Office for National Statistics

# Economic & Labour Market Review

## Contents




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# In brief

## Regional Trends

The experiences of children and young people in the UK can vary greatly depending on where a child lives and the type of area they live in, according to this year's lead article in Regional Trends.

Published on 24 June 2009, the latest edition also features an article on women in business and detailed statistical portraits of three regions - Yorkshire and The Humber, East Midlands and East of England. There are also articles designed to help researchers measure change over time in small areas and how area classifications can be used to interrogate the Indices of Multiple Deprivation.

This edition has taken a new format – now having more articles likely to be of interest to policy makers in both central and local government, academics and students, the media and general public. Articles fall into three broad categories:

- topic based articles - showing the regional variations that exist in a particular topic
- regional portraits - a more detailed focus on what it is like to live and work in a specific region, and
- guidance articles

Presentations of regional data have been re-branded, bringing together sub-national data tables, regional profiles (formerly known as Regional Snapshot) and Regional Trends as a single web publication. The tables can be accessed through the Directory of Online Tables at www.statistics.gov.uk/regionaltrends/data and will be updated periodically during the year. Furthermore, regional profiles for English regions and the countries of the UK will be extended to cover the economy, society and environment and population and migration. These are available at www.statistics.gov.uk/regionaltrends/regionalprofiles.

**More information**

www.statistics.gov.uk/RegionalTrends41/

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## New Pension Trends analysis

Two updated chapters of Pension Trends were published on 23 June 2009 focusing on the expected impact of recent legislation.

Chapter 5, covering state pensions shows employees with broken work histories, particularly women, who may break from work to raise children, will gain from state pension reforms to be introduced on 6 April 2010.

Chapter 6 on private pensions reports the 2012 workplace pension reforms will increase the number of employees contributing to defined contribution (DC), also known as money purchase, pension schemes.

A larger proportion of women than of men receive less than the full Basic State Pension (BSP). In September 2008, 34 per cent of female pensioners (2.3 million women) received 60 per cent of full BSP or less, compared with 2 per cent of male pensioners (under 0.1 million).

The analysis shows that the state pension reforms will make it easier for employees with broken work histories to build up entitlement to BSP. In particular, women who take breaks from work to care for children will see immediate gains at the beginning of the reforms (6 April 2010), although women will also face increases in State Pension Age from 2010. By 2050, 95 per cent of both men and women pensioners should be on full BSP according to calculations by the Department for Work and Pensions (DWP).

Under the state pension reforms, the link between BSP and earnings is expected to be restored from 2012 (or 2015 at the latest). By 2050, according to DWP calculations reported in the analysis, BSP should be worth around twice as much in real terms as in 2012.

The 2012 reforms to private pension provision in the workplace pension will lead to a big increase in the number of employees with DC pension provision. In 2007, there were 7.9 million active members of defined benefit (DB) pension schemes, also known as 'final salary' schemes, and 7.8 million active members of DC pension schemes in the UK. In funded DB schemes the employer bears the investment risk and must pay out pensions at an agreed rate. Investment risk in DC schemes though is borne by individual members.

**More information**

www.statistics.gov.uk/pensiontrends/

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## Estimating unemployment at parliamentary constituency level

Demand for small area labour market statistics has increased over the past few years, particularly in the measurement of social exclusion, social well-being and the effects of the downturn in the economy.

The Annual Population Survey (APS) is a key source of information on the labour market, but the sample is not large enough to provide reliable labour force estimates for all local areas. Therefore, direct APS estimates of unemployment are of limited use for parliamentary constituencies (PCs).

In 2003 ONS published an article describing a model-based approach to estimating levels and rates of unemployment for small areas, presenting results for unitary authorities and local authorities. The model was developed to improve the APS estimates of unemployment for small areas, using supplementary information from the number of claimants of Jobseeker's Allowance, a socio-economic area indicator and a random area effect. These were originally published as experimental statistics and became National Statistics in July 2006.

ONS has now extended this model to produce estimates of unemployment at a parliamentary constituency level. An article presenting an overview of the methodology, the issues and development work involved, along with some analysis of the results will be published online (see further information). The first results will be published on 31 July 2009 as experimental statistics alongside the 'Local area labour market: statistical indicators' publication, and subsequently on a quarterly basis. In publishing the experimental data ONS welcomes feedback from potential users.

**More information**

www.statistics.gov.uk/STATBASE/Product.asp?vlnk=14160

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## Tourism satellite accounts (TSA)

Tourism satellite accounts (TSA) aim to provide core data on expenditure by tourists and the value of tourism-related businesses. Without a TSA only 'very approximate' estimates of the contribution of tourism to the economy and the number of jobs it supports are available. To discuss further development and innovation of the accounts an international conference, organised by the Tourism Intelligence Unit (TIU) within the ONS, took place on the 21 and 22 May 2009 at the Savoy Conference Centre in London.

Delegates and presenters came from Canada, Croatia, Denmark, Hungary, Ireland, Italy and the UN World Tourism Organization, together with representatives from Visit Britain (VB), ONS, regional development agencies, tourism authorities, universities, and private consultants in the UK.

A wide range of topics relating to the development off TSA were presented and discussed including: methodologies of TSA construction at a national and at regional level, analysis of the main components used in the construction of a TSA such as input-output supply and use tables, and complex ways of modelling and extending the TSA framework. The TIU presented a first experimental draft of a UK TSA.

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## Focus on children and young people

An insight into the lives of children and young people was contained in the first Focus on Children and Young People published on 11 June 2009. It includes information on their characteristics, experiences, wellbeing and lifestyle.

From the labour market report it is found that in the second quarter of 2008, around 1.8 million children (15 per cent) were living in a workless household where no one of working age was in work. This proportion has decreased over the last decade along with the general reduction in levels and rates of worklessness.

The labour market report also focuses on the fact that young people have historically experienced the highest rates of unemployment compared with other age groups. From January to March 2009 unemployment rates in the UK for those aged 16 and 17 stood at 29.3 per cent, accounting for 9 per cent of unemployed people aged 16 and over. Those aged 18 to 24 and unemployed accounted for 30.5 per cent of all unemployed peopled aged 16 and over, with unemployment rates for young men at 18.6 per cent being higher than young women at 13.3 per cent.

The finance report focuses on the average amount of pocket money given to children aged five to 18 in the UK which amounts to £4.80 per child. The amount of pocket money given to children does not, however, mirror the amount of income each household receives. The highest average amount of pocket money per household (£14.90 per week) was given to children living in the household group with the lowest income level, while the second highest amount of pocket money per household (£11.85 per week) was given to children in the group with the highest level of income.

**More information**

www.statistics.gov.uk/focuson/children/
www.statistics.gov.uk/focuson/youngpeople/default.asp

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## Population Trends

Single women, and women who are cohabiting with their partner, are more likely to remain childless throughout their lives than those who are married, according to new analysis published in the latest edition of Population Trends on 25 June 2009.

Based on the ONS Longitudinal Study, the data shows that:

- lack of a co-resident partner appears to be one of the main factors associated with childlessness. However, the majority of women in the sample (68 per cent) who were childless nevertheless still lived with a partner – either married or cohabiting – at some point during the course of the study
- women's socio-economic characteristics are also significantly associated with childlessness. Compared to mothers, childless women were more often employed in 'professional' or 'managerial/technical' occupations
- in 2001, a higher proportion of the childless women were living in London (12.2 per cent) compared with mothers (8.1 per cent). In contrast, a higher proportion of mothers were living in Wales and Yorkshire and The Humber

A second article explores the question of whether the rise in UK births since 2001 has been driven by births to women born outside the UK. The study finds that two main factors have driven recent increases in the number of births in the UK:

- increasing fertility rates among UK-born women, and
- the increasing number of non-UK born women (who have higher fertility on average) in the population

Population Trends 136 also features articles on:

- estimating the cohabiting population
- sub-national analysis of the ageing population, and
- the 2011 Census taking shape part II: methodological and technological developments

Reports include:

- patterns of fatherhood in England and Wales 1964-2007
- 2006-based marital status and cohabitation projections for England and Wales, and
- marriages and divorces during 2006, and adoptions in 2007: England and Wales

**More information**

www.statistics.gov.uk/StatBase/Product.asp?vlnk=6303&Pos=&ColRank=1&Rank=422

**Contact**

population.trends@ons.gsi.gov.uk

## UPDATES

Updates to statistics on www.statistics.gov.uk

5 June

**Producer prices**

*Factory gate inflation falls to -0.3%*
www.statistics.gov.uk/cci/nugget.asp?id=248

10 June

**Index of production**

*3.2% three-monthly fall*
www.statistics.gov.uk/cci/nugget.asp?id=198

**UK trade**

*Deficit widened to £3.0 billion*
www.statistics.gov.uk/cci/nugget.asp?id=199

16 June

**Inflation**

*January: CPI inflation 2.2%, RPI inflation -1.1%*
www.statistics.gov.uk/cci/nugget.asp?id=19

17 June

**Average earnings**

*Growth in regular pay slows in year to April 2009*
www.statistics.gov.uk/cci/nugget.asp?id=10

**Employment**

*Rate falls to 73.3%*
www.statistics.gov.uk/cci/nugget.asp?id=12

18 June

**Public sector**

*May: £17.5 billion current budget deficit*
www.statistics.gov.uk/cci/nugget.asp?id=206

**Retail sales**

*Underlying growth slows in May*
www.statistics.gov.uk/cci/nugget.asp?id=256

**Travel and tourism**

*Visits to the UK up 3%*
www.statistics.gov.uk/cci/nugget.asp?id=352

30 June

**GDP growth**

*Economy contracts by 2.4% in Q1 2009*
www.statistics.gov.uk/cci/nugget.asp?id=192

**Balance of Payments**

*2009 Q1: UK deficit widens*
www.statistics.gov.uk/cci/nugget.asp?id=194

**Business investment**

*7.6% down in first quarter of 2009*
www.statistics.gov.uk/cci/nugget.asp?id=258

1 July

**Index of services**

*0.1% monthly fall into April*
www.statistics.gov.uk/cci/nugget.asp?id=558

**Productivity**

*Fall in productivity in Q1 2009*
www.statistics.gov.uk/cci/nugget.asp?id=133

**Corporate profitability**

*12.3% in Q1 2009*
www.statistics.gov.uk/cci/nugget.asp?id=196

3 July

**Net Investment**

*Institutional net investment rises*
www.statistics.gov.uk/cci/nugget.asp?id=396

## FORTHCOMING RELEASES

Future statistical releases on www.statistics.gov.uk

7 July

**Index of production – May 2009**

9 July

**MQ5: Investment by insurance companies, investment funds and trusts – Q1 2009**

**UK trade – May 2009**

**New orders in the construction industry – May 2009**

11 June

**Financial statistics – July 2009**

**Producer Price Index – June 2009**

14 July

**Consumer price indices – June 2009**

**Digest of engineering turnover and orders – May 2009**

**MM22: Producer prices index – June 2009**

**The effect of taxes and benefits on household income 07/08**

15 July

**Labour market statistics – July 2009**

**MM19: Aerospace and electronics cost indices – April 2009**

16 July

**Overseas travel and tourism – May 2009**

**Travel Trends 2008**

20 July

**Focus on consumer prices – June 2009**

21 July

**Public sector finances – June 2009**

22 July

**Average weekly earnings (experimental) – May 2009**

23 July

**Public sector finances supplementary and quarterly data**

**Retail sales – June 2009**

**Internet retail sales – June 2009**

**SDM28: Retail sales – June 2009**

24 July

**GDP Preliminary estimate – Q2 2009**

**Distributive and service trades – May 2009**

**Index of services – May 2009**

# Economic review

## July 2009

*Graeme Chamberlin*
**Office for National Statistics**

**SUMMARY**

The UK recession started earlier and is deeper than previously thought, according to newly revised data. In the last year, Gross Domestic Product (GDP) has fallen by 4.9 per cent, the largest four-quarter fall on record. However, some indicators are suggesting that during the second quarter of 2009 the pace of contraction has slowed.

Looking at the demand-side of the economy – fixed investment and de-stocking have been the main drivers of the recession. The financial balance sheets of households and firms indicate that a retrenchment in spending is occurring in order to pay down debts. However, the public sector finances have been hit by the recession generating a large rise in government borrowing. The balance of payments shows a widening current account deficit due to weaker investment income. But the revaluation of foreign assets following the depreciation of sterling has seen the international investment position move into surplus for the first time in over ten years.

**GROSS DOMESTIC PRODUCT**

## New data shows UK recession is deeper and started earlier

Publication of the Quarterly National Accounts marks the third vintage of data relating to the first quarter of 2009. Not only are these figures based on higher information content as forecasts and imputations are replaced by hard data, giving a more complete description of trends in the UK economy, they are also consistent with this year's *Blue Book*. The *Blue Book* is an annual publication where previous data is benchmarked to annual surveys, and for earlier years, input-output analysis is undertaken to track supply and demand at a detailed product and industry level.

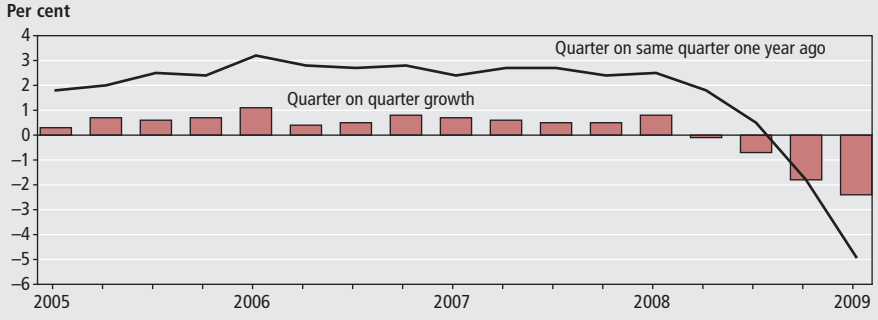
Data revisions therefore reflect the adoption of new information into the National Accounts that were previously unavailable for earlier data vintages. Two main results have emerged from the process. First the recession in the UK economy started earlier. Gross Domestic Product (GDP) had previously been estimated as flat in 2008 Q2, but is now estimated to have fallen by 0.1 per cent, meaning the UK economy has shrunk for four successive quarters (see **Figure 1**). If the technical definition of a recession is two consecutive quarters of negative growth, then the recession now started in the third quarter of last year.

More dramatically, data for the first quarter of 2009 have been revised significantly downwards. Last month's 'Output, Income and Expenditure' release reported that GDP had fallen by 1.9 per cent during the quarter. New estimates though indicate the pace of contraction was actually faster, with output falling by 2.4 per cent. Such a quarterly contraction has only been experienced on two prior occasions in the last 50 years (1974 Q1 and 1979 Q3), and both were the result of significant oil price shocks.

On a four-quarter basis, that is comparing GDP in 2009 Q1 relative to the first quarter in 2008, output has fallen by 4.9 per cent, the largest drop on record. The current recession is already more severe than that of the early 1990s when the economy posted a total peak to trough fall in output of about 2.5 per cent. Parallels have been drawn with the recession of the early 1980s, which also saw the major global economies fall into a synchronised recession resulting in a considerable downturn in world trade, but the new data shows UK output is currently falling faster than at this time. However, whether the overall output loss will or will not exceed the peak to trough fall of 6 per cent (1979 Q2 to 1981 Q1) largely depends on the duration of the current downturn and the speed of the recovery.

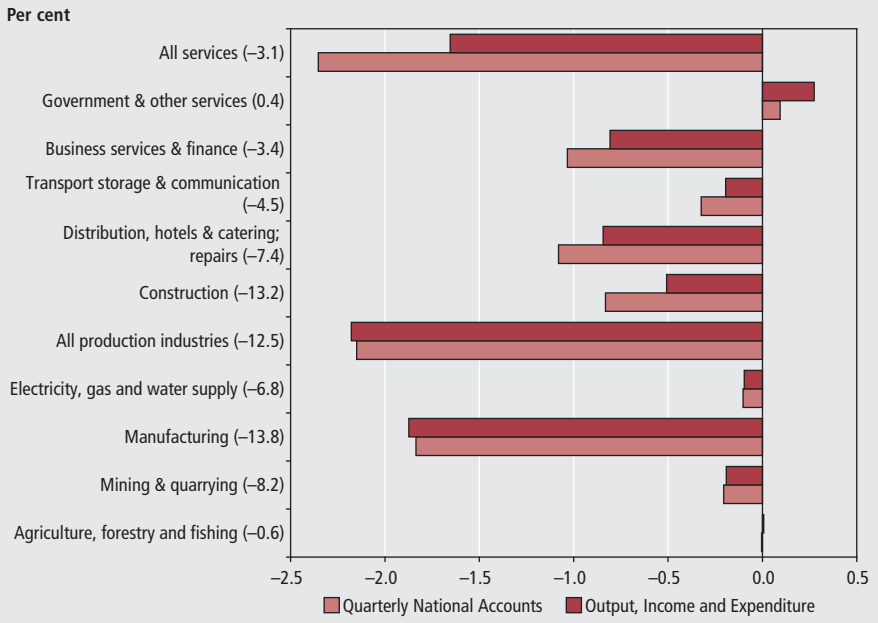
Hopes of a recovery have been subdued by the latest data which shows the recession to be deeper than previously thought. But of course, the end of the first quarter was some months ago, and indicators since have suggested that even if a recovery is not already underway there has at least been a moderation in the speed of the downturn. In May the Index of Manufacturing was flat – bringing to an end a 12-month run of falling output. Furthermore, a number of business surveys

Figure 1
**GDP growth**




*Source: ONS Quarterly National Accounts*

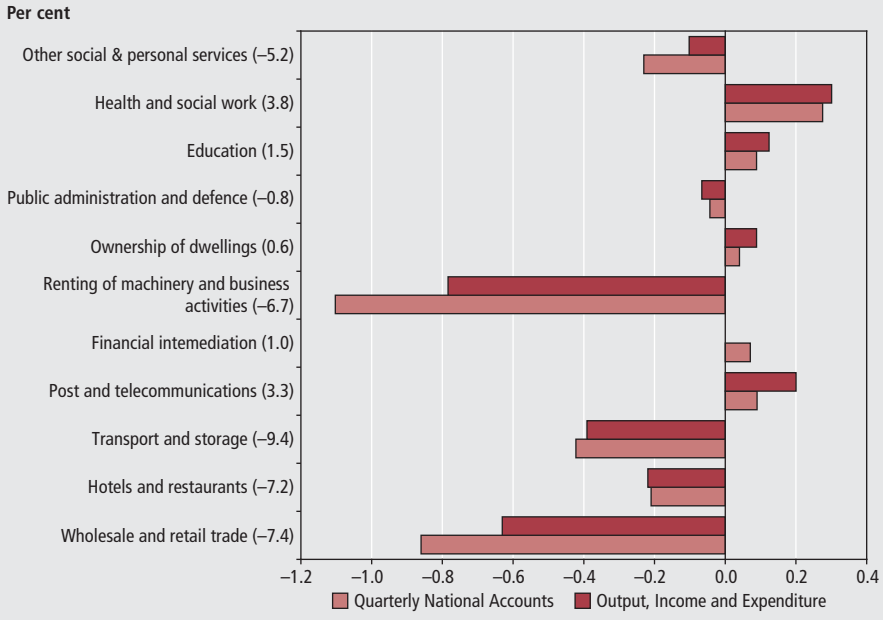
Figure 2
**Contributions to economic growth by industry, 2009 Q1[1]**




**Note:** *Source: ONS Quarterly National Accounts and Output, Income and Expenditure*

1 Actual four-quarter growth rates from the Quarterly National Accounts are shown in brackets.

Figure 3
**Contributions to growth by service sector industry, 2009 Q1[1]**




**Note:** *Source: ONS Quarterly National Accounts and Output, Income and Expenditure*

1 Actual four-quarter growth rates from the Quarterly National Accounts are shown in brackets.

have reported that although sentiment remains poor, it is not as weak as it has been and the worst may have passed. The National Institute of Economic and Social Research have even gone as far as saying growth returned in April. Preliminary estimates of GDP for the second quarter of 2009, published towards the end of July, will be eagerly awaited to see if official data confirms the view that the UK economy is nearing a turning point.

## Services and construction weaker than previously thought

Gross Value Added (GVA) is a production-based measure of activity used in the estimation of GDP. It seeks to measure the contribution of each firm, industry or sector to the total value of goods and services produced, essentially by estimating the value of the output less the value of the inputs at each stage of production. GDP is basically this measure at market prices, so GVA needs to be adjusted for the impact of taxes and subsidies on prices. Revisions to GVA should therefore give an indication as to the sources of the latest GDP revisions.

In the Output, Income and Expenditure release (the second vintage of National Accounts data for a specific quarter) GVA was 4.2 per cent lower in 2009 Q1 than in the same quarter of 2008. For the same period, GVA was estimated to have fallen by 5.2 per cent in the recently published Quarterly National Accounts. **Figure 2** shows the contributions by industry to these two results. It can be seen that the majority of the downward revision is accounted for by the construction and services sectors.

The downward revision to construction output reflects actual data replacing forecasts in the Quarterly National Accounts. On a four-quarter basis construction activity is now estimated to have fallen by 13.2 per cent, compared to the earlier estimate of 8.6 per cent. Only the manufacturing industry has experienced a bigger loss of output in the last year. Sharp declines in the private house building sector have been behind the trend.

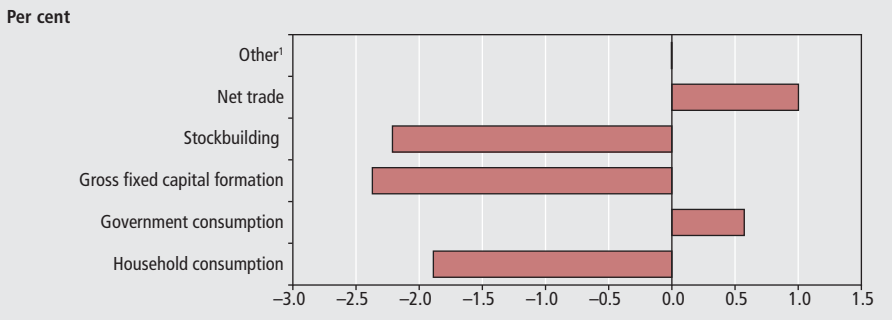
Service sector output, which accounts for approximately three-quarters of the UK economy, are now estimated to have fallen by 3.1 per cent in the four quarters to 2009 Q1 – a much stronger decline than the previous 2.2 per cent estimate. In fact, the downturn in the services sector had been relatively modest compared to other sectors before these revisions. **Figure 3** provides a further breakdown of the contributions of each service sector industry to overall GDP growth. The wholesale and retail, and renting of machinery and business activities have accounted for the majority of the downward revision – indicating that both consumer and business demand have been weaker than initially estimated.

## Fixed investment and de-stocking lead the fall in total expenditure

A breakdown of the 4.9 per cent fall in GDP between 2008 Q1 and 2009 Q1 by main category of expenditure is shown in **Figure 4**. This shows a fairly mixed pattern, with some components contributing negatively to growth and others positively.

Gross fixed capital formation (GFCF), which is investment spending on physical assets, has fallen sharply in the recession.

Figure 4
**Contributions to growth by category of expenditure, 2009 Q1**




**Note:** *Source: ONS Quarterly National Accounts*

1 Other category of expenditure consists of expenditure by non-profit institutions serving households (NPISH), acquisition less disposals of valuables and the statistical discrepancy.

According to the latest figures, GFCF fell by 13.2 per cent in 2009 Q1 on a four quarter basis, making the largest single expenditure-based contribution to the downturn.

Firms looking to run down inventories in response to depressed order books have also made a significant contribution to falling expenditure. In level terms inventories, or stockbuilding, are a miniscule component of aggregate demand but often play an important role in accounting for changes. Inventory patterns also tend to be pro-cyclical and often a leading indicator of economic activity. In a recession, companies expecting to cut future production will seek to lower their stocks of finished goods, semi-finished goods and raw materials. De-stocking can also be quite aggressive if firms perceive the downturn to be deep and/or prolonged as in this case. However, when the economy reaches a turning point inventories would be expected to rise equally quickly as firms look to increase future production.

Household spending is the largest part of total expenditure and, as such, plays an important role in driving expenditure patterns even if it doesn't usually exhibit the same degree of pro-cyclical behaviour as GFCF and stockbuilding. Household consumption fell by 3.1 per cent in the year to 2009 Q1, pulling down GDP growth by approximately 1.9 percentage points. The weakening labour market and the desire to rebuild or strengthen balance sheets by repaying debt appear to be the main factors accounting for falling expenditure.

Positive contributions to GDP growth though came from government consumption spending and net-trade. General government spending grew by 2.8 per cent over the four-quarter period, without which, the contraction in GDP would have been 0.6 percentage points greater. It is not surprising that government spending has been fairly immune to the downturn. Spending on certain transfer payments will tend to rise in line with unemployment anyway as part of the automatic stabilisers built into the public finances. Even the more discretionary elements of spending are likely to be robust, with spending plans set in advance and the government unwilling to make drastic cuts while the economy is in recession.

Net trade represents the difference between exports, which add to GDP, and imports which detract. On a four-quarter basis, net trade added 1 percentage point to GDP in 2009 Q1. This has been because the 13.6 per cent fall in imports over this period has outstripped the corresponding 11.6 per cent fall in exports. But although the impact on GDP has been positive it is not necessarily all good news. In fact it might be an indicator of the relative severity of the UK recession vis-à-vis other countries and the extent of imbalances in the economy prior to the downturn. In this case the improvement in net trade is a reflection of the size of correction required in the UK economy, in particular a rebalancing away from consumption to saving and imports to exports.

It is difficult to tell the extent to which sterling's depreciation has been beneficial for UK trade. As business surveys suggest, any boost to exports has been strongly outweighed by the sharp fall in global demand and world trade, so the impact is likely to be small. However, this doesn't rule out the possibility that the fall in exports could have been even worse had it not been for the exchange rate depreciation.

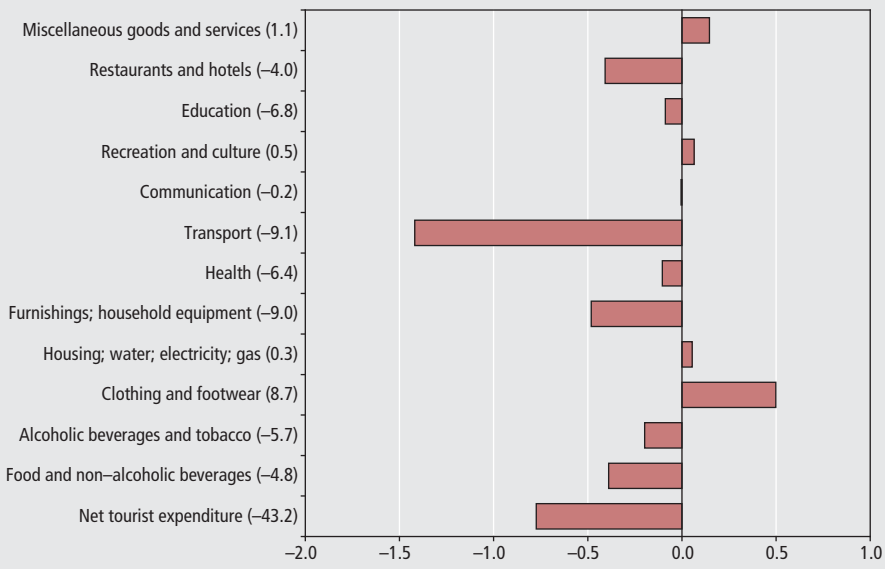
HOUSEHOLD SECTOR

## Household consumption spending falls

In 2009 Q1 household consumption fell by 3.1 per cent relative to the same quarter in 2008. A breakdown of this aggregate figure, by category of spending, is shown in **Figure 5**.

A first and striking observation from Figure 5 is the contribution to the fall in household spending from net tourism. This is the difference between the spending of UK tourists overseas and the spending of foreign tourists in the UK. Since the first quarter of last year, net tourist spending

Figure 5
**Contributions to household consumption by category of spending, 2009 Q1[1]**




**Note:** *Source: ONS Consumer Trends*

1 Actual four-quarter growth rates for each component are shown in brackets.

has nearly halved, making a 0.8 percentage point contribution to the total fall in household consumption.

While foreign tourist spending in the UK fell by 7 per cent, UK tourist spending abroad fell by a much larger 23.1 per cent. Sterling depreciation, making overseas travel relatively more expensive, may be one factor accounting for these trends. However, the sharp fall in UK tourist spending abroad is more likely to reflect a strong retrenchment in discretionary spending by a cautious household sector looking to repay debt and facing a deteriorating jobs market.

The largest downward contribution came from the transport category where a four-quarter fall in spending of 9.1 per cent dragged total consumption growth down by 1.4 percentage points. Within this category the purchase of motor vehicles showed an especially sharp fall, with spending on cars down by 12.2 per cent. This is not surprising given the dire news emanating from the car industry of late, although the new car scrapping scheme introduced in the Budget seems to be stimulating some recovery in the second quarter. Weak consumer confidence with regard to major purchases and a tightening of credit availability are likely to have hurt demand. Air transport, which fell by 10.1 per cent, also made a significant negative contribution within this category.

Spending on furnishings and furniture fell by 9 per cent and within this category there was a 15.4 per cent fall in spending on home furnishings and an 11.6 per cent fall in spending on household appliances. Once again demand for these items, being largely discretionary purchases, will be particularly sensitive to the current economic climate. Additionally, the considerable slowdown in the housing market, in particular low turnover in sales, is likely to impact negatively on these expenditure items. Spending in restaurants and hotels and on food and non-alcoholic beverages both accounted for approximately 0.4 percentage points to the total fall in household consumption.

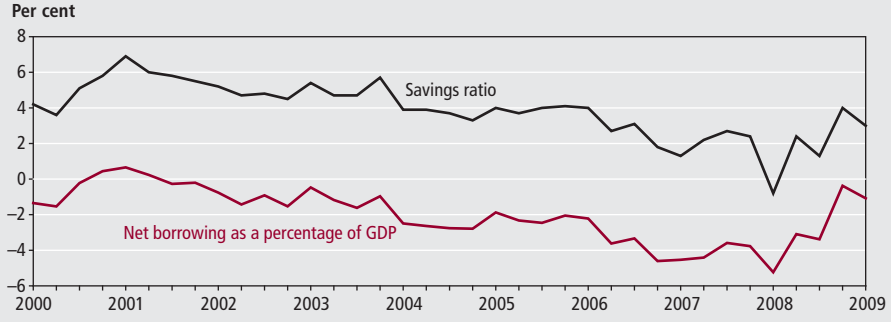
While food spending fell by 4.8 per cent in real terms, in value or current price terms it actually rose by 5.2 per cent. The implied deflator estimates that prices of food and non-alcoholic beverages grew by 10.6 per cent between the first quarters of 2008 and 2009 and suggests relative price movements may have played an important role in explaining consumer trends over the last year. In response to rising food prices households actually increased food spending, but also cut back in terms of quantities.

Other areas where there were significant prices increases last year saw a similar divergence between real and nominal household spending. Electricity and gas prices rose sharply, so while in real terms spending was broadly flat, in value terms it increased significantly. Similarly, large swings in petrol prices have seen volatile nominal spending on transport fuels while in real terms spending has been far more stable. This could of course have had a knock on impact on other components of consumer spending, especially the more discretionary parts, by reducing the real value of household disposable income.

This factor seems to have worked in reverse for clothing and footwear, where spending grew by 8.7 per cent last year in real terms boosting overall household spending by about 0.5 percentage points. However, this was aided by a 6.5 per cent fall in prices, so in nominal terms spending growth was far more modest. Therefore it appears to be the case that stronger spending here has been driven by significant discounting.

A similar pattern emerges when looking at UK retail sales data. Due to the sharp rise in food prices, spending in predominately food stores has grown in value terms but fallen in volume terms. At the same time, strong discounting has meant that spending in predominately non-food stores are showing the opposite trends, growing in volume terms but not in value terms. This certainly goes some of the way to explaining why, in volume or real terms, retail sales have so far been fairly robust in the downturn.

Figure 6
**Household saving ratio and net-borrowing**




*Source: ONS Economic Accounts*

## Household savings ratio, despite edging upwards recently, remains historically low

The UK household saving ratio was 3 per cent in 2009 Q1. Although this lies far below the long-term average, it does reflect a slight pick up from the very low rates that have prevailed in the UK economy over the last two years and a reversal of the long decline in the ratio that started in 2001 (see **Figure 6**).

Recent increases in household saving have certainly been influenced by falling consumer spending, which is the counterpart to household saving. However, it has also been driven by an increase in household resources, increasing the funds available for consumption or saving. It may seem strange, given the current economic climate, that the household sector has seen available resources increase.

Wages and salaries have fallen in line with the weakening labour market, as have operating surpluses from small household businesses and the self-employed. Though, in terms of household balance sheets, these have been slightly offset by lower tax payments and also greater social transfers (benefits payments).

The main factor accounting for the rise in household resources are property income flows. These are payments or receipts to other sectors of the economy generated by ownership of financial assets or liabilities. For example, household property income may come from interest payments on financial assets or dividends from equities. However, in the household balance sheets these are also netted out against payments of property income paid by the household sector in lieu of its liabilities to other sectors. Because households hold a large amount of mortgage debt connected with home ownership, the large fall in interest rates in the last year will have significantly reduced the cost of servicing mortgage debt.

