

Measuring Living Standards - Household Disposable Income

Introduction

The NISRA agency board living standard group met for the first time on 2 September to discuss how to measure changes in living standards in Northern Ireland. It was noted that the term 'living standards' was not well-defined but it was felt that the use of existing National Accounts definitions offered a potential solution to this while also complementing NISRA's work on Economic Accounts. In particular, it was agreed to focus on the measures included in the ONS's statistical bulletin on Economic Well Being.

This note considers the options for developing a quarterly measure of real household disposable income per head. The starting point is the measure of gross household disposable income for Northern Ireland produced by regional accounts branch in ONS. **It is assumed that a quarterly measure will be consistent with this annual measure.**

Definitions

Gross Disposable Household Income (GDHI) is the amount of money that individuals in the household sector have available for spending or saving. This is money left over after expenditure associated with income, for example taxes and social contributions, interest payments, property ownership and provision for future pension income. It is "gross" in the sense that it doesn't include deductions for capital consumption, which is the decline in value of fixed assets due to normal physical deterioration and obsolescence. In the household sector this relates to normal 'wear and tear' on houses and other buildings.

The household sector comprises all individuals in an economy, that is, people living in traditional households as well as those living in institutions such as retirement homes and prisons. It should be noted that regional GDHI relates to all individuals within the household sector for a region and not to an actual average household or family unit. GDHI per head estimates give values for each person, not each household.

The household sector also includes sole trader enterprises (the self-employed) and non-profit institutions serving households (NPISH). Examples of the latter include charities and universities supplying products and services to the household sector. NPISH institutions receive their principal resources from voluntary contributions from households as well as payments made by the government.

Real household disposable income is obtained by deflating GDHI by an appropriate deflator. Ideally, this should reflect the inflationary experience of the household sector in Northern Ireland but in practice regional inflation indices are not available, so the national CPI will have to be used instead.

A key economic indicator for the household sector is the savings ratio. This is a measure of the proportion of adjusted disposable income (which equals GDHI plus social transfers in kind plus adjustment for changes in pension entitlements) that is left over after spending on the acquisition of consumer goods and services (including the purchase of housing and) is taken into account. It

represents the share of income that is available for investment in financial assets. Regional savings ratios are not calculated as they would require the construction of regional sector accounts. That is beyond the scope of this project and it is not proposed to calculate the household savings ratio for Northern Ireland.

Background

National GDHI is calculated using National Accounts conventions and definitions. Its components are summarised in Table 1, together with indicative values for Northern Ireland in 2011.

Some headline results from the published regional GDHI results are illustrated below. The first chart shows that the Northern Ireland position relative to the UK average in 2013 was little different to the 1997 position, at a little over 80%. In both years, NI had the lowest regional GDHI.

