

Article

# Money in funded pensions and insurance in the UK National Accounts : 1957 to 2015

Using information from the national accounts, this article addresses 2 questions of interest for the UK economy: how much money is there in funded pensions and insurance and how has this picture changed over time?

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# 1 . Introduction

## The question

Money in pensions and insurance can have major impacts on economies. This article looks at 2 questions that can be addressed using information from the national accounts:

- how much money is there in funded pensions<sup>1</sup> and insurance in the UK?
- how has this picture changed over time?

## What the national accounts can tell us

The starting point for this analysis is the funded pensions and insurance line in the financial balance sheets of the UK National Accounts (AF.6). This is one of the 8 high-level categories of financial instrument on the financial balance sheets of the national accounts. It shows the assets and liabilities in funded pensions and insurance. Although AF.6 is publicly available, this article presents new historical analysis and further breakdowns of the estimates.

AF.6 can be viewed from the perspective of different sectors within the economy. In this article we look at it from 2 angles: that of households, which are the main consumers of pensions and insurance, and that of the businesses, which are the main providers of pensions and insurance. Technically:

- “households” comprises the household sector S.14 and the not for profit institutions serving households (NPISH) sector S.15, which are currently reported together in line with the [UK National Accounts \(Blue Book\) 2016](#), although NPISH does not have pension assets<sup>2</sup>
- the business providers of insurance and pensions are the financial institutions classified in sub-sectors S.128 (insurance corporations) and S.129 (pension funds) within the financial corporations sector<sup>3</sup> (S.12)

In Section 2 of this article, we look at AF.6 from the point of view of households. For households, the estimates are publicly available from 1987 on the basis on which the UK National Accounts are currently compiled, following the European System of Accounts (ESA) 2010. Some breakdowns of AF.6 are also available in the published accounts. A historical series for AF.6 as a whole has recently been produced by the Enhanced Financial Accounts Development team at the Office for National Statistics (ONS). This work has been done as part of the [Flow of Funds](#) initiative, which aims to transform financial statistics and enhance estimates in the national accounts. The historical series for AF.6 from 1957 to 1986 viewed from the point of view of households is presented in this article for the first time.

Section 3 looks at AF.6 from the point of view of the financial corporations sector (S.12), specifically the liabilities of insurers and pension funds in sub-sectors S.128 and S.129. Pension funds are associated with occupational or “trust-based” pension schemes, while insurers provide “contract-based” personal pensions including group personal pensions (GPPs)<sup>4</sup>.

At present, S.128 and S.129 are presented jointly in the published accounts. We discuss breakdowns of the assets and liabilities data that are available from 1997 for these sub-sectors separately. We also look at how the estimates have been improved using regulatory data for the period from 2005 to date, allowing us to separate pensions from non-life and life insurance within S.128.

In Section 4, we piece together all the information to answer the questions: “How much money is there in UK funded pensions and insurance?” and “How has this picture changed over time?” We look at the full historical series for pensions and insurance from 1957 to 2015 and the shorter series that is available for pensions (separately identified). Finally, in Section 5 we discuss the areas where we hope to make further improvements and some of the challenges involved.

## Scope of this article

Following the sector and sub-sector classifications of economic activity in the national accounts, this article looks at funded pensions and insurance from 2 points of view: households and the main providers of insurance and pensions. It does not provide a full coverage of all economic sectors.

In order to be treated as part of pensions in the national accounts, a saving arrangement has to meet the national accounts criteria for “pensions in social insurance”. For private (non-state) pensions, this means that they must be workplace pensions providing retirement benefits for employees. In the UK, the 2 main institutional sub-sectors providing pensions that meet the “pensions in social insurance” criteria are pension funds (S.129) and insurance corporations (S.128). This article also looks at individual personal pensions provided by insurers.

The analysis does not cover other types of pension that are neither “pensions in social insurance” nor provided by insurers. We believe the main types of pension outside of this scope are: non-insurer-provided Self-Invested Personal Pensions (SIPPs) and Small Self-Administered Schemes (SSASs).

Finally, it should be noted that our focus is on funded pensions. The article looks at financial balance sheets (assets and liabilities) rather than transactions (flows); therefore unfunded pensions, for which there are no financial balance sheets, are outside the scope of this analysis.

## Notes for: Introduction

1. Definitions for “funded pensions” and other pensions terminology used in this article are provided in Appendix 1.
2. Conceptually pensions are assets of UK resident households in S.14 and of households living abroad in the rest of the world sector (S.2). However, at present the pension assets of households living abroad are not separately identified in the accounts; they are reported in S.14. In future, we will be showing S.15 separately from S.14 and splitting out pension assets of households in the rest of the world sector (S.2) from those of households resident in the UK (S.14). When this happens, household pension assets will be divided between S.14 and S.2.
3. The national accounts financial corporations sector includes the central bank, retail and investment banks, unit trusts, asset managers, brokers and other financial auxiliaries as well as insurance corporations and pension funds. For a full description, see Chapter 2 of the [ESA 2010 manual](#).
4. For definitions of these terms, see Appendix 1.

## 2 . Pension and insurance entitlements of households

The first part of this article looks at the entitlements of households in funded pensions and insurance (AF.6). Household entitlements in AF.6 can be broken down into:

- AF.61: non-life insurance reserves of the insurance corporations sub-sector S.128
- AF.62: life insurance and annuity entitlements in S.128, including an estimate of individual pensions provided by insurers and the annuities and drawdown associated with them
- AF.63: pension entitlements made up of:
  - workplace pensions and annuities provided by insurers in S.128 and the annuities and drawdown associated with them
  - workplace pensions associated with funded pension schemes, provided by the pension funds sub-sector S.129

Figure 1 shows the value of household entitlements in AF.6 and its 3 components from 1987 onwards. It uses data from series that are published on our website <sup>1</sup>.