In the household accounts this will show up as an increase in net property income

(because household interest payments have fallen) hence increasing available resources. But the evidence suggests that increased household resources has not translated into growing consumption. Instead the household sector appears to be increasing savings and paying back of debts. There are widespread reports that many households are now overpaying their mortgages following the sharp reduction in mortgage rates since last autumn.

A further impact of housing market developments on the household sector balance sheet is also shown by its net lending position (see Figure 6). A sector is a net lender, or borrower, if the funds it generates internally (meaning the resources left over after uses) are sufficient or insufficient to cover the investment plans of that sector. For example, if funds are insufficient then the sector becomes a net borrower, needing to borrow from other parts of the economy to fund its desired investment.

For the household sector investment mainly takes the form of owner-occupied housing, which provides a stream of future housing services to the buyer. Unsurprisingly the household sector is usually a net borrower, because gross saving are insufficient to cover investment, mainly in property so most houses are purchased using mortgage debt. However, as Figure 6 shows, household net borrowing has fallen sharply in the last year, and the household sector has come close to actually becoming a net lender. This partly reflects the rise in gross savings brought about by falling consumption and reduced interest payments. But the main factor has been the fall in household investment due to significant slowdown in house purchases. Lending for home purchases has fallen sharply, a consequence of tightening credit conditions and weak demand brought on by rising unemployment and falling property values. As a result the UK household sector has dramatically cut its borrowing which is reflected in the net borrowing/lending figures.

PRIVATE SECTOR CORPORATIONS AND INVESTMENT

## The housing market drives the fall in fixed investment

Figure 4 shows GFCF fell by 13.2 per cent in the four quarters to 2009 Q1, making the largest single contribution to the downturn in expenditure-based GDP. A breakdown by sector is shown in **Figure 7**.

Business investment has fallen by 9.7 per cent during the year reflecting weak economic conditions and the pessimistic outlook of firms. Although credit has been tightened, and this has been identified as an increasingly important factor behind lower investment intentions in business surveys, it is by no means the most influential factor. Instead it is uncertainty over future demand that has caused firms to take a cautious view with regard to investment plans. Therefore it is the recessionary effects of weak demand and uncertainty that appears to be having the major impact on investment spending rather than shortages of available credit.

General government investment has slightly offset the large fall in private sector investment. In the four quarters to 2009 Q1 it rose by 1.8 per cent and is further evidence of the relative robustness of the public sector to the current recession. Investment spending may have been buoyed by the government's intention to bring forward some capital spending as part of the fiscal stimulus package announced in the 2008 Pre-Budget Report.

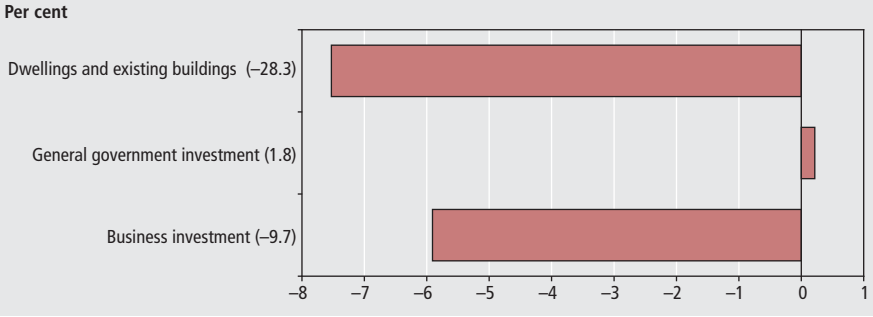
However, the largest contribution to the fall in fixed investment has been related to the falling housing market. Dwellings and existing buildings category reflects investment in the construction of new dwellings, improvements to existing dwellings, and the costs associated with the transfer of buildings, dwellings and the ownership of non-produced assets (land). Between the first quarters of 2008 and 2009 a 28.3 per cent was recorded in this category of spending, mainly reflecting the marked fall in the house building sector. These figures are consistent with the large fall in construction output, and the reduction in investment recorded on household balance sheets.

## Private non-financial corporations increase net lending

A summary of the impact of the current recession on the balance sheets of private non-financial corporations (PNFC) is shown in **Figure 8**. This basically presents recent trends in the net lending position of the PNFC sector, which is the difference between resources available for investment and actual investment undertaken.

Resources available for investment mainly reflect the income generated by

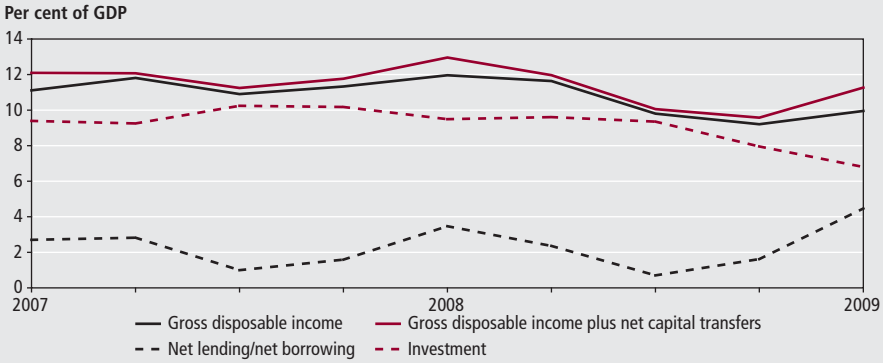
Figure 7
**Contributions to the fall in fixed investment, 2009 Q1[1]**




**Note:** *Source: ONS Quarterly National Accounts*

1 Actual four-quarter growth rates for each component are shown in brackets.

Figure 8
**PNFC net-lending**




*Source: ONS Economic Accounts*

corporations and have fallen as a proportion of GDP in the last year. While operating surpluses (profits) seem to have held up reasonably well, there has been a big fall in property income which had been making a significant contribution in recent years to overall PNFC income. Property income reflects the net income payments associated with the ownership of financial assets, and have fallen considerably in the last year mainly due to a sharp reduction in earnings from foreign direct investments. This though has been partially offset by a fall in the net interest payments paid by the sector as global interest rates fall. Total PNFC resources though were boosted in 2009 Q1 by investment grants, which accounts for the main difference between PNFC disposable income and total resources shown in Figure 8.

Net-lending as a proportion of GDP has risen because the uses of these funds have fallen at an even faster rate, a reflection of the slowdown in corporate sector investment. Here, investment includes not just fixed investment (GFCF) in capital assets, but also the disposal of inventories (negative stockbuilding) which, in terms of the PNFC balance sheet, shows firms to be running down their working capital (or reducing their assets). Therefore recent trends in PNFC balance sheets are picking up the stories of weak investment and the rapid de-stocking that have been recorded in other parts of the National Accounts.

BALANCE OF PAYMENTS

## Investment income weakens the current account

The Balance of Payments records one nation's transactions with the rest of the world. The current account records main economic flows relating to trade, income and transfers, whereas the financial account records international transactions in financial assets and the funding of the current account.

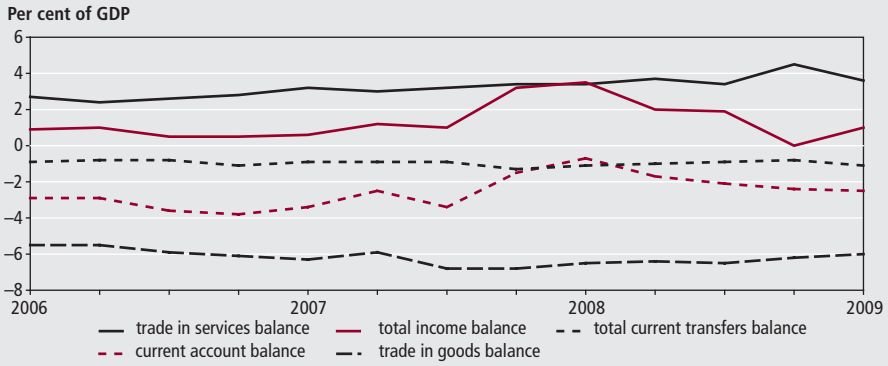
**Figure 9** plots the recent history of the current account and its main constituent parts. In sum, the UK current account has deteriorated throughout 2008 and into 2009. At the end of the first quarter of 2009, the UK current account stood in deficit of 2.5 per cent of GDP compared to a deficit of 0.7 per cent at the start of 2008.

The growing UK current account deficit has occurred despite an improvement in the trade balance. The balance of trade in goods has closed to around 6 per cent of GDP. Although exports of UK goods have fallen, imports have fallen even faster, mainly as a result of the sharp slowdown in global manufacturing trade. Deficits in goods trade have historically been partly offset by surpluses in services trade. These have remained robust despite the global economic downturn. In fact exports and imports of services have not changed dramatically in the course of the last year. Significant positive contributions have continued to come from exports of financial services and royalties and licence fees. The improvement in the UK trade balance is consistent with the positive contribution of net trade to GDP growth.

The two other components of the current account are transfers and income flows. Transfers relate to items such as international aid and membership of supranational organisations such as the European Union and the United Nations. As a proportion of GDP this category is relatively constant, so doesn't usually account for changes in the overall current account. Income flows though are more important. This item accounts for remittances of workers, but the majority is investment income flows associated with the ownership of international assets.

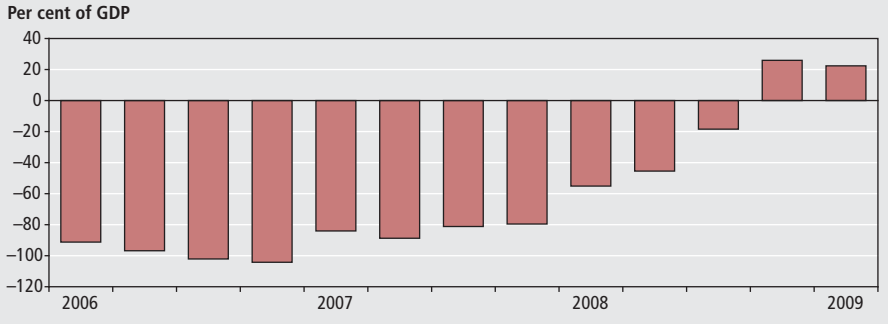
Investment income has generally made

Figure 9
**UK current account**



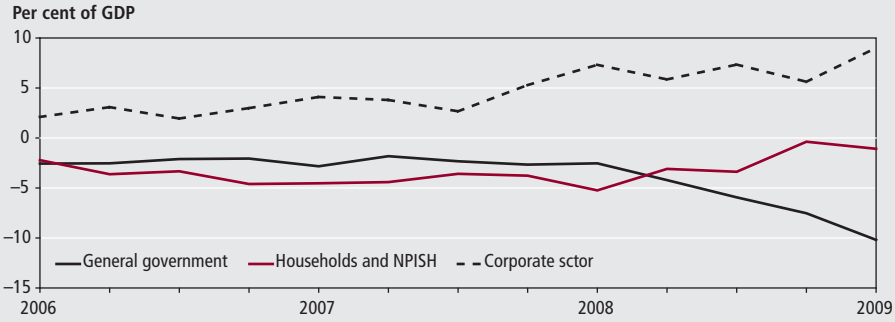

*Source: ONS Balance of Payments*

Figure 10
**UK International investment position**




*Source: ONS Balance of Payments*

Figure 11
**UK Net lending/net borrowing by sector**




*Source: ONS Economic Accounts*

an important positive contribution to the National Accounts, largely reflecting the large positive net stock of foreign direct investments held by UK firms and institutions. However, this component also tends to be more volatile and pro-cyclical. The fall in the UK current account deficit at the end of 2007 and the beginning of 2008 was driven by strong investment income, but in recent quarters this has gone into quick reverse. These trends in investment income have also been reflected in the balance sheets of UK private non-financial corporations, where earnings from foreign direct investment have fallen sharply since the start of the global recession.

## International Investment Position turns positive

The international investment position (IIP) is essentially the net balance in the ownership of international financial assets. As financial globalisation has progressed over the last three decades, stocks of foreign assets and liabilities have grown considerably as proportions of GDP. The UK has generally run a negative IIP in the last decade as a consequence of persistent current account deficits. The funding of these either requires the accumulation of financial liabilities or the disposal of foreign assets, both of which will raise foreign liabilities relative to foreign assets and reduce the IIP.

Despite this, and rather curiously, the UK has still generally been able to produce positive investment income – so a negative stock of assets is consistently generating positive net investment incomes. The explanation appears to be in the composition of the UK's IIP with the UK generally holding a surplus in relatively high earning but volatile direct investment assets and a deficit in lower earning interest bearing assets. The UK's net asset position in direct investment accounts for the sensitivity of its investment income flows in the current account, especially as global profitability falls in the current world-wide downturn.

However, in the final quarter of 2008 and the first quarter of 2009 the UK's IIP moved into positive territory for the first time since 1995, even though the current account deteriorated (see **Figure 10**). Although IIP is partly determined by international flows connected with funding the current account, the actual position is also subject to revaluations connected with changing asset prices. Here the recent depreciation of sterling has had a profound impact in raising the sterling value of foreign assets denominated in foreign currency. As the UK can largely borrow in its own currency, depreciation has little effect on the corresponding sterling value of liabilities.

UK SECTORAL BALANCE SHEETS

## Retrenchment by all apart from the government

Financial and Sector Accounts, published along side the National Accounts, provide detailed information on the balance sheets of the main sectors in the UK economy. The current financial crisis and economic recession has the raised the value of these in macroeconomic analysis. A summary of the financial position of each sector can be seen by movements in its net lending or net borrowing position. As **Figure 11** shows, while households and private corporations (financial and non-financial) have shown evidence of retrenchment in looking to reduce debt, the government has been the exception. Sharp rises in government net borrowing reflect the growing budget deficits and rising public debt as the recession hits the public sector finances.

In the recent Budget Report, the current budget balance is not projected to return to surplus until the financial year 2016/17, during which time public sector net debt will double to over 70 per cent of GDP. Most commentators and forecasters though are predicting a strong contraction in fiscal policy after the next general election.

# Key indicators

The data in this table support the Economic review by providing some of the latest estimates of Key indicators.

Seasonally adjusted unless otherwise stated

| | Source CDID | 2007 | 2008 | 2008 Q3 | 2008 Q4 | 2009 Q1 | 2009 Mar | 2009 Apr | 2009 May |
|---|---|---|---|---|---|---|---|---|---|
| **GDP growth – chained volume measures (CVM)** | | | | | | | | | |
| Gross domestic product at market prices | ABMI | 2.6 | 0.7 | –0.7 | –1.8 | –2.4 | .. | .. | .. |
| **Output growth – chained volume measures (CVM)** | | | | | | | | | |
| Gross value added (GVA) at basic prices | ABMM | 2.6 | 0.8 | –0.9 | –1.8 | –2.5 | .. | .. | .. |
| Industrial production | CKYW | 0.1 | –2.6 | –2.0 | –4.6 | –5.4 | –0.2 | 0.2 | .. |
| Manufacturing | CKYY | 0.2 | –2.5 | –2.0 | –5.1 | –5.6 | 0.2 | 0.2 | .. |
| Construction | GDQB | 2.7 | 0.2 | –1.3 | –5.0 | –6.9 | .. | .. | .. |
| Services | GDQS | 3.5 | 1.3 | –0.6 | –1.0 | –1.6 | .. | .. | .. |
| Oil and gas extraction | CKZO | –2.4 | –4.5 | –1.0 | –1.7 | –2.5 | –2.7 | 2.6 | .. |
| Electricity, gas and water supply | CKYZ | 1.1 | 0.3 | –1.3 | –2.0 | –3.6 | –2.5 | –1.3 | .. |
| Business services and finance | GDQN | 5.6 | 2.4 | –0.7 | –0.6 | –2.5 | .. | .. | .. |
| **Household demand** | | | | | | | | | |
| Retail sales volume growth | EAPS | 4.2 | 2.6 | –0.5 | 0.6 | 0.2 | 1.2 | 1.0 | –0.7 |
| Household final consumption expenditure growth (CVM) | ABJR | 2.5 | 0.9 | –0.4 | –1.1 | –1.3 | .. | .. | .. |
| GB new registrations of cars (thousands)[1] | BCGT | 2,390 | 2,112 | 542 | 338 | .. | .. | .. | .. |
| **Labour market[2,3]** | | | | | | | | | |
| Employment: 16 and over (thousands) | MGRZ | 29,222 | 29,443 | 29,407 | 29,361 | 29,204 | 29,108 | .. | .. |
| Employment rate: working age (%) | MGSU | 74.6 | 74.5 | 74.4 | 74.1 | 73.6 | 73.3 | .. | .. |
| Workforce jobs (thousands) | DYDC | 31,471 | 31,661 | 31,520 | 31,296 | 31,188 | .. | .. | .. |
| Total actual weekly hours of work: all workers (millions) | YBUS | 936.1 | 940.7 | 940.9 | 934.0 | 921.0 | 918.9 | .. | .. |
| Unemployment: 16 and over (thousands) | MGSC | 1,653 | 1,776 | 1,825 | 1,971 | 2,215 | 2,261 | .. | .. |
| Unemployment rate: 16 and over (%) | MGSX | 5.3 | 5.7 | 5.8 | 6.3 | 7.1 | 7.2 | .. | .. |
| Claimant count (thousands) | BCJD | 863.6 | 905.1 | 914.7 | 1,091.4 | 1,366.7 | 1,455.9 | 1,505.5 | 1,544.8 |
| Economically active: 16 and over (thousands) | MGSF | 30,875 | 31,220 | 31,232 | 31,333 | 31,419 | 31,369 | .. | .. |
| Economic activity rate: working age (%) | MGSO | 78.9 | 79.1 | 79.1 | 79.2 | 79.3 | 79.2 | .. | .. |
| Economically inactive: working age (thousands) | YBSN | 7,940 | 7,872 | 7,887 | 7,858 | 7,828 | 7,889 | .. | .. |
| Economic inactivity rate: working age (%) | YBTL | 21.1 | 20.9 | 20.9 | 20.8 | 20.7 | 20.8 | .. | .. |
| Vacancies (thousands) | AP2Y | 657 | 617 | 598 | 530 | 465 | 465 | 452 | 444 |
| Redundancies (thousands) | BEAO | 127 | 163 | 156 | 259 | 286 | 302 | .. | .. |
| **Productivity and earnings annual growth** | | | | | | | | | |
| GB average earnings (including bonuses)[3] | LNNC | .. | .. | 3.3 | 3.0 | –0.3 | –0.3 | 0.8 | .. |
| GB average earnings (excluding bonuses)[3] | JQDY | .. | .. | 3.6 | 3.6 | 3.0 | 3.0 | 2.7 | .. |
| Whole economy productivity (output per worker) | A4YN | .. | .. | 0.1 | –1.8 | .. | .. | .. | .. |
| Manufacturing productivity (output per job) | LOUV | .. | .. | .. | .. | .. | –8.5 | –7.5 | .. |
| Unit wage costs: whole economy | LOJE | .. | .. | 2.9 | 4.7 | .. | .. | .. | .. |
| Unit wage costs: manufacturing | LOJF | .. | .. | .. | .. | .. | 10.4 | 9.4 | .. |
| **Business demand** | | | | | | | | | |
| Business investment growth (CVM) | NPEL | 11.9 | 1.7 | –0.7 | –0.6 | –7.6 | .. | .. | .. |
| **Government demand** | | | | | | | | | |
| Government final consumption expenditure growth | NMRY | 1.2 | 2.8 | 0.5 | 1.1 | 0.2 | .. | .. | .. |
| **Prices (12-monthly percentage change – except oil prices)[1]** | | | | | | | | | |
| Consumer prices index | D7G7 | 2.3 | 3.6 | 4.8 | 3.9 | 3.0 | 2.9 | 2.3 | 2.2 |
| Retail prices index | CZBH | 4.3 | 4.0 | 5.0 | 2.7 | –0.1 | –0.4 | –1.2 | –1.1 |
| Retail prices index (excluding mortgage interest payments) | CDKQ | 3.2 | 4.3 | 5.3 | 3.8 | 2.4 | 2.2 | 1.7 | 1.6 |
| Producer output prices (excluding FBTP)[4,5] | PLLV | 1.9 | 4.7 | 5.9 | 5.0 | 3.6 | 3.2 | 2.5 | 1.2 |
| Producer input prices[5] | RNNK | 3.0 | 21.6 | 28.2 | 9.0 | 0.6 | –0.5 | –5.8 | –9.4 |
| Oil price: sterling (£ per barrel) | ETXR | 36.11 | 52.10 | 61.64 | 35.69 | 31.33 | 33.42 | 35.00 | 38.00 |
| Oil price: dollars ($ per barrel) | ETXQ | 72.44 | 98.37 | 116.89 | 57.24 | 44.94 | 47.42 | 51.51 | 58.67 |

Seasonally adjusted unless otherwise stated

| | Source CDID | 2007 | 2008 | 2008 Q3 | 2008 Q4 | 2009 Q1 | 2009 Mar | 2009 Apr | 2009 May |
|---|---|---|---|---|---|---|---|---|---|
| **Financial markets**[1] | | | | | | | | | |
| Sterling ERI (January 2005=100) | BK67 | 103.5 | 90.9 | 91.6 | 83.6 | 77.1 | 76.4 | 78.4 | 79.9 |
| Average exchange rate /US$ | AUSS | 2.0018 | 1.8528 | 1.8918 | 1.5699 | 1.4346 | 1.4174 | 1.4715 | 1.5429 |
| Average exchange rate /Euro | THAP | 1.4619 | 1.2588 | 1.2586 | 1.1957 | 1.1010 | 1.0867 | 1.1157 | 1.1295 |
| 3-month inter-bank rate | HSAJ | 5.95 | 2.75 | 6.15 | 2.75 | 1.60 | 1.60 | 1.30 | 1.15 |
| Selected retail banks: base rate | ZCMG | | | | | | 0.50 | 0.50 | 0.50 |
| 3-month interest rate on US Treasury bills | LUST | 3.29 | 0.11 | 0.90 | 0.11 | 0.13 | 0.13 | 0.14 | 0.19 |
| **Trade and the balance of payments** | | | | | | | | | |
| UK balance on trade in goods (£m) | BOKI | –89,754 | –92,877 | –23,507 | –22,294 | –20,821 | –6,471 | –7,003 | .. |
| Exports of services (£m) | IKBB | 150,645 | 170,399 | 41,566 | 45,523 | 41,882 | 14,038 | 14,113 | .. |
| Non-EU balance on trade in goods (£m) | LGDT | –47,768 | –53,633 | –14,486 | –13,621 | –12,708 | –3,355 | –4,139 | .. |
| Non-EU exports of goods (excl oil & erratics)[6] | SHDJ | 98.8 | 105.8 | 108.2 | 99.5 | 92.6 | 96.2 | 92.7 | .. |
| Non-EU imports of goods (excl oil & erratics)[6] | SHED | 113.3 | 113.5 | 115.5 | 109.8 | 101.3 | 95.7 | 101.4 | .. |
| Non-EU import and price index (excl oil)[6] | LKWQ | 102.6 | 115.3 | 115.8 | 125.3 | 130.9 | 131.5 | 128.7 | .. |
| Non-EU export and price index (excl oil)[6] | LKVX | 101.8 | 109.8 | 109.5 | 115.9 | 121.5 | 122.2 | 120.1 | .. |
| **Monetary conditions/government finances** | | | | | | | | | |
| Narrow money: notes and coin (year on year percentage growth)[7] | VQUU | 5.8 | 7.3 | 5.2 | 7.3 | 8.4 | 8.4 | 8.6 | 8.6 |
| M4 (year on year percentage growth) | VQJW | 12.6 | 12.9 | 12.0 | 16.5 | 18.1 | 18.1 | 17.4 | 16.6 |
| Public sector net borrowing (£m) | –ANNX | 33,546 | 64,377 | 13,423 | 30,347 | 22,269 | 18,978 | 10,641 | 19,861 |
| Net lending to consumers (£m) | RLMH | 12,912 | 11,548 | 2,067 | 1,857 | 210 | 42 | 200 | 300 |

## External indicators – non-ONS statistics

| | | 2008 Nov | 2008 Dec | 2008 Jan | 2008 Feb | 2009 Mar | 2009 Apr | 2009 May | 2009 Jun |
|---|---|---|---|---|---|---|---|---|---|
| **Activity and expectations** | | | | | | | | | |
| CBI output expectations balance[1] | ETCU | –42 | –42 | –43 | –44 | –48 | –32 | –17 | –17 |
| CBI optimism balance[1] | ETBV | | | –60 | | | –64 | | |
| CBI price expectations balance | ETDQ | 1 | 3 | –15 | –13 | –13 | –19 | –16 | –7 |

**Notes:** *Source: Office for National Statistics*

1 Not seasonally adjusted.
2 Annual data are the average of the four quarters except for workforce jobs (June).
3 Monthly data for vacancies and average earnings are averages of the three months ending in the month shown. Monthly data for all other series except claimant count are averages of the three months centred on the month shown.
4 FBTP: food, beverages, tobacco and petroleum.
5 Now derived from not seasonally adjusted series.
6 Volumes, 2003 = 100.
7 Replacement for series M0 which has ceased publication.

Further explanatory notes appear at the end of the Key times series section.

# Independent forecasts

## June 2009

### UK forecasts

The tables below supplement the Economic Review by providing a forward-looking view of the UK economy. The tables shows the average and range of independent forecasts for 2009 and 2010 and are extracted from HM Treasury's Forecasts for the UK Economy.

#### 2009

| | Average | Lowest | Highest |
|---|---|---|---|
| GDP growth (per cent) | *–3.7* | *–4.5* | *–2.5* |
| Inflation rate (Q4, per cent) | | | |
| CPI | *1.0* | *–0.1* | *1.8* |
| RPI | *–1.4* | *–2.9* | *1.0* |
| Claimant count (Q4, million) | 2.02 | 1.60 | 2.40 |
| Current account (£ billion) | –27.4 | –55.7 | –11.0 |
| Public Sector Net Borrowing (2008–09, £ billion) | 179.2 | 140.0 | 207.0 |

#### 2010

| | Average | Lowest | Highest |
|---|---|---|---|
| GDP growth (per cent) | *0.6* | *–1.3* | *2.0* |
| Inflation rate (Q4, per cent) | | | |
| CPI | *1.6* | *0.5* | *3.7* |
| RPI | *2.4* | *0.0* | *4.4* |
| Claimant count (Q4, million) | 2.33 | 1.57 | 3.10 |
| Current account (£ billion) | –27.2 | –96.5 | 5.0 |
| Public Sector Net Borrowing (2009–10, £ billion) | 185.9 | 155.0 | 240.0 |

**Notes**

*Forecast for the UK economy* gives more detailed forecasts, and is published monthly by HM Treasury. It is available on the Treasury's website at: www.hm-treasury.gov.uk/data_forecasts_index.htm

### Selected world forecasts

The tables below supplement the Economic Review by providing a forward-looking view of the world economy. The tables show forecasts for a range of economic indicators taken from *Economic Outlook* (June 2009), published by OECD (Organisation for Economic Co-operation and Development).

#### 2009

| | US | Japan | Euro area | Total OECD |
|---|---|---|---|---|
| Real GDP growth (per cent) | *–2.8* | *–6.8* | *–4.8* | *–4.1* |
| Consumer price (percentage change from previous year) | *–0.6* | *–1.4* | *0.5* | .. |
| Unemployment rate (per cent of the labour force) | *9.3* | *5.2* | *10.0* | *8.5* |
| Current account (as a percentage of GDP) | .. | .. | .. | .. |
| Fiscal balance ( as a percentage of GDP) | *–10.2* | *–7.8* | *–5.6* | *–7.7* |

#### 2010

| | US | Japan | Euro area | Total OECD |
|---|---|---|---|---|
| Real GDP growth (per cent) | *0.9* | *0.7* | *0.0* | *0.7* |
| Consumer price (percentage change from previous year) | *1.0* | *–1.4* | *0.7* | .. |
| Unemployment rate (per cent of the labour force) | *10.1* | *5.7* | *12.0* | *9.8* |
| Current account (as a percentage of GDP) | .. | .. | .. | .. |
| Fiscal balance ( as a percentage of GDP) | *–11.2* | *–8.7* | *–7.0* | *–8.8* |

**Notes**

The OECD *Economic Outlook* is published bi-annually. Further information about this publication can be found at www.oecd.org/eco/Economic_Outlook

FEATURE

Office for National Statistics

# Developing financial statistics for policy

## Introduction

**SUMMARY**

This series of articles, forming a special edition of *Economic and Labour Market Review*, constitutes a progress report on a project that was launched in the autumn of 2008 and is ONS' response to the financial crisis. It reviews how ONS statistics and analyses were already recording the credit boom and financial innovation of recent years, and what improvements might be possible for the future, to record the continuing effects of the financial crisis and the effects of government interventions, and to raise the profile of sectoral balance sheets in macroeconomic analysis.

The financial crisis has presented new challenges in managing financial risk and uncertainty, and in understanding the mechanics of the credit boom and the securitisation instruments upon which it was built.

The Office for National Statistics (ONS) has several roles:

- to provide the tools to help policy-makers and analysts understand the mechanics of the credit boom, and asset and debt inflation more generally
- to keep pace with financial innovation in our measurement of gross value added by the financial sector, and in our sectoral balance sheets, and
- to contribute to the transparency agenda, where risk and uncertainty are shifted from the private to the public sector balance sheets

This series of articles constitutes a progress report on a project, launched in the autumn of 2008, which is ONS' response to the financial crisis. The project addresses how ONS can best fulfil all three of the roles above. It reviews how ONS statistics and analyses were already recording the credit boom and financial innovation of recent years, and what improvements might be possible for the future, to record the continuing effects of the financial crisis and the effects of government interventions, and to raise the profile of sectoral balance sheets in macroeconomic analysis.

The major focus of the project is on financial balance sheets. ONS economic statistics have played an important role in measuring the move of the economy into recession:

- UK output growth began to decline through the first quarter of 2008, approximately 12 months after the risks around the credit crisis were identified and six months following the initial impacts of the turmoil on the balance sheet of the financial sector
- labour market statistics have clearly described the impact of the developments in the economy upon the labour market
- in price statistics, the impacts of increased commodity prices and developments in house prices have been reflected in the different movement of CPI and RPI measures of inflation, and
- the retail sales index has demonstrated major differences between different sectors, with sales of household goods reducing much more than sales from predominantly food stores

UK macroeconomic policy in recent years, with its emphasis on promoting growth within a stable macroeconomic environment, has been supported by measures of output (gross domestic product) and productivity. There has been less policy focus on sectoral balance sheets (financial and non-financial). This project points to ways in which balance sheets, using the best available data and analysis, could be helpful in the current economic situation.

As part of this, the public sector balance

sheet will be developed, given the need to include public sector banks, and for information to support analysis of fiscal risk. The project also aims to improve the quality and analysis of all data for the financial sector, with particular focus on the coherence between output, employment and profitability. ONS is working in close cooperation with colleagues at the Bank of England, HM Treasury and the Financial Services Authority (FSA) to pursue this agenda.

The project's work plan is structured by institutional sector, and this report reflects that structure.

The first article considers the impact of the financial crisis on the output and employment measures of the financial sector, and assesses coherence between the two. The sources and methods used to compile quarterly measures of financial services' output are discussed in some detail, with a particular focus on financial innovation, and gaps and issues identified. Work to fill these gaps, and improve data relevance, has been ongoing with the Bank of England for some time.

The second article assesses how the evolution of the credit boom might be detected in the sectoral balance sheets published in the Blue Book data of the past 20 years, for both the financial and non-financial sectors. An analysis of the gaps in recording of assets and liabilities, largely arising due to the opacity of the unregulated, or "shadow banking system", leads to a list of recommendations to be taken forward in partnership with the Bank of England, HM Treasury and the FSA.

The next article considers issues affecting the household sector balance sheet in the build-up to the financial crisis. Areas or improvement and development are discussed, including the forthcoming release of the analyses and datasets from the Wealth and Assets Survey, to include a demographic breakdown of household debt.

The fourth article addresses issues raised by banking groups coming into the public sector, clarifying how they are presented in the National Accounts and public sector finances and discussing the publication of more asset and liability detail than currently shown in public sector finances balance sheets. The article also clarifies the definition of the public sector net debt measure, and discusses its relevance among alternative measures of debt.

The final article finishes with discussion of the liability boundary for National Accounts, business accounting and government accounting, and the recommendations for presentation of liabilities such as contingent liabilities, pensions and all liabilities associated with private finance initiatives (PFI).

Finally, a set of conclusions and recommendations is set out.

The project to date has been led by Fenella Maitland-Smith and chaired by Joe Grice. Contributors to the work have included:

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FEATURE

# Output and employment in the financial sector

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**SUMMARY**

This article describes how the quarterly output of the financial services sector is measured in the National Accounts. Then at a sub-sector level, an analysis of recent employment and output trends is presented to describe the impact of the current economic downturn on the activity of the sector. The sub-sectors analysed include banks, building societies, investment trusts, life insurance, non-life insurance and pension funding.

This article examines how the impact of the credit crisis has been captured by quarterly output measures and corresponding measures of employment. It discusses, on a sub-sector level, whether the output indicators have captured the real effects of the crisis. Consideration will also be given as to how well these indicators have captured financial innovations.

The first part of the article examines the broad structure of the financial sector based on the Standard Industrial Classification (SIC). The rest of the article consists of an analysis of the relationship between trends and movements in these indicators and the corresponding labour market data. This approach will provide initial findings on the quality of output indicators, with respect to expected movements and their coherence with other measures of financial sector activity.