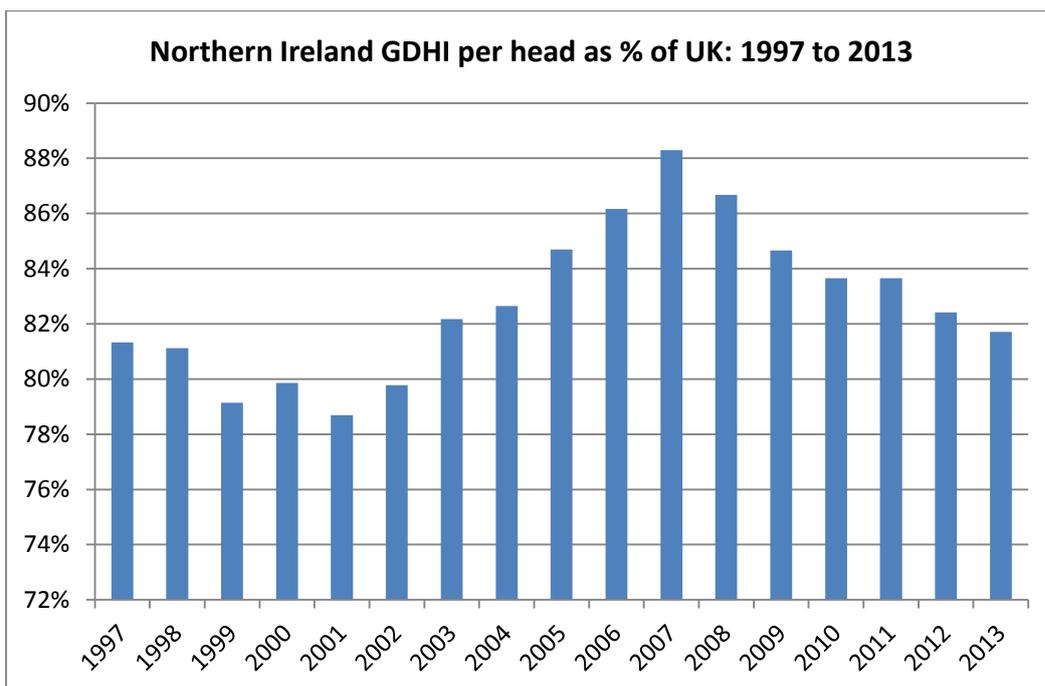
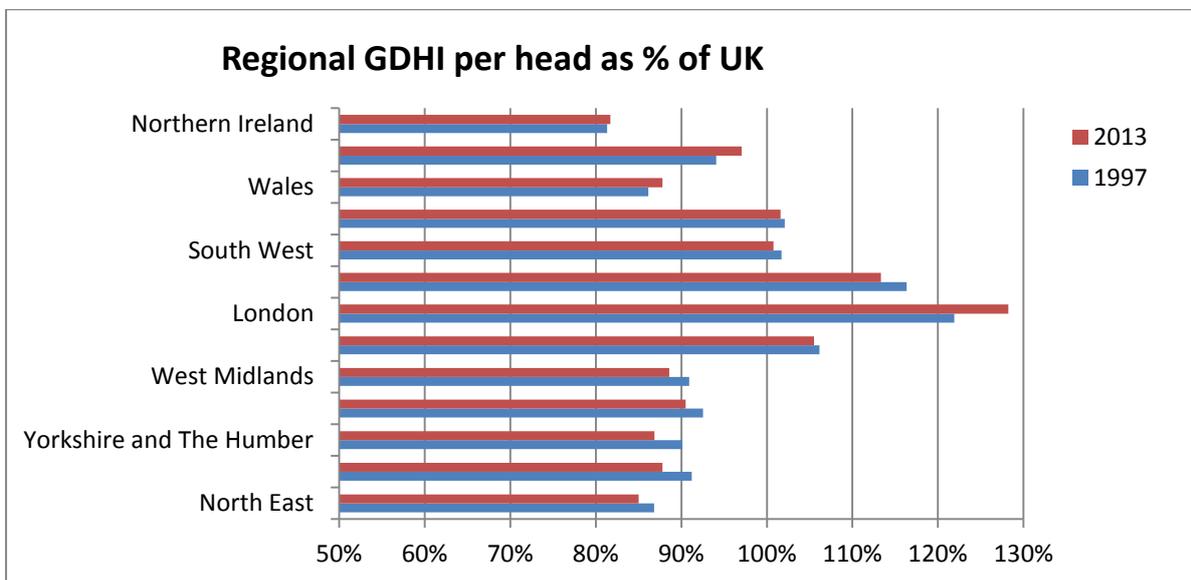


Table 1: Gross disposable household income (GDHI) by component at current basic prices: Northern Ireland: 2011