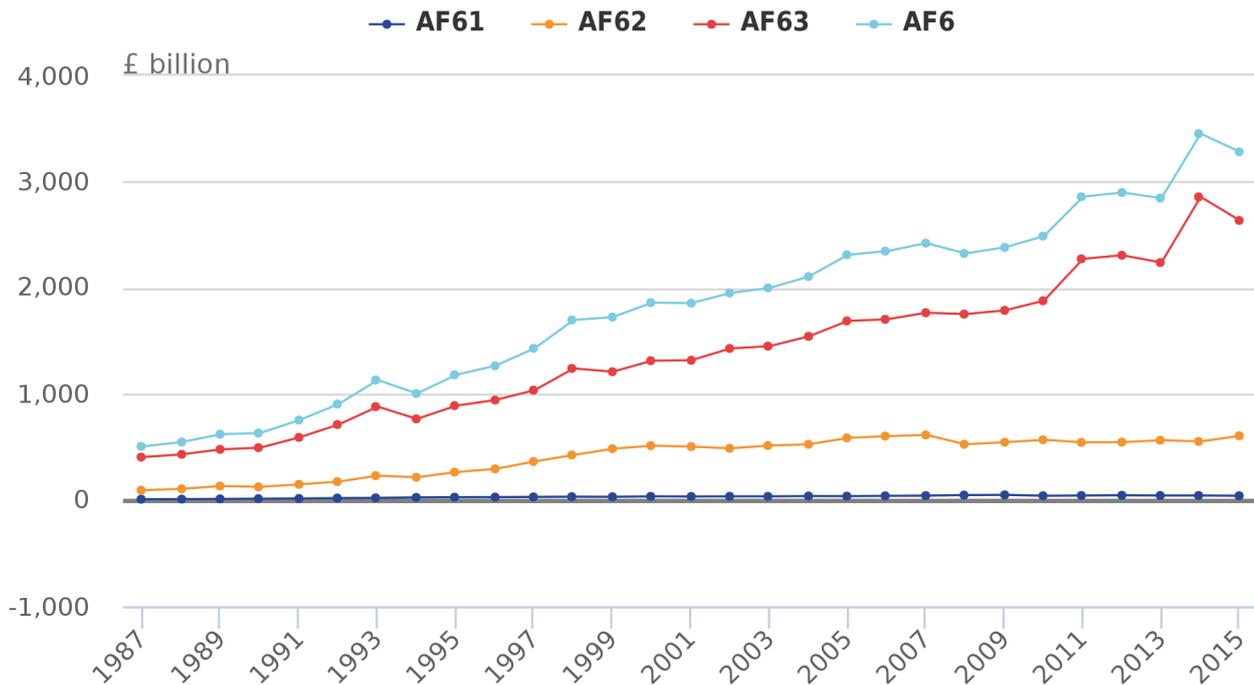
From 1987, the national accounts series AF.6 is compiled following European System of Accounts (ESA) 2010 guidance, which stipulates that household entitlements to Defined Benefit (DB) pensions must be calculated on an actuarial basis. This means that even if a funded DB pension scheme is not fully funded, the household is considered to be entitled to the promised payments in full, which are equivalent to the actuarial liabilities of the pension scheme; these are shown in line AF.63. If there are not enough assets to cover the promised payments, the scheme has a deficit or “claim on the employer as pension manager”.

For Defined Contribution (DC) pension entitlements and other household entitlements in AF.6 (life and non-life insurance), the entitlements of households are equal (or assumed to be equal) to the market value of the assets or reserves held by the provider.

In Figure 1, the impact of low discount rates following the 2008 to 2009 recession on the estimates of AF.63 can be seen clearly. Total workplace pension entitlements of households in AF.63 increased from £1.8 trillion in 2009 to £2.3 trillion in 2011 and £2.9 trillion in 2014.

**Figure 1: Entitlements of households in AF.6, 1987 to 2015**

UK



Source: Office for National Statistics

Notes:

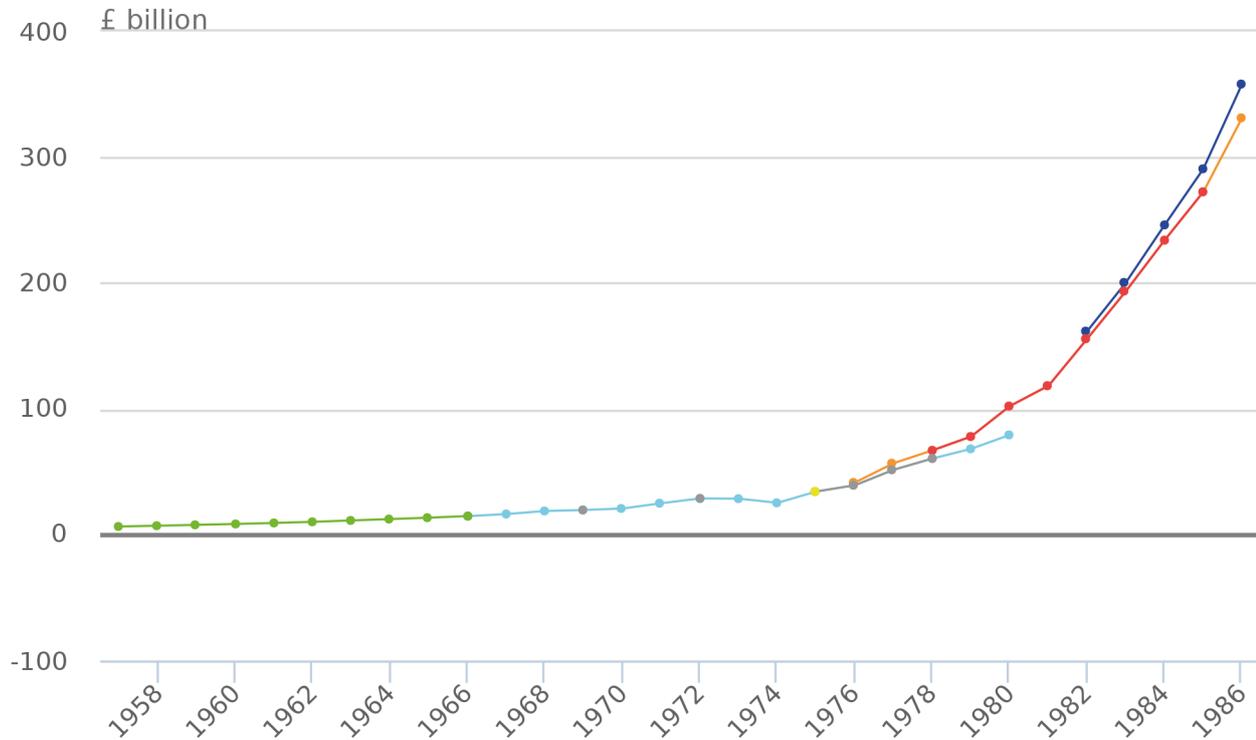
1. Series ID = NNPL for AF.61, M9RW for AF.62, M9VD for AF.63 and NPYL for AF.6.
2. AF.6 and its components are shown from the perspective of households.
3. AF.63 is adjusted to reflect new experimental estimates for DC pension entitlements published in January 2017. Therefore the AF.63 and AF.6 figures shown here do not match the figures published in Blue Book 2016 or the quarterly UK Economic Accounts. The AF.63 and AF.6 figures published in Blue Book 2017 will incorporate the new estimates for DC pension entitlements, but there may be further adjustments before publication of Blue Book 2017.
4. Details of the new estimates for DC pension entitlements in AF.63 published in January 2017 can be found here: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangetodefinedcontributionpensionfundestimatesinthenationalaccountspart1theme>  
<https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangetodefinedcontributionpensionfundestimatesinthenationalaccountspart2theda>