Although the sample size of the Labour Force Survey (LFS) is likely to be small at this level of detail for some sectors it is still likely to give a reasonable indicator for broad trends over the period. Though not strictly the preferred employment measure for industrial classification (Workforce Jobs (WFJ) being the recommended series) it is the best source of employment data at the level of detail required. In a sector where output coverage is incomplete and activity subject to constant innovation it is likely that LFS employment estimates may offer a better picture of the underlying position of this industry with which to consider the reliability of the output data.

The analysis shows that direct and indirect output indicators for banks and building societies combined have continued to grow, despite the onset of the crisis. Reasons to support this interpretation are discussed in detail later, although it is worth noting here that restrictions in the supply of credit and increases in the price of arrangements fees have all played their part.

Output indicators for the life, non-life and pension industries have either remained stable or declined slowly, although they do not appear to have been impacted adversely by the credit shock.

Despite the developments in activity indicators, the majority of labour market data illustrate a decline in employment in the sub-sectors under analysis. These developments are as expected. The apparent lack of coherence is discussed in further detail in the body of this article.

## Overview of the financial intermediation industry

The financial industries are classified within Section J of the UK SIC. The industry is broken down into three main groups; financial intermediaries (Division 65), insurance and pension funds (Division 66) and financial auxiliaries (Division 67). Together they account for around 7 per cent of UK gross value added (GVA). A summary of the structure and data sources for these industries is presented in the **Appendix**.

Unlike most other industries, the Office for National Statistics (ONS) relies heavily on external data sources to measure the output of the financial sector. One of the

key data suppliers is the Bank of England which supplies the bulk of the data used to measure Division 65. The majority of Division 66 uses data from the Association of British Insurers (ABI) – the trade association for the UK insurance industry. Division 67 relies on financial markets data, trade association data and some ONS data.

- **Division 65 financial intermediaries**: consists of the activity of central banking, private banking, building societies and other financial intermediation. The first three components make up the majority of this sector with a large number of smaller financial intermediaries completing the picture. In total this division accounts for 4.4 per cent of Gross Domestic Product (GDP) and 63 per cent of Section J as a whole.
- **Division 66 insurance and pension funds**: consists of the activity of life insurance, pension funding and non-life insurance. The first two components are of roughly equal size and make up just over half of the division, with non-life insurance accounting for just under half (this component is dominated by motor vehicle insurance). In total this division accounts for 1.6 per cent of GDP and 23 per cent of Section J as a whole.
- **Division 67 financial auxiliaries**: covers the various financial auxiliaries which facilitate and administer financial markets by acting as agents for firms and governments within the economy. It consists of a large number of small specialists and accounts for 1.1 per cent of GDP and the final 14 per cent of Section J as a whole.

Each of these industries has been reviewed in the last few years as part of the Index of Services (IoS) Industry Review programme where various estimation issues have been considered. Further details on the improvements made are detailed within each section, as well as ongoing issues and difficulties in interpretation.

## Short-term measures – sources and methods

### Division 65 – financial intermediation, except insurance and pension funds

Although SIC splits Division 65 by institutional type, the quarterly output measure of activity makes use of data based upon activity type. As such it is not possible to identify output for private banks, central banking and building societies individually. Instead ONS receives data for all three in aggregate, relating to directly measured activities (fees and commissions earnings) and indirectly measured activities (essentially the spread earnings on loans and deposits).

Directly measured activity currently accounts for just over a third of this division with indirectly measured activity (referred to as financial intermediation services indirectly measured or FISIM) accounting for the other two-thirds of activity (see **Table 1**). Prior to the *Blue Book* 2009 consistent quarterly estimates, there were measurement gaps within the division. The data now includes estimates for spread earnings on dealings activities and operating income from non-financial assets owned by these institutions which had previously been omitted. The inclusion of this data is as a result of joint work with the Bank of England and this working relationship will be important going forward.

### Fees and commissions

Since the 2006 *Blue Book*, bank fees collected from the Bank of England Profit and Loss Survey have been used as the basis of output measurement for the directly measured element of banking. Two issues have been identified for further work. First is the forecasting (or nowcasting) of the series for the most recent periods, which ONS will take forward with the Bank of England once the time series are sufficiently long.

The second issue is deflation. As no specific deflator currently exists, the Average Earnings Index (AEI) for financial intermediation (excluding bonuses) is used. Work on improving price indices for the banking sector has been ongoing within ONS, and the results will be evaluated for use in the National Accounts.

When the fees series was introduced, the recommendation for deflation was to use the AEI for financial intermediation excluding bonuses, despite arguments by key customers that using the including bonuses series would be better. The use of the excluding bonuses series is justified on the following grounds:

- the excluding bonuses series is a good proxy for the including bonuses series (due to the trends being similar)
- earnings including bonuses series are not included elsewhere in services (that is it maintains consistency)
- it could be argued that when pricing products banks base the trend of prices on expectations of normal wage payments and
- this is only a stop-gap series anyway – it is not the ideal solution and was an incremental improvement over the previous methodology of using employment data

### Financial intermediation services indirectly measured (FISIM)

In the 2008 *Blue Book*, ONS introduced new methods for calculating the output of FISIM and allocating it to consuming sectors in line with European Council Regulations (see **Box 1**).

The new output method uses detailed data by sector on the interest charged on, and stocks of, loans and deposits. A volume measure is derived by deflating the stocks with the GDP expenditure implied deflator, excluding FISIM.

In terms of short-term measurement, although the new method is conceptually stronger, the data were only available quarterly initially, rather than the monthly availability for the old method, but work by the Bank of England has led to the provision of monthly stocks data which are used to calculate early volume estimates of FISIM. The monthly stocks data are used in a co-integration model to forecast FISIM for the Preliminary Estimate of GDP. They are fully available for the second data vintage which is the Output, Income and Expenditure estimate; thereby improving the quality of the early estimate of FISIM.

### Other financial intermediation

Measurement issues in this sector relate to the factoring/invoice discounting and pawnbroker elements of other credit granting which are not captured by current data sources. Both of these sectors may be expected to pick up in volume terms during an economic downturn. As firms want to increase their cash holdings, in

Table 1
**Weight in Whole Economy Gross Value Added (GVA) per 1000 parts**

| | FISIM | Direct | Total |
|---|---|---|---|
| Banks and Building Societies | 25.8 | 12.0 | 37.8 |
| Other | 3.0 | 2.8 | 5.8 |
| Total | 28.2 | 14.8 | **43.6** |

*Source: ONS Blue Book*

Box 1
**FISIM**

FISIM is an indirect measure of the value of services for which financial intermediaries do not charge explicitly. Financial intermediaries provide services for which explicit charges can be made, such as commission on foreign exchange, account charges and flat rate fees for overdrafts. However, financial intermediaries also rely extensively on revenue accruing from interest flows, paying or charging levels of interest that differ between lenders and borrowers. FISIM imputes direct charges for these services.

The allocation of FISIM is calculated as the difference between the effective rates of interest payable and receivable, and a 'reference' rate of interest considered to represent the risk free rate of lending/borrowing. It was allocated across sectors from *Blue Book* 2008 onwards having previously been allocated to a nominal sector within the National Accounts. Between 1993 and 2004, FISIM added an average of 1.5 per cent to the level of GDP in chained volume measures (CVM). For examples of how FISIM is calculated and further information on the measurement of FISIM refer to Akritidis (2007).

response to the restrictions in the supply of credit, the ability to sell on invoices even at a discount will be used by more firms. The demand for personal pawnbroker services is likely to increase as individuals lose jobs and job security. The volume of activity of pawnbrokers is not likely to be large, but the interest charged is often significant.

## Division 66 – Insurance companies and pension funds

Volume measures for this division are obtained using quantity data, and not via deflation. The ABI publish volume data on a comprehensive range of life insurance and pension products. Data are published in September for the previous year and the periodicity is annual. Coverage is very good with about 96 per cent of the market (in terms of premiums paid) accounted for.

The ABI publish volume data for UK motor insurance. These are quarterly data with excellent coverage of insurance companies' exposure to risk. Their use avoids the problematic issue of deflation.

## Division 67 – Financial auxiliaries

### Administration of financial markets (SIC 67.11)

This group includes those financial exchanges that are based in the UK. At the time of the review, there were other exchanges (for example London Metals Exchange, Virt-X, International Petroleum Exchange) but given the dominance of the London Stock Exchange (LSE) and the London International Financial Futures and Options Exchange (LIFFE), it was decided to only measure these exchanges. However, new EU rules introduced in 2008 mean that the LSE no longer has a monopoly on share trading and there are a number of competitors (such as Chi-X and Turquoise among others). At present, there are no concerns with the coverage, but it is something that should be considered for the future.

### Fund management activities (SIC 67.12/1)

This relates to Financial Services Authority (FSA) regulated funds, hence by definition excludes hedge funds. The bulk of funds under this heading belong to life insurance and pension funds:

- insurance - 39 per cent
- pension funds - 34 per cent
- retail - 14 per cent
- other - 9 per cent
- central banks/government - 2 per cent
- private clients - 1 per cent

A recent review introduced indicators for unit and investment trusts for retail funds as well as indicators for total financial assets of insurance and pension funds for institutional funds. While this will not be exhaustive, it does cover the main elements (87 per cent using the breakdown from the Investment Management Association (IMA)).

### Security broking and related activities (SIC 67.12/1)

The exchange volume indicators serve a dual purpose within Division 67, as they are also used to proxy the output of the brokers and market makers. However, the problem with this approach is that UK-based dealers operate on exchanges throughout the world (notably the Eurobond market) and, as a consequence, may not reflect the true balance of activity.

Another issue is that over-the-counter (OTC) trading of financial instruments is not conducted through a central market, and is hence very difficult to measure.

ONS already collects data in this area via the Securities Dealers Inquiry. This form collects data on:

- profit/loss from dealing as a principal
- commissions
- interests and dividends
- other income

While the series are relevant the survey is subject to discontinuities and there are conceptual difficulties in deflation. At the time of the last review, the benefit of direct volume monthly exchange data was chosen in preference to the quarterly securities dealers' data. The survey is under development but the practical issues here will require much work and implementation of improvements is timetabled for *Blue Book* 2010 at the earliest.

### Activities auxiliary to financial intermediation not elsewhere classified (SIC 67.13)

This group covers the following:

- independent financial advisers not specialising in insurance or pension funding advice
- mortgage brokers
- bureaux de change, foreign exchange brokers etc.
- hedge funds (on the basis that they are excluded elsewhere)

Financial advisers and mortgage brokers are companies that exist by earning commission from products they sell on to clients, usually households and businesses. They will include insurance, pensions, endowments, mortgages and so on. The commission is normally a percentage of the premiums paid by their clients. No data sources are currently available to measure this activity, and this is an area for future investigation.

There is no central foreign exchange market as trades are conducted between banks and brokers. Foreign exchange brokers earn their income by levying a percentage fee on any trades (net spread earnings). The Bank of England publishes a triennial survey of the foreign exchange (forex) market as part of an international survey for the Bank for International Settlements. Data should be split by spot, forward and options. The periodicity makes it unsuitable for quarterly or monthly use.

Hedge funds are currently exempt from regulation and as such are not required to meet disclosure standards. It is estimated that hedge funds could account for up to 6 per cent of total fund management activity in the UK although recent trends are likely to have changed the balance of hedge fund activity somewhat. By definition, it is extremely difficult to derive a volume measure of output for these agents under the current regulatory framework.

The lack of transparency and data in this area makes development of reliable and complete indicators a difficult and prolonged process. A recent attempt to introduce PricewaterhouseCoopers (PwC) and Confederation of British Industry (CBI) joint data from their Financial Services Survey concluded that the data was not suitable for use as a volume indicator for the GDP output series.

### Activities auxiliary to insurance and pension funding (SIC 67.2)

At present no indicators specific to this industry are used, instead the indicators used to measure insurance and pension funding are used as a proxy. Effectively this is assuming that broking has a fixed relationship with the insurance industry. No data sources are currently available to measure this activity and as such it is difficult to assess the validity of this assumption.

## Analysis of output and employment

Having outlined and considered the measurement issues relating to short-term output indicators of financial activity, it is logical to consider their evolution against those of corresponding labour market data.

It is reasonable to expect that output and labour market data will move together, with an associated lag, during a sustained period of growth, or similarly through a prolonged downturn. The lag between the two sets of data might well reflect employers' perception of the permanency of a change in demand and the decision to either hire or lay-off workers.

This section examines the development in short-term output data and full and part time employment series for the sub-sectors of the financial intermediation and insurance and pension funding industries. Analysis of the activities auxiliary to finance will follow in future work.

### Employment data considerations

The analyses presented in this article use the lowest level of disaggregation that will support investigation. Labour market data are taken from the LFS, which is a large household survey when considered in aggregate. It should be noted that sample sizes can be somewhat limited at a low sectoral breakdown, though will still be relatively robust for the larger components of the sector. As a consequence of small samples, data extracted at this level of detail can often be observed to be volatile but with no seasonal pattern. Non-seasonally adjusted data are therefore examined at this disaggregated level, although these data are often difficult to interpret in raw form due to a four week sample period affecting the raw data (leading to inconsistent timings across months of differing lengths). Despite difficulties with the rough dataset considered, the LFS is the best comparable series given the detail needed to consider the financial sector at the level in this article.

### Output data considerations

In addition to all the measurement issues identified in the first part of this article, it is important to remember that the short-term output measures used here are, in fact, designed to act as proxies for gross value added (GVA). Low level output (activity) indicators are weighted together by a value-added industrial breakdown of the UK economy. This approach assumes that in the short-run, changes in input (intermediate consumption) volumes move in tandem with changes in output volumes. This assumption is tested and corrected during the annual supply and use balancing process, but to the extent that it breaks down in recent periods, the growth in output may over or under state the growth in value added, and thus GDP.

### General comparison of direct and indirectly measured output for Division 65

There are a number of factors underpinning the developments illustrated in **Figure 1**. In relation to the directly measured output indicators, while the supply of credit has been hit by the credit crisis, non-risk prices, such as arrangement fees for mortgage and loan facilities have increased.

The relative stability in the indirect measure however, reflects a relative stability in the stock of deposits and loans. The stock of loans did not change dramatically through the year, as a result of restrictions on credit, while the stocks of deposits also remained constant as households continued to spend until the latter part of the year.

Given that the GVA data are built up using indicators of type of activity, rather than type of institution, it is not possible to derive separate GVA series for each of the banking, central banking and building societies sub-sectors. Instead, the direct and indirect data sets are weighted together by their share in overall output under National Accounts weights in order to produce a composite index for Division 65. Table 1 shows that the FISIM weight makes up over two-thirds of the overall composite, and the directly measured component (proxied by fees and commissions) one third. So, not surprisingly, the trend and movements in the FISIM series predominate.

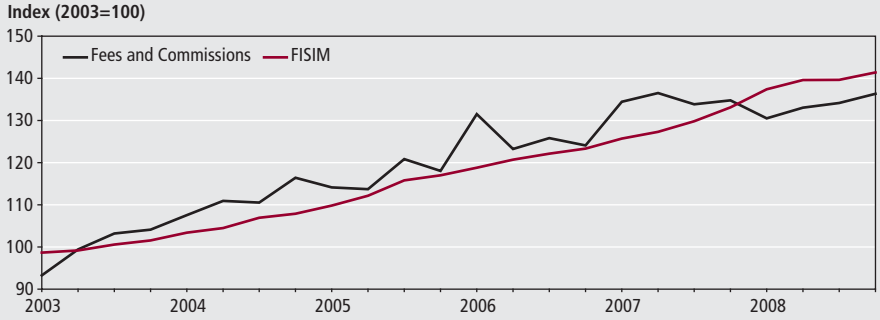
This composite series has been used as a proxy for both the banks only and building societies only analyses below. This is necessary but does mean that marked differences in the performance of the sub-sectors may be masked in the composite series.

### Comparison of output and employment data

#### Banks

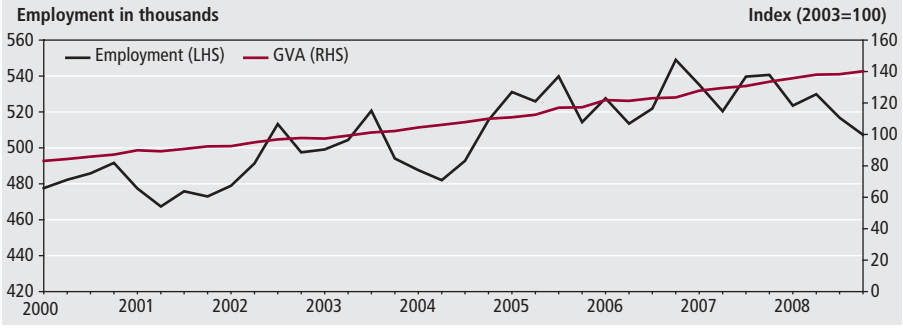
The composite output series for banking, building societies and central banking shows a stable and increasing trend for activity throughout the period (see **Figure 2**). The employment level for banks, although tracking output into 2007 (taking

Figure 1
**Output of FISIM and fees and commissions**



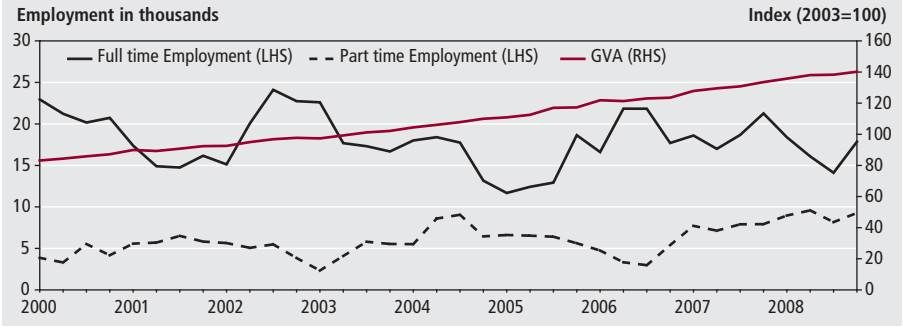

*Source: ONS Quarterly National Accounts*

Figure 2
**Banks output and employment**



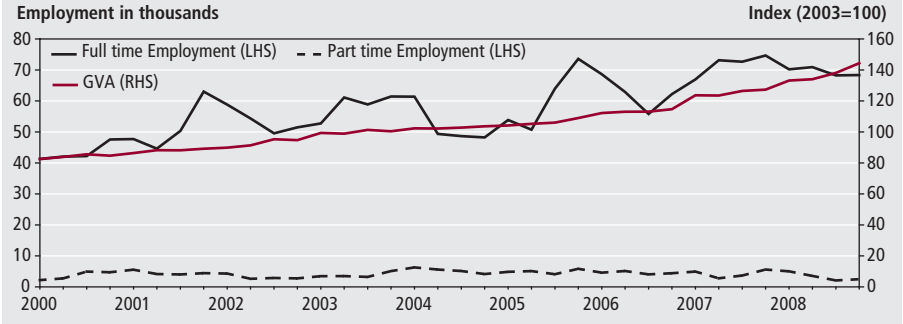

*Source: ONS Quarterly National Accounts and Labour Force Survey*

Figure 3
**Building societies output and employment**




*Source: ONS Quarterly National Accounts and Labour Force Survey*

Figure 4
**Investment trusts output and employment**




*Source: ONS Quarterly National Accounts and Labour Force Survey*

into account the volatility of non-seasonally adjusted data), has since fallen off quite steeply.

Given that employment is falling off as expected, the continued increase in output for the sector as a whole is somewhat surprising. The output measure we are analysing however is for banks, building societies and the central bank, and therefore may not to be representative of the output for the banking sector alone. It is quite possible that a fall in banking output might be offset to some extent by a smaller fall for building societies. Also, it has already been noted that this series is dominated by FISIM, which largely depends on the stock of loans and deposits, which have remained stable.

Both full and part-time employment have been substantially affected. The full-time employment level has fallen 4.8 per cent. Part-time employment has fallen more heavily: at the end of 2006 the employment level stood at around 103,000; this has fallen 19.6 per cent over the past two years and now stands at only just over 83,000. This is in contrast to the trend for the economy as a whole, which has seen part-time employment increase over the period.

## Building societies

Again, the composite output series for banking, building societies and central banking shows a stable and increasing trend for activity throughout the period, reflecting the stability of FISIM output (see **Figure 3**).

Employment, both full-time and part-time, has been volatile throughout the period however; this is potentially due to the sample sizes. The general trend for full-time employment has been one of slight decline.

Throughout the last decade, part-time employment has seen a general upwards trend, and although this has levelled off slightly it still shows part-time employment increasing. The movement in part-time differs from the pattern in the banking sector, and is more in line with the economy as a whole. This indicates a pattern of substitution from full-time to part-time employment in this industry throughout the sample period.

## Investment trusts

Both output and full-time employment have seen fairly steady growth over the period, with an increase in growth towards the end of 2008 (see **Figure 4**). This could be explained by the fact that, since the onset of the crisis, investment trusts are likely to have moved their funds from riskier assets to risk free assets. This would have generated large numbers of transactions, which consequently would have underpinned the growth in GVA for the sector.

The full-time employment level has fallen by around 8.5 percent over 2008. Part-time employment, which accounts for a much smaller proportion of employment in the industry, has declined at a noticeably faster rate than full-time employment, falling by around 50 per cent over 2008 as a whole, perhaps reflecting the lower costs of shedding such labour at a time of overall reduction.

## Life insurance

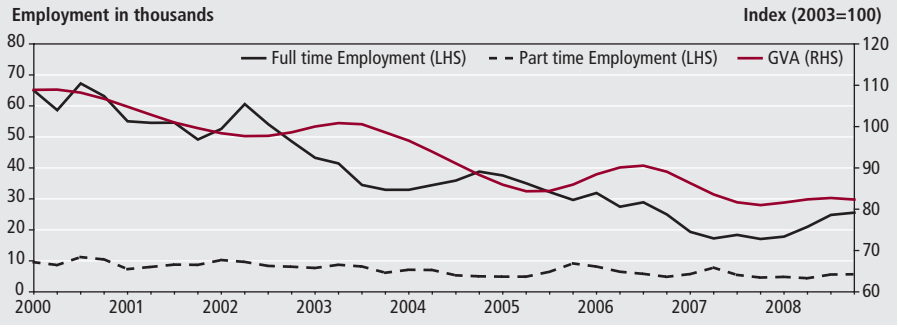
Both full-time employment and output for life insurance have declined over the period 2000 to 2008 (see **Figure 5**).

Prior to the onset of the crisis there appears to have been a slight decline in the output of the life insurance sector. This is believed to be as a result of reduced take up of such insurance among first time home buyers unable to get on to the housing ladder.

Recent research by Life Insurance UK highlighted that people were cancelling their life insurance cover in order to save money to weather the recession.

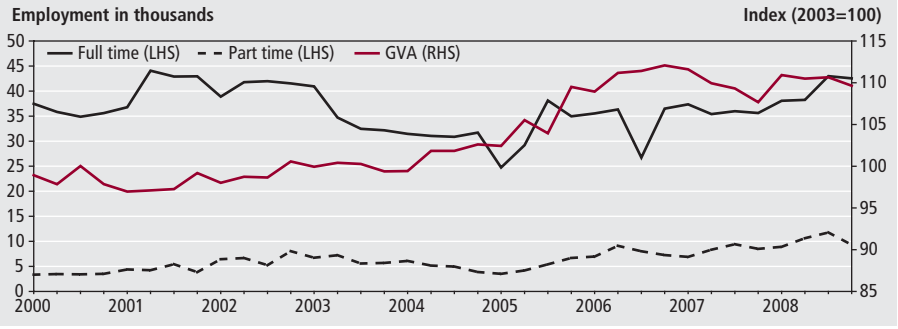
Full-time employment levels have tended to track the slight decline in output and

Figure 5
**Life insurance output and employment**



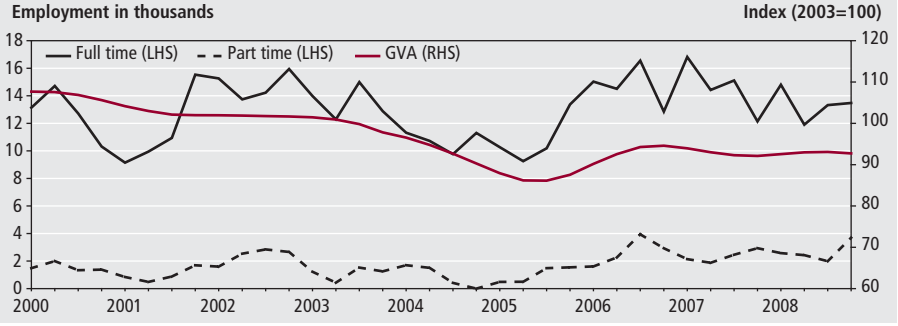

*Source: ONS Quarterly National Accounts and Labour Force Survey*

Figure 6
**Non-life insurance output and employment**




*Source: ONS Quarterly National Accounts and Labour Force Survey*

Figure 7
**Pension funding output and employment**




*Source: ONS Quarterly National Accounts and Labour Force Survey*

this is thought to be as a result of the strong competition in the sector (supermarket banks have entered this sector aggressively), which means that prices and costs have needed to be kept under control.

In short, the output indicators for this sector appear to be appropriate in terms of coherence and expectations.

### Non-life insurance

Over the past decade, the output data for non-life insurance has been slightly more volatile than for life insurance and pension funding (see **Figure 6**). The data does however, show a general upward trend. For the period up to late 2005 the data shows gradual growth. However, the final quarter of 2005 saw a substantial jump, followed by the same trend of slow growth.

The most significant component of non-life insurance is motor insurance: a necessity for those that drive cars, leading to low variability in demand, given income. This means that during the current economic crisis we would expect to see little change in the level of output for non-life insurers, and any negative change that we do see should be related to an overall weakening in transport demand.

Full-time employment over the whole period has fluctuated about a broadly stable level. Part-time employment has had a general trend of growth over the whole period, with marked growth since the beginning of 2005. Thus the activity indicators for non-life insurance appear to be coherent.

### Pension funding

The output of the pension industry over the past decade can be split into three distinct phases (see **Figure 7**). The first, from 2000 to mid-2005, was a phase of decline with around a 20 per cent fall in the index from 2000 Q1 to 2005 Q3. The second phase is of growth between mid-2005 and late 2006. The final phase is of neither growth nor decline, with the index fluctuating by less than 2 per cent over this period.

The developments in the output activity of the pension funding industry are consistent with a number of factors including both legislative and of corporate sector performance. The fluctuations in both employment and output around 2004 can be mainly attributed to the implementation of the Pension Act (2004), and subsequently the Pension Protection Fund in 2005.

The decline in output prior to 2004 is a consequence of lax rules prior to the introduction of these regulations. Since then, the output in pension funding has grown in line with legislative requirements and strong corporate profits, which have both ensured that the 'funding gap' has started to close.

During times of recession the output of pension funding might be expected to fall in line with employment. Up to the end of 2008, however, this is not what we have observed. Output of the pension funding industry remained fairly flat through the second half of 2008, with a slight reduction into 2008 Q4. One of the main reasons behind this development could be attributed to the lag between changes in economic output and the labour market. There had been little reduction in the level of employment going into 2008 Q4 and therefore there can be little expectation that pension funding output will have been impacted significantly. With large reductions in LFS and WFJ employment into 2009 Q1, it would be reasonable to assume that pension funding output would have fallen similarly.

Based on this conjecture, the activity indicators for pension funding appear to be appropriate in terms of coherence and expectations.

## Conclusions

Measuring the activity or output of the financial sector is extremely challenging, both conceptually in how to define a unit

of output of insurance or banking services, and practically. These challenges were discussed in the section on the analysis of output and employment, where little coherence between output indicators and labour market data for both the banks and building societies and the investment trusts sectors was observed. Part of the reason behind this lack of coherence can be attributed to measurement issues surrounding the growth in recent years of special purpose vehicles, unregulated institutions such as hedge funds and the shadow banking sector in general.

We should also consider the unadjusted nature of the labour market data used in this preliminary analysis, although the data does cover the whole of the sector whereas the National Accounts aggregates are subject to limitations. These limitations and other financial sector measurement issues are discussed further in the article on corporate sector balance sheets in this edition of *Economic and Labour Market Review*.

ONS has been working with the Bank of England for some time to try to improve both coverage and relevance of the indicators used in the calculation of short-term GDP, and this work continues. The main development areas currently being pursued are:

- the introduction of indicators for net spread earnings and other income
- to review the use of the AEI excluding bonuses to deflate fees and commission, and to potentially replace it with PPI and RPI components, and
- to investigate all possible data sources for financial auxiliaries, including hedge funds

## CONTACT

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## REFERENCES

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## APPENDIX

Table A1

### Financial services (Sector J): sources, indicators, weights (2003) and deflators

| | | GVA weights | Deflators/Reflators | | Volume Indicators | |
|---|---|---|---|---|---|---|
| SIC Label | Industry Description | GVA wt | Source | Deflator/ Reflator | Source | Volume indicator |
| Division 65 | Financial intermediation except insurance and pension funding | 43.6 | | | STATUS: EXP / MONTHLY | |
| 651 | Monetary intermediation | 37.8 | AEI/ Derived | Weighted mean of: | Derived/ BoE | Weighted mean of: |
| 6511 | Banks & building societies - directly measured output | 12.0 | | 1. AEI for financial intermediation excluding bonuses - adjusted for changes in productivity | | 1. Deflated bank fees and commission income |
| 6512 | Banks & building societies - indirectly measured output | 25.8 | | 2. Implied deflator | | 2. BOE: Total FISIM generated by resident sectors MFIs (CVM) |
| 652 | Other financial institutions | 5.8 | | Weighted mean of: | | Weighted mean of: |
| 6521 | Financial leasing | 2.4 | GDP(E) | 1. GDP(E) deflator excluding FISIM | ONS | 1. Output indices weighted together by gross capital stock of finance leased assets by industry of use in 2001 |
| 6522 | Other credit granting | 3.0 | Derived | 2. Implied deflator | BoE | 2. Total FISIM generated by resident sectors OFIs (CVM) |
| 6523 | Other financial intermediation n.e.c. | 0.4 | FTSE | 3. FTSE All Shares Actuaries Index | Derived | 3. Deflated total funds held in UK unit and investment trusts at end of period |
| Division 66 | Insurance and pension funding, except compulsory social security | 16.3 | | | STATUS: EXP / ANNUALLY | |
| 6601 | Life insurance | 4.3 | Derived | Implied deflator | ABI | Weighted mean of industrial, individual and group policies |
| 6602 | Pension funding | 4.6 | Derived | Implied deflator | ABI | Weighted mean of annuities, individual, defined benefit/ contribution and other pension schemes. |
| 6603/01 | Non-life insurance - UK motor insurance | 7.4 | Derived/ GDP(E) | 1. Implied deflator | ABI | Weighted mean of comprehensive, non-comprehensive, other vehicles and motor cycles exposure |
| 6603/02 | Non-life insurance - other | | | 2. GDP(E) Implied deflator | ONS | Volume of non-life insurance output: Provisions adjusted for claims |
| Division 67 | Activities auxiliary to financial intermediation | 10.5 | | | STATUS: EXP / ANNUALLY | |
| 6700 | Activities auxiliary to financial intermediation | 10.5 | | Weighted mean of: | | Weighted mean of: |
| | | | AEI | AEI for financial intermediation excluding bonuses - adjusted for changes in productivity | LSE | British government securities, and stock exchange transactions |
| | | | AEI | AEI for financial intermediation excluding bonuses - adjusted for changes in productivity | LIFFE | Derivatives transactions |
| | | | FTSE | FTSE All Shares Actuaries Index | Derived | Deflated total funds held in UK unit and investment trusts and financial assets of insurance and pension funds at end of period |
| | | | AEI | AEI for financial intermediation excluding bonuses - adjusted for changes in productivity | ABI | Life insurance policies, income protection, annuities, pensions and non-life insurance exposure. |
| | | | GDP(E) | GDP(E) implied deflator | ONS | Volume of non-life insurance output: provisions adjusted for claims |

**Notes:**

*Source: ONS (for full version see Blue Book 2008)*

1 BoE - Bank of England; IMA - Investment Management Association; AIC - Association of Investment companies; AEI - Average Earnings Index; FTSE - Financial Times Stock exchange; GDP (E) - Gross Domestic Product (Expenditure); MFI - Monetary Financial Institutions; OFI - Other Financial Institutions; NTPS - Non-Trading Public Sector; CVM - Chained Volume Measures; ONS - ONS quarterly inquiry; ABI - Association of British Insurers.

FEATURE

# Corporate sector balance sheets and crisis transmission

*Christopher Davies*
**Office for National Statistics**

**SUMMARY**

Recent events have had a significant impact on the balance sheets of financial corporations and private non-financial corporations. This article focuses on identifying and measuring current omissions from these balance sheets including activities from the shadow banking system such as hedge funds, structured investment vehicles and private equity. The aim is to improve transparency, making it easier to analyse the transmission of the current financial crisis to these sectors and monitor future developments.

The impact of the recent events upon the market value of assets on financial corporations and private non-financial corporations' (PNFC) balance sheets has been significant. This article focuses on measurement omissions and issues of transparency in the financial and non-financial corporation accounts and their importance in transmitting the impacts of the credit crisis.