	£m ¹	
B.2g/B.3g Operating surplus/Mixed income	4,694	
GOS	2,316	imputed rents - the amount a home owner would receive if they were to rent out their property
Mixed income	2,378	income from self employment and from lettings of private dwellings
D.1 Compensation of employees		
wages & salaries in cash	18,760	
employers social contributions	15,514	National Insurance contributions; payments into private insurance schemes; imputed payments to civil servants for their pensions, who are then assumed to pay into a pension fund (D.61/62 uses below)
D.4 Property income, received		
interest on financial investments	3,246	
dividends		
insurance policy holders		Interest earned on pension and insurance funds investments
rent on land	4,348	
Primary resources total	370	
	1,896	
D.4 Property income, paid	2,079	
interest on mortgages & other loans	4	
rent on land	27,803	
Primary uses total		
B.5g Balance of primary incomes	384	
	369	
D.61/D.62 Imputed social contributions/Social benefits received	15	
Imputed social contributions	384	Payments of pensions etc direct from employer to employee
Social benefits other than social transfers in kind		
Social security benefits in cash	27,418	State pensions, maternity benefits, unemployment benefits, winter fuel benefits
Privately funded benefits		Private pensions mainly
Unfunded employee social benefits	8,049	Occupational pensions paid to public sector employees
Social assistance benefits in cash	10	Child benefit, tax credits, rent rebates, student grants
D.7 Other current transfers, received	8,437	
Non-life insurance claims	2,379	Insurance premiums data
Misc current transfers	1,819	transfers to the household sector from the Rest of the World (e.g. gifts), NPISH (e.g.grants), and central government
Secondary resources total	1,056	
	3,184	
D.5 Current taxes on income, wealth etc	2,406	
Taxes on incomes	1,015	HMRC PAYE data
Other current taxes	1,391	NI rates; DFT road vehicles; TV licences
D.61/D.62 Social contributions/Social benefits paid	10,455	
Employers actual social contributions		Equal to employers actual social contributions in D.1 Compensation of employees
Employees actual social contributions	3,651	National Insurance contributions; payments into private insurance schemes; payments for pensions by civil servants.
NICS payments by self-employed and non-employed	2,965	
Imputed social contributions	686	Equals employers' imputed payments into civil servant pension scheme (part of social contributions in D.1 primary resources)
D.7 Other current transfers, paid	6,934	
Non-life insurance premiums	3,742	Property, motor, health insurances etc
Misc current transfers	2,683	payments of fines, certain government fees and transfers abroad (e.g. by migrant workers to their home countries)
Secondary uses total	12,261	
Balance of secondary income	-1,806	
B.6g Gross Disposable Income	25,612	

¹ Partially estimated using UK proportions to break down NI totals

The second chart shows that although the 1997 position is little different to 2013 for NI, its GDHI per head relative to the UK has not been constant throughout the period, ranging from 78 per cent in 2001 up to 88 per cent in 2007. The single biggest factor impacting on the trend over this period is the estimated receipts for owner-occupier imputed rents, which are closely related to trends in house prices. The latter rose sharply in NI up to 2007 but have since fallen back.

Proposed approach for estimating quarterly GDHI for Northern Ireland

The general approach proposed is as follows:

1. Use Regional Accounts (RA) estimates of annual GDHI as the benchmark
2. Build up the quarterly GDHI estimates for NI from the detailed components described in the table in section 3 above, and also listed in the Annex
3. For periods where RA annual estimates have been published:
 - a. use quarterly versions of the annual indicators in the derivation of the annual RA estimates where they exist;
 - b. otherwise use alternative metrics to construct a quarterly path through the annual measures
4. For the most recent periods, where RA estimates are not available for benchmarking, produce provisional quarterly estimates by scaling annual estimates by the movement in an index based on a metric appropriate to the detailed category. Note that this metric may be different to the one used for periods where RA estimates are available, reflecting the availability of suitable data.
5. When the RA estimates become available, rescale the provisional estimates, to be consistent with the new annual totals.

The table in Annex A summarises the sources used by Regional Accounts for producing annual figures for each of the detailed categories. It also shows the proposed sources for the most recent quarterly figures, and where there is one more than one possibility, the options are numbered. Each of the proposed sources will need to be checked to ensure that they are appropriate for the relevant category. An important part of this will be to compare the estimated quarterly figures against the Regional Accounts annual outturn figures.