Figure 2 shows a historical series (1957 to 1986) for AF.6 as a whole. The estimates are on the basis that the accounts were compiled before ESA2010 and its predecessor ESA95, so DB pensions are treated in the same way as DC pensions: the entitlements of households are equal (or assumed to be equal) to the market value of the assets or reserves held by the provider.

**Figure 2: Entitlements of the personal sector/households in AF.6, 1957 to 1986**

UK

- ONS Sector Financial Balance Sheets 1982 to 1997
- Non-bank private sector balance sheets 1976 to 1986
- CSO or Bank of England Finstat Tables: Balance Sheets of the Personal Sector 1978 to 1985
- Non-bank private sector balance sheets 1966 to 1980
- CSO estimates: Balance Sheet of the Personal Sector
- Pettigrew (1975)
- Roe (1971): Persons and Unincorporated Businesses Sector



Source: Office for National Statistics

Notes:

1. The article "Historical estimates of financial accounts and balance sheets" published on the ONS website in January 2016 contains a full list of the sources used here: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/articles/nationalaccountsarticles/historicalestimatesoffinancialaccountsandbalancesheets>
2. The datasets used here are available at: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/articles/nationalaccountsarticles/historicalestimatesoffinancialaccountsandbalancesheets/relateddata>
3. The estimates in the series "Roe (1971)" include sinking funds and capital redemption policies, following the methodology set out in Alan Roe's article "Financial Interdependence of the UK economy". Roe also included unfunded pensions; however, we have excluded these from the estimates presented here to reflect ESA2010 definitions, which do not include unfunded pensions in sector balance sheets.

The datasets used to construct this historical series were first collated in the article [Historical estimates of financial accounts and balance sheets](#) published in January 2016. This article described work by ONS and the Bank of England to reconstruct financial accounts and balance sheets for the UK by sector and financial instrument. The work involved understanding the different historical datasets and then building initial estimates, including estimates for flows data representing claims of the personal sector<sup>2</sup> or households in a financial instrument category similar to AF.6. Since the publication of the article, we have completed work to build estimates for entitlements of the personal sector or households in AF.6<sup>3</sup> (balances). The results of this work are shown in this section.

The current scope of AF.6, with its breakdown into non-life insurance, life insurance and annuities and pension entitlements, is the approach used in ESA2010; estimates are available on this basis from 1987, as shown in Figure 1. In order to construct the historical series for AF.6 for 1957 to 1986, we identified the relevant instruments in each dataset, studied their definitions and compared them with the ESA2010 definitions in order to decide whether they should be included in the AF.6 historical series <sup>4</sup>.

Following the approach of the [January 2016 article](#), there are 3 main types of data used in Figure 2:

- the earliest dataset comes from Alan Roe's "Financial Interdependence of the UK economy" published in 1971<sup>5</sup>, which provides data for 1957 to 1966
- the latest dataset is from ONS's Sector Financial Balance Sheets 1982 to 1997, which contains the last sector balance sheet estimates produced before ESA95 was introduced
- between the earliest and latest datasets, the figures are compiled from a variety of sources including academic journal articles and articles published by the Central Statistical Office (CSO), ONS, Bank of England and HM Treasury

This data is provided in the Figure 2 download. You can also download the [full datasets](#), which were published with the January 2016 article.

## Notes for: Pension and insurance entitlements of households

1. Series ID = NNPL for AF.61, M9RW for AF.62, M9VD for AF.63 and NPYL for AF.6 as a whole.
2. The "personal sector" in the historical datasets is similar but not identical to "households" as described in Section 2; for a detailed discussion of definitions in the different datasets, see the [January 2016 article](#).
3. Similar work has been done for other financial instruments, and will be published by ONS later this year.
4. We are grateful to Ted Dolby, who undertook this analysis during a student placement at ONS as part of the Government Economic Service summer vacation placement scheme.
5. Roe, A (1971): "The Financial Interdependence of the Economy, 1957–1966", No.11 in A Programme for Growth (edited by Sir Richard Stone), Chapman and Hall.