The Office for National Statistics (ONS) presents these accounts as part of its annual Blue Book publication and they show the stocks and flows of a range of assets and liabilities across institutional sectors. Blue Book data provide extensive detail on the developments in the asset and liability positions of these sectors. Analysis of this data clearly captures one of the most significant causes of the current credit crisis, namely the expansion of banking sector balance sheets.

There are, however, a number of measurement issues relating to the recording of liabilities of both financial corporations and PNFCs. These issues relate directly to non-regulated financial entities, such as special purpose vehicles (SPVs) and hedge funds, which formed part of what has now become known as the 'shadow banking industry'. The main types of activity making up the shadow banking industry are described in the **Appendix**.

Responsibility for financial stability lies with HM Treasury, the Financial Services Authority (FSA) and the Bank of England. ONS, in addressing these measurement issues is seeking to work in partnership with these bodies to bring about their resolution.

At the individual company level, the balance sheets of financial and non-financial companies provide us with a snapshot of their financial condition, at any given point in time. Over the recent past however, there has been a lot of attention placed on revenue and earnings, with the possible omission of balance sheet developments. Between 1991 Q1 and 2008 Q1 the UK economy expanded for 64 consecutive quarters. Given this continued period of economic growth the focus of many analysts had drifted towards these output related indicators.

This relative shift in scrutiny from the balance sheet to revenue and earnings was one of the many failures relating to the detection of the credit crisis across countries. The use of off-balance sheet financing by banks for example, through the use of structured investment vehicles (SIVs) and SPVs was in short a sophisticated way of removing liabilities from balance sheets. As such capital could be freed up to continue with further lending and the generation of greater income.

This article discusses the measurement issues relating to the balance sheets of financial corporations and PNFCs and outlines proposals for improving this information, both within ONS and with external stakeholders.

One major issue is that, given the nature of the shadow banking system, a significant amount of activity and accumulation of assets and liabilities is being omitted from the

financial and non-financial corporations account. To address this, ONS proposes to:

- engage with partners to address the measurement issues around the shadow banking system, including SPVs, hedge funds and private equity
- improve estimates of gross trading profits for fund management and asset finance
- continue work to establish a top-to-bottom account for banks which originally started in 2008
- introduce improvements to the liabilities of the bonds line in the Financial Accounts across all sectors and incorporate derivatives data into the National Accounts, and
- develop a coherent approach to asset and liability valuation

## Financial corporations and the shadow banking system

In the National Accounts, the financial corporations sector comprises banks, building societies and non-bank financial institutions. A non-bank financial institution (NBFI), according to National Accounts definitions, is a financial institution which does not have a full banking license and is neither subject to national or international banking regulation. NBFIs are typically involved in the provision of investment, savings and brokerage activities. Examples include insurance companies and associated brokers and those entities involved in activities such as currency exchange.

The growth in banking sector balance sheets along with measurement omissions and shifting scrutiny all played their part in the development and transmission of today's credit crisis. Such growth in lending would not have been possible without the emergence of what has become known as the shadow banking system. The origin of the term is attributed to Bill Gross, the chief investment officer of Pimco, and relates to 'the whole alphabet soup of levered up non-bank investment conduits, vehicles, and structures'. In plainest terms the shadow banking sector is defined as that part of the financial sector which does not accept deposists and, as such, does not require a license to operate as a bank and consequently is not subject to financial regulation. Shadow banks typically act as intemediaries between investors and borrowers, taking either fees or benefiting from the interest rate spread between what an investor is paid and what is received from a borrower. The high profile entities which comprise the shadow banking system, include hedge funds, SIVs, conduits, money funds, monolines and investment and other non-bank financial institutions. In many cases the sector suffered the consequences of the crisis directly, with the demise of institutions such as Bear Stearns and Lehman Brothers.

The expansion of bank balance sheets in recent years accompanied not only increased indebtedness of non-financial corporations but also that of the household sector, as shown in **Figure 1**. The considerable size of household debt has been acknowledged as a contributing factor to the ongoing deepening of the crisis.

A further problem is determining the value of assets held by the financial corporations sector since the onset of the credit crisis. Many of the assets generated by entities in the shadow banking system, such as mortgage backed securities, became increasingly difficult to value as the market collapsed. Consequently, uncertainty over the financial strength of commercial banks increased, which in turn placed downward pressure on bank share prices, further increasing the impact of the crisis.

In the absence of reliable market values, there is a danger that balance sheets can be under or over valued at nominal value and could therefore present an incorrect representation of the financial strength of the financial corporations account. Issues of asset and liability valuation are therefore an important measurement area.

## Private non-financial corporations

The measurement omissions relating to sources of finance originating from the shadow banking system also affect the PNFC sector balance sheet, as the counterparty to the financial corporations balance sheet.

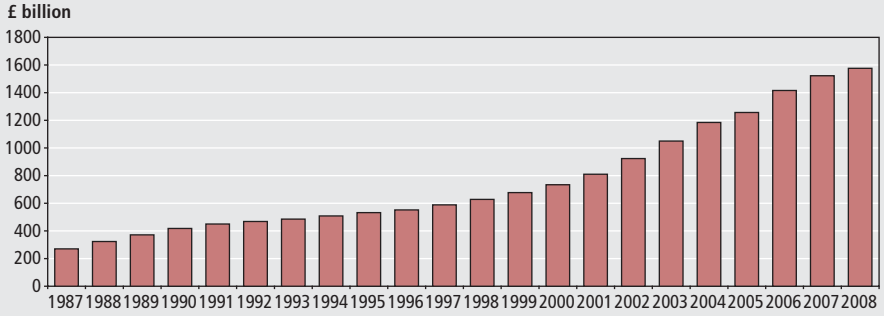
Under-recording of the lending of financial corporations will be counterpartied by under-recording of borrowing in other sectors. In addition, there is the issue of the contingent risk posed to the PNFC balance sheet from pensions. For a more detailed account of pensions in the current downturn see the article by Daffin, Levy and Walton (2009) in this edition of *Economic and Labour Market Review*. With the introduction of new legislation to address the issue of funding gaps, declining equity markets, interest and inflation rates and increasing longevity, the risks around pension liabilities on the PNFC balance sheet are increasing. Measuring and monitoring these risks will continue to pose a challenge.

### Funding of PNFCs

Analysis undertaken internally by ONS (2008) on the financial condition of the PNFC sector explored issues surrounding the measurement of PNFC liabilities. This focused on a number of aspects, beginning with an examination of net-lending position and financial account transactions, as shown in **Figure 2**. This illustrated that in the recent past the sector has been a net lender with existing current and capital expenditure being outstripped by receipts.

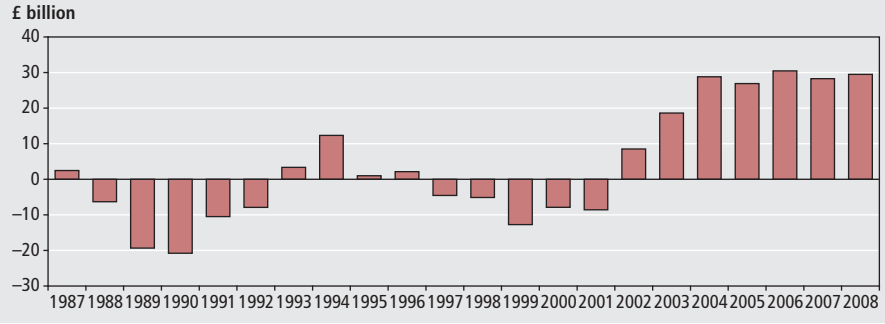
The study progressed to examine how the PNFC sector had used its surpluses and deficits to purchase financial assets and liabilities (see **Figure 3**). What has become clear is that the acquisition of financial assets has generally been in excess of liabilities, confirming that the net acquisition of assets has been funded by the sector's net-lending position as illustrated in Figure 2. Despite this, firms have continued to amass liabilities during

Figure 1
**Accumulation of household total financial liabilities**



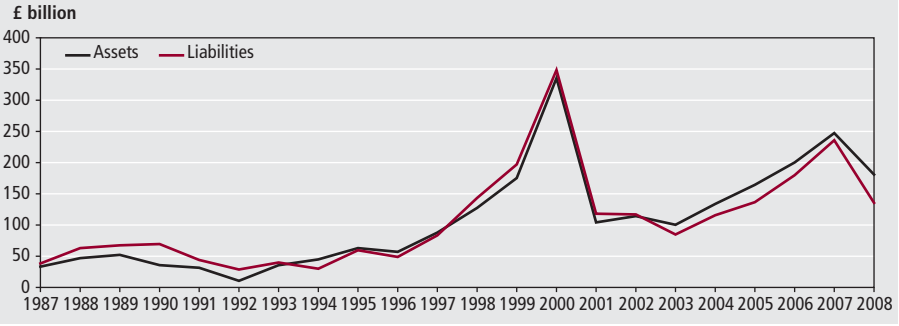

*Source: ONS Quarterly National Accounts*

Figure 2
**PNFC net borrowing/lending**



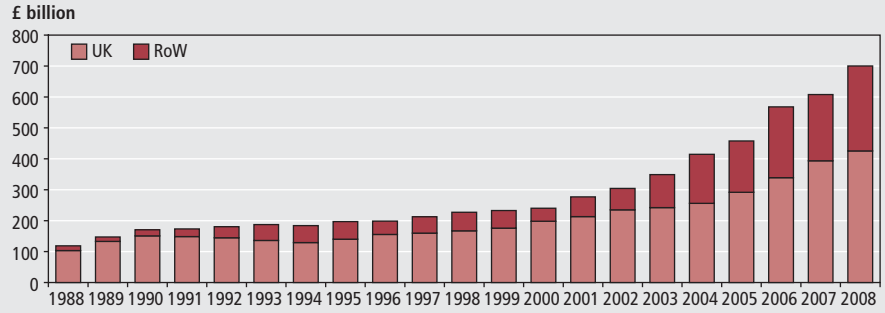

*Source: ONS Economic Accounts*

Figure 3
**PNFC accumulation of financial assets and liabilities**



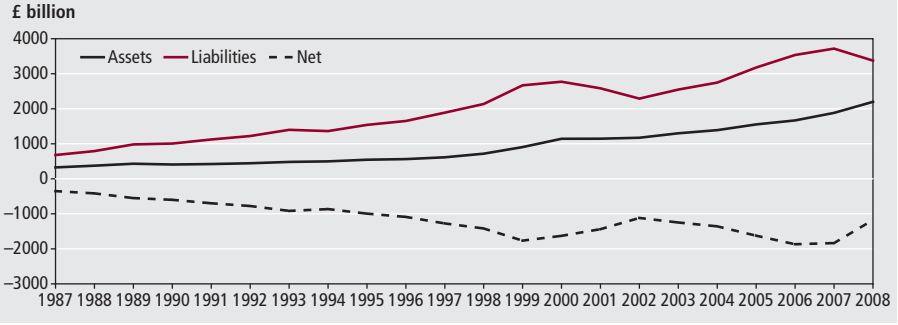

*Source: ONS Economic Accounts*

Figure 4
**Short-term sterling loans from UK and rest of the world monetary and financial institutions**




*Source: ONS Economic Accounts*

Figure 5
**PNFC balance sheet**




*Source: ONS Economic Accounts*

prosperous periods, with little reduction in their stock of debt. Examining the PNFC balance sheet reveals that at the end of 2007, the accumulation of total liabilities had increased at a faster rate than total assets, to reach a historic high of nearly £3.7 trillion. As a percentage of Gross Domestic Product (GDP) however, the most recent peak is not as high as that observed following the surge in liabilities following the high growth in equity valuations prior to the stock exchange crash in 2001.

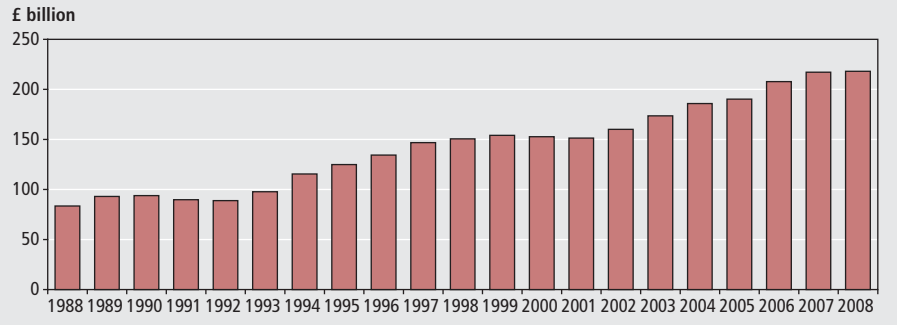
Further analysis on the asset side reveals that firms had built up deposits with UK and rest of world monetary and financial institutions (MFIs), purchased shares and other equity and, particularly in 2005 and 2006, made a number of loans to UK residents.

On the liability side, firms had greatly increased their borrowing from both UK and foreign MFIs as shown in **Figure 4**. One possible explanation for this could relate to loans sustaining private equity transactions (investment of differing forms, by institutional investors, in operating companies not publicly traded on a stock exchange). This area is difficult to measure however, and is an issue that requires further investigation to obtain a greater understanding of PNFCs liabilities and how gearing/leverage is structured. Another area of PNFC liability funding that requires further investigation is the borrowing connected to the shadow banking system including from hedge funds, private equity and venture capital.

This picture of PNFC liabilities is not complete without considering the total balance sheet position of the PNFC sector as illustrated in **Figure 5**. It can be seen here that total liabilities have been growing in excess of total assets for some time. Part of this growth can be attributed to the increased borrowing from UK and foreign MFIs as discussed. This however is not the entire story, since the balance sheet position has been further impacted by the growth of unquoted equity, including both foreign direct investment and again private equity. The balance sheet picture is also heavily influenced by price movements and exchange rate fluctuations, which can consequently distort the view of the growth in assets and liabilities on the balance sheet.

In short, analysis of net acquisition of financial assets and liabilities will not result in the balance sheet of the PNFC sector.

Figure 6
**PNFC profits growth**




*Source: ONS Economic Accounts*

Further investigation into PNFC liabilities arising from the shadow banking system, unquoted equity and the influence of price and exchange rate movements will bring us closer to this position.

Notwithstanding other sources of finance therefore, it is clear that the financial health of the sector was perhaps not as strong as might be suggested by the sector's favourable profitability position during the last 20 years (see **Figure 6**).

An alternative way of examining the liability position of the PNFC sector is via gearing ratios. ONS analysis has examined a range of ratios including:

- debt as a percentage of gross disposable income
- debt as a percentage of GDP
- M4 lending to PNFCs as a percentage of GDP, and
- the income and capital ratios

In general each of these ratios indicated that gearing has increased for the PNFC sector since 2001, whether accounting for equity or not. These ratios, coupled with estimates of omitted liabilities from hedge funds from the Bank of England, reveal a weaker financial position for the sector, prior to the economic crisis, than shown in the National Accounts balance sheets.

ONS' conclusions, coupled with some identified sector account data issues, present two distinct development opportunities for PNFC data analysis. First is to update and share this analysis with stakeholders and second is to work with the same to cover the measurement of omitted liabilities.

## Financial corporations accounts

As a primary step in addressing the measurement issues surrounding the financial corporations account as part of the overall UK National Accounts, ONS has undertaken research into the classification and coverage of financial sector activity, with a view to identifying obvious gaps and addressing how to fill them.

This work looks into the classification of financial corporations and compares UK publications against the international guidelines in the 1993 System of National Accounts (SNA 1993) and the 1995 European System of Accounts (ESA 1995), and in the revised 2008 SNA. These guidelines leave room for the reporting authority to determine the level of reporting detail, according to the complexity of the sector and the needs of the data for policy making, which in the case of the UK are clearly significant. Comparisons between SNA 1993 and SNA 2008 are made against the three major publications which cover financial corporations' activity, these being UK Economic Accounts, the Blue Book and the monthly Financial Statistics.

The research concludes that:

- published UK National Accounts cover a large proportion of financial activity
- they do not provide detailed data at the sub-sector and sub-position level, which would contribute to the resolution of some transparency issues, as well as providing data to map major trends in financial activity. In particular, structured financial products, such as derivatives, private equity and venture capital are not well covered, and
- active coordination with the FSA, Bank of England and HM Treasury, among others, will be essential in meeting these challenges

The full content of the analytical work undertaken will be published in a future edition of *Economic and Labour Market Review*.

In light of this gap analysis and previous internal reviews of the financial corporations account, a number of key work streams have been identified to improve the quality of the data. This should also lead to better coherence between the income and production measures of gross domestic product (GDP), and more up to date weighting for individual industries within the financial corporations sector. The work will consist of:

- improving estimates of gross trading profits for fund management and asset finance, which are thought to have been underestimated since the cessation of the fund management inquiry in 2000. It is acknowledged that the measurement of asset finance has been limited, given a lack of available resource to ratify data generated via the asset finance inquiry
- updating the weights for the output and gross valued added (GVA) of financial corporations
- continuing development of a top-to-bottom account for banks
- improving the validation of finance leasing data
- improving data on bonds liabilities in the financial account across all sectors, and
- incorporating derivatives data into the National Accounts. ONS has already begun to address this and plans to incorporate some derivative data in Blue Book 2010. A review of bonds transactions and holdings is also underway, focusing on the reconciliation of data between the income and capital account and measures in the financial account

ONS runs a series of quarterly surveys collecting financial transactions data from financial corporations (other than banks and building societies) such as insurance companies, pensions funds, investment institutions and securities dealers. There are a number of issues with these surveys, which have been evident for some time including:

- the coverage of the surveys is incomplete
- the data requested are inconsistent, and
- the samples are generally small

As a result, the data are not considered very reliable.

Annual balance sheet data are collected

via separate surveys, but not from securities dealers. Quarterly balance sheet estimates are estimated from the quarterly flow data. Some investment vehicles such as hedge funds and private equity funds are not covered at all.

The financial balance sheets of PNFCs are covered by a quarterly survey, but collect much more data on assets than liabilities. ONS is developing a strategy to improve the coverage and data quality of all these surveys, making full use of administrative data. The work to develop a new strategy will include:

- investigating new registers to improve survey coverage of the financial sector
- improving reconciliation systems between quarterly and annual data
- assessing the potential for administrative data, especially regulatory data from the FSA
- considering the financial surveys done in other countries (for example Ireland) where balance sheet, flows and revaluation data are collected from reporters together on one quarterly survey form, and
- developing and testing a single survey form to collect financial data from all reporters

## Conclusion

As outlined, ONS will seek to address a number of measurement omissions and data quality issues relating to the financial corporations account internally. There are a number of areas however, where our partners and stakeholders are well positioned, both in terms of data and resource, to assist us with closing the measurement gaps discussed. In particular, ONS would like to engage to address the measurement issues around special purpose vehicles, hedge funds and private equity.

Developing estimates of these activities will be important both in terms of measuring value within the National Accounts and assessing risks relating to both the shadow banking system and the PNFC sector. As well as assessing priority needs, partnership working on these issues will enable capacity and understanding to be created to address future financial innovations, as and when they arise.

APPENDIX

## The Shadow Banking System

The main activities include:

### Investment banks

These financial institutions perform a variety of services including, raising capital, acting as an intemediary between an issuer of securities and investors, brokering services for institutional clients and facilitating mergers and corporate reorganisation. Investment banks profit from issuing and selling debt and equity securities in capital markets and insuring bonds on behalf of both the government and companies.

The significant financial strength of the investment banking sector has been profoundly harmed by the onset of the credit crisis. It was the investment bank Bear Stearns, which developed the securitisation and asset backed securities market, which spectacularly collapsed as a large number of sub-prime and subsequently prime mortgage holders began to default on the mortgages which underpinned these tradeable securities. Bear Stearns increasing exposure to this market through 2007 led to its demise in 2008. The resulting contagion amongst other investment banks, coupled with investors witholding their funds, led to the liquidity problems in financial markets which contributed significantly to the onset of the credit crisis.

### Hedge funds

Hedge funds are investment funds which offer their capabilities to wealthy individuals or to professional investors such as insurance companies and pension funds. Hedge funds are a global phenomenon, although the main concentration are in the US. Unlike investment banks and investment management companies, hedge funds are unregulated and consequently are able to adopt far more flexibility in their investment strategies.

Their title suggests that their main purpose is to reduce risk associated with investments, when in fact their main strategy is to maximise returns on the investments that they make and manage. As a class of investments, each fund has its own investement strategy and can choose from a wide range of investments, including shares, debt and commodites. Hedge funds contributed significantly to the transmission of the credit crisis, through what has now become a well known term of 'short-selling' both the shares of investment and commercial banks, thereby reducing their ability to raise capital in the face of increasing defaults. This intervention on the part of hedge funds was another factor pushing for government involvement in recapitalising the banking sector.

### Structured investment vehicles (SIVs)

These funds were made up of a pool of investments that attempted to make profits from the credit spreads between short-term debt and long-term structured finance products such as asset-backed securities. The funding of these vehicles came from the issuance of commercial paper that is continually rolled over and the proceeds are used to purchase long dated illiquid assets with higher returns. Plainly, the returns gained from the longer dated assets, typically the principal and interest payments from asset backed securities (for example mortgages to purchase homes) exceeded the cost of raising funds to invest in these securities, usually higher-rated commercial paper. SIVs were usually large in size ranging from $1 billion to $30 billion and invested in a a range of asset backed securities including financial corporate bonds.

Typically SIVs were operated by commercial banks and investment houses and were generally held off balance sheet, thereby allowing them to operate outside of regulation. Essentially SIVs allowed the managing financial institutions to use leverage in a way that the parent company would not have been able to do because of capital requirement regulations. The onset of the credit crisis wiped significant proportions off the value of the balance sheets of SIVs with obvious consequences for investors (banks and investment houses) in these vehicles. As of October 2008, as a result of the impact of the credit crisis on the increased default rates amongst asset backed securities these funds ceased to exist. SIVs are also known as conduits.

### Money market funds

Money market funds, or principal stability funds, are investment funds that invest solely in cash or cash equivalents. Cash equivalents are high credit quality short-term investments that are easy to buy and sell and are usually comprised of government bonds and commercial paper. The credit crunch impacted on these funds markedly as many funds also invested in mortgage backed securities and floating rate notes, both of which have tumbled in value. Investors usually choose to invest in these funds to avoid market volatility. Individuals often choose to shift their pension funds into money market funds as they approach retirement.

## Monolines

Monolines, so called because the service is provided to only one industry, provides insurance cover against the risk that a bond will default. During the recent boom, both governments and private companies took the opportunity of paying a fee to have the bonds they issued parcelled up into top-grade credit rated investments. This allowed the issuers the opportunity to raise funds more cheaply, since the credit rating offered on parcelled up investments was in excess of that of the single issuance. Recent estimates suggest that at the peak of the boom, the top monoline insurers guaranteed approximately $2.4 trillion of bonds.

Over the last ten years many insurers expanded their portolios from government and private company bonds into collaterlised debt obligations (CDOs), which contained sub-prime mortgages. With the impact of the credit crisis, monoline insurers have been hit from all sides. Firstly, the value of CDO's have been written down sharply, as defaults amongst sub-prime components have increased. This has led to a slump in the share value of monoline insurers, whom it is feared have insufficient capital to pay holders of failed bonds. Rating agencies have subsequently asked monoline insurers to hold more capital in the face of increasing defaults, but with share values falling this has become increasingly difficult.

## Private Equity

Since the beginning of this decade the markets for private equity (leveraged buyouts, venture capital, growth capital, distressed investments and mezzanine capital) have grown strongly. These asset classes, consisting of equity securities in existing businesses are not quoted on the stock exchange. Consequently, there has been a clear difficulty in measuring the funding structure of PNFCs, which will have added to the mis-representation of the strength of the sector to policymakers discussed in the main body of this paper.

FEATURE

# Improving measurement of household savings and wealth

*Chris Daffin, Sarah Levy and Andrew Walton*
**Office for National Statistics**

**SUMMARY**

This article describes recent trends in household saving and wealth leading up to the current economic downturn. It focuses specifically on the saving ratio and the contributions of pensions in household wealth. Although National Accounts measures have provided good indicators of the imbalances that developed in the years before the financial crisis, a number of improvements have been identified - which should become possible in the future using information from new household survey sources. These include breaking down household debt demographically, for which it is planned to publish new analyses and datasets in late 2009.

This article looks at issues affecting the household sector in the build-up to the financial crisis which hit the UK in 2008 (see **Box 1** for a description of the household sector). In particular, it discusses measures of household saving, wealth and debt in the National Accounts, and asks how effective these measures were in documenting the imbalances that developed in the years before the crisis. In some areas, it finds that the measures available in the National Accounts provided good indicators which gave policymakers helpful information as the imbalances developed. In others, the measures could be improved – and this should become possible in future using information sourced from new household surveys.

One particular area of development, for which there is heavy demand, is a demographic breakdown of household debt. Initial analyses and datasets providing this are planned for publication in late 2009, further details of which are given at the end of this chapter.

## Household income, consumption and savings

In the household sector of the National Accounts, income and consumption expenditure of households are estimated directly from data sources such as Her Majesty's Revenue and Customs (HRMC), Pay As You Earn (PAYE) data, the Annual Business Inquiry (ABI), the Living Costs and Food Survey (LCFS) and the Retail Sales Inquiry (RSI).

However, estimates of household savings are not calculated directly. Instead, they are calculated as household resources minus final household consumption and expenditure. (Household resources are the sum of gross disposable household income and the adjustment for the change in net equity of households in pension funds). Thus, the estimates of household savings in the National Accounts are calculated as a residual – the difference between disposable income and final consumption expenditure. The quality of the savings estimates is dependent on the quality of the components used to calculate the residual. In addition, data for these components in the latest two or three quarters are always liable to revision.

Despite the indirect method of calculating household savings, they did act as an early indicator of problems looming in the economy in the run-up to the 2008 financial crisis. The indicator came in the form of the household saving ratio which is household savings as a percentage of total household resources. The household saving ratio increases if the household spends less or has more resources available. It decreases if the household spends more as a percentage of its resources. This can be done by borrowing (increasing debt) or drawing down on assets (for example, households withdrawing equity from their houses), allowing the household to increase consumption without increasing income, thus producing a decline in the saving ratio.

During the last decade, the UK has seen big increases in household spending relative to total resources, and the saving

Box 1
**The household sector in the National Accounts**

A household is a group of people collectively taking responsibility to feed and house themselves. The majority of households consist, essentially, of one, two or more people living under one roof usually linked by family ties. However, there are also 'institutional' households – people living in communal establishments such as care homes, or those detained in prison. The household sector of the National Accounts contains institutional households as well as family units.

There are two further complications. First, households can also run family businesses such as a shop, a self-employed builder or taxi firm, known as unincorporated enterprises. Such businesses also contribute to the household sector accounts. While it is possible to separate some transactions between 'pure' households and unincorporated enterprises from the statistics currently available, it is impossible to do this for income transactions. Hence no complete accounts exist for 'pure' households or for unincorporated enterprises. This means it is not possible, from a National Accounts perspective, to measure saving or wealth for 'pure' households on their own.

Second, non-profit institutions serving households (NPISH), such as charities and housing associations, are included in the household sector. While it is possible, in theory, to separate out the NPISH sector, this has not been done in the UK National Accounts and some changes would be required to sampling and estimation methods to provide all the necessary data. However, it should be noted that the contribution of the NPISH sector is small compared to the rest of the household sector.

ratio fell to 2.2 per cent in 2007 and 2.0 per cent in 2008 (see **Figure 1**). The fall in the saving ratio since the mid-1990s probably reflects growth in household borrowing to finance personal consumption and property purchases during the long run of economic prosperity and financial diversification leading up to the 2008 financial crisis.

However, there are a number of other factors which can cause households to spend more and save less. In the UK, strong economic growth, low unemployment, low inflation, easy access to credit at low interest rates and strong house prices all contributed to the spending boom. Saving for the future became less of a necessity for many people as their assets were increasing to cover additional expenditure, and borrowing more money at low interest rates was increasingly easy.

The declining saving ratio could be seen as an early indicator of problems in the economy, as it suggested unsustainable levels of household consumption financed primarily by increasing debt. Households were vulnerable to a sharp reduction in the availability of cheap credit and by falling house prices. When the financial crisis hit in 2008, this vulnerability became a real weakness, and households reacted by reining in expenditure, which contributed to the economic downturn.

However, using the saving ratio to predict a crisis in the UK economy is difficult because National Accounts data have limitations when it comes to economic analysis. As previously mentioned, a key weakness of the National Accounts definition of the household sector is the inability to separate the 'pure' household from the self-employed person or small business. While it can be argued that the two are inextricably linked, it should also be noted that economic conditions and policies will have a differing impact on 'pure' households as compared to small business units.

## Household sector balance sheets

Gross household wealth is the value of accumulated assets. Net household wealth is the value of accumulated assets minus the value of accumulated liabilities. In the National Accounts, net wealth is referred to as net worth.

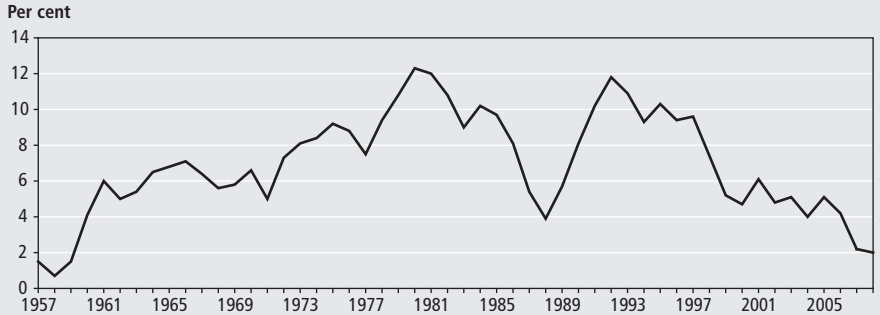
The main household sector assets are financial assets (for example currency and deposits, shares and other equity, and net equity in life assurance and pension funds) and non-financial assets (mainly residential buildings). The main liabilities of the household sector are loans secured on buildings (mainly mortgages).

The National Accounts balance sheets are produced quarterly and annually, and they include the combined household and NPISH sector. For many transaction lines, such as pensions or life assurance, the household sector has no source of data and the value which is allocated is a mirror (counterparty) of an entry for another sector or a residual after the data for other sectors have been subtracted from an estimated total. For example, the estimate for net equity in life assurance and pension funds – in financial assets – is based on the value of assets held by insurance companies and pension funds themselves, which is recorded in the corporate sector. For this reason, revisions can often be seen in the household data when a counterparty sector revises data.

Work is ongoing within ONS to identify new sources of household data to be used within the National Accounts and the first area likely to report findings during 2010 will be the transaction line for unquoted shares. Unquoted shares are those which are not listed on a stock exchange and are primarily held by owners of small businesses as part of the household sector. Unquoted shares are very difficult to put a value on but a number of methods and data sources are currently being investigated which will hopefully lead to a data source for the household element rather than the current residual approach.

The information on household sector

Figure 1
**Household saving ratio**




*Source: ONS Quarterly National Accounts*

assets and liabilities can be used to look at household wealth, and also to track unusual changes – such as sharp increases in household debt – which help to indicate potential imbalances in the run-up to a crisis.

### Household debt

**Figure 2** shows that since the mid-1990s households have experienced big increases in debt as a percentage of GDP in the form of short-term loans, mainly consumer credit, and long-term loans, mainly mortgages.

While there is a need to produce collected measures of household debt, there is also a clear demand for breakdowns by gender, age, income group or region. Although, National Accounts data sources cannot support such analyses at present, the ONS is currently engaged in a joint project with Bristol University to provide a more comprehensive picture of the household sector.

### Pensions in household wealth

One of the key financial assets of the household sector is net equity in life assurance and pension funds. In 2007 this category made up over half of households' total financial assets, and 29 per cent of their net worth (defined as household financial assets minus household financial liabilities plus household non-financial assets). **Figure 3** shows households' net equity in life assurance and pension funds as a percentage of GDP. It rose rapidly for most of the 1990s, but dropped back sharply with the falls in equity values in the early 2000s. As a proportion of GDP, household assets in life assurance and pension funds peaked in 1999 at 176 per cent of GDP (£1.6 trillion). By 2007 they were 156 per cent of GDP (£2.2 trillion).

The data used to compile the series net equity in life assurance and pension funds in the National Accounts are reported on a quarterly basis, and are considered reliable because they come from the ONS published series: *Investment by Insurance Companies, Pension Funds and Trusts* (MQ5), which takes information from the accounts of pension providers. However, it is not possible to separately identify household pension assets in the National Accounts, as many pensions are provided by insurance companies, which do not report their pensions business separately from insurance business.

It should be noted that the methodology used to construct the National Accounts means that the aggregate liability of insurance companies and pension funds (calculated from their total liabilities less any identified liabilities such as borrowing, and appearing in the corporate sector accounts) is equal to the market value of their net assets, but not necessarily equal to the actuarial value of their pension liabilities. There is, therefore, no official estimate of the pension fund 'shortfall' that occurs where aggregate liabilities of defined benefit pension schemes (based on actuarial values) are higher than their assets.

In addition, the pension wealth shown in the National Accounts is only for funded pensions, which consist of private sector occupational pension schemes, employer-sponsored personal pensions and the local government pension scheme for local authority employees. The National Accounts do not show assets or liabilities of unfunded or 'pay as you go' pension schemes covering state pensions and public service pensions for the civil service, armed forces, National Health Service (NHS), teachers, police and fire fighters. This is because there are no funds to record as liabilities.