Sources for income estimates

A crucial part of estimating GDHI is to allocate income components. There are a number of potential sources which are described in detail in the National Statistics Quality Review of Income and Earning Statistics. They are summarised below in Table 2. Several can be ruled out quickly on the grounds of geographical coverage (eg AWEI, WAS only apply to GB); frequency (eg ASHE, survey of personal incomes are only available annually) or because they are derived statistics based on one of the other sources listed (HBAI, pensioner income statistics, effect of tax and benefits, EU-SILC). That leaves:

- Family Resources Survey
- Living Costs and Food Survey
- Labour Force Survey
- Administrative sources

Northern Ireland administrative sources are likely to be the best source of information for benefits payments.

The Labour Force Survey is likely to be the best indicator for the most recent quarterly estimates for several of the income categories, due to its sample size and the relatively short time span between the end of the survey period and results becoming available. The FRS may be a better source for plotting a quarterly path through the annual estimates. Each of the potential sources needs to be checked and the growth in their quarterly series compared against the benchmark annual estimates. It is the relative rate of change in these series that is important, rather than their absolute level, as they will be used for indexing the most recent benchmark figures. So, in principle, it does not matter if a source is biased (although it would be preferable for it not to be) as long as it is consistently so.

Table 2: Sources of income statistics

	Frequency	Timeliness	Coverage	Source
Annual Survey of Hours and Earnings	Annual	Provisional: November of same year. Final: one year later	UK. Earnings and hours worked for a pay period in April. Employees only	one per cent sample of all employees in employment on HMRC PAYE register
Average Weekly Earnings Index	Monthly		GB only.	
Labour Force Survey	Quarterly	Within 3 months	UK. Hours worked by employees and self-employed. Earnings only for employees. Known to underestimate earnings. No information on deductions from salary.	40,000 households, rotating sample. One-fifth of households replaced every quarter.
Family Resources Survey	Annual	15 months after end of period covered by the survey	UK. All aspects of income from employment (inc. self employed) and deductions. Known to underestimate benefit receipts.	Sample survey of 20,000 households
Households below average income	Annual		UK. Focuses on disposable income, adjusted for household size & composition. Main purpose is to provide a proxy for material living standards	FRS
Living Costs and Food Survey	Annual	Calendar year estimates: 13 months. Quarterly estimates used in National Accounts	UK. Published regional expenditure estimates by detailed COICOP category based on average of 3 years data. Income & expenditure data relate to different periods.	5,500 households in UK with boost for NI.
Pensioner incomes series	Annual	Financial year estimates; 15 months after end of survey period	UK. estimates of the levels and trends of pensioners' incomes, broken down by different groups and income sources. Excludes a significant part of the pensioner population who live in retirement/nursing homes and other communal establishments.	FRS sample of pensioners - roughly 7,000 households per annum
Effect of taxes & benefits on household income	Annual	12 months after end of survey period	Detailed breakdown of household income, including estimates of both direct and indirect taxes, and both cash benefits and 'in kind' benefits provided by the state. Limitations as for LCF	LCF
Wealth & Assets Survey	two-yearly		GB only.	
Survey of Personal Incomes	Annual	24 months after survey period	Sources of taxable income for latest year and projections for following 3 years. Regional estimates, inc for Northern Ireland. Poor coverage for those on low incomes and for non-taxable income sources	1.5% sample of all individuals in contact with HMRC. Includes some non-taxpayers
Benefits data	Monthly & quarterly	1-3 months	UK. Sub-national results are available. Benefits payments only.	HMRC and DWP administrative records
EU Statistics on Income and Living Conditions	Annual			FRS for x-sectional and wave one longitudinal data. Longitudinal rotating sample survey of 5,000 households.
Pension trends	Topics updated on a rolling basis, some annually, some less frequently		UK.	Many, including most of those considered above