## 3 . Pensions and insurance from the financial corporations perspective

As noted in Section 2, the national accounts bring together information on funded pension provision in 2 sub-sectors within the financial corporations sector: S.128 insurance corporations and S.129 pension funds. Pension funds are associated with occupational or "trust-based" pension schemes, while insurers (and others) provide "contract-based" personal pensions including group personal pensions (GPPs). Figure 3 shows the total liabilities of these 2 sub-sectors combined. In order to avoid double-counting, we remove from S.128 companies whose business is principally the management of the funds of trust-based pension schemes.

The figures for total liabilities in AF.61, AF.62 and AF.63 are slightly higher from the financial corporations point of view than from the household perspective because other sectors – in particular the non-financial corporations (S.11) and rest of the world (S.2) sectors in the case of non-life insurance – have claims in AF.61 and AF.62. Figure 3 also shows total assets available in S.128 and S.129.

**Figure 3: Total assets and liabilities of pension funds and insurers, 1997 to 2015**

UK



Source: Office for National Statistics

Notes:

1. AF.61, AF.62 and AF.63 are shown from the perspective of insurance corporations and pension funds within the financial corporations sector.
2. AF.63 is adjusted to reflect new experimental estimates for DC pension entitlements published in January 2017. Therefore the AF.63 and AF.6 figures shown here do not match the figures published in Blue Book 2016 or the quarterly UK Economic Accounts. The AF.63 and AF.6 figures published in Blue Book 2017 will incorporate the new estimates for DC pension entitlements, but there may be further adjustments before publication of Blue Book 2017.
3. Details of the new estimates for DC pension entitlements in AF.63 published in January 2017 can be found here: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangetodefinedcontributionpensionfundestimatesinthenationalaccountspart1them>  
<https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangetodefinedcontributionpensionfundestimatesinthenationalaccountspart2thedat>

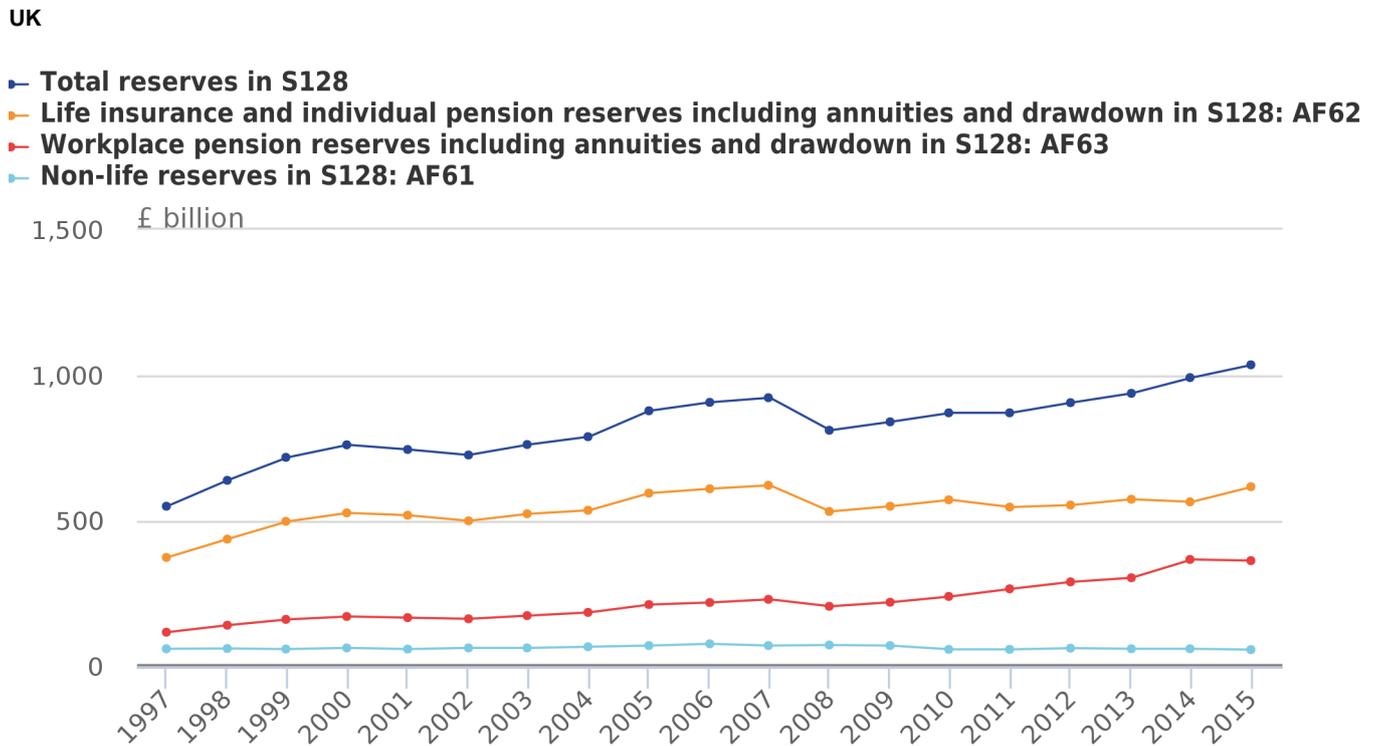
## Insurance corporations (S.128)

Figure 4 shows previously unpublished estimates of total reserves in the insurance sub-sector S.128 and some breakdowns of the estimates. The S.128 reserves are divided into: AF.61 (non-life), AF.62 (life) and AF.63 (pensions). Individual personal pensions provided by insurers, which are considered savings in the national accounts, appear in AF.62 along with life insurance. Workplace pensions provided by insurers, which are considered pensions in the national accounts, appear in AF.63.

The split between pension reserves in AF.62 and AF.63 within S.128 is estimated for the UK National Accounts using data reported to the regulator and provided to us by Standard and Poor's Global Market Intelligence. To avoid double-counting, an adjustment is made to remove reserves associated with the funds of trust-based pension schemes managed by insurers because these are already covered in S.129. This is referred to as the adjustment for "insurance-managed pension funds".