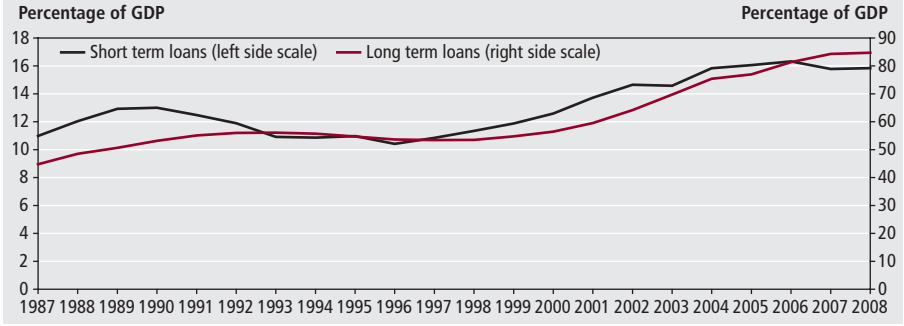
However, work is currently being undertaken on a new revision of the System of National Accounts (SNA) to replace SNA 1993. It is anticipated that the new revision will include as liabilities, estimates of the future pension benefits payable by state social security schemes and unfunded public sector occupational pension schemes. However, it is not clear on what basis such liabilities would be estimated. The European System of Accounts (ESA) 1995 is also undergoing revision, and a separate decision will be made as to the relevance and feasibility of recording such liabilities in the revised ESA, and whether they would appear in the core ESA-based National Accounts or – as is more likely – in a supplementary table. The UK will introduce the revised ESA in 2014.

## Improving measures using survey sources

HMRC (formerly the Inland Revenue) has published statistics on the distribution of personal wealth held by residents of the UK since 1962. These statistics are based primarily on the 'estates multiplier' method. Broadly speaking, they make use of the information about individuals' assets revealed from the probate or Inheritance Tax process to provide estimates of the wealth held by the living. There are serious limitations to this method, in particular the exclusion of pension wealth. Problems with the methodology in recent years mean that the latest data available relate to 2003.

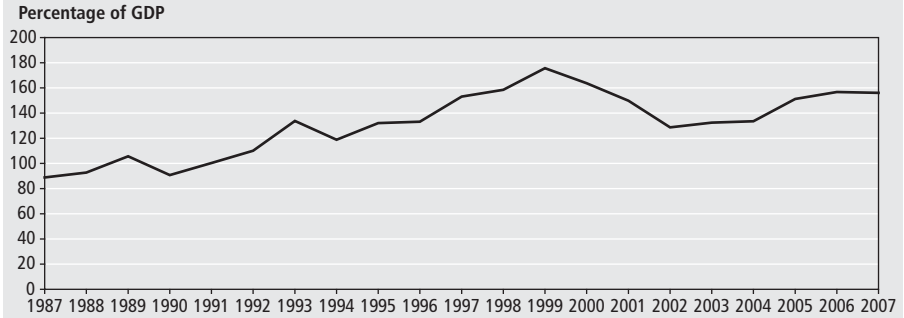
The need for improved measures of wealth has been noted for some time. This has resulted in the creation of a new survey,

Figure 2
**Household sector financial liabilities (debt)**




*Source: ONS Quarterly National Accounts*

Figure 3
**Household assets in life assurance and pension fund reserves**




*Source: ONS Blue Book*

the Household Assets Survey (HAS). The HAS was specifically designed to produce measures of household and personal wealth. The HAS is a longitudinal sample of 32,000 households surveyed over a period of two years. The first wave of collection covers the period July 2006 to June 2008. Wave II, covering the period July 2008 to June 2010, is currently in the field.

The Household Assets Survey collects information on household assets and liabilities and is designed to produce estimates of household wealth, comprising property and other physical assets, financial and pension wealth.

The first main results covering the period July 2006 to June 2008 (Wave I) will be available towards the end of 2009. Results of Wave II, covering the period July 2008 to June 2010, will be available in 2011. In the interests of timeliness, the analysis will be primary in nature, presenting a summary of the data, but without comparisons with other sources. Such comparisons, however, will be an important aspect of the quality assurance of the dataset. The 2009 report will be the mechanism for placing the data into the public domain, and will be the springboard for collaborators to work with the data on their own detailed secondary analyses. Further analysis of the data will be done after publication of the 2009 report that will look at more detailed aspects of the data, for instance work is planned with HMRC to look at how better estimates of wealth can be produced by combining HAS and HMRC data.

The 2009 main report will include analysis of the assets, liabilities and net wealth of households. There will be chapters looking in detail at household property wealth (including mortgages), household financial wealth (including formal and informal savings, children's assets), private pensions (including current and deferred pensions, modelling of accrued pension entitlements, excluding state pensions) and household physical wealth such as household goods and collectibles. Each chapter will include distributional properties of net wealth by different social and demographic characteristics such as age, socio-economic classification and place of residence. These analyses will be compared with household sector information used in the National Accounts and will be used to improve National Accounts measures of saving and wealth.

There will also be a chapter looking at household debt, particularly non-mortgage borrowing and arrears. Non-mortgage borrowing is defined as the use of any credit or store cards that are not settled in full each month, overdrafts and all forms of fixed-term loans, including personal loans, hire purchase agreements and mail order accounts. There will also be a chapter on people's attitudes to saving, borrowing and retirement. In particular, there is interest in how these relate to each other (such as attitudes towards debt and towards savings, attitudes to pensions and attitudes to savings, risk, etc.), as well as how the attitudes relate to actual behaviours.

The survey also includes a follow-up survey looking at indebted households in more detail, based on a sub-sample of households from Wave I. The follow-up survey started in October 2007, so will cover eligible households from HAS which were interviewed between October 2006 and June 2008. These households form a population that may be described as households at risk of financial exclusion, meaning they are likely to face constraints in accessing credit.

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FEATURE

# The public sector balance sheet

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SUMMARY

This article addresses the issues raised by banking groups, including Northern Rock, Bradford and Bingley, Royal Bank of Scotland and Lloyds Banking Group, coming into the public sector. In particular clarifying how they are presented in the National Accounts and public sector finances and discussing the publication of more asset and liability detail than currently shown in public sector finances balance sheets. The article then proceeds to consider the impact on public sector net debt and the relevance of different measures of debt.

Each month, the Office for National Statistics (ONS) and HM Treasury jointly publish statistics on the position of the public sector finances. These attract considerable interest and frequent comment with particular attention being paid to the level of public sector net borrowing and net debt. The latter, in particular, has been affected by the classification of, first, Northern Rock (from October 2007) and subsequently Bradford & Bingley (from September 2008) as public financial corporations.

At the date of its first inclusion, Northern Rock added around £100 billion to public sector net debt (PSND), while Bradford & Bingley added a further £50 billion. Lloyds Banking Group and Royal Bank of Scotland (RBS) have been classified to the public sector with effect from October 2008. Data for these two banking groups have yet to be incorporated into the public sector finances but will have a significantly greater impact than Northern Rock and Bradford & Bingley. ONS has estimated that this will add an additional £1–1.5 trillion to PSND (see ONS 2009).

The article will address issues raised by these banking groups coming into the public sector, clarifying how they are presented in the National Accounts and public sector finances and discussing the publication of more asset and liability detail than currently shown in public sector finances balance sheets.

The article then addresses the current relevance of PSND in the context of the banks now temporarily being classified inside the public sector boundary, with their very high levels of financial assets and liabilities. Alternative measures of debt are explained, and the definitions of public sector net debt and liquid assets are clarified.

With increased public focus on the public sector finances, some commentators have renewed their calls for a measure of debt including contingent liabilities, pension liabilities and all liabilities associated with private finance initiatives (PFI). The remainder of the article is taken up with discussion of the liability boundary for the National Accounts, business accounting, government accounting and the recommendations for presentation of non-PSND liabilities. Current practice for publication of these liabilities in the UK is then discussed.

## Sectorisation and asset and liability detail

### Sectoral classification of the public sector banks

RBS and Lloyds are financial services groups, each having hundreds of subsidiary companies. These subsidiaries are classified in many sub-sectors of the economy, including monetary financial institutions (MFIs), other financial institutions (for example securities dealers), insurance companies and non-financial corporations (NFCs). Their classification to the public sector, along with Northern Rock and Bradford & Bingley, has caused some confusion about how this is reflected in the

National Accounts, and the read-across to the public sector finances.

In the National Accounts, the sub-sectoral breakdown is by institutional sector (for example MFIs, insurance companies, and NFCs). The split into public and private sector is a secondary classification variable; it is not currently a legal requirement.

The NFC sector is presently the only one in the UK National Accounts that has a public/private split – the public part is called public corporations and, in practice, includes a few minor financial corporations. The public corporations sector in the National Accounts does not and will not include public sector banks or their financial subsidiaries: these continue to be classified to their primary National Accounts sectors. This means, for instance, that data for Northern Rock Bank is included within the overall MFI sector.

The situation is different for the public sector finances. Here, the public corporations sector includes Bank of England, Northern Rock, Bradford & Bingley and their UK subsidiaries, as well as public NFCs (although in some presentations data for the public sector banks are shown separately from other public corporations). Data for Lloyds and RBS will be added into public corporations for the public sector finances as soon as is practicable, although they will remain classified to their existing sectors for the National Accounts. There are no plans to compile separate top-to-bottom accounts for each sub-sector of the National Accounts split by public/private corporations.

### More detailed analyses of the public sector balance sheet

Before the classification to the public sector of Northern Rock and Bradford & Bingley, it was possible to compile a full balance sheet for the public sector from the corresponding balance sheets for general government, public (non-financial) corporations and public financial corporations. Currently, it is not possible to do this because of concerns that commercially sensitive data may be disclosed by the publication of a detailed balance sheet for public financial corporations comprising a small number of banks.

These disclosure concerns exist because the difference in coverage of public corporations in the public sector finances and National Accounts means that, in principle, it is possible to deduce the public financial corporations element. This has severely limited the statistics that can be published in the public sector finances for public corporations including financial corporations. Indeed, the only balance sheet information that is used is the banks' contribution to public sector net debt.

With the further addition to the public sector of RBS and Lloyds Banking Group, it is anticipated that these disclosure concerns will lessen, and that it will be possible to start publishing more detailed information relating to transactions and balance sheet levels for financial assets and liabilities of public financial corporations. The precise level of detail will be determined in discussions which are on-going.

## Measures of public debt

A key measure of the health of the public sector finances is the level of debt. There are several possible ways of measuring this. The most widely reported is public sector net debt, which is published monthly by ONS and HM Treasury and used domestically as part of the government's fiscal policy framework. However, there are a number of other measures of debt that are published by ONS or that can be derived from published figures.

This section explains how these, and other measures, are defined and highlights factors to be considered when interpreting the results. Particular attention is given to PSND because of the policy focus on it.

### Measures of debt

There are several dimensions to measuring government and public sector debt:

- the sectors covered
- whether debt is measured consolidated or unconsolidated
- whether debt is measured gross or net of assets
- which liabilities or assets are included, and
- the basis of valuation

Each of these is considered in turn below. The choice about which is the most appropriate depends on the particular need of the analyst.

The public sector comprises general government (central government and local government) and public corporations. Measures of debt are available for each of the sub-sectors, for general government, and for the public sector as a whole.

Consolidated measures of government debt remove central government holdings of local government debt, and vice versa. Similarly, consolidation for public sector measures removes all intra-public sector holdings of public sector debt.

Measures of debt are gross if they are calculated only from financial liabilities, or net if assets are fully or partially subtracted. Gross measures show the accumulated stock of borrowing. Some of this borrowing may have been incurred to purchase assets. Net measures of debt deduct the current value of assets held. These assets may be financial, such as lending to businesses, or non-financial, such as roads, schools and hospitals.

Commonly used net aggregates are net worth – total assets (financial plus non-financial) less total liabilities, and net financial assets – financial assets less financial liabilities.

The liabilities included in estimates of debt can cover some or all liabilities recognised by the National Accounts system. Similarly, net measures of debt may cover all assets (both financial and non-financial) or be limited to certain asset classes. Public sector net debt, as published in the Public Sector Finances Statistical Bulletin, includes most liabilities, but only 'liquid' financial assets.

In National Accounts based debt measures there are two options for valuing assets and liabilities – at nominal value or market value. For some classes of assets and liabilities, the two valuation bases are the same; examples are bank deposits and lending (although commercial accounting values loans at fair value). For others, where assets are traded and there is a market, such as government bonds, the two can differ. In the latter case, the nominal value shows the cost to the issuer of redeeming the bond when it matures; whereas the market value shows the current cost of going into the market to redeem the bond.

### Domestic measures of debt

The main measures of debt published in the UK are:

- PSND, published monthly in the Public Sector Finances Statistical Bulletin. Measured at nominal values, consolidated, and calculated as liabilities less liquid assets. Financial Statistics Table 1.D shows how this is built up
- public sector net debt excluding the effect of financial sector interventions (PSNDX), for which quarterly data are published in the Public Sector Finances Statistical Bulletin. Similar to PSND but excluding the effect of classifying Northern Rock and Bradford & Bingley

to the public sector, along with the net cost of other interventions

- general government consolidated gross debt as calculated for the Maastricht Treaty's Excessive Deficit Procedure (see European Commission 1993). Measured at nominal values for the general government sector. The Excessive Deficit Procedure Statistical Bulletin shows the main components
- general government unconsolidated gross liabilities at market values, calculated in the National Accounts and published quarterly in UK Economic Accounts
- general government net financial liabilities at market values, calculated in the National Accounts and published quarterly in UK Economic Accounts, and
- general government net worth at market values, calculated in the National Accounts, and published annually in the National Accounts Blue Book

**Figure 1** shows how the first five of these measures compare at the end of December 2008. General government net worth is not shown but the most recent figures for the end of 2007 show total assets (including non-financial assets) exceeding government liabilities by around £350 billion.

Figure 1 unsurprisingly shows that general government's gross unconsolidated financial liabilities at market prices are substantially higher than any of the other measures, but that if government's assets holdings are deducted the level of debt nearly halves, to become the lowest measure.

The effect of the financial sector interventions on the level of PSND can be clearly seen. At the end of December 2008, the effect of the classification to the public sector of, first, Northern Rock and subsequently Bradford & Bingley had added around £130 billion to PSND.

The figure also shows that general government gross liabilities at market values are higher than the Excessive Deficit Procedure (EDP) measure at nominal values. In part, this is due to government bonds trading at values in excess of their nominal value. It also reflects differences in coverage, with the Excessive Deficit Procedure measure excluding accounts payable and differences due to the effect of consolidation.

## International comparisons

International comparisons of debt are published by Eurostat, the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). They are usually based on central government or general government and are expressed as a percentage of gross domestic product (GDP).

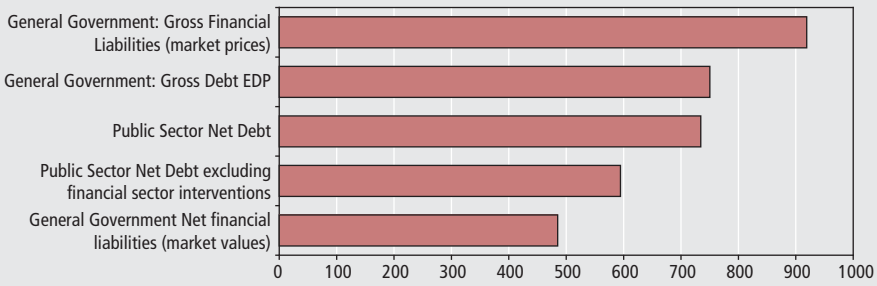
Eurostat's data are based on the Excessive Deficit Procedure returns made by each Member State of the EU and relate to general government consolidated gross debt. The position at the end of December 2007 is shown in **Figure 2**. It can be seen that the UK, with debt at 44 per cent of GDP, is about midway in the ranking of countries and below the EU average.

Comparable figures for 2008 are available for the UK and show debt at 52 per cent of GDP, but are not yet available for other countries.

IMF and OECD measures of debt are based on National Accounts aggregates. OECD data for general government (not presented here) also show the UK ranking towards the middle, with gross financial liabilities a little below average and net liabilities a little above average. The OECD also present data for central government but care should be taken when using this as the remit of central and lower levels of government can vary between countries

Figure 1
**Measures of debt at December 2008**

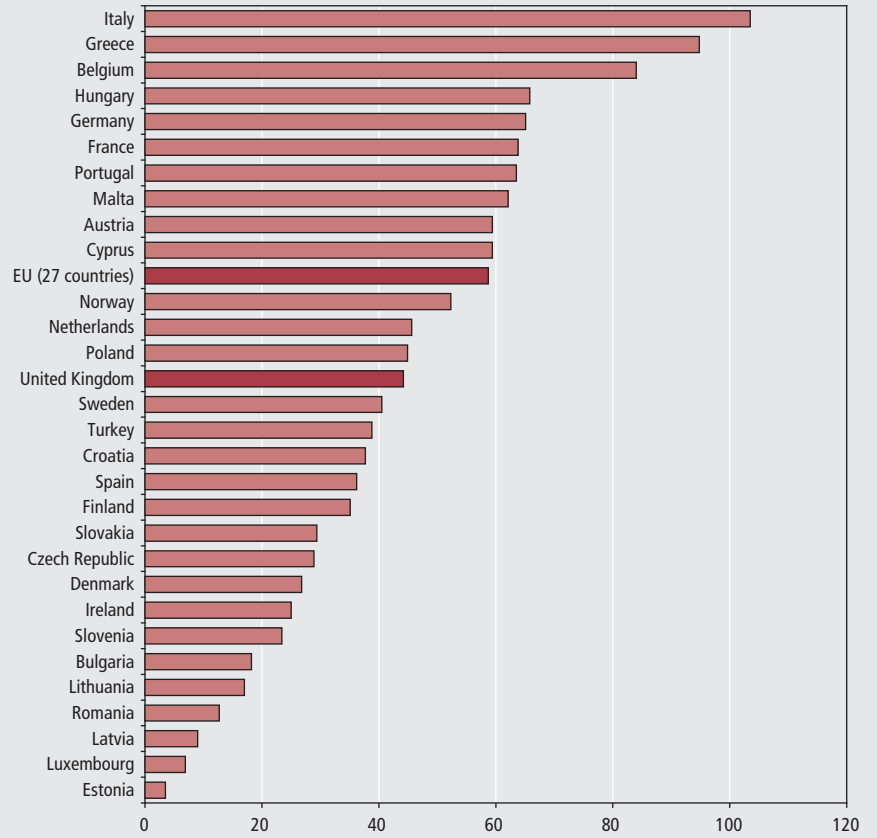
**£ billions, nominal values except where stated**




*Source: ONS Public Sector Finances*

Figure 2
**Government gross debt in December 2007**

**Percentage of GDP, Excessive Deficit Procedure basis**




*Source: ONS, IMF and Eurostat*

– for instance, the regional level of government in Germany has much greater powers than in the UK.

## PSND

Measures of public sector debt have a long history in the UK. The current definition has been in use since the mid-1960s, and since 1997 has been a key statistic for assessing performance against the Government's fiscal rules. When the current administration came into power, it established two fiscal rules, including the sustainable investment rule which required that 'public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level. Other things being equal, net debt will be maintained below 40 per cent of GDP over the economic cycle.'

The Pre-Budget Report (PBR) 2008 (see HM Treasury 2008) explained that:

> 'The Government will depart temporarily from the fiscal rules until the global shocks have worked their way through the economy in full. Consistent with the Code for Fiscal Stability, the Government is setting a temporary operating rule: to set policies to improve the cyclically-adjusted current budget each year, once the economy emerges from the downturn, so it reaches balance and debt is falling as a proportion of GDP once the global shocks have worked their way through the economy in full.'

The PBR 2008 also stated that 'while the public sector fiscal aggregates continue to be affected by interventions in the financial sector the Government will report on PSND both including and excluding the impact of those interventions.' The Economic and Fiscal Strategy Report (EFSR) 2009 (see HM Treasury 2009) provided further clarification:

> 'To ensure transparency in reporting on the impact of financial sector interventions on the public finances, the Government will publish information on three different bases:
>
> - including financial sector interventions on a National Accounts basis: These measures reflect the treatment of financial sector interventions as determined by the National Accounts, including temporary and exceptional effects from, for example, the inclusion of the balance sheets and operations of banks classified to the public sector
> - excluding liabilities and unrealised losses from financial sector interventions: These measures remove the temporary effects of financial sector interventions on the fiscal aggregates. As losses are realised for central government, and so can be reliably included in the fiscal projections, they will score in these measures, and
> - including unrealised losses on financial sector interventions: These measures include the anticipated future loss stemming from the Government's financial sector interventions, and so are better measures of the sustainability of the medium-term fiscal position than those on the other two measurement bases. They remove the temporary effects of financial sector interventions on the fiscal aggregates'

Projections including a provisional estimate of future losses, that is on the third basis, were shown in the EFSR both for net borrowing and for net debt. In the monthly Public Sector Finance Statistical Bulletin net borrowing is shown only on the first of these bases and net debt only on the first two.

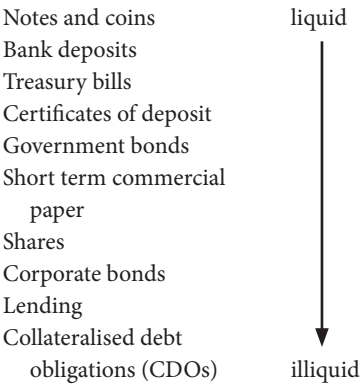
As described previously, PSND is defined as liabilities less liquid assets. The liabilities that contribute to PSND have traditionally been relatively well defined, in comparison to the assets, hinging on the interpretation of what constitutes a liquid financial asset. The expansion of the public sector to include public sector bank groups has prompted a need to define more clearly which classes of assets and liabilities are included in the calculation of PSND. The outcome of the resulting work, by a group comprising representatives from ONS, HM Treasury, and Communities and Local Government, is described in the following sections.

## Liquid assets – concepts

The starting point for defining which assets should count in the calculation of PSND is to consider what is meant by liquid assets. Conceptually, a liquid asset can be thought of as one that is realisable at short notice without loss. This involves at least three main considerations, which are interrelated:

- capital certainty: whether the value of an asset is likely to change into the future. Factors that can influence this include:
  - the credit-worthiness of the issuer: as a rule, debt issued by governments will be more certain of repayment than private corporations' debt, and
  - the residual maturity of the asset: the shorter the time to the redemption date, the greater the certainty the debt will be repaid. In practice, information on residual maturity can be difficult to collect
- time: how quickly an asset can be disposed of (contrast a house with a treasury bill, or a timed deposit account)
- the market: note that conditions in the market might change and affect capital certainty and the time taken for an asset to be disposed of. For instance, the collapse in the market for residential mortgage backed securities has reduced the capital value of the assets and means that asset holders cannot realise their investments

Using these criteria, assets can be ranked according to a spectrum of liquidity; the dividing line between liquid and illiquid being in some sense arbitrary. For instance:




In this ranking, the assets at the top of the list clearly meet all three criteria for liquidity. This is not necessarily the case for those towards the bottom. For instance, loans are not marketable and cannot be readily realised (the borrower cannot be made to repay the loan). The exception to this is short-term inter-bank lending which is recorded as bank deposits. In the case of quoted shares, there is usually a market, but their value (capital certainty) cannot be guaranteed.

## Liquid assets – in practice

As noted before, bank and building society deposits, and notes and coins are clearly liquid. Other classes of assets that are judged to be liquid are public sector short-

term holdings of private sector and rest of the world securities, where short-term is defined as those assets with an original maturity of up to one year. (Conceptually, residual maturity may be better but this is difficult to obtain in practice.)

Because PSND is a consolidated measure, assets that are liabilities of other public sector bodies are also deducted when calculating net debt for the public sector as a whole.

A further class of assets are also considered to be liquid. In general, liquidity is an attribute of the asset and not of the holder. The exception to this are assets held by central government funds involved in debt and reserves management, in particular the official reserves and the Debt Management Office (DMO), and assets held by the Bank of England.

The official reserves include the Government's holdings of gold, special drawing rights and foreign currency securities. These assets need to be highly liquid so that they can be made available quickly for intervention purposes (or other permitted uses) if necessary. By convention, therefore, securities that form part of the official reserves are treated as liquid assets when measuring net debt, regardless of their original maturity.

The DMO's role includes making arrangements for funding and for placing central government's net cash positions, to ensure that sufficient funds are always available to meet any net daily cash shortfall and, on any day when there is a net cash surplus, to ensure this is used to best advantage.

Assets held by the Bank of England (including long-term securities) are also treated as liquid, reflecting the Bank's role in the money markets. In the particular case of long-term securities, which are not normally treated as liquid assets, the Bank keeps them as reserves that can be sold at any time or are actively traded assets (mainly foreign bonds).

## Financial instruments counting towards net debt

**Table 1** summarises the assets and liabilities counting towards PSND, classified according to the European System of Accounts (ESA) 1995 financial instruments

## Specific issues

The work on the technical definition of PSND considered a number of specific issues that are described as follows.

### Recording of derivatives

The recording of derivatives has not been a major concern until recently because they have not been widely used by public sector bodies. The inclusion of banks within the public sector changes this. For instance, RBS's latest publicly available results show derivatives with values approaching £500 billion on both sides of the balance sheet.

International guidance (ESA 1995 and the System of National Accounts (SNA) 1993) recommends that derivatives should be treated as financial assets. Also, Eurostat's Manual of Government Debt and Deficit notes that derivatives do not have a nominal value identical to that of other debt instruments. They also have limited capital certainty. For these reasons, it has been decided that they should be excluded from the calculation of net debt. The exceptions to this are the official reserves and the Bank of England's holdings of derivatives, which are recorded as assets, reflecting the two organisations' roles in managing liquidity operations.

### Insurance companies

The classification of RBS and Lloyds to the public sector also brings their subsidiaries into the public sector, including insurance companies. This raises the question of how insurance companies' liabilities and assets should be treated in the calculation of the public sector net cash requirement (PSNCR) and net debt.

The vast majority of insurance companies' liabilities are their technical reserves. This represents their liabilities to policy holders in the form of prepayments of premiums, and reserves against outstanding claims; the latter representing the present value of the amounts expected to be paid out in settlement of claims. It has been decided that insurance technical reserves should not count towards net debt on the grounds that:

- for other public sector bodies, credits such as prepayments do not count towards public sector net debt, and
- reserves against outstanding claims are very different in nature to other liabilities that currently count towards net debt, in that they are an assessment of future liabilities, unlike bank borrowing or debt securities, which represent current liabilities

It has also been decided that insurance companies' assets should not count towards net debt. To do so, would distort net debt as the corresponding liabilities are not included.

### Externally managed funds

Local authorities place surplus funds or reserves with external fund managers. There are two types of funds – money market funds and other managed funds. The treatment of these funds was last considered in 1993, when it was concluded that both should be treated in full as liquid assets. This was primarily on the grounds that it was not possible to 'look through' the funds to see where the fund manager had actually placed them, and that local authorities viewed these funds as essentially being liquid assets.

However, while there is still no asset breakdown of money market funds (they are treated as F.2 deposits in the National Accounts), a breakdown of the underlying assets is available for other managed funds and is used for their recording in the

Table 1
**Financial assets and liabilities counting towards PSND**

| | | Bank of England, Official Reserves | | | |
|---|---|---|---|---|---|
| | | Debt Management Agency | | Other public sector bodies | |
| ESA code | | Liabilities | Assets | Liabilities | Assets |
| F.1 | Monetary gold and SDRs[1] | X | | | |
| F.21 | Currency | X | X | | X |
| F.22 | Transferable deposits | X | X | X | X |
| F.29 | Other deposits[2] | X | X | X | X |
| F.331 | Short term money market instruments | X | X | X | X |
| F.332 | Bonds | X | X | X | |
| F.34 | Financial derivatives | X | X | X | |
| F.4 | Lending | X | X | X | |
| F.5 | Shares | X | X | X | |
| F.6 | Insurance technical reserves | | | | |
| F.7 | Accounts receivable/payable | X | X | | |

**Notes:** *Source: ONS Public Sector Finances*

1 Special Drawing Rights.
2 Short-term lending of up to a year between monetary financial institutions (MFI) is classified as deposits, as are reverse repos with monetary financial institutions, and investments in money market funds.

National Accounts. It has been decided that:

- money market funds should continue to be treated as liquid assets, and
- for other externally managed funds, the characteristics of the underlying assets should be used to determine which are liquid. This approach will also be applied more widely to other managed funds, such as those held by the Nuclear Liabilities Fund

### Interpreting PSND

The level of PSND is published monthly in the Public Sector Finances Statistical Bulletin, while net debt excluding financial sector interventions is published quarterly. In the period up to September 2007, before the classification of Northern Rock to the public sector, the level of PSND largely reflected central government's net debt, as shown in **Table 2**.

This situation has started to change. By the end of December 2008, the classification to the public sector of, first, Northern Rock and subsequently Bradford & Bingley had added around £130 billion to PSND.

When the Lloyds Banking Group and RBS are included in the public sector finances, ONS has estimated that this will add an additional £1–1.5 trillion to PSND.

However, this statistic needs to be treated with caution. The way in which PSND is defined means that illiquid assets held by these banks – in the form of lending to businesses; for mortgages and holdings of corporate bonds – are not taken into account. This is important because the banks' liabilities are generally matched by their assets. What PSND shows is the extent to which the public sector's liabilities are matched by assets which can be realised quickly.

The effect on PSND of classifying these banks to the public sector should not be interpreted as meaning that the Government (and by implication the taxpayer) has been saddled with a substantially greater debt burden. The Government has also made clear its intention to return these banks to the private sector, so in the long run the impact on PSND is unlikely to be permanent.

Table 2
**Breakdown of public sector net debt in September 2007**

| | £ billions |
|---|---|
| Central government debt, net of holdings by local government and public corporations | 583 |
| Local government debt, net of holdings by central government and public corporations | 15 |
| Public corporations debt, net of holdings by central government and local government | 9 |
| Central government liquid assets | 48 |
| Local government liquid assets | 36 |
| Public corporations liquid assets | 6 |
| Bank of England net debt | –2 |
| Public sector net debt | 514 |

*Source: ONS Public Sector Finances*

## Conclusion and recommendations

ONS, the Bank of England and HM Treasury are working closely with RBS and the Lloyds Banking Group to correctly classify all subsidiaries of the two groups and then incorporate the relevant data into the public sector finances. Work is also ongoing to resolve disclosure issues so that more asset and liability detail can be published, in the interests of transparency.

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FEATURE

# Government financial liabilities beyond public sector net debt

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SUMMARY

This article clarifies the scope of liabilities used to calculate public sector net debt before focussing on the liabilities that are not included. National accounting principles are compared with international accounting standards for governments and businesses. The current public reporting of non-public sector net debt liabilities in the UK is considered, with particular attention being paid to future spending under the private finance initiative, unfunded pension schemes, and government guarantees.

The previous article 'The public sector balance sheet' discusses the calculation of public sector net debt (PSND), whereas this article discusses the relationship between the scope of liabilities inside the National Accounts boundary (which is almost equivalent to the boundary of PSND), and the wider range of liabilities reported to comply with the International Monetary Fund's (IMF) Code of Good Practices on Fiscal Transparency (see IMF 2007), which states:

> 'The public should be provided with comprehensive information on past, current, and projected fiscal activity and on major fiscal risks.'

This article will:

- discuss frameworks for analysing fiscal obligation and risk, introducing the idea of a 'spectrum of risk/liability'
- clarify the boundary for National Accounts balance sheet liabilities with reference to existing guidelines in international manuals, and compare this boundary with the financial reporting boundary as set out in the International Accounting Standards (IAS), and the International Financial Reporting Standards (IFRS) and the IMF's guidelines for Government Finance Statistics (see IMF 2001), and
- discuss the UK reporting of non-PSND liabilities such as future expenditure under the private finance initiative (PFI), unfunded pension schemes and government guarantees, and clarify their treatment in National Accounts, Public Sector Finances, departmental resource accounts and Whole of Government Accounts

The article attempts to draw out the relationships between obligation and risk, between current and future obligation, and between National Accounts and resource accounts balance sheets. **Box 1** provides basic definitions for the key terms used in this article.

## Frameworks for analysing fiscal risk

The Office for National Statistics (ONS) has a role to play in presenting the data necessary for assessment of fiscal burden and risk, and as such needs to understand users' requirements. These requirements have driven the guidance on fiscal reporting produced by the International Public Sector Accounting Standards Board (an interpretation of IAS and IFRS) and the IMF's Government Finance Statistics (GFS) Manual (see IMF 2001).

The framework most widely used for understanding and analysing fiscal risk is the matrix articulated by Polackova (1998), reproduced here as **Table 1**. One dimension of the matrix relates to the legal basis of a government's obligations which are either:

- *Explicit liabilities*, whose repayments are established by a law or a contract, or

Box 1

**Basic definitions**

**Liability:** a present obligation arising from past events, the settlement of which is expected to result in an outflow of resources (IAS 37). In the 1993 System of National Accounts (SNA 1993), liabilities are not defined explicitly, but a definition is implied as counterparty to an asset (see later section of this article).

