below Average](#) Income published by the Department for Work and Pensions may make this a more appropriate source.

2. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

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