Insurers' reserves held against annuities and drawdown – which are products for the “decumulation” phase when people are receiving the pensions they have built up – require special treatment for the national accounts. We have to split annuities and drawdown between those associated with individual pensions (which should be recorded in AF.62) and those associated with workplace pensions (which should be recorded in AF.63). This split is not available in the data reported to the regulator, so we estimate it. We do this by assuming that the split between individual and workplace pensions in the “decumulation” phase reflects the split between individual and workplace pensions during the “accumulation” phase, when people are building up these pensions. This is not ideal because the pattern of annuities paid out at a point in time actually reflects the build-up of entitlements at an earlier time; but at present we do not have better information to estimate this split.

**Figure 4: Insurance company reserves in the national accounts, 1997 to 2015**



Source: Office for National Statistics

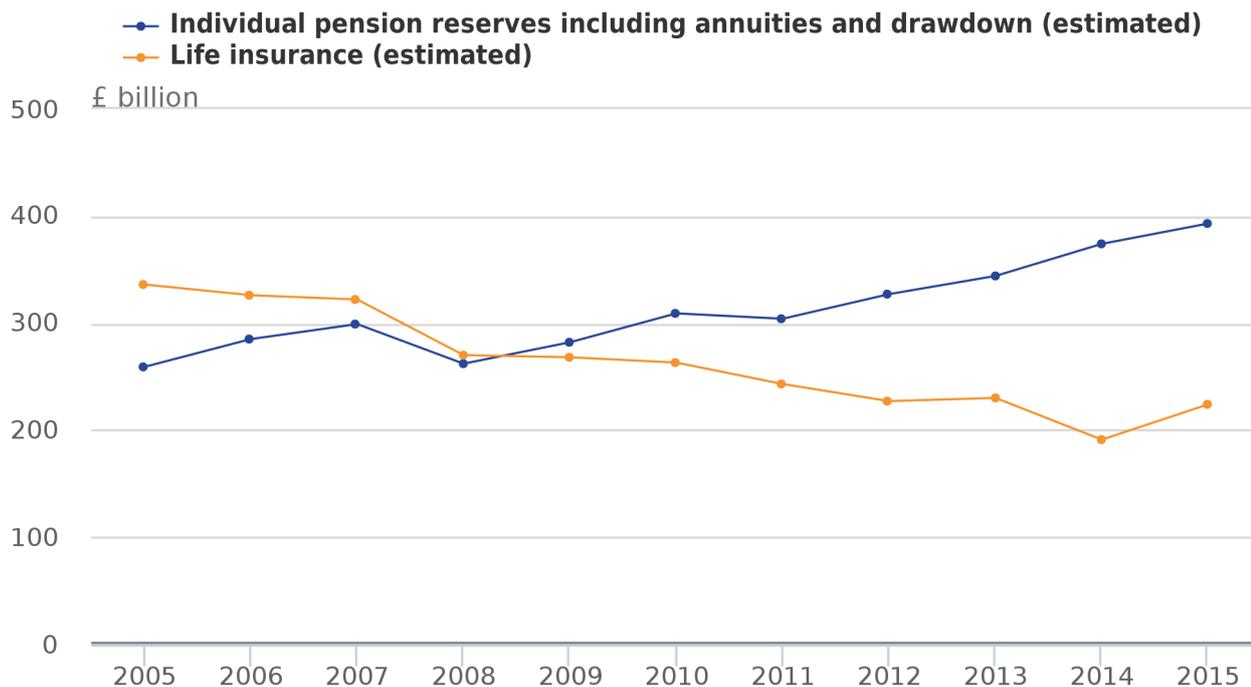
Notes:

1. Pension reserves in S.128 are adjusted to exclude “insurance-managed pension funds”.

In Figure 5, we have reconstructed – using the same regulatory data – the breakdown within AF.62 from 2005 to 2015 between, on the one hand, insurers’ reserves relating to individual pensions including annuities and drawdown and, on the other hand, their reserves relating to life insurance. Figure 5 shows that insurers’ reserves associated with pension provision have risen over the past decade<sup>1</sup>, while their reserves associated with life business have decreased. Appendix 2 shows the information on pension-related reserves in the regulatory data that is used to produce the estimates in Figures 4 and 5.

**Figure 5: Breakdown of AF.62 by individual pensions and life insurance, 2005 to 2015**

UK



**Notes:**

1. Pension reserves in S.128 are adjusted to exclude “insurance-managed pension funds”.
2. “Estimated” lines are estimated by ONS using regulatory data provided by S&P Global Market Intelligence.

All pensions provided by insurers are currently treated in the accounts as Defined Contribution (DC) pensions, so assets are assumed to match liabilities and there is no funding deficit. However, the European Statistical Agency (Eurostat) issued guidance last year indicating that annuities – which are in S.128 – should be treated as Defined Benefit (DB) pensions in the accounts. As part of the work of the Pensions in the National Accounts group within ONS’s Enhanced Financial Accounts Development team, we are currently considering the implications of this ruling. It is likely to be important for the compilation of the core accounts because for the “decumulation phase” we will need to treat annuities (DB) separately from drawdown products (DC).

The decision on annuities will also affect planned work on the Supplementary Table on Pensions (STP), which provides a full picture of workplace pension entitlements in the UK including unfunded pensions. A table for 2010 was published on an experimental basis in 2012 and work is currently under way to update this analysis and create a short time series: 2010 to 2015. The STP includes a breakdown by DB and DC pensions, which appear in separate columns of the table.