**Commitment:** the government's responsibility for a future liability based on an existing contractual agreement which does not yet give rise to a present obligation. This is because no exchange has yet taken place, and the obligation, and therefore the liability, normally arises on delivery of the goods or services. IAS requires the disclosure of commitments, in particular capital expenditure, in notes to the accounts. IAS 17 (leases) requires the disclosure of commitments for minimum payments under finance leases, and non-cancellable operating leases with a term of more than one year.

**Provision:** a liability of uncertain timing or amount, which is recognised in the main accounts since payment is probable and a reasonable estimate of the amount can be made. Provisions may be made for contingent liabilities where there is a high probability of actual liability (IAS 37, International Public Sector Accounting Standards (IPSAS) 19). SNA 1993 does not record provisions (except consumption of fixed capital). The Government Finance Statistics Manual (GFS Manual, see IMF 2001) discloses them as memorandum items or notes to the accounts.

**Contingent liability:** an obligation activated by a discrete event that may or may not occur. The event is determined ex-ante, but its occurrence and timing are uncertain. If it does occur, then the commitment becomes a direct liability for the government. Both the probability of its occurrence and the magnitude of the resulting outlays are often very complex to estimate. Contingent losses can be recognized by reducing the value of an asset (impairment) or increasing the value of a liability (creating a provision) (IAS 37, IPSAS19). SNA 1993 does not record contingent liabilities (unless tradable). GFS Manual discloses them as memorandum items or notes to the accounts.

**Guarantees:** in broad terms are commitments to bear a risk, or more specifically, 'a contractual arrangement under which a third party (the guarantor) agrees to fulfil the financial or other obligations of the guaranteed party (the principal obligor) to another party (the beneficiary) in the case of default by the principal obligor.'

Guarantees:

- are the most common form of contingent liabilities
- may shield against political and regulatory risks, exchange risks, interest rate risks, default and credit risks, construction cost risks, *force majeure* risks, and demand risks, among many others
- may be full or partial guarantees, depending on the level of support a government considers it convenient to provide and the degree of risk exposure it is willing to bear, and
- may create moral hazard in the markets

**Other (implicit) contingent liabilities of government**

For example, state insurance schemes for deposits or minimum returns on pension funds, bailout of sub-national entities or financial system, military spending in cases of war and disaster relief.

In line with the position held by the IMF, these obligations are not officially recognized by the government, and not reported in the fiscal expenditure plans, in order to avoid increasing moral hazard.

Table 1

## Fiscal risk matrix[1]

| **Liabilities** (of fiscal authorities, not central bank) | **Direct** (obligation in any event) | **Contingent** (obligations if a particular event occurs) |
|---|---|---|
| **Explicit** (liability is recognized by law or contract) | ■ *Sovereign debt*<br>■ **Budgetary expenditures considered by law**<br>■ **Budgetary expenditures legally binding in the long term (civil service salaries and pensions)** | ■ State guarantees on obligations issued by sub-national governments and public and private sector entities<br>■ Umbrella State guarantees for various types of loans (mortgages, student loans, agriculture, small businesses)<br>■ State guarantees on interest and exchange rates *[may be in PSND]*<br>■ State insurance schemes (deposits *Financial Sector Compensation Scheme in PSND*, minimum returns on pension funds, floods) |
| **Implicit** ('moral' or expected obligation due to public expectations or political pressures) | ■ Future recurrent costs of public investment projects<br>■ Social security schemes if not required by law<br>■ Future public pensions (as opposed to civil service pensions) if not required by law<br>■ Future health care financing if not required by law | ■ Default on non-guaranteed debt issued by sub-national governments or public and private sector entities<br>■ Cleanup of privatised entities<br>■ Bank failure beyond state insurance<br>■ Investment failure of non-guaranteed pension fund or social security fund<br>■ Central Bank defaults on its obligations (currency defence, balance of payments stability, foreign exchange contracts)<br>■ Bailouts following a reversal in private capital outflows<br>■ Residual environmental damage, disaster relief, military financing |

**Note:** *Source: Polackova (1998)*

1 Items included in the UK National Accounts and PSND are *italicised*.
Items reported to Eurostat by ONS in bi-annual Excessive Deficit Procedure returns, and published in UK departmental resource accounts (and will be in Whole of Government Accounts) are in red.
Items published in HM Treasury's annual Budget documents, but not by ONS, are in **bold**.

- *Implicit liabilities*, which involve a moral or expected obligation on the part of the government that is not mandated by law, but rather based on public expectations, political pressures, or the role of the state as understood by the corresponding societies

The other dimension relates to the certainty of the liability crystallising:

- *Direct liabilities*, which will occur for certain and thus are predictable based on determined factors, or
- *Contingent liabilities*, which are obligations activated by a discrete event that may or may not occur

The area commanding the most attention in the IMF's manuals, but also as a result of the current financial crisis, is that of explicit contingent liabilities, which are predominantly guarantees.

An alternative to this analytical matrix which groups obligations by their type is to group them along a spectrum of risk, or uncertainty, such as that developed by Heller (2004) and shown in **Table 2**. Heller argues that:

> 'Rather than focusing on the liabilities that fall squarely on the balance sheet, it is more appropriate to conceive of a spectrum of obligations and risks to which a government is exposed.'

The spectrum could be viewed as running from certainty to uncertainty around whether an expenditure will become due, and also around the timing and size when (if), it does.

Polackova (1998)suggests:

> 'Upon completion of the fiscal risk matrix, it is possible to easily calculate and report the maximum possible losses implied by each government's obligations. Also, it is possible to identify the particular risk exposures borne by a government.'

It would not be straightforward to derive meaningful values for all cells in the matrix (Table 1), given the nature and uncertainty around many of the contingent liabilities that a government implicitly assumes - for example natural disasters, corporate bail-outs, environmental clean-up and so on. This would require estimation of maximum possible losses and likelihoods of risks crystallising.

The IMF Code takes a more pragmatic line, advising governments that estimates should be published for explicit (contractual) obligations, whether direct or contingent:

> 'The central government should publish information on the level and composition of its debt and financial assets, significant non-debt liabilities (including pension rights, guarantee exposure, and other contractual obligations), and natural resource assets.'

But for implicit liabilities, qualitative descriptions only may be published:

> 'Statements describing the nature and fiscal significance of central government tax expenditures, contingent liabilities, and quasi-fiscal activities should be part of the budget documentation, together with an assessment of all other major fiscal risks.'

The remainder of this paper will discuss the accounting treatment, estimation and publication of 'significant non-debt liabilities' in the UK, with particular focus on government pension schemes (employee and state), guarantees and PFI.

## Accounting treatment of liabilities

### Accounting standards

Different accounting standards exist to serve different purposes:

- **Financial accounting** – the standards issued by the IAS and IFRS are designed 'to provide the world's integrating capital markets with a common language for financial reporting.' The aim of the standards is to serve the public interest by strengthening the credibility of information upon which investors and other stakeholders make decisions, and they are promoted by the International Federation of Accountants (IFAC). For the compilation of UK government resource accounts, the IAS and IFRS are interpreted by the Financial Reporting Advisory Board, whose guidance is published in the Financial Reporting Manual.
- **Government accounting** – the IMF's Government and Financial Statistics Manual (GFS Manual, see IMF 2001) provides a specialised system designed to meet the needs of fiscal analysis, and to encourage governments to provide comparable public finance statistics. It is concerned with the general government sector and its sub-sectors. Eurostat's interpretation of the GFS Manual is the Manual on Government Deficit and Debt.
- **National accounting** – the United Nation's 1993 System of National Accounts (SNA 1993), interpreted by Eurostat in the 1995 European System of Accounts (ESA 1995), provides a framework for the production of aggregate macro-economic statistics for the whole economy, particularly national income and net worth, and a system of integrated accounts for the different sectors, such as the corporate, household and government sectors.

Although the SNA and GFS system are largely based on the same framework and principles, they have quite different objectives and have evolved over time to

Table 2
**Spectrum of financial risk**

| On Balance Sheet | | Off Balance Sheet | | | | |
|---|---|---|---|---|---|---|
| As liability or provision | | Other types of guarantee | Constructive budget obligations | | Fiscal risk exposures derived from role of government | |
| Explicit debt | Public guarantees (provisioned) | Public guarantees (not provisioned) | Contractual | Non-contractual | Implicit obligations | Contingent |
| | | PPPs [NB these are on balance sheet in the UK] | | | Hard | Soft |
| | | Explicit contingent liabilities | | | | |

*Source: Heller (2004)*

meet the needs of particular groups of users. In a sense, the GFS system resonates with the IAS/IFRS world, focusing on the health of an entity's balance sheet, but makes every effort to be compatible with the SNA so that its results can be used directly in National Accounts

The SNA is necessarily more limited than the other two accounting standards, given its wider sectoral scope and fundamental need for internal integrity across all sectors of the economy. This means that financial transactions must always have identifiable counterparties and be recorded symmetrically for both. The result is that liabilities are defined more narrowly in SNA 1993 than in the other accounting standards which are concerned principally with a single entity or sector.

While SNA 1993, and the GFS Manual record only current liabilities in the main accounts, the GFS Manual does recommend that commitments to future expenditure should be disclosed as memorandum items.

## Liabilities and debt in SNA 1993

### Liabilities

As Pitzer (2002) points out, liabilities are defined in SNA 1993 only as counterparts to financial claims, where a financial claim is defined as:

> 'An asset that entitles its owner, the creditor, to receive a payment, or series of payments, from the other unit, the debtor, in certain circumstances specified in the contract between them.'

As the opposite of a financial claim, a liability can then be defined as an obligation of one unit to make a payment, or a series of payments, to another unit in certain circumstances specified in a contract between them.

SNA 1993 is very clear, however, about the treatment of contingent liabilities and provisions:

> 'Contingent assets or liabilities are not treated as financial assets or liabilities in SNA, as discussed in chapter XI. Sums set aside in business accounting to provide for transactors' future liabilities, either certain or contingent, or for transactors' future expenditures generally are not recognized in SNA. (The only 'provision' recognized in the System is accumulated consumption of fixed capital.) Only actual current liabilities to another party or parties are explicitly included. When the anticipated liability becomes actual - for example, a tax then - it is included.'

It does, however, recommend presentation of 'important' contingent liabilities:

> 'By conferring certain rights or obligations that may affect future decisions, contingent arrangements obviously produce an economic impact on the parties involved. Collectively, such contingencies may be important for financial programming, policy and analysis. Therefore, where contingent positions are important for policy and analysis, it is recommended that supplementary information be collected and presented as supplementary data in the SNA.'

The 2008 revision to SNA 1993 (SNA 2008) will soften slightly, and will require the inclusion of provisions for 'standardised guarantees', such as loans to small businesses and student loans, in a parallel treatment to that for insurance technical reserves.

### Debt

Debt is not identified as an aggregate or balancing item in SNA 1993. Net worth is defined as 'the value of all the non-financial and financial assets owned by an institutional unit or sector less the value of all its outstanding liabilities' and the closest SNA 1993 comes to defining debt is:

> 'The balance sheet (at market value) records the financial assets and liabilities for all institutional sectors by type of financial instrument. For each sector, the balance sheet shows the financial liabilities that the sector has incurred to mobilise financial resources and the financial assets that the sector has acquired. The balance sheet, like the financial account, thus presents a two-dimensional view of a sector's financial instruments and whether the sector is a creditor or a debtor.'

To allow monitoring under the European Commission's Excessive Deficit Procedure (see EC 1993), government debt is defined more narrowly, taking a sub-set of liabilities, and at nominal value. Government debt is constituted by the liabilities of general government in the following categories:

- currency and deposits
- securities other than shares, excluding financial derivatives, and
- loans

## Liabilities and Debt in IAS / IFRS

### Liabilities

IAS 37 describes liabilities more loosely than SNA 1993 as:

> 'Present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits or service potential.'

This differs significantly from SNA 1993 in that it does not require an identifiable counter-party, and it includes the idea of expected outflows, that is future expenditure and contingent obligations where a reliable estimate of the amount can be made. Where the liability is probable and measurable, it is recognised as a provision, but where the contingency is uncertain (but not remote) then relevant information is disclosed in the notes to the accounts.

### Debt

The IFAC also has a clear view about the disclosure of liabilities beyond the SNA 1993 definition of government debt:

> 'Governments have significant liabilities beyond debt, which may have important implications for fiscal sustainability. The disclosure of information about the potential cost of unfunded public pension funds, and government guarantees and other contractual obligations (such as commitments under Public Private Partnerships), is an important element of fiscal transparency.'

As a result of the SNA 1993 requirement of specificity about the party to whom the obligation is owed, and that the liability currently exists (accrual principle), it differs from financial accounting standards in not recognising provisions for future expenditure or contingent liabilities.

This is why unfunded pension schemes, government guarantees, and the future service payments for PFI schemes not judged to be on the government balance

sheet, are all outside the National Accounts liability boundary. The treatment of these significant non-debt liabilities in the GFS Manual is discussed in the following sections.

### Non-debt liabilities in the GFS Manual

The GFS Manual treads a middle ground. It is consistent with SNA 1993 in terms of the 'main accounts':

> 'Contingent assets or liabilities are not treated as financial assets and liabilities. Also, sums set aside in business accounting as provisions to provide for a unit's future liabilities, either certain or contingent, or for a unit's future expenditures are not recognized in the GFS system. Only actual current liabilities to another party or parties are included.'

But goes on to say:

> 'Nevertheless, contingencies, especially those that may result in an expense, can be particularly significant for the general government sector. Aggregate data on all important contingencies should be recorded as memorandum items. In addition to the gross amount of possible revenue or expense, estimates of expected revenue or expense should be presented. This position is somewhat different from that of financial accounting standards, which recognize contingent liabilities when it is probable that future events will confirm that an asset has been impaired or a liability incurred and that a reasonable estimate of the amount can be made.'

It goes further and suggests that guarantees, and even implicit social benefits, should be recorded as memorandum items:

> 'Contingencies, such as loan guarantees and implicit guarantees to provide social benefits when various needs arise, can have important economic influences on the general economy but do not result in transactions or other economic flows recorded in the GFS system until the event or condition referred to actually occurs. As a result, provision is made for recording contingencies as memorandum items.'

Note that implicit insurance for corporations, such as bail-outs and clean-up, should not be recorded due to moral hazard.

### Pension liabilities

#### SNA 1993

In SNA 1993 the treatment of employee pension schemes depends on whether the scheme is funded or unfunded: if funded, a liability for pension benefits is recognized as insurance technical reserves, if unfunded, no liability for pension benefits is recognised.

An important feature of the new SNA 2008, however, is the recording, on an accrued-to-date basis, of pension entitlements of households and thus liabilities of employers and governments, for all pension schemes including social security schemes, i.e. state pensions. SNA 2008 is likely to allow the option of presenting these data either as part of the core National Accounts, or in a supplementary table. Work in Europe to resolve methodological and practical issues is being led by Eurostat and the European Central Bank, and involves workshops with member states and international organisations and the drafting of a pensions chapter for the 2012 update of ESA 1995 (ESA 2012). The supplementary table on pensions and social insurance will be integrated into the future ESA transmission programme.

#### GFS Manual

In drafting the GFS Manual it was felt that all employee pension schemes are legally binding agreements between an employer and its employees, and that the present value of all defined-benefit pension obligations should be treated as liabilities and recognised in the main accounts (in addition to defined-contribution schemes which are funded and thus included anyway).

For social benefit schemes, on the other hand:

> 'No liability is recognized in the GFS system for government promises to pay social security benefits in the future, such as retirement pensions and health care. All contributions to social security schemes are treated as transfers (revenue) and all payments of benefits are also treated as transfers (expense). The present value of social security benefits that have already been earned according to the existing laws and regulations but are payable in the future should be calculated in a manner similar to the liabilities of an employer retirement scheme and be shown as a memorandum item.'

### PFI and other leases

The accounting treatment of leases is set out in IAS 17, IPSAS 13, and ESA 1995 (Eurostat's Manual on Government Deficit and Debt gives further guidance). The particular application to PFI contracts is explained in Chesson and Maitland-Smith (2006). PFI contracts and related assets are treated in one of two ways in government accounts depending on whether the government is considered to bear the risks and rewards of the asset, meaning the government is the economic owner of the asset. If so, then the asset is recorded on the government balance sheet, and a financial lease is recorded reflecting the economic reality of the government taking a loan from the private sector partner, which is then repaid over the life of the contract. This imputed loan is recorded in National Accounts and included in PSND.

If the asset is not judged to be on the government's balance sheet, then an operating lease is recorded, which is equivalent to the government having a contract with a private sector service provider, and the payments are equivalent to rental (in practice the payments may be a combination of rental and service payments).

Under IAS 17, commitments for future payments under both finance and operating leases should be recorded in the notes to the accounts.

## Publication of UK non-debt liabilities

### Departmental accounts

UK government departmental resource accounts are compiled in line with the Financial Reporting Manual, which sets out the interpretation of the relevant IAS and IFRS according to the Financial Reporting Advisory Board. Once departments are reporting according to the IFRS-based Financial Reporting Manual, each department should recognise in its main accounts all provisions, including those for employee pension liabilities and finance and operating lease liabilities, and

should disclose in the notes, its contingent liabilities.

## Whole of Government Accounts

Until 2002/03, the non-debt liabilities of central government were submitted to Parliament by HM Treasury in aggregate form in the Supplementary Statements to the Consolidated Fund and National Loans Fund Accounts, and published every December.

Since 2002/03 aggregate figures have not been published in one place, but estimates for various of the non-debt liabilities may be published on a more ad-hoc basis by HM Treasury or HM Revenue and Customs.

HM Treasury made a commitment in the 1998 Code for Fiscal Stability to produce accounts for the whole of the public sector, on a consolidated basis if possible, to provide better transparency and accountability to Parliament as well as greater certainty for fiscal planning.

The Whole of Government Accounts (see HM Treasury 2009) will provide, on an annual basis, an IFRS-based consolidated statement of account for the public sector and its sub-sectors. This will show, therefore, all provisions and contingent liabilities.

HM Treasury will also provide commentary to accompany Whole of Government Accounts including analysis of significant risks and uncertainties inherent in the government's financial position and a reference to the strategies and policies adopted to manage those risks and uncertainties, information about any significant trends related to financial assets and liabilities, revenues and expenditure and cash flows associated with long-term provisions.

The current target is to publish the first set of Whole of Government Accounts for 2009/2010, when all departments have switched to IFRS reporting.

## Provisions and guarantees

The aggregate value of provisions at end March 2007 is over £80 billion (or just below £80 billion if student loans provisions are excluded from the total in line with IFRS). More than half of this aggregate value (about £45 billion) is for the costs of nuclear decommissioning. Other large provisions are for clinical negligence (£9 billion), legal claims (£3 billion) and early departure costs (£2 billion).

The majority of provisions by value are in a relatively small number of departments, seven departments and their non-departmental public bodies account for 85 per cent of provisions with one department (the Department for Business, Innovation and Skills) holding more than half of the total value due to nuclear decommissioning

ONS does not publish statistics on **total** provisions or contingent liabilities, but does submit data to Eurostat on government guarantees as part of the twice-yearly Excessive Deficit Procedure return which is subsequently published by Eurostat. The most recent data are shown in **Table 3**.

Published estimates of guarantees for amounts equal to or over £ 0.1 billion are outlined below. Additionally for local government, Transport for London has some contingent liabilities.

## PFI and other leases

In September 2006, ONS included in PSND for the first time estimates of imputed finance lease liabilities, the majority of which are associated with those PFI projects judged as being on the public sector balance sheet.

**Table 4** shows that the estimate of the total public sector imputed finance lease liability at the end of March 2009 is nearly £5 billion. This is equivalent to roughly a third of a per cent of GDP.

As always, it is important to take care with boundary issues when considering the measurement of net debt. The central government PFI liability is considerably larger than the figures shown in Table 4 since Metronet and Tube Lines are classified as public sector bodies, resulting in the consolidation of PFI liabilities and assets within the public sector boundary. Note, however, that when the reclassification of the two bodies was effected, in 2007, PSND was actually revised up overall, due to the inclusion of their total net debt. This does mean, however, that the figures in Table 4 are not consistent with those published

Table 3
**Central government guarantees as of end-March 2009**

£ billions

| | 2003/4 | 2004/5 | 2005/6 | 2006/7 | 2007/8 |
|---|---|---|---|---|---|
| Dept for International Development[1] | 1.8 | 0 | 0 | 0 | 0 |
| Dept for Transport[2] | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Dept for Transport[3] | 12.7 | 15.6 | 18 | 18.4 | 20 |
| Transport for London[4] | 1.3 | 2 | 2.3 | 2.3 | 1.5 |
| Transport for London[5] | n/a | 1 | 1 | 1.3 | 1.2 |
| HM Treasury[6] | n/a | n/a | n/a | n/a | 24.1 |

**Notes:** *Source: ONS Public Sector Finances*

1 UK share of EC collective guarantees of European Investment Bank lending.
2 London and Continental Railways (LCR)– Government guaranteed bonds. (nb. LCR have additionally undertaken a securitisation involving an 'effective guarantee' from government. This is recorded as government borrowing). LCR is a public corporation.
3 Guarantees of Network Rail- Government supports their credit facility (if needed- none have been) and smaller support if needed (none have been) for a debt issuances programme. There are a number of facilities in place but also a maximum exposure limit. The figure given is derived from information supplied by Network Rail. Network Rail is a Private non-financial corporation.
4 London Underground Public Private Partnership.
5 Other.
6 HM Treasury in respect of Bank of England loan to Northern Rock.

Table 4
**Public sector finance lease liabilities including 'on balance sheet' PFI deals**

£ billions

| Financial Year | Central Government | Public Corporations | Local Government | Total |
|---|---|---|---|---|
| 1996/97 | 0.31 | 0.18 | 0.01 | 0.5 |
| 1997/98 | 0.61 | 0.16 | 0.01 | 0.78 |
| 1998/99 | 1.32 | 0.26 | 0.01 | 1.59 |
| 1999/00 | 1.65 | 0.78 | 0.01 | 2.44 |
| 2000/01 | 1.97 | 0.61 | 0.01 | 2.59 |
| 2001/02 | 2.12 | 0.45 | 0.01 | 2.58 |
| 2002/03 | 2.48 | 0.45 | 0.03 | 2.96 |
| 2003/04 | 2.9 | 0.41 | 0.04 | 3.35 |
| 2004/05 | 3.63 | 0.35 | 0.08 | 4.06 |
| 2005/06 | 3.78 | 0.33 | 0.07 | 4.18 |
| 2006/07 | 4.06 | 0.32 | 0.07 | 4.45 |
| 2007/08 | 4.31 | 0.44 | 0.07 | 4.82 |
| 2008/09 | 4.53 | 0.33 | 0.07 | 4.93 |

*Source: ONS Public Sector Finances*

in Chesson and Maitland-Smith (2006), because they take into account the 2007 reclassification.

HM Treasury estimated the capital value of assets for signed projects at more than £46 billion in March 2006 and the current estimate is in the region of £60 billion. In both periods, roughly half of the value is judged to be on the public sector balance sheet (risks and rewards held by the public sector partner).

The estimates of imputed finance lease liabilities in PSND are much smaller than the capital values because:

- finance lease debt and capital value are not the same thing
- finance lease debt relates to assets judged to be on public sector balance sheets only
- timing of recording – where the accountants and auditors judge the asset should be on the public sector balance sheet the transfer of economic ownership, and so the recognition of the liability, will usually occur when all of the construction is completed and the asset becomes operational. The finance lease debt is imputed at this point, and
- contingent liabilities are not included – the capital value of assets for signed projects includes forecasts of future asset values, where the work may be incomplete or not yet started. These liabilities are contingent therefore on the construction or improvement being completed satisfactorily, and contingent liabilities are not included in National Accounts

Since decisions regarding whether or not a body is exposed to the risks and rewards of a PFI project are made independently by the private partner's auditors and the public partner's auditors, it is possible that both the public and private sector partners record the capital formation on their own balance sheets (on-on) or for a deal to appear on neither balance sheet (off-off).

Estimates of current spending and PSND are not affected by on-on or off-off recording since all decisions about public balance sheet recording are audited by the NAO and the Audit Commission. So, the size of the stock of imputed loans of the public sector will be consistent with the auditors' assessment of the risk borne by the public sector.

In the National Accounts overall, however, this will lead to double-counting of gross fixed capital formation (GFCF) for on-on projects, and missed GFCF for off-off. ONS is currently undertaking work to assess the extent of this issue and to take corrective action.

It should be noted that the implementation of IFRS in government financial reporting, will not of itself lead to any changes in PSND. Although it is anticipated that the implementation of IFRS will bring PFI-type assets onto the balance sheets of departmental resource accounts, PSND is a statistic that is derived from the National Accounts framework and not from IFRS (see Kellaway 2008).

## Pension liabilities

### Employee schemes

UK local authority employees' pensions schemes are mostly defined benefit funded contributory schemes and thus the liabilities associated with them are included in the UK National Accounts, but not in PSND.

Most central government public sector occupational pension schemes, on the other hand, are defined benefit unfunded schemes, with pension benefits being paid out of general government revenue. The main unfunded schemes are for civil servants, the armed forces, the NHS and teachers as well as for locally administered schemes for the police and fire-fighters. Although they do not appear in the National Accounts, the liabilities of the main unfunded schemes are reported by departments as part of the annual resource accounting process, and are then reported in aggregate form either by the Government Actuary's Department or in HM Treasury's Long Term Public Finance Report (see HM Treasury 2008) as part of the annual Budget documentation. These liabilities are estimates of the rights that have been built up during service already provided by employees, and not projections of rights likely to be accrued in the future. The most recently reported aggregate figures appeared in the March 2008 Long Term Public Finance Report:

2003/04 £460bn
2004/05 £530bn
2005/06 £650bn

The estimated size of the liability at any point is extremely sensitive to the assumptions made about discount rates and the unwinding of those rates. A fuller analysis of this issue is provided in the Long Term Finance Report (Box 4.3 on page 38), with particular reference to the change in assumptions between the estimates made at 31 March 2005 and 31 March 2006.

Table 14.7 in chapter 14 of Pension Trends (see ONS 2009) gives the latest figures for the liabilities of the four largest schemes (civil servants, the armed forces, the NHS and teachers), as published in resource accounts, as follows:

2005/06 £530bn
2006/07 £687bn

### Social benefit scheme

UK state pensions are in effect unfunded. There is a notional insurance fund but this does not have a strong link to the accrued benefit entitlements. Estimates of the liabilities from state pension obligations are compiled by the Government Actuary's Department and published by HM Revenue and Customs. The most recent published estimate is £1,170 billion at end March 2003, which was published in 2006.

## Conclusion and recommendations

It is found that UK measures of public sector debt are compiled in line with international guidance:

- the measure of government gross debt complies with the requirements of the Excessive Deficit Procedure and
- the measure of PSND is based on National Accounts guidelines, using a UK interpretation of 'liquid' assets

National Accounts are compiled to provide tools for whole economy analysis, and a premium is placed on internal coherence across all sectors of the economy. Government and public sector accounts are vital for the analysis of fiscal sustainability and risk, but inevitably involve a degree of modelling and assumption which cannot be accommodated in the National Accounts. As a result, only a subset of total government liability will be recorded in the core National Accounts.

ONS has a key role to play, however, in presenting the data necessary for assessment of fiscal burden and risk, and as such needs to understand user requirements beyond the National Accounts boundary. The liabilities in this category which will attract the most attention are; future expenditure under PFI, unfunded pension

schemes and government guarantees. While estimates of these liabilities are disclosed as memorandum items or notes in departmental resource accounts, they are not systematically presented in aggregate (whole of government) form.

ONS should consider its role in presenting a wider range of data on government and public sector liabilities, as is the case in other countries. This should take into account HM Treasury's commitment to publish Whole of Government Accounts, to include these aggregate liabilities.

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FEATURE

Office for National Statistics

# The way forward: conclusions and recommendations

SUMMARY

The five previous articles represent a progress report on a project launched in the autumn of 2008 by the Office for National Statistics (ONS) in response to the financial crisis. This concluding article outlines a number of recommendations from this project – aimed at improving the measurement of the UK financial sector activities and the development of sectoral balance sheets for analysis and policy.

## The corporate sector

UK National Accounts capture the majority of financial activity, and of holdings of financial assets and liabilities across all sectors. However, there are gaps which fall, not surprisingly, in areas where the products and the transactions are complex and in many cases opaque:

- the recording of transactions in structured financial products, such as derivatives and hedge funds, and
- the activity and holdings of securities dealers, venture capital companies, private equity funds and special purpose entities

### Recommendation 1

ONS should publish, after consulting other stakeholders, the analysis it has done on gaps in definition and coverage of reporting on financial services, products and entities as a basis for future joint work.

### Recommendation 2

A forum for active cooperation with the Financial Services Authority (FSA), Bank of England and HM Treasury and other stakeholders should be developed, with a view to filling the gaps, and improving existing data. This forum should also consider proposals from the Office for National Statistics (ONS) to update the presentation of UK Financial Statistics.

Some of the gaps, and areas where existing National Accounts estimates need improvement, have already been prioritised. However, since resources are limited, it will be necessary to keep progress and finances under review and to recruit support from others.

### Recommendation 3

Data on derivatives are available and should be incorporated into the National Accounts at the earliest opportunity, which is likely to be Blue Book 2010.

### Recommendation 4

A review of bonds transactions and holdings should be carried out, focusing on the reconciliation of data between the income and capital account and measures in the financial account.

### Recommendation 5

Estimates of the gross trading profits of fund managers should be improved, given that they are thought to have been underestimated since the cessation of the fund management inquiry in 2000. This will require creation of new data sources, perhaps in collaboration with other stakeholders.

### Recommendation 6

Estimates of the gross trading profits from asset finance activity should be broken down by asset type, which in turn will improve the validation of finance leasing data. This may be achievable for Blue Book 2010.

### Recommendation 7

A top-to-bottom account for banks should be developed to improve quality assurance

and sectoral balancing. Work has started on this in ONS, but it requires further input, and data, from the Bank of England.

Gaps and issues relevant to the short-term (quarterly) measurement of the output of the financial services sector have also been identified.

### Recommendation 8

A volume measure of the output of hedge fund managers is needed, given that they are estimated to make up around 6 per cent of fund management activity, and that there is a wider push for more transparency. ONS should work closely with the FSA in this area to secure the source data and resources required.

### Recommendation 9

The quarterly output of financial advisors and mortgage brokers is not currently measured, and potential data sources should be investigated.

### Recommendation 10

ONS' work on improving its price indices for deflating banking sector output should be revisited, and use of the current deflator (average earnings index (AEI) for financial intermediation, excluding bonuses) reviewed.

ONS recognises that there are issues with its surveys of financial corporations (other than banks and building societies):

- the quarterly surveys of financial flows (transactions) suffer from incomplete coverage, inconsistency of data requested across survey forms, small sample sizes
- the annual surveys of balance sheet data do not cover securities dealers, or the managers of hedge funds and private equity funds, and
- the financial balance sheets of private non-financial corporations (PNFCs) are covered by a quarterly survey, but collect much more data on assets than liabilities

These issues should be addressed as part of a more wide-ranging strategy to improve the coverage and data quality of ONS surveys. With particular reference to the financial sector, the strategy includes:

- investigation of new registers to improve coverage of the financial sector
- improvement of the reconciliation between quarterly and annual data
- assessment of the potential use of administrative data especially regulatory data from the FSA, and
- review of the financial surveys carried out in other countries where balance sheet, flows and revaluation data are collected on a single quarterly survey form

### Recommendation 11

Development of the Securities Dealers' Inquiry should be treated as a priority, including finding solutions to existing data discontinuities and conceptual difficulties with deflation. Some progress will be made over the next year, but full implementation in National Accounts may take until 2012.

## The household sector

ONS is currently reviewing data sources for the household sector balance sheets in the National Accounts. Work is being concentrated on improving the estimates for unquoted shares, the first conclusions for which are likely to emerge in 2010.

ONS recognises the user demand for more detailed data on household assets and liabilities, in particular debt. The first results of the new survey, the Household Assets Survey (HAS), covering the period July 2006 to June 2008 (Wave I) will be available towards the end of 2009 and will include analysis of the assets, liabilities and net wealth of households. One chapter will be dedicated to household debt, and will focus on non-mortgage borrowing and arrears. There will also be a chapter on people's attitudes to saving, borrowing and retirement. A follow-up survey looking at indebted households in more detail, started in October 2007, and looks at households at risk of financial exclusion.

## The public sector

The ONS, Bank of England and HM Treasury are working closely with the Royal Bank of Scotland and the Lloyds Banking Group to:

- correctly classify all subsidiaries of the two groups
- incorporate the relevant data into the public sector finances, and
- resolve disclosure issues so that more asset and liability detail can be published, in the interests of transparency

### Recommendation 12

ONS should pursue the objective of publishing data separately for the public financial corporations sub-sector, both in the public sector finances, and in the National Accounts. This recommendation covers current work to include public sector banks as part of public sector finances; ONS plans to report further on this by end 2009.

ONS does not systematically publish data on government, or public sector, liabilities which are outside the boundary of public sector net-debt (PSND).

### Recommendation 13

ONS should move progressively towards comprehensive coverage of public sector assets and liabilities, as is the practice of national statistics institutes in some countries. This should start with a feasibility study to show what data can be assembled to improve the overall picture of financial risk. The work on Whole of Government Accounts by HM Treasury should contribute to the solution.