Annex: Gross disposable household income (GDHI) by component

Northern Ireland	Regional Accounts method of apportionment to region	Quarterly indicator
B.2g/B.3g Operating surplus/Mixed income		
GOS	owner occupation rates & imputed rents from dwelling prices and stock of dwellings	Northern Ireland House Price Index
Mixed income	self employed income from HMRC.	LFS self-employed hours worked by industry
	Tenants rental payments	
D.1 Compensation of employees		
wages & salaries in cash	HMRC annual 1% sample of PAYE returns	1. Monthly Wages & Salaries Survey
		2. LFS wages & salaries of employees
employers social contributions	actual - NICS: HMRC annual 1% sample of PAYE returns;	Ratio of NICS to PAYE for NI, adjusted for changes in the NICS rate where necessary
	other social insurance funds: LFS	LFS: pensions contributions by employers
	imputed - central govt pension payments, split by public sector employment figs	OSCAR (cancels out with D.61/62 uses). Assumed that payments are made to public servants as earnings, which are then invested in pension schemes. In practice, estimated as being the same as pension payments to civil servants etc (D.61/62 resources)
D.4 Property income, received		
interest on financial investments	HMRC Survey of Personal Incomes (SPI)	Previous year's NI receipts as % of UK receipts
dividends	HMRC Survey of Personal Incomes (SPI)	
insurance policy holders	HMRC Survey of Personal Incomes (SPI)	
rent on land	mid-year population estimates	1. NI population as % of UK
		2. Quarterly population estimates for NI (not currently available)

Primary resources total

D.4 Property income, paid		
interest on mortgages & other loans	imputed rental estimates	Quarterly LCF
rent on land	Defra "rent paid" data	Population estimates as for rent on land

Primary uses total

B.5g Balance of primary incomes

D.61/D.62 Imputed social contributions/Social benefits received		
Imputed social contributions	mid-year population estimates	Population estimates as for rent on land
Social benefits other than social transfers in kind		
Social security benefits in cash	Admin data from NISRA	Admin data from NISRA or OSCAR
Privately funded benefits	HMRC Survey of Personal Incomes (SPI)	Population estimates as for rent on land
Unfunded employee social benefits	HMRC Survey of Personal Incomes (SPI)	Equal to imputed social contributions in primary resources
Social assistance benefits in cash	DFPNI & regional population data	DFPNI & NI population data
D.7 Other current transfers, received		
Non-life insurance claims	Insurance premiums data	NI as % of UK from annual estimates
Misc current transfers	mid-year population estimates	Population estimates as for rent on land

Secondary resources total		
D.5 Current taxes on income, wealth etc		
Taxes on incomes	HMRC PAYE data	1. Quarterly LCF 2. Previous year's payments per £ earned as % of corresponding rate for UK
Other current taxes	NI rates	NI rates : DFPNI?
	DfT road vehicles	DfT road vehicles registered in NI
	Mid-year population estimates	Population estimates as for rent on land
D.61/D.62 Social contributions/Social benefits paid		
Employers actual social contributions	Equal to employers actual social contributions in D.1 Compensation of employees	Equal to employers actual social contributions in D.1 Compensation of employees
Employees actual social contributions		
contributions to NI fund	HMRC PAYE data	1. Quarterly LCF: NICS contributions 2. Previous year's payments per £ earned as % of UK
contributions to private sector schemes	Private sector earnings data	1. Quarterly LCF: contributions to private sector pension funds/life assurance schemes.
		2. Previous year's payments per £ earned as % of UK
government unfunded schemes	Regional labour market data on public sector workforce	LFS public sector workforce
Social contributions by self-employed and non-employed	Income of sole traders from HMRC	LFS hours worked by (or number of) self-employed
Imputed social contributions	Equal to imputed social contributions in primary resources	Equal to imputed social contributions in primary resources
D.7 Other current transfers, paid		
Non-life insurance premiums		
Property insurance	LCF	1. Quarterly LCF: gross premiums paid for dwellings & contents insurance
		2. NI as % of UK from annual estimates
		3. CPI/RPI % change in premia
Motor insurance	vehicle registration data	vehicle registration data
Health insurance	mid-year population estimates	Population estimates as for rent on land
Misc current transfers	adult population estimates	Population estimates as for rent on land

Secondary uses total