**Pension funds (S.129)**

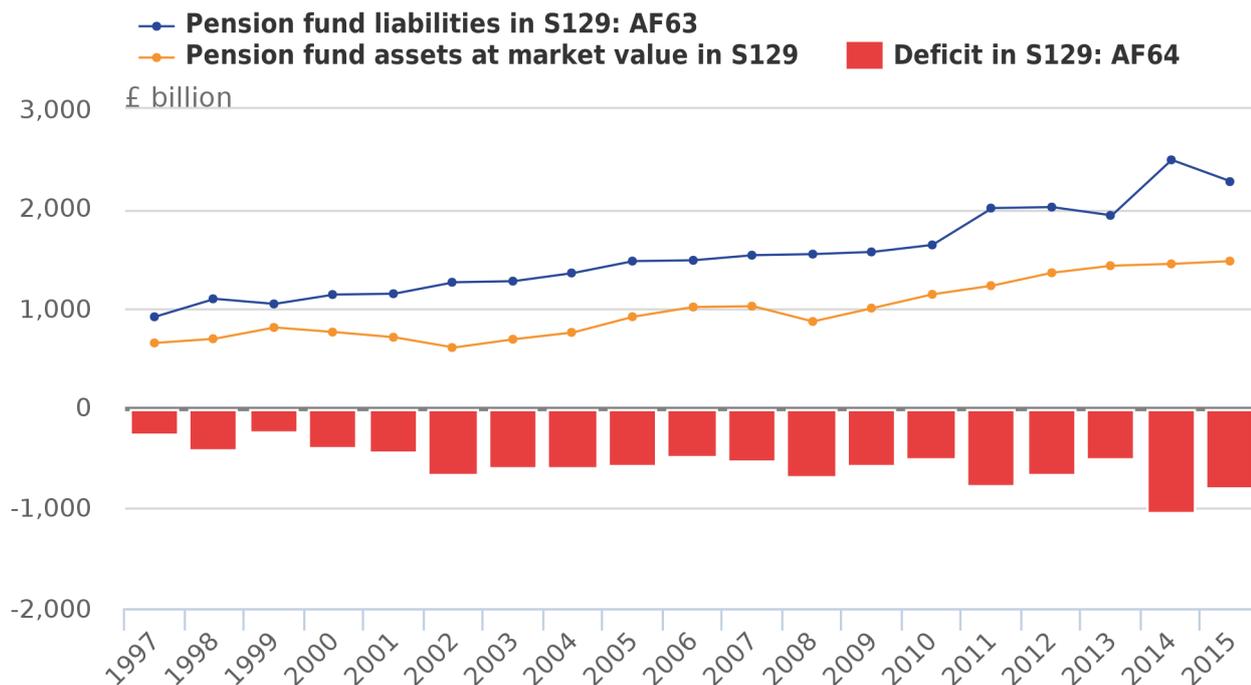
Figure 6 shows the breakdown for pension funds in S.129. The current approach is to use regulatory and administrative data to compile the liabilities estimates and survey data to estimate the assets side:

- for liabilities of DB schemes in the private sector we use adjusted data from the [Purple Book](#), published annually by the Pension Protection Fund (PPF) and The Pensions Regulator (TPR)
- for liabilities of DC schemes in the private sector, following a [methodology improvement](#) introduced recently, we use [adjusted data](#) from TPR's [DC Trust](#) publication
- for liabilities of funded DB schemes where government is the “pension manager” including the Local Government Pension Scheme (LGPS), we use adjusted data from scheme valuation reports, annual fund reports and local government department sources
- for the assets side, we use the net assets (market value of funds) series from the ONS Pension Funds Survey<sup>2</sup>

Improvements to data sources that are currently under consideration within our Enhanced Financial Accounts Development team include greater use of regulatory and administrative data for the assets side. For instance, figures published by the PPF in its [7800 index](#) since 2005 might be used as an alternative to survey data to estimate the assets of private sector DB schemes in the PPF universe.

**Figure 6: Pension fund assets and liabilities in the national accounts, 1997 to 2015**

UK



Source: Office for National Statistics

Notes:

1. Estimates for pension funds assets at market value and AF.64 are available on the ONS website, series ID = AHVA and M9V6 respectively.
2. AF.63 and AF.64 are adjusted here to reflect new experimental estimates for DC pension entitlements published in January 2017. The figures published in Blue Book 2017 will incorporate the new estimates for DC pension entitlements, but there may be further adjustments before publication of Blue Book 2017.
3. Details of the new estimates for DC pension entitlements in AF.63 published in January 2017 can be found here: <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangestodefinedcontributionpensionfundestimatesinthenationalaccountspart1theme>  
<https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/methodologies/theukenhancedfinancialaccountschangestodefinedcontributionpensionfundestimatesinthenationalaccountspart2theda>

Figure 6 shows that assets of pension funds in S.129 do not match their liabilities. Over 98% of funds in S.129 by value of liabilities are in DB or hybrid type pensions. The method used for calculating DB schemes' actuarial liabilities is based on international agreements:

- for schemes such as the LGPS where government is the pension manager, Eurostat stipulates a discount rate in line with the recommendations of the EU Working Group on Ageing Populations and Sustainability: 3% real, 5% nominal
- for private sector pension schemes we use the PPF's full buy-out (risk-free) measure of liabilities discounted using 15-year UK gilts

There have been deficits every year since 1997 as well as considerable year-to-year volatility, with deficits increasing during periods of weak stock market performance and/or low interest rates<sup>3</sup>. In the national accounts balance sheets, these deficits appear as line AF.64<sup>4</sup>, which represents the claims of the pension funds on employers as "pension managers".

## Notes for: Pensions and insurance from the financial corporations perspective

1. This rise has been driven by an increase in the value of “individual pensions property linked”.
2. This series is available on the ONS website, series ID = AHVA.
3. For further analysis of private sector pension scheme balances and funding sensitivities, see the [Purple Book](#).
4. AF.64 estimates are available on the ONS website, series ID M9V6. However, M9V6 is not yet adjusted to reflect new experimental estimates for DC pension entitlements published in January 2017; the adjustment will be incorporated into [Blue Book 2017](#).

## 4 . Money in UK pensions and insurance

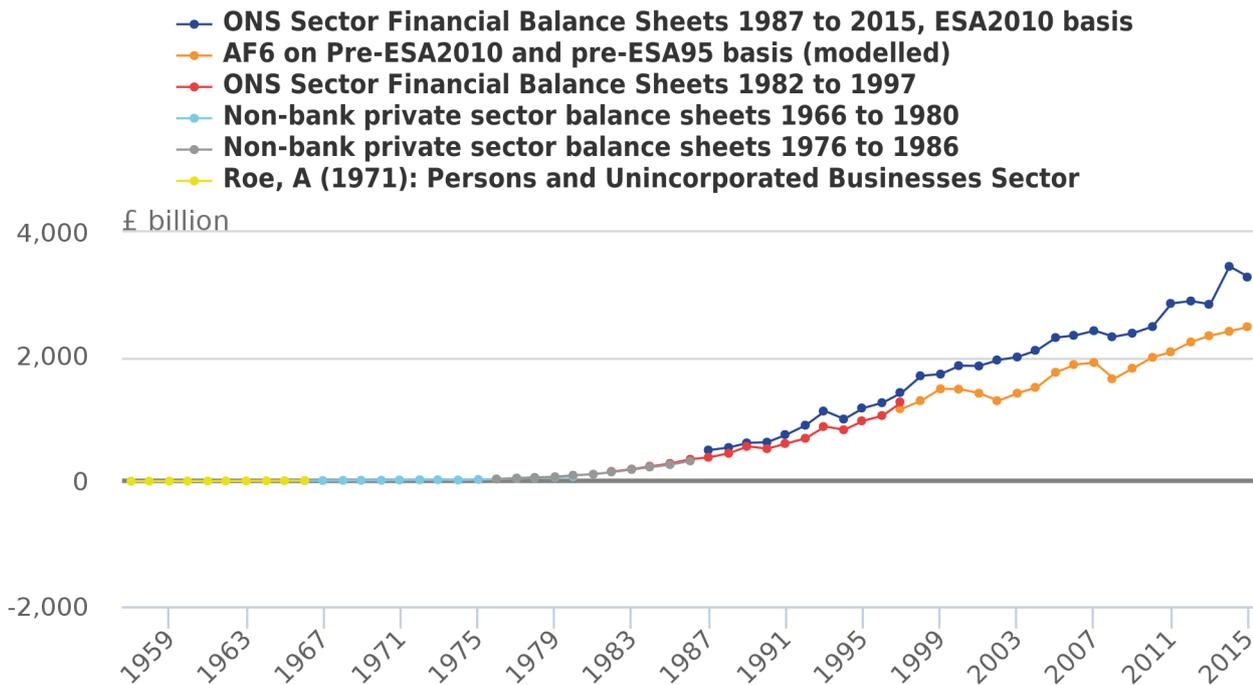
### AF.6 – the full historical series

In this section, we present the full historical series from 1957 to 2015 for AF.6 from the household perspective. Figure 7 shows the exponential growth in UK households’ funded pensions and insurance entitlements from the 1980s until the end of the 20th century.

From 1957 to 1997, the estimates are on a pre-European System of Accounts (ESA) 95 basis, so household entitlements are the assets in pensions and insurance at market value. From 1987 to 2015, we show AF.6 household entitlements on an ESA2010 basis, with DB pensions calculated on an actuarial basis<sup>1</sup>. In addition, we have produced a modelled version for 1997 to 2015 in order to provide continuity with the pre-ESA95 series, where household entitlements are the assets in pensions and insurance at market value.

**Figure 7: Entitlements of the personal sector/households in AF.6, 1957 to 2015**

UK



Source: Office for National Statistics

Notes:

1. The series “AF.6 on Pre-ESA2010 and pre-ESA95 basis (modelled)”, 1997-2015, is produced by subtracting the pension fund deficit from AF.6 liabilities on an ESA2010 basis; alternatively, this can be interpreted as replacing one of the components of AF.6 – AF.63 in S.129, liabilities of pension funds actuarially estimated – with assets of pension funds at market value.

Figure 8 shows the information in Figure 7 as a proportion of current price gross domestic product (GDP).

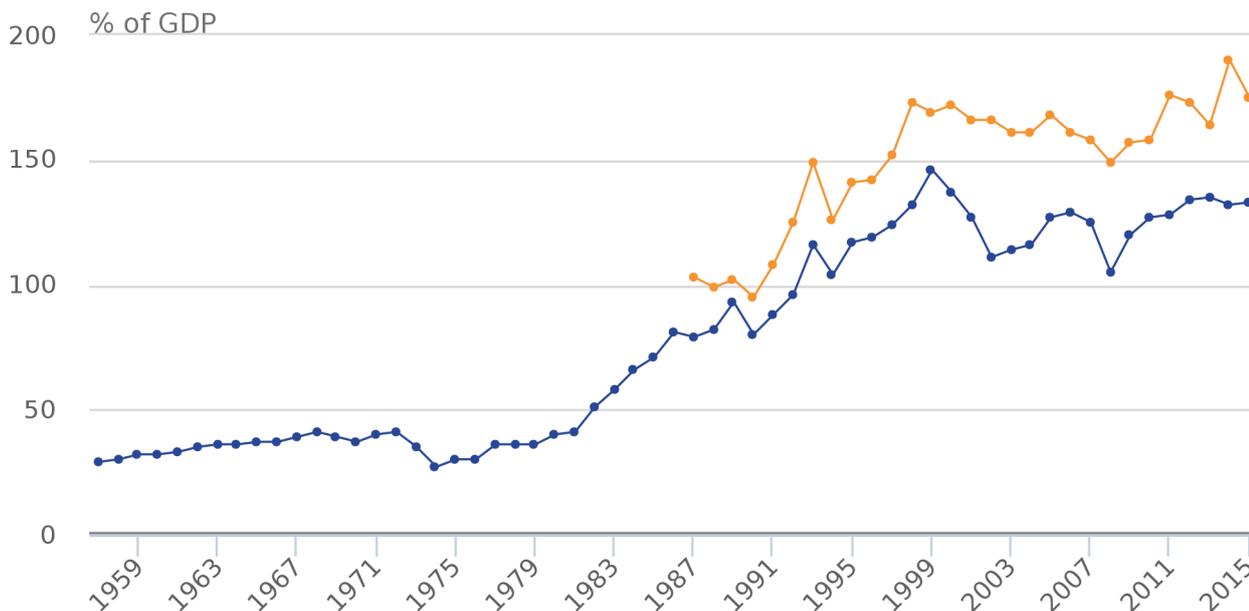
The line “AF.6 ESA2010 basis” shows households’ total AF.6 entitlements from 1997, including the full value of Defined Benefit (DB) pension entitlements calculated on an actuarial basis. As a proportion of GDP there was also exponential growth in this series from the 1980s until the end of the 20th century. However, in the decade up to the 2008 to 2009 recession, while entitlements in AF.6 continued to increase rapidly in value terms (Figure 7) they fell in relation to GDP (Figure 8) as the economy performed strongly. Following the 2008 to 2009 recession the ratio of AF.6 to GDP has risen again; but this has been largely due to the combination of weak economic growth and low discount rates used in the calculation of pension scheme liabilities.

The line “AF.6 Pre-ESA2010 and pre-ESA95 basis” in Figure 8 represents the total value of assets in UK pensions and insurance. This rose from around 30% of GDP in the late 1950s to over 100% of GDP in 1993. It was over 130% of GDP from 2012 to 2015.

**Figure 8: Entitlements of the personal sector/households in AF.6 as a proportion of GDP, 1957 to 2015**

UK

— AF6 Pre-ESA2010 and pre-ESA95 basis (modelled from 1997) as % of GDP in current prices  
 — AF6 ESA2010 basis as % of GDP in current prices



Source: Office for National Statistics

Notes:

1. For the series “AF.6 on Pre-ESA2010 and pre-ESA95 basis (modelled)”, we have removed overlaps between the series shown in Figure 7, using Roe (1971) for 1957 to 1965; Non-bank private sector balance sheets for 1966-81; ONS Financial Sector Balance Sheets for 1982 to 1996; and the modelled series in Figure 7 for 1997 to 2015.
2. The modelled part of the series “AF.6 on Pre-ESA2010 and pre-ESA95 basis” is produced by subtracting the pension fund deficit from AF.6 liabilities on an ESA2010 basis; alternatively, this can be interpreted as replacing one of the components of AF.6 – AF.63 in S.129, liabilities of pension funds actuarially estimated – with assets of pension funds at market value.

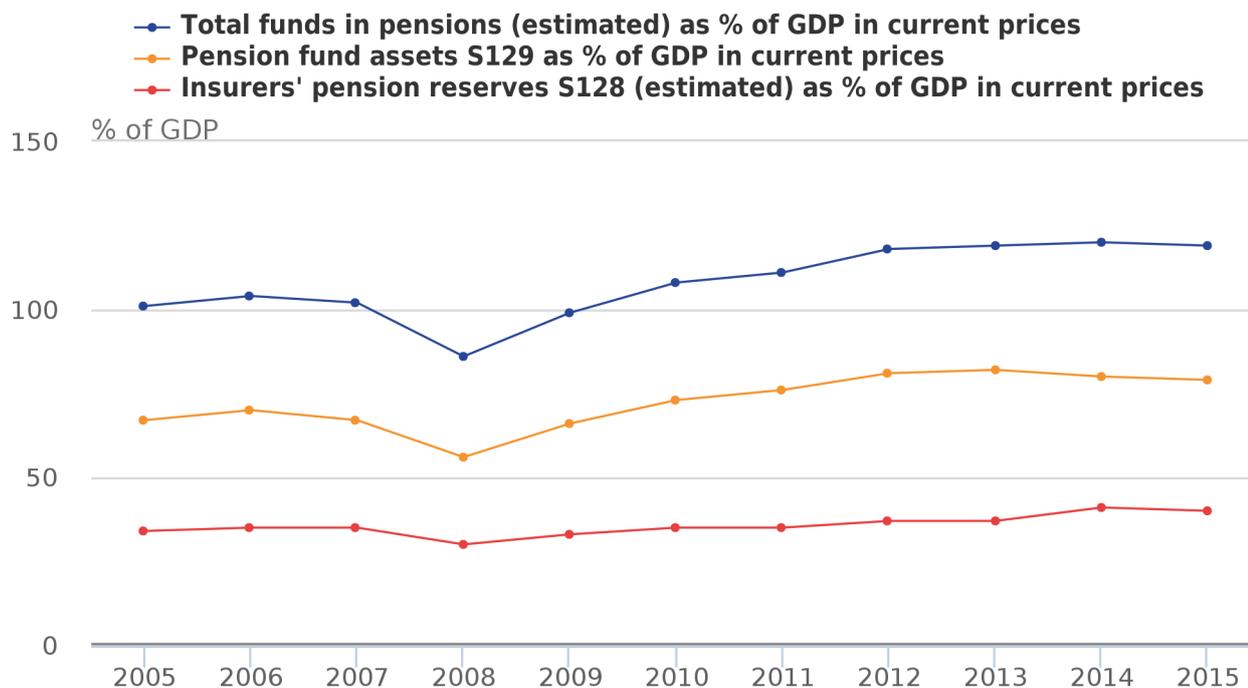
## Money in UK pensions

Figure 9 shows the estimates of total assets administered by insurers and pension funds in respect of UK pensions as a percentage of GDP. It includes assets in private sector and public sector funded pensions, Defined Benefit (DB) and Defined Contribution (DC) pensions, workplace and individual pensions, annuities and drawdown. This series can only be shown from 2005 to 2015 because it is based on regulatory data collected from 2005 under the Solvency I regime.

Figure 9 shows that money in UK pensions was affected by the fall in stock markets in 2008, but asset values recovered over the next 4 years to around 120% of GDP. In 2015, one-third of money in UK pensions was associated with insurer-provided pensions while two-thirds was in pension funds.

Any pension arrangements that do not fall within the definition of “pensions in social insurance” and are not part of the private insurance business covered by S.128 are not included in Figure 9. In theory, they are included elsewhere in the balance sheets of the financial corporations sector. We are aware, however, that there may