### Recommendation 14

ONS should work actively with Eurostat to develop tables of total pension liabilities in line with the 2008 System of National Accounts (SNA 2008). The first step should be a plan for preparing estimates of funded and unfunded pension liabilities calculated on an actuarial basis, following a workshop in July 2009. This will require liaison with Eurostat and other Member States, working towards production of the supplementary table required, under the European System of Accounts (ESA) Transmission Programme, from 2014.

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FEATURE

# Services producer price index (experimental) – First quarter 2009

*Pam Davies*
**Office for National Statistics**

**SUMMARY**

The experimental Services Producer Price Index (SPPI) measures movements in prices charged for services supplied by businesses to other businesses, local and national government. This article shows the effects some industries are having on the top-level SPPI. The data produced are used internally by the Office for National Statistics as a deflator for the Index of Services and the quarterly measurement of gross domestic product. The index is also used by HM Treasury and the Bank of England to help monitor inflation in the economy.

Prices of business-to-business services rose by 0.8 per cent in the year to the first quarter of 2009. This is based on a comparison of the change in the top-level Services Producer Price Index (SPPI) on the net sector basis.

**Figure 1** shows how the percentage change for the top-level SPPI (net sector) compares with the retail prices index (RPI) all services sector, and the producer price index (PPI) for all manufactured goods (net sector).

The top-level results, on both gross and net sector bases, are shown in **Table 1**. In 2009 Q1, the top-level SPPI (net sector) fell by 1.0 per cent compared with the previous quarter.

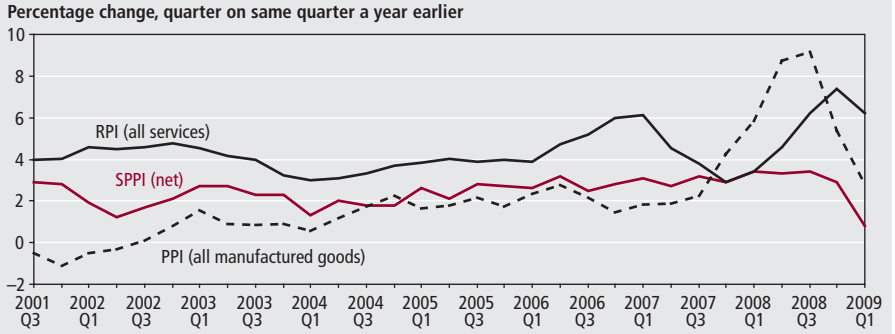
**Figure 2** depicts the SPPI annual growths for both the net and gross sector time series. The annual growth for the SPPI net sector fell to 0.8 per cent in 2009 Q1, down from 2.9 per cent in 2008 Q4. The gross SPPI annual growth fell to 0.7 per cent in 2009 Q1, from 2.5 per cent in the previous quarter.

## Industry-specific indices

Tables available on the ONS website contain the data for the 31 industries for which indices of services producer prices are currently available. The weights for each industry index are shown at both gross and net sector levels. Comparing Q1 2009 with Q1 2008, some key points to note are:

- Freight transport by road rose 3.0 per cent, largely due to the cost of fuel rising and fluctuations in the exchange rate.
- Sewerage services rose by 7.5 per cent, as reported by the Office of Water Services (OFWAT).
- Freight forwarding rose by 2.3 per cent, largely due to fluctuations in the exchange rate and fuel surcharges.

Figure 1
**Experimental top-level SPPI compared with the RPI and PPI**



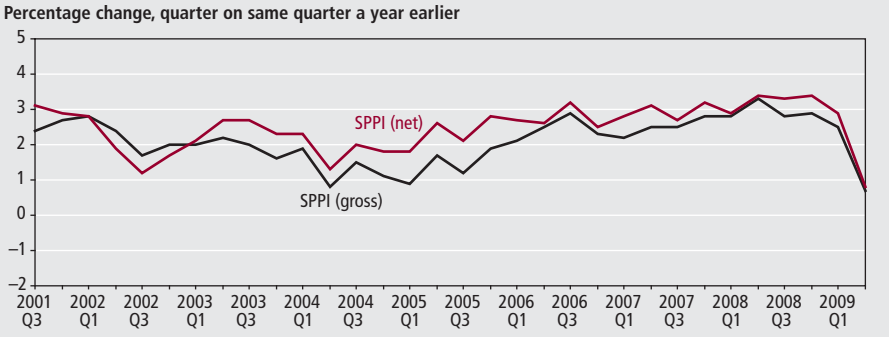

*Source: Office for National Statistics*

Table 1
**SPPI results**

| | SPPI quarterly index values, 2005=100 | | Percentage change, quarter on same quarter a year earlier | |
|---|---|---|---|---|
| | Gross sector | Net sector | Gross sector | Net sector |
| 2000 Q1 | 91.6 | 89.3 | *–0.9* | *1.0* |
| 2000 Q2 | 91.4 | 89.4 | *–0.1* | *1.4* |
| 2000 Q3 | 91.5 | 89.7 | *0.4* | *1.8* |
| 2000 Q4 | 91.6 | 90.0 | *0.4* | *1.6* |
| 2001 Q1 | 92.1 | 90.8 | *0.5* | *1.7* |
| 2001 Q2 | 93.6 | 92.2 | *2.4* | *3.1* |
| 2001 Q3 | 94.0 | 92.3 | *2.7* | *2.9* |
| 2001 Q4 | 94.2 | 92.5 | *2.8* | *2.8* |
| 2002 Q1 | 94.3 | 92.5 | *2.4* | *1.9* |
| 2002 Q2 | 95.2 | 93.3 | *1.7* | *1.2* |
| 2002 Q3 | 95.9 | 93.9 | *2.0* | *1.7* |
| 2002 Q4 | 96.1 | 94.4 | *2.0* | *2.1* |
| 2003 Q1 | 96.4 | 95.0 | *2.2* | *2.7* |
| 2003 Q2 | 97.1 | 95.8 | *2.0* | *2.7* |
| 2003 Q3 | 97.4 | 96.1 | *1.6* | *2.3* |
| 2003 Q4 | 97.9 | 96.6 | *1.9* | *2.3* |
| 2004 Q1 | 97.2 | 96.2 | *0.8* | *1.3* |
| 2004 Q2 | 98.6 | 97.7 | *1.5* | *2.0* |
| 2004 Q3 | 98.5 | 97.8 | *1.1* | *1.8* |
| 2004 Q4 | 98.8 | 98.3 | *0.9* | *1.8* |
| 2005 Q1 | 98.9 | 98.7 | *1.7* | *2.6* |
| 2005 Q2 | 99.8 | 99.8 | *1.2* | *2.1* |
| 2005 Q3 | 100.4 | 100.5 | *1.9* | *2.8* |
| 2005 Q4 | 100.9 | 101.0 | *2.1* | *2.7* |
| 2006 Q1 | 101.4 | 101.3 | *2.5* | *2.6* |
| 2006 Q2 | 102.7 | 103.0 | *2.9* | *3.2* |
| 2006 Q3 | 102.7 | 103.0 | *2.3* | *2.5* |
| 2006 Q4 | 103.1 | 103.8 | *2.2* | *2.8* |
| 2007 Q1 | 103.9 | 104.4 | *2.5* | *3.1* |
| 2007 Q2 | 105.3 | 105.8 | *2.5* | *2.7* |
| 2007 Q3 | 105.6 | 106.3 | *2.8* | *3.2* |
| 2007 Q4 | 106.0 | 106.8 | *2.8* | *2.9* |
| 2008 Q1 | 107.3 | 107.9 | *3.3* | *3.4* |
| 2008 Q2 | 108.3 | 109.3 | *2.8* | *3.3* |
| 2008 Q3 | 108.7 | 109.9 | *2.9* | *3.4* |
| 2008 Q4 | 108.7 | 109.9 | *2.5* | *2.9* |
| 2009 Q1 | 108.0 | 108.8 | *0.7* | *0.8* |

*Source: Office for National Statistics*

Figure 2
**Experimental top-level SPPI**




*Source: Office for National Statistics*

These upward movements were partially offset by downward contributions, especially from Business Telecoms.

## Next results

The next set of SPPI results will be published on 26 August 2009 on the National Statistics website at: www.statistics.gov.uk/sppi

## Further information

All SPPI tables and articles on the methodology and impact of rebasing the SPPI and the re-development of an index for business telecommunications (together with more general information on the SPPI) are available at: www.statistics.gov.uk/sppi.

A Summary Quality Report for the SPPI can be found at: www.statistics.gov.uk/about/data/methodology/quality/information_business_statistics.asp

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## TECHNICAL NOTE

1 The experimental Services Producer Price Index (SPPI) replaced the former Corporate Services Price Index (CSPI). It measures movements in prices charged for services supplied by businesses to other businesses, local and national government. It is not classified as a National Statistic.

2 Unless otherwise stated, index numbers shown in the main text are on a net sector basis. These relate only to transactions between the corporate services sector and other sectors. Detailed tables available on the ONS website also contain gross sector indices which include transactions within the corporate services sector.

3 Indices relate to average prices per quarter. The full effect of a price change occurring within a quarter will only be reflected in the index for the following quarter. All index numbers exclude VAT and are not seasonally adjusted.

4 SPPI inflation is the percentage change in the net sector index for the latest quarter compared with the corresponding quarter in the previous year.

5 Grants from the European Commission helped ONS to begin developing the SPPI. Funding of approximately 600,000 euros was awarded between 2002 and 2005. This has now ceased.

6 A number of external data sources are currently used in the compilation of the SPPI, as follows:

Investment Property Database (IPD) – property rental payments
Office of Communications (Ofcom) – business telecommunications
Office of Water Services (OFWAT) – sewerage services
Parcelforce – national post parcels
Office of Rail Regulation (ORR) – business rail fares
Bank of England (BOE) – financial intermediation (Banks)

7 Following a quality review by ONS in January 2007 a decision was made to withdraw the Banking SPPI from publication. As a result the index has been re-developed and was re-introduced in Q3 2008. Under the re-development, the quality of the data collection and processing has been improved and the number of products included in the index has increased. However, the new index is not regarded as proxy for all Financial Intermediation services within the Standard Industrial Classification (SIC) 65. It has not therefore been included in the top level SPPI. The services measured are classified to SIC 65.12/1, and are published as a separate index known as the "SPPI for Financial Intermediation (Banks)".

# Key time series

## 1 National accounts aggregates

Last updated: 30/06/09

Seasonally adjusted

| | £ million | | Indices (2003 = 100) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | At current prices | | Value indices at current prices | | Chained volume indices | | | Implied deflators[3] | |
| | Gross domestic product (GDP) at market prices | Gross value added (GVA) at basic prices | GDP at market prices[1] | GVA at basic prices | Gross national disposable income at market prices[2] | GDP at market prices | GVA at basic prices | GDP at market prices | GVA at basic prices |
| | YBHA | ABML | YBEU | YBEX | YBFP | YBEZ | CGCE | YBGB | CGBV |
| 2003 | 1,139,746 | 1,015,008 | 90.9 | 90.9 | 95.6 | 95.1 | 94.9 | 95.6 | 95.7 |
| 2004 | 1,202,956 | 1,070,951 | 95.9 | 95.9 | 98.4 | 97.9 | 97.7 | 98.0 | 98.2 |
| 2005 | 1,254,058 | 1,116,648 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 2006 | 1,325,795 | 1,181,141 | 105.7 | 105.8 | 101.7 | 102.9 | 103.0 | 102.8 | 102.7 |
| 2007 | 1,398,882 | 1,245,735 | 111.5 | 111.6 | 105.4 | 105.5 | 105.7 | 105.7 | 105.6 |
| 2008 | 1,446,113 | 1,296,332 | 115.3 | 116.1 | 107.0 | 106.3 | 106.5 | 108.5 | 109.0 |
| 2003 Q1 | 278,207 | 247,866 | 88.7 | 88.8 | 95.0 | 93.9 | 93.8 | 94.6 | 94.7 |
| 2003 Q2 | 283,305 | 252,613 | 90.4 | 90.5 | 94.8 | 94.7 | 94.6 | 95.4 | 95.7 |
| 2003 Q3 | 287,130 | 255,626 | 91.6 | 91.6 | 95.4 | 95.4 | 95.2 | 96.0 | 96.1 |
| 2003 Q4 | 291,104 | 258,903 | 92.9 | 92.7 | 97.1 | 96.3 | 96.2 | 96.4 | 96.4 |
| 2004 Q1 | 294,112 | 261,280 | 93.8 | 93.6 | 97.9 | 97.2 | 96.9 | 96.5 | 96.5 |
| 2004 Q2 | 299,142 | 265,977 | 95.4 | 95.3 | 98.0 | 97.8 | 97.6 | 97.6 | 97.6 |
| 2004 Q3 | 302,115 | 269,503 | 96.4 | 96.5 | 97.8 | 97.9 | 97.7 | 98.5 | 98.8 |
| 2004 Q4 | 307,587 | 274,191 | 98.1 | 98.2 | 100.0 | 98.7 | 98.5 | 99.5 | 99.7 |
| 2005 Q1 | 308,723 | 274,756 | 98.5 | 98.4 | 99.6 | 99.0 | 99.0 | 99.5 | 99.4 |
| 2005 Q2 | 313,479 | 279,258 | 100.0 | 100.0 | 101.1 | 99.7 | 99.7 | 100.3 | 100.3 |
| 2005 Q3 | 313,378 | 278,669 | 100.0 | 99.8 | 99.2 | 100.3 | 100.3 | 99.6 | 99.6 |
| 2005 Q4 | 318,478 | 283,965 | 101.6 | 101.7 | 100.0 | 101.0 | 101.0 | 100.6 | 100.7 |
| 2006 Q1 | 326,085 | 291,002 | 104.0 | 104.2 | 101.2 | 102.1 | 102.2 | 101.9 | 102.0 |
| 2006 Q2 | 327,836 | 291,886 | 104.6 | 104.6 | 101.5 | 102.5 | 102.6 | 102.0 | 101.9 |
| 2006 Q3 | 333,542 | 297,046 | 106.4 | 106.4 | 101.8 | 103.0 | 103.1 | 103.3 | 103.2 |
| 2006 Q4 | 338,332 | 301,207 | 107.9 | 107.9 | 102.3 | 103.8 | 104.0 | 103.9 | 103.8 |
| 2007 Q1 | 344,238 | 306,154 | 109.8 | 109.7 | 103.6 | 104.6 | 104.7 | 105.0 | 104.7 |
| 2007 Q2 | 348,010 | 309,585 | 111.0 | 110.9 | 104.7 | 105.2 | 105.4 | 105.5 | 105.2 |
| 2007 Q3 | 351,635 | 313,159 | 112.2 | 112.2 | 105.1 | 105.8 | 106.0 | 106.0 | 105.8 |
| 2007 Q4 | 354,999 | 316,837 | 113.2 | 113.5 | 108.0 | 106.3 | 106.6 | 106.5 | 106.5 |
| 2008 Q1 | 362,184 | 323,218 | 115.5 | 115.8 | 109.3 | 107.2 | 107.6 | 107.8 | 107.6 |
| 2008 Q2 | 363,353 | 323,922 | 115.9 | 116.0 | 108.0 | 107.1 | 107.5 | 108.2 | 108.0 |
| 2008 Q3 | 362,179 | 325,676 | 115.5 | 116.7 | 106.7 | 106.3 | 106.5 | 108.6 | 109.5 |
| 2008 Q4 | 358,397 | 323,516 | 114.3 | 115.9 | 103.8 | 104.4 | 104.6 | 109.5 | 110.8 |
| 2009 Q1 | 347,718 | 315,097 | 110.9 | 112.9 | 101.4 | 101.9 | 102.0 | 108.8 | 110.7 |

**Percentage change, quarter on corresponding quarter of previous year**

| | | | IHYO | ABML[4] | YBGO[4] | IHYR | ABMM[4] | IHYU | ABML/ABMM[4] |
|---|---|---|---|---|---|---|---|---|---|
| 2003 Q1 | *5.4* | *5.6* | *5.4* | *5.6* | *3.5* | *2.3* | *2.3* | *3.0* | *3.3* |
| 2003 Q2 | *5.9* | *6.1* | *5.9* | *6.1* | *3.0* | *2.8* | *2.9* | *3.0* | *3.1* |
| 2003 Q3 | *6.1* | *6.1* | *6.1* | *6.1* | *1.7* | *2.9* | *2.9* | *3.1* | *3.1* |
| 2003 Q4 | *6.4* | *6.3* | *6.5* | *6.3* | *3.6* | *3.2* | *3.3* | *3.2* | *3.0* |
| 2004 Q1 | *5.7* | *5.4* | *5.7* | *5.4* | *3.0* | *3.6* | *3.4* | *2.0* | *1.9* |
| 2004 Q2 | *5.6* | *5.3* | *5.6* | *5.3* | *3.4* | *3.2* | *3.2* | *2.3* | *2.1* |
| 2004 Q3 | *5.2* | *5.4* | *5.2* | *5.4* | *2.5* | *2.6* | *2.6* | *2.6* | *2.8* |
| 2004 Q4 | *5.7* | *5.9* | *5.7* | *5.9* | *3.0* | *2.4* | *2.4* | *3.1* | *3.4* |
| 2005 Q1 | *5.0* | *5.2* | *5.0* | *5.2* | *1.8* | *1.8* | *2.1* | *3.1* | *3.0* |
| 2005 Q2 | *4.8* | *5.0* | *4.8* | *5.0* | *3.2* | *2.0* | *2.2* | *2.8* | *2.7* |
| 2005 Q3 | *3.7* | *3.4* | *3.7* | *3.4* | *1.4* | *2.5* | *2.6* | *1.2* | *0.7* |
| 2005 Q4 | *3.5* | *3.6* | *3.5* | *3.6* | *0.0* | *2.4* | *2.6* | *1.1* | *1.0* |
| 2006 Q1 | *5.6* | *5.9* | *5.6* | *5.9* | *1.6* | *3.2* | *3.2* | *2.4* | *2.6* |
| 2006 Q2 | *4.6* | *4.5* | *4.6* | *4.5* | *0.4* | *2.8* | *2.9* | *1.7* | *1.5* |
| 2006 Q3 | *6.4* | *6.6* | *6.4* | *6.6* | *2.6* | *2.7* | *2.9* | *3.7* | *3.6* |
| 2006 Q4 | *6.2* | *6.1* | *6.2* | *6.1* | *2.3* | *2.8* | *2.9* | *3.3* | *3.1* |
| 2007 Q1 | *5.6* | *5.2* | *5.6* | *5.2* | *2.3* | *2.4* | *2.5* | *3.1* | *2.7* |
| 2007 Q2 | *6.2* | *6.1* | *6.2* | *6.1* | *3.1* | *2.7* | *2.7* | *3.4* | *3.3* |
| 2007 Q3 | *5.4* | *5.4* | *5.4* | *5.4* | *3.3* | *2.7* | *2.8* | *2.6* | *2.5* |
| 2007 Q4 | *4.9* | *5.2* | *4.9* | *5.2* | *5.6* | *2.4* | *2.6* | *2.5* | *2.6* |
| 2008 Q1 | *5.2* | *5.6* | *5.2* | *5.6* | *5.5* | *2.5* | *2.8* | *2.7* | *2.7* |
| 2008 Q2 | *4.4* | *4.6* | *4.4* | *4.6* | *3.1* | *1.8* | *1.9* | *2.6* | *2.6* |
| 2008 Q3 | *3.0* | *4.0* | *3.0* | *4.0* | *1.5* | *0.5* | *0.5* | *2.5* | *3.5* |
| 2008 Q4 | *1.0* | *2.1* | *1.0* | *2.1* | *–3.9* | *–1.8* | *–1.9* | *2.8* | *4.1* |
| 2009 Q1 | *–4.0* | *–2.5* | *–4.0* | *–2.5* | *–7.2* | *–4.9* | *–5.2* | *1.0* | *2.8* |

**Notes:**

*Source: Office for National Statistics*

1 "Money GDP".
2 This series is only updated once a quarter, in line with the full quarterly national accounts data set.
3 Based on chained volume measures and current price estimates of expenditure components of GDP.
4 Derived from these identification (CDID) codes.

# 2 Gross domestic product: by category of expenditure

Last updated: 30/06/09

£ million, chained volume measures, reference year 2003, seasonally adjusted

| | Domestic expenditure on goods and services at market prices | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Final consumption expenditure | | | Gross capital formation | | | | | | | | |
| | Households | Non-profit institutions[1] | General government | Gross fixed capital formation | Changes in inventories[2] | Acquisitions less disposals of valuables | Total | Exports of goods and services | Gross final expenditure | *less* imports of goods and services | Statistical discrepancy (expenditure) | Gross domestic at product market prices |
| | ABJR | HAYO | NMRY | NPQT | CAFU | NPJR | YBIM | IKBK | ABMG | IKBL | GIXS | ABMI |
| 2003 | 742,755 | 30,865 | 255,149 | 195,360 | 3,983 | –37 | 1,227,032 | 291,946 | 1,518,566 | 326,301 | 0 | 1,192,206 |
| 2004 | 766,856 | 30,827 | 262,917 | 204,756 | 4,371 | –39 | 1,270,173 | 306,582 | 1,576,497 | 348,894 | 0 | 1,227,387 |
| 2005 | 784,140 | 30,824 | 268,088 | 209,758 | 4,814 | –377 | 1,296,905 | 330,794 | 1,627,699 | 373,641 | 0 | 1,254,058 |
| 2006 | 795,595 | 31,868 | 272,271 | 223,305 | 4,575 | 304 | 1,328,132 | 368,076 | 1,696,207 | 406,374 | 0 | 1,289,833 |
| 2007 | 815,157 | 30,040 | 275,488 | 240,613 | 6,561 | 562 | 1,368,506 | 357,677 | 1,726,183 | 403,341 | 0 | 1,322,842 |
| 2008 | 822,689 | 32,984 | 283,262 | 233,846 | 1,812 | 1,296 | 1,375,189 | 360,517 | 1,735,706 | 400,898 | –2,156 | 1,332,652 |
| 2003 Q1 | 183,028 | 7,753 | 62,662 | 48,976 | –647 | 0 | 301,616 | 74,270 | 375,875 | 81,616 | 0 | 294,236 |
| 2003 Q2 | 185,473 | 7,686 | 63,284 | 48,271 | 190 | –282 | 304,868 | 72,256 | 377,001 | 80,075 | 0 | 296,954 |
| 2003 Q3 | 186,612 | 7,710 | 64,072 | 48,096 | 2,065 | 136 | 308,245 | 71,986 | 380,076 | 80,967 | 0 | 299,110 |
| 2003 Q4 | 187,642 | 7,716 | 65,131 | 50,017 | 2,375 | 109 | 312,303 | 73,434 | 385,614 | 83,643 | 0 | 301,906 |
| 2004 Q1 | 189,235 | 7,875 | 65,615 | 50,706 | –684 | –113 | 314,855 | 74,389 | 389,121 | 84,284 | 0 | 304,784 |
| 2004 Q2 | 191,672 | 7,737 | 65,323 | 51,680 | 603 | 65 | 316,727 | 76,058 | 392,705 | 86,139 | 0 | 306,510 |
| 2004 Q3 | 192,642 | 7,664 | 65,746 | 51,351 | 936 | 8 | 317,863 | 76,895 | 394,700 | 87,840 | 0 | 306,806 |
| 2004 Q4 | 193,307 | 7,551 | 66,233 | 51,019 | 3,516 | 1 | 320,728 | 79,240 | 399,971 | 90,631 | 0 | 309,287 |
| 2005 Q1 | 194,294 | 7,745 | 66,418 | 51,092 | 3,151 | –45 | 322,029 | 77,762 | 399,757 | 89,398 | 0 | 310,313 |
| 2005 Q2 | 195,610 | 7,676 | 66,986 | 51,273 | 1,895 | 90 | 323,588 | 80,830 | 404,405 | 91,846 | 0 | 312,550 |
| 2005 Q3 | 196,450 | 7,687 | 67,265 | 53,964 | 187 | –292 | 325,046 | 84,250 | 409,304 | 94,834 | 0 | 314,490 |
| 2005 Q4 | 197,786 | 7,716 | 67,419 | 53,429 | –419 | –130 | 326,242 | 87,952 | 414,233 | 97,563 | 0 | 316,705 |
| 2006 Q1 | 197,278 | 7,941 | 67,862 | 53,372 | 1,593 | 106 | 328,906 | 95,835 | 424,741 | 104,616 | 0 | 320,125 |
| 2006 Q2 | 199,392 | 8,025 | 67,692 | 54,499 | –153 | 241 | 329,912 | 97,932 | 427,844 | 106,555 | 0 | 321,289 |
| 2006 Q3 | 198,692 | 8,012 | 68,232 | 56,780 | 1,844 | –30 | 333,365 | 86,854 | 420,220 | 97,364 | 0 | 322,855 |
| 2006 Q4 | 200,233 | 7,890 | 68,485 | 58,654 | 1,291 | –13 | 335,949 | 87,455 | 423,402 | 97,839 | 0 | 325,564 |
| 2007 Q1 | 202,299 | 7,447 | 68,394 | 59,659 | 1,595 | 76 | 338,804 | 88,279 | 427,083 | 99,211 | 0 | 327,872 |
| 2007 Q2 | 203,492 | 7,413 | 68,650 | 59,620 | 655 | 348 | 339,510 | 88,650 | 428,160 | 98,193 | 0 | 329,967 |
| 2007 Q3 | 204,321 | 7,471 | 69,165 | 59,777 | 2,086 | 45 | 343,909 | 90,348 | 434,256 | 102,647 | 0 | 331,609 |
| 2007 Q4 | 205,045 | 7,709 | 69,279 | 61,557 | 2,225 | 93 | 346,283 | 90,400 | 436,684 | 103,290 | 0 | 333,394 |
| 2008 Q1 | 207,200 | 8,007 | 69,944 | 60,495 | 1,136 | 211 | 347,891 | 91,581 | 439,472 | 103,004 | –425 | 336,042 |
| 2008 Q2 | 206,416 | 8,322 | 70,631 | 59,115 | 1,835 | 438 | 346,848 | 91,158 | 438,005 | 101,611 | –527 | 335,868 |
| 2008 Q3 | 205,655 | 8,376 | 70,970 | 57,459 | 1,440 | 367 | 344,103 | 90,769 | 434,872 | 100,904 | –591 | 333,377 |
| 2008 Q4 | 203,418 | 8,279 | 71,717 | 56,777 | –2,599 | 280 | 336,347 | 87,009 | 423,357 | 95,379 | –613 | 327,365 |
| 2009 Q1 | 200,830 | 8,017 | 71,875 | 52,497 | | 278 | 328,072 | 80,971 | 409,043 | 89,014 | –517 | 319,512 |

**Percentage change, quarter on corresponding quarter of previous year**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | IHYR |
| 2003 Q1 | *2.6* | *1.2* | *2.5* | *5.0* | | *2.2* | *4.7* | *2.7* | *4.2* | *2.3* |
| 2003 Q2 | *3.3* | *0.3* | *2.5* | *1.1* | | *2.7* | *–1.1* | *1.9* | *–1.2* | *2.8* |
| 2003 Q3 | *3.3* | *0.1* | *3.5* | *–1.0* | | *3.1* | *–0.8* | *2.3* | *0.3* | *2.9* |
| 2003 Q4 | *3.2* | *–0.2* | *5.3* | *–0.6* | | *3.5* | *4.8* | *3.8* | *5.5* | *3.2* |
| 2004 Q1 | *3.4* | *1.6* | *4.7* | *3.5* | | *4.4* | *0.2* | *3.5* | *3.3* | *3.6* |
| 2004 Q2 | *3.3* | *0.7* | *3.2* | *7.1* | | *3.9* | *5.3* | *4.2* | *7.6* | *3.2* |
| 2004 Q3 | *3.2* | *–0.6* | *2.6* | *6.8* | | *3.1* | *6.8* | *3.8* | *8.5* | *2.6* |
| 2004 Q4 | *3.0* | *–2.1* | *1.7* | *2.0* | | *2.7* | *7.9* | *3.7* | *8.4* | *2.4* |
| 2005 Q1 | *2.7* | *–1.7* | *1.2* | *0.8* | | *2.3* | *4.5* | *2.7* | *6.1* | *1.8* |
| 2005 Q2 | *2.1* | *–0.8* | *2.5* | *–0.8* | | *2.2* | *6.3* | *3* | *6.6* | *2* |
| 2005 Q3 | *2.0* | *0.3* | *2.3* | *5.1* | | *2.3* | *9.6* | *3.7* | *8* | *2.5* |
| 2005 Q4 | *2.3* | *2.2* | *1.8* | *4.7* | | *1.7* | *11* | *3.6* | *7.6* | *2.4* |
| 2006 Q1 | *1.5* | *2.5* | *2.2* | *4.5* | | *2.1* | *23.2* | *6.2* | *17* | *3.2* |
| 2006 Q2 | *1.9* | *4.5* | *1.1* | *6.3* | | *2* | *21.2* | *5.8* | *16* | *2.8* |
| 2006 Q3 | *1.1* | *4.2* | *1.4* | *5.2* | | *2.6* | *3.1* | *2.7* | *2.7* | *2.7* |
| 2006 Q4 | *1.2* | *2.3* | *1.6* | *9.8* | | *3* | *–0.6* | *2.2* | *0.3* | *2.8* |
| 2007 Q1 | *2.5* | *–6.2* | *0.8* | *11.8* | | *3* | *–7.9* | *0.6* | *–5.2* | *2.4* |
| 2007 Q2 | *2.1* | *–7.6* | *1.4* | *9.4* | | *2.9* | *–9.5* | *0.1* | *–7.8* | *2.7* |
| 2007 Q3 | *2.8* | *–6.8* | *1.4* | *5.3* | | *3.2* | *4* | *3.3* | *5.4* | *2.7* |
| 2007 Q4 | *2.4* | *–2.3* | *1.2* | *4.9* | | *3.1* | *3.4* | *3.1* | *5.6* | *2.4* |
| 2008 Q1 | *2.4* | *7.5* | *2.3* | *1.4* | | *2.7* | *3.7* | *2.9* | *3.8* | *2.5* |
| 2008 Q2 | *1.4* | *12.3* | *2.9* | *–0.8* | | *2.2* | *2.8* | *2.3* | *3.5* | *1.8* |
| 2008 Q3 | *0.7* | *12.1* | *2.6* | *–3.9* | | *0.1* | *0.5* | *0.1* | *–1.7* | *0.5* |
| 2008 Q4 | *–0.8* | *7.4* | *3.5* | *–7.8* | | *–2.9* | *–3.8* | *–3.1* | *–7.7* | *–1.8* |
| 2009 Q1 | *–3.1* | *0.1* | *2.8* | *–13.2* | | *–5.7* | *–11.6* | *–6.9* | *–13.6* | *–4.9* |

**Notes:**

1 Non-profit institutions serving households (NPISH).
2 This series includes a quarterly alignment adjustment.

*Source: Office for National Statistics*

# 3 Labour market summary

Last updated: 17/06/09

United Kingdom (thousands), seasonally adjusted

| | All aged 16 and over | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Total economically active | Total in employment | Unemployed | Economically inactive | Economic activity rate (%) | Employment rate (%) | Unemployment rate (%) | Economic inactivity rate (%) |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **All persons** | MGSL | MGSF | MGRZ | MGSC | MGSI | MGWG | MGSR | MGSX | YBTC |
| Feb–Apr 2007 | 48,553 | 30,770 | 29,085 | 1,686 | 17,783 | *63.4* | *59.9* | *5.5* | *36.6* |
| Feb–Apr 2008 | 48,943 | 31,162 | 29,506 | 1,656 | 17,781 | *63.7* | *60.3* | *5.3* | *36.3* |
| May–Jul 2008 | 49,039 | 31,219 | 29,491 | 1,727 | 17,820 | *63.7* | *60.1* | *5.5* | *36.3* |
| Aug–Oct 2008 | 49,141 | 31,241 | 29,377 | 1,864 | 17,900 | *63.6* | *59.8* | *6.0* | *36.4* |
| Nov–Jan 2009 | 49,244 | 31,408 | 29,379 | 2,029 | 17,836 | *63.8* | *59.7* | *6.5* | *36.2* |
| Feb–Apr 2009 | 49,347 | 31,369 | 29,108 | 2,261 | 17,978 | *63.6* | *59.0* | *7.2* | *36.4* |
| **Male** | MGSM | MGSG | MGSA | MGSD | MGSJ | MGWH | MGSS | MGSY | YBTD |
| Feb–Apr 2007 | 23,602 | 16,715 | 15,741 | 973 | 6,887 | *70.8* | *66.7* | *5.8* | *29.2* |
| Feb–Apr 2008 | 23,825 | 16,909 | 15,959 | 949 | 6,917 | *71.0* | *67.0* | *5.6* | *29.0* |
| May–Jul 2008 | 23,881 | 16,940 | 15,920 | 1,019 | 6,941 | *70.9* | *66.7* | *6.0* | *29.1* |
| Aug–Oct 2008 | 23,938 | 16,932 | 15,828 | 1,104 | 7,006 | *70.7* | *66.1* | *6.5* | *29.3* |
| Nov–Jan 2009 | 23,995 | 17,034 | 15,816 | 1,218 | 6,961 | *71.0* | *65.9* | *7.1* | *29.0* |
| Feb–Apr 2009 | 24,052 | 17,021 | 15,645 | 1,376 | 7,032 | *70.8* | *65.0* | *8.1* | *29.2* |
| **Female** | MGSN | MGSH | MGSB | MGSE | MGSK | MGWI | MGST | MGSZ | YBTE |
| Feb–Apr 2007 | 24,951 | 14,056 | 13,343 | 713 | 10,895 | *56.3* | *53.5* | *5.1* | *43.7* |
| Feb–Apr 2008 | 25,117 | 14,253 | 13,547 | 706 | 10,864 | *56.7* | *53.9* | *5.0* | *43.3* |
| May–Jul 2008 | 25,158 | 14,279 | 13,571 | 708 | 10,879 | *56.8* | *53.9* | *5.0* | *43.2* |
| Aug–Oct 2008 | 25,203 | 14,309 | 13,549 | 760 | 10,895 | *56.8* | *53.8* | *5.3* | *43.2* |
| Nov–Jan 2009 | 25,249 | 14,374 | 13,563 | 811 | 10,875 | *56.9* | *53.7* | *5.6* | *43.1* |
| Feb–Apr 2009 | 25,294 | 14,348 | 13,463 | 885 | 10,946 | *56.7* | *53.2* | *6.2* | *43.3* |

| | All aged 16 to 59/64 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Total economically active | Total in employment | Unemployed | Economically inactive | Economic activity rate (%) | Employment rate (%) | Unemployment rate (%) | Economic inactivity rate (%) |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **All persons** | YBTF | YBSK | YBSE | YBSH | YBSN | MGSO | MGSU | YBTI | YBTL |
| Feb–Apr 2007 | 37,511 | 29,541 | 27,880 | 1,661 | 7,971 | *78.8* | *74.3* | *5.6* | *21.2* |
| Feb–Apr 2008 | 37,688 | 29,831 | 28,199 | 1,632 | 7,857 | *79.2* | *74.8* | *5.5* | *20.8* |
| May–Jul 2008 | 37,731 | 29,870 | 28,165 | 1,705 | 7,860 | *79.2* | *74.6* | *5.7* | *20.8* |
| Aug–Oct 2008 | 37,782 | 29,883 | 28,047 | 1,836 | 7,899 | *79.1* | *74.2* | *6.1* | *20.9* |
| Nov–Jan 2009 | 37,833 | 30,036 | 28,039 | 1,997 | 7,797 | *79.4* | *74.1* | *6.6* | *20.6* |
| Feb–Apr 2009 | 37,884 | 29,995 | 27,766 | 2,229 | 7,889 | *79.2* | *73.3* | *7.4* | *20.8* |
| **Male** | YBTG | YBSL | YBSF | YBSI | YBSO | MGSP | MGSV | YBTJ | YBTM |
| Feb–Apr 2007 | 19,503 | 16,307 | 15,345 | 962 | 3,196 | *83.6* | *78.7* | *5.9* | *16.4* |
| Feb–Apr 2008 | 19,649 | 16,454 | 15,515 | 938 | 3,196 | *83.7* | *79.0* | *5.7* | *16.3* |
| May–Jul 2008 | 19,684 | 16,486 | 15,476 | 1,010 | 3,198 | *83.8* | *78.6* | *6.1* | *16.2* |
| Aug–Oct 2008 | 19,716 | 16,478 | 15,389 | 1,090 | 3,238 | *83.6* | *78.1* | *6.6* | *16.4* |
| Nov–Jan 2009 | 19,748 | 16,575 | 15,368 | 1,206 | 3,173 | *83.9* | *77.8* | *7.3* | *16.1* |
| Feb–Apr 2009 | 19,780 | 16,576 | 15,213 | 1,364 | 3,204 | *83.8* | *76.9* | *8.2* | *16.2* |
| **Female** | YBTH | YBSM | YBSG | YBSJ | YBSP | MGSQ | MGSW | YBTK | YBTN |
| Feb–Apr 2007 | 18,008 | 13,233 | 12,535 | 699 | 4,775 | *73.5* | *69.6* | *5.3* | *26.5* |
| Feb–Apr 2008 | 18,039 | 13,377 | 12,684 | 693 | 4,661 | *74.2* | *70.3* | *5.2* | *25.8* |
| May–Jul 2008 | 18,047 | 13,384 | 12,689 | 696 | 4,663 | *74.2* | *70.3* | *5.2* | *25.8* |
| Aug–Oct 2008 | 18,066 | 13,404 | 12,658 | 746 | 4,661 | *74.2* | *70.1* | *5.6* | *25.8* |
| Nov–Jan 2009 | 18,085 | 13,461 | 12,671 | 790 | 4,624 | *74.4* | *70.1* | *5.9* | *25.6* |
| Feb–Apr 2009 | 18,104 | 13,419 | 12,554 | 865 | 4,685 | *74.1* | *69.3* | *6.4* | *25.9* |

**Notes:**

Relationship between columns: 1 = 2 + 5; 2 = 3 + 4; 6 = 2/1; 7 = 3/1; 8 = 4/2; 9 = 5/1; 10 = 11 + 14; 11 = 12 + 13; 15 = 11/10; 16 = 12/10; 17 = 13/11; 18 = 14/10

The Labour Force Survey is a survey of the population of private households, student halls of residence and NHS accommodation.

*Source: Labour Force Survey, Office for National Statistics*

*Labour Market Statistics Helpline: 01633 456901*

# 4 Prices

Last updated: 16/06/09

Percentage change over 12 months

Not seasonally adjusted

| | Consumer prices | | | | | | Producer prices | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consumer prices index (CPI) | | | Retail prices index (RPI) | | | Output prices | | Input prices | |
| | All items | CPI excluding indirect taxes (CPIY)[1] | CPI at constant tax rates (CPI-CT) | All items | All items excluding mortgage interest payments (RPIX) | All items excluding mortgage interest payments and indirect taxes (RPIY)[2] | All manufactured products | Excluding food, beverages, tobacco and petroleum products | Materials and fuels purchased by manufacturing industry | Excluding food, beverages, tobacco and petroleum products |
| | D7G7 | EL2S | EAD6 | CZBH | CDKQ | CBZX | PLLU[3] | PLLV[3,4] | RNNK[3,4] | RNNQ[3,4] |
| 2005 Jan | 1.6 | 1.7 | 1.5 | 3.2 | 2.1 | 2.0 | 1.4 | 0.9 | 7.6 | 5.4 |
| 2005 Feb | 1.7 | 1.7 | 1.6 | 3.2 | 2.1 | 2.0 | 1.6 | 0.9 | 9.0 | 6.3 |
| 2005 Mar | 1.9 | 2.0 | 1.8 | 3.2 | 2.4 | 2.3 | 1.8 | 1.0 | 9.3 | 5.8 |
| 2005 Apr | 1.9 | 2.0 | 1.9 | 3.2 | 2.3 | 2.3 | 2.3 | 1.1 | 8.6 | 5.4 |
| 2005 May | 1.9 | 2.0 | 1.8 | 2.9 | 2.1 | 2.2 | 1.6 | 1.0 | 6.2 | 4.6 |
| 2005 Jun | 2.0 | 2.2 | 1.9 | 2.9 | 2.2 | 2.2 | 1.5 | 0.8 | 10.6 | 5.9 |
| 2005 Jul | 2.3 | 2.5 | 2.3 | 2.9 | 2.4 | 2.5 | 2.0 | 1.0 | 13.3 | 7.6 |
| 2005 Aug | 2.4 | 2.6 | 2.3 | 2.8 | 2.3 | 2.3 | 2.1 | 0.9 | 12.1 | 6.7 |
| 2005 Sep | 2.5 | 2.6 | 2.4 | 2.7 | 2.5 | 2.5 | 2.3 | 0.9 | 9.3 | 4.9 |
| 2005 Oct | 2.3 | 2.5 | 2.3 | 2.5 | 2.4 | 2.3 | 1.8 | 0.5 | 8.2 | 5.6 |
| 2005 Nov | 2.1 | 2.3 | 2.1 | 2.4 | 2.3 | 2.3 | 1.5 | 0.5 | 13.6 | 8.8 |
| 2005 Dec | 1.9 | 2.1 | 1.8 | 2.2 | 2.0 | 2.0 | 1.9 | 1.1 | 18.0 | 11.4 |
| 2006 Jan | 1.9 | 2.1 | 1.9 | 2.4 | 2.3 | 2.3 | 2.5 | 1.4 | 15.8 | 10.1 |
| 2006 Feb | 2.0 | 2.1 | 2.0 | 2.4 | 2.3 | 2.3 | 2.3 | 1.4 | 15.2 | 10.1 |
| 2006 Mar | 1.8 | 1.9 | 1.7 | 2.4 | 2.1 | 2.2 | 2.2 | 1.5 | 13.1 | 9.2 |
| 2006 Apr | 2.0 | 2.1 | 2.0 | 2.6 | 2.4 | 2.3 | 2.3 | 1.9 | 15.6 | 9.8 |
| 2006 May | 2.2 | 2.3 | 2.2 | 3.0 | 2.9 | 2.8 | 2.9 | 2.0 | 13.7 | 8.4 |
| 2006 Jun | 2.5 | 2.6 | 2.4 | 3.3 | 3.1 | 3.2 | 3.1 | 2.5 | 11.3 | 8.1 |
| 2006 Jul | 2.4 | 2.4 | 2.3 | 3.3 | 3.1 | 3.2 | 2.6 | 2.1 | 10.6 | 7.7 |
| 2006 Aug | 2.5 | 2.6 | 2.4 | 3.4 | 3.3 | 3.4 | 2.3 | 1.7 | 8.4 | 6.7 |
| 2006 Sep | 2.4 | 2.6 | 2.3 | 3.6 | 3.2 | 3.3 | 1.6 | 1.7 | 5.4 | 5.5 |
| 2006 Oct | 2.4 | 2.7 | 2.3 | 3.7 | 3.2 | 3.3 | 1.3 | 2.0 | 3.9 | 4.5 |
| 2006 Nov | 2.7 | 3.0 | 2.6 | 3.9 | 3.4 | 3.6 | 1.4 | 1.9 | 2.3 | 2.8 |
| 2006 Dec | 3.0 | 3.2 | 2.9 | 4.4 | 3.8 | 3.9 | 1.7 | 1.6 | 1.7 | 1.5 |
| 2007 Jan | 2.7 | 2.9 | 2.6 | 4.2 | 3.5 | 3.7 | 1.5 | 1.6 | –3.4 | –0.5 |
| 2007 Feb | 2.8 | 2.9 | 2.6 | 4.6 | 3.7 | 3.9 | 1.9 | 2.0 | –2.1 | –0.2 |
| 2007 Mar | 3.1 | 3.1 | 2.9 | 4.8 | 3.9 | 4.0 | 2.2 | 2.2 | –0.3 | 1.0 |
| 2007 Apr | 2.8 | 2.9 | 2.6 | 4.5 | 3.6 | 3.7 | 1.8 | 1.8 | –1.5 | 0.0 |
| 2007 May | 2.5 | 2.6 | 2.3 | 4.3 | 3.3 | 3.4 | 1.9 | 1.9 | 0.6 | 1.9 |
| 2007 Jun | 2.4 | 2.5 | 2.2 | 4.4 | 3.3 | 3.3 | 1.9 | 1.7 | 1.7 | 2.2 |
| 2007 Jul | 1.9 | 2.0 | 1.7 | 3.8 | 2.7 | 2.6 | 2.0 | 1.8 | 0.3 | 0.6 |
| 2007 Aug | 1.8 | 1.9 | 1.6 | 4.1 | 2.7 | 2.6 | 2.1 | 2.0 | –0.2 | 1.0 |
| 2007 Sep | 1.8 | 1.7 | 1.6 | 3.9 | 2.8 | 2.8 | 2.6 | 1.9 | 6.0 | 3.6 |
| 2007 Oct | 2.1 | 1.9 | 1.8 | 4.2 | 3.1 | 3.0 | 3.6 | 1.8 | 9.4 | 4.6 |
| 2007 Nov | 2.1 | 1.9 | 1.8 | 4.3 | 3.2 | 3.0 | 4.5 | 1.9 | 12.1 | 5.6 |
| 2007 Dec | 2.1 | 2.0 | 1.9 | 4.0 | 3.1 | 3.1 | 4.7 | 2.2 | 13.2 | 6.9 |
| 2008 Jan | 2.2 | 2.1 | 2.0 | 4.1 | 3.4 | 3.3 | 5.7 | 3.0 | 20.4 | 11.0 |
| 2008 Feb | 2.5 | 2.5 | 2.3 | 4.1 | 3.7 | 3.6 | 5.7 | 2.8 | 20.9 | 11.9 |
| 2008 Mar | 2.5 | 2.6 | 2.3 | 3.8 | 3.5 | 3.6 | 6.2 | 2.9 | 20.8 | 12.7 |
| 2008 Apr | 3.0 | 3.0 | 2.7 | 4.2 | 4.0 | 3.9 | 7.4 | 4.1 | 25.3 | 16.6 |
| 2008 May | 3.3 | 3.3 | 3.1 | 4.3 | 4.4 | 4.4 | 9.1 | 5.6 | 30.2 | 18.9 |
| 2008 Jun | 3.8 | 3.9 | 3.6 | 4.6 | 4.8 | 4.9 | 9.8 | 5.9 | 34.1 | 21.1 |
| 2008 Jul | 4.4 | 4.5 | 4.2 | 5.0 | 5.3 | 5.4 | 10.0 | 6.3 | 31.3 | 21.3 |
| 2008 Aug | 4.7 | 4.9 | 4.5 | 4.8 | 5.2 | 5.4 | 9.1 | 5.7 | 29.0 | 20.8 |
| 2008 Sep | 5.2 | 5.4 | 5.0 | 5.0 | 5.5 | 5.6 | 8.5 | 5.6 | 24.1 | 19.5 |
| 2008 Oct | 4.5 | 4.7 | 4.3 | 4.2 | 4.7 | 4.9 | 6.7 | 5.0 | 16.0 | 16.9 |
| 2008 Nov | 4.1 | 4.3 | 3.9 | 3.0 | 3.9 | 3.9 | 5.0 | 5.0 | 8.1 | 14.1 |
| 2008 Dec | 3.1 | 4.6 | 4.1 | 0.9 | 2.8 | 3.9 | 4.6 | 5.0 | 3.2 | 12.6 |
| 2009 Jan | 3.0 | 4.5 | 4.1 | 0.1 | 2.4 | 3.4 | 3.5 | 4.0 | 1.7 | 10.8 |
| 2009 Feb | 3.2 | 4.6 | 4.2 | 0.0 | 2.5 | 3.5 | 3.0 | 3.7 | 0.7 | 8.9 |
| 2009 Mar | 2.9 | 4.3 | 3.9 | –0.4 | 2.2 | 3.2 | 2.0 | 3.2 | –0.5 | 7.5 |
| 2009 Apr | 2.3 | 3.8 | 3.4 | –1.2 | 1.7 | 2.7 | 1.3 | 2.5 | –5.8 | 2.5 |
| 2009 May | 2.2 | 3.6 | 3.3 | –1.1 | 1.6 | 2.6 | –0.3 | 1.2 | –9.4 | –0.5 |

**Notes:**

*Source: Office for National Statistics*

1 The taxes excluded are VAT, duties, insurance premium tax, air passenger duty and stamp duty on share transactions.
2 The taxes excluded are council tax, VAT, duties, vehicle excise duty, insurance premium tax and air passenger duty.
3 Derived from these identification (CDID) codes.
4 These derived series replace those previously shown.

## NOTES TO TABLES

### Identification (CDID) codes

The four-character identification code at the top of each alpha column of data is the ONS reference for that series of data on our time series database. Please quote the relevant code if you contact us about the data.

### Conventions

Where figures have been rounded to the final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total shown. Although figures may be given in unrounded form to facilitate readers' calculation of percentage changes, rates of change, etc, this does not imply that the figures can be estimated to this degree of precision as they may be affected by sampling variability or imprecision in estimation methods.

The following standard symbols are used:

| | |
|---|---|
| .. | not available |
| - | nil or negligible |
| P | provisional |
| – | break in series |
| R | revised |
| r | series revised from indicated entry onwards |

## CONCEPTS AND DEFINITIONS

### Labour Force Survey 'monthly' estimates

Labour Force Survey (LFS) results are three-monthly averages, so consecutive months' results overlap. Comparing estimates for overlapping three-month periods can produce more volatile results, which can be difficult to interpret.

### Labour market summary

Economically active

People aged 16 and over who are either in employment or unemployed.

Economically inactive

People who are neither in employment nor unemployed. This includes those who want a job but have not been seeking work in the last four weeks, those who want a job and are seeking work but not available to start work, and those who do not want a job.

Employment and jobs

There are two ways of looking at employment: the number of people with jobs, or the number of jobs. The two concepts are not the same as one person can have more than one job. The number of people with jobs is measured by the Labour Force Survey (LFS) and includes people aged 16 or over who do paid work (as an employee or self-employed), those who have a job that they are temporarily away from, those on government-supported training and employment programmes, and those doing unpaid family work. The number of jobs is measured by workforce jobs and is the sum of employee jobs (as measured by surveys of employers), self-employment jobs from the LFS, people in HM Forces, and government-supported trainees. Vacant jobs are not included.

Unemployment

The number of unemployed people in the UK is measured through the Labour Force Survey following the internationally agreed definition recommended by the ILO (International Labour Organisation) – an agency of the United Nations.

Unemployed people:

- are without a job, want a job, have actively sought work in the last four weeks and are available to start work in the next two weeks, or
- are out of work, have found a job and are waiting to start it in the next two weeks

### Other key indicators

Claimant count

The number of people claiming Jobseeker's Allowance benefits.

Earnings

A measure of the money people receive in return for work done, gross of tax. It includes salaries and, unless otherwise stated, bonuses but not unearned income, benefits in kind or arrears of pay.

Productivity

Whole economy output per worker is the ratio of Gross Value Added (GVA) at basic prices and Labour Force Survey (LFS) total employment. Manufacturing output per filled job is the ratio of manufacturing output (from the Index of Production) and productivity jobs for manufacturing (constrained to LFS jobs at the whole economy level).

Redundancies

The number of people, whether working or not working, who reported that they had been made redundant or taken voluntary redundancy in the month of the reference week or in the two calendar months prior to this.

Unit wage costs

A measure of the cost of wages and salaries per unit of output.

Vacancies

The statistics are based on ONS's Vacancy Survey of businesses. The survey is designed to provide comprehensive estimates of the stock of vacancies across the economy, excluding those in agriculture, forestry and fishing. Vacancies are defined as positions for which employers are actively seeking recruits from outside their business or organisation. More information on labour market concepts, sources and methods is available in the *Guide to Labour Market Statistics* at www.statistics.gov.uk/about/data/guides/LabourMarket/default.asp

# Directory of online tables

The tables listed below are available as Excel spreadsheets via weblinks accessible from the main *Economic & Labour Market Review* (ELMR) page of the National Statistics website. Tables in sections 1, 3, 4 and 5 replace equivalent ones formerly published in *Economic Trends*, although there are one or two new tables here; others have been expanded to include, as appropriate, both unadjusted/seasonally adjusted, and current price/chained volume measure variants. Tables in sections 2 and 6 were formerly in *Labour Market Trends*. The opportunity has also been taken to extend the range of dates shown in many cases, as the online tables are not constrained by page size.

In the online tables, the four-character identification codes at the top of each data column correspond to the ONS reference for that series on our time series database. The latest data sets for the Labour Market Statistics First Release tables are still available on this database via the 'Time Series Data' link on the National Statistics main web page. These data sets can also be accessed from links at the bottom of each section's table listings via the 'Data tables' link in the individual ELMR edition pages on the website. The old *Economic Trends* tables are no longer being updated with effect from January 2009.

**Weblink:** www.statistics.gov.uk/elmr/07_09/data_page.asp

| Title | Frequency of update |
|---|---|
| **UK economic accounts** | |
| 1.01 National accounts aggregates | M |
| 1.02 Gross domestic product and gross national income | M |
| 1.03 Gross domestic product, by category of expenditure | M |
| 1.04 Gross domestic product, by category of income | M |
| 1.05 Gross domestic product and shares of income and expenditure | M |
| 1.06 Income, product and spending per head | Q |
| 1.07 Households' disposable income and consumption | M |
| 1.08 Household final consumption expenditure | M |
| 1.09 Gross fixed capital formation | M |
| 1.10 Gross value added, by category of output | M |
| 1.11 Gross value added, by category of output: service industries | M |
| 1.12 Summary capital accounts and net lending/net borrowing | Q |
| 1.13 Private non-financial corporations: allocation of primary income account[1] | Q |
| 1.14 Private non-financial corporations: secondary distribution of income account and capital account[1] | Q |
| 1.15 Balance of payments: current account | M |
| 1.16 Trade in goods (on a balance of payments basis) | M |
| 1.17 Measures of variability of selected economic series | Q |
| 1.18 Index of services | M |
| **Selected labour market statistics** | |
| 2.01 Summary of Labour Force Survey data | M |
| 2.02 Employment by age | M |
| 2.03 Full-time, part-time and temporary workers | M |
| 2.04 Public and private sector employment | Q |
| 2.05 Workforce jobs | Q |
| 2.06 Workforce jobs by industry | Q |
| 2.07 Actual weekly hours of work | M |
| 2.08 Usual weekly hours of work | M |
| 2.09 Unemployment by age and duration | M |
| 2.10 Claimant count levels and rates | M |
| 2.11 Claimant count by age and duration | M |
| 2.12 Economic activity by age | M |
| 2.13 Economic inactivity by age | M |
| 2.14 Economic inactivity: reasons | M |
| 2.15 Educational status, economic activity and inactivity of young people | M |
| 2.16 Average earnings – including bonuses | M |
| 2.17 Average earnings – excluding bonuses | M |
| 2.18 Productivity and unit wage costs | M |
| 2.19 Regional labour market summary | M |

**Weblink:** www.statistics.gov.uk/elmr/07_09/data_page.asp

| | | |
|---|---|---|
| 2.20 | International comparisons | M |
| 2.21 | Labour disputes | M |
| 2.22 | Vacancies | M |
| 2.23 | Vacancies by industry | M |
| 2.24 | Redundancies: levels and rates | M |
| 2.25 | Redundancies: by industry | Q |
| 2.26 | Sampling variability for headline labour market statistics | M |

## Prices

| | | |
|---|---|---|
| 3.01 | Producer and consumer prices | M |
| 3.02 | Harmonised Indices of Consumer Prices: EU comparisons | M |

## Selected output and demand indicators

| | | |
|---|---|---|
| 4.01 | Output of the production industries | M |
| 4.02 | Engineering and construction: output and orders | M |
| 4.03 | Motor vehicle and steel production[1] | M |
| 4.04 | Indicators of fixed investment in dwellings | M |
| 4.05 | Number of property transactions | M |
| 4.06 | Change in inventories[1] | Q |
| 4.07 | Inventory ratios[1] | Q |
| 4.08 | Retail sales, new registrations of cars and credit business | M |
| 4.09 | Inland energy consumption: primary fuel input basis[1] | M |

## Selected financial statistics

| | | |
|---|---|---|
| 5.01 | Sterling exchange rates and UK reserves | M |
| 5.02 | Monetary aggregates | M |
| 5.03 | Counterparts to changes in money stock M4[1] | M |
| 5.04 | Public sector receipts and expenditure | Q |
| 5.05 | Public sector key fiscal indicators | M |
| 5.06 | Consumer credit and other household sector borrowing | M |
| 5.07 | Analysis of bank lending to UK residents | M |
| 5.08 | Interest rates and yields | M |
| 5.09 | A selection of asset prices | M |

## Further labour market statistics

| | | |
|---|---|---|
| 6.01 | Working-age households | A |
| 6.02 | Local labour market indicators by unitary and local authority | Q |
| 6.03 | Employment by occupation | Q |
| 6.04 | Employee jobs by industry | M |
| 6.05 | Employee jobs by industry division, class or group | Q |
| 6.06 | Employee jobs by region and industry | Q |
| 6.07 | Key productivity measures by industry | M |
| 6.08 | Total workforce hours worked per week | Q |
| 6.09 | Total workforce hours worked per week by region and industry group | Q |
| 6.10 | Job-related training received by employees | Q |
| 6.11 | Unemployment rates by previous occupation | Q |
| 6.12 | Average Earnings Index by industry: excluding and including bonuses | M |

**Weblink:** www.statistics.gov.uk/elmr/07_09/data_page.asp

| | | |
|---|---|---|
| 6.13 | Average Earnings Index: effect of bonus payments by main industrial sector | M |
| 6.14 | Median earnings and hours by main industrial sector | A |
| 6.15 | Median earnings and hours by industry section | A |
| 6.16 | Index of wages per head: international comparisons | M |
| 6.17 | Regional Jobseeker's Allowance claimant count rates | M |
| 6.18 | Claimant count area statistics: counties, unitary and local authorities | M |
| 6.19 | Claimant count area statistics: UK parliamentary constituencies | M |
| 6.20 | Claimant count area statistics: constituencies of the Scottish Parliament | M |
| 6.21 | Jobseeker's Allowance claimant count flows | M |
| 6.22 | Number of previous Jobseeker's Allowance claims | Q |
| 6.23 | Interval between Jobseeker's Allowance claims | Q |
| 6.24 | Average duration of Jobseeker's Allowance claims by age | Q |
| 6.25 | Vacancies by size of enterprise | M |
| 6.26 | Redundancies: re-employment rates | Q |
| 6.27 | Redundancies by Government Office Region | Q |
| 6.28 | Redundancy rates by industry | Q |
| 6.29 | Labour disputes: summary | M |
| 6.30 | Labour disputes: stoppages in progress | M |

**Notes:**

1 These tables, though still accessible, are no longer being updated.
A Annually
Q Quarterly
M Monthly

**More information**

Time series are available from www.statistics.gov.uk/statbase/tsdintro.asp
Subnational labour market data are available from www.statistics.gov.uk/statbase/product.asp?vlnk=14160 and www.nomisweb.co.uk
Labour Force Survey tables are available from www.statistics.gov.uk/statbase/product.asp?vlnk=14365
Annual Survey of Hours and Earnings data are available from www.statistics.gov.uk/statbase/product.asp?vlnk=13101

# Contact points

**Recorded announcement of latest RPI**
01633 456961
rpi@ons.gsi.gov.uk

**Labour Market Statistics Helpline**
01633 456901
labour.market@ons.gsi.gov.uk

**Earnings Customer Helpline**
01633 819024
earnings@ons.gsi.gov.uk

**National Statistics Customer Contact Centre**
0845 601 3034
info@statistics.gsi.gov.uk

**Skills and Education Network**
024 7682 3439
senet@lsc.gov.uk

**Department for Children, Schools and Families Public Enquiry Unit**
0870 000 2288

## For statistical information on

**Average Earnings Index (monthly)**
01633 819024

**Claimant count**
01633 456901

**Consumer Prices Index**
01633 456900
cpi@ons.gsi.gov.uk

**Earnings**
**Annual Survey of Hours and Earnings**
01633 456120

**Basic wage rates and hours for manual workers with a collective agreement**
01633 819008

**Low-paid workers**
01633 819024
lowpay@ons.gsi.gov.uk

**Labour Force Survey**
01633 456901
labour.market@ons.gsi.gov.uk

**Economic activity and inactivity**
01633 456901

**Employment**
**Labour Force Survey**
01633 456901
labour.market@ons.gsi.gov.uk

**Employee jobs by industry**
01633 456776

**Total workforce hours worked per week**
01633 456720
productivity@ons.gsi.gov.uk

**Workforce jobs series – short-term estimates**
01633 456776
workforce.jobs@ons.gsi.gov.uk

**Labour costs**
01633 819024

**Labour disputes**
01633 456721

**Labour Force Survey**
01633 456901
labour.market@ons.gsi.gov.uk

**Labour Force Survey Data Service**
01633 455732
lfs.dataservice@ons.gsi.gov.uk

**New Deal**
0114 209 8228

**Productivity and unit wage costs**
01633 456720

**Public sector employment**
**General enquiries**
01633 455889

**Source and methodology enquiries**
01633 812865

**Qualifications (Department for Children, Schools and Families)**
0870 000 2288

**Redundancy statistics**
01633 456901

**Retail Prices Index**
01633 456900
rpi@ons.gsi.gov.uk

**Skills (Department for Innovation, Universities & Skills)**
0870 001 0336

**Skill needs surveys and research into skill shortages**
0870 001 0336

**Small firms (BERR)**
**Enterprise Directorate**
0114 279 4439

**Subregional estimates**
01633 812038

**Annual employment statistics**
annual.employment.figures@ons.gsi.gov.uk

**Annual Population Survey, local area statistics**
01633 455070

**Trade unions (BERR)**
**Employment relations**
020 7215 5934

**Training**
**Adult learning – work-based training (DWP)**
0114 209 8236

**Employer-provided training (Department for Innovation, Universities & Skills)**
0870 001 0336

**Travel-to-Work Areas**
**Composition and review**
01329 813054

**Unemployment**
01633 456901

**Vacancies**
**Vacancy Survey: total stocks of vacancies**
01633 455070

# ONS economic and labour market publications

## ANNUAL

**Financial Statistics Explanatory Handbook**

*2008 edition. Palgrave Macmillan, ISBN 978-0-230-52583-2. Price £47.50.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=4861

**Foreign Direct Investment (MA4)**

*2007 edition*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=9614

**Input-Output analyses for the United Kingdom**

*2006 edition*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=7640

**Research and development in UK businesses (MA14)**

*2006 edition*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=165

**Share Ownership**

*2006 edition*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=930

**United Kingdom Balance of Payments (Pink Book)**

*2008 edition. Palgrave Macmillan, ISBN 978-0-230-54565-6. Price £49.50.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=1140

**United Kingdom National Accounts (Blue Book)**

*2008 edition. Palgrave Macmillan, ISBN 978-0-230-54566-3. Price £49.50.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=1143

### First releases

- Annual survey of hours and earnings
- Foreign direct investment
- Gross domestic expenditure on research and development
- Low pay estimates
- Regional gross value added
- Share ownership
- UK Business enterprise research and development
- Work and worklessness among households

## QUARTERLY

**Consumer Trends**

*2009 quarter 1*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=242

**United Kingdom Economic Accounts**

*2009 quarter 1. Palgrave Macmillan, ISBN 978-0-230-57713-8. Price £37.50.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=1904

**UK trade in goods analysed in terms of industry (MQ10)**

*2009 quarter 1*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=731

### First releases

- Balance of payments
- Business investment
- GDP preliminary estimate
- Government deficit and debt under the Maastricht Treaty (six-monthly)
- International comparisons of productivity (six-monthly)
- Internet connectivity
- Investment by insurance companies, pension funds and trusts
- Productivity
- Profitability of UK companies
- Public sector employment
- Quarterly National Accounts
- UK output, income and expenditure

## MONTHLY

**Financial Statistics**

*June 2009. Palgrave Macmillan, ISBN 978-0-230-57711-4. Price £50.00.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=376

**Focus on Consumer Price Indices**

*May 2009*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=867

**Monthly review of external trade statistics (MM24)**

*April 2009*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=613

**Producer Price Indices (MM22)**

*May 2009*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=2208

### First releases

- Consumer price Indices
- Index of production
- Index of services
- Labour market statistics
- Labour market statistics: regional
- Producer prices
- Public sector finances
- Retail sales
- UK trade

## OTHER

**The ONS Productivity Handbook: a statistical overview and guide**

*Palgrave Macmillan, ISBN 978-0-230-57301-7. Price £55.*

www.statistics.gov.uk/about/data/guides/productivity/default.asp

**Labour Market Review**

*2006 edition. Palgrave Macmillan, ISBN 1-4039-9735-7. Price £40.*

www.statistics.gov.uk/StatBase/Product.asp?vlnk=14315

**National Accounts Concepts, Sources and Methods**

www.statistics.gov.uk/StatBase/Product.asp?vlnk=1144

**Sector classification guide (MA23)**

www.statistics.gov.uk/StatBase/Product.asp?vlnk=7163

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*Catherine Barham, Annette Walling, Gareth Clancy, Stephen Hicks and Sarah Conn*

Employment of the older generation
*Kamran Khan*

CPI and RPI: the 2009 basket of goods and services
*Philip Gooding*

Revisions to quarterly GDP growth and its components
*Jason Murphy*

Labour inputs in public sector productivity: methods, issues and data
*Kato Kimbugwe, Rhys Lewis and Nicola James*

Services producer price index (experimental) – fourth quarter 2008
*Ian Richardson*

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Households, families and work
*Katherine Kent*

Identifying shortage occupations in the UK
*Anna Downs*

Civil Service Statistics 2008: a focus on gross annual earnings
*David Matthews and Andrew Taylor*

Firm-level estimates of capital stock and productivity
*Bob Gilhooly*

Regional gross value added
*Jayne White*

Regional economic indicators with a focus on household income
*Alex Turvey, Jonathan Knight and Birgit Wosnitza*

## JUNE 2009

The impact of the economic downturn on productivity growth
*Malindi Myers*

Labour disputes in 2008
*Dominic Hale*

Performance and employment characteristics of UK service industries, 1990-2008
*Keith Brook*

Developing a unit labour costs indicator for the UK
*Alex Turvey*

Regional Gross Disposable Household Income
*Charlotte Richards and Wayne Roberts*

Changes to the retail sales methodology
*Craig McLaren*

Methods Explained: Business Structure Database
*Peter Evans and Richard Welpton*

# Future articles

List is provisional and subject to change.

## AUGUST 2009

Total public sector output and productivity
Progress on the Atkinson Review
Housing market statistics
Impact of the VAT cut
Retail sales in the last two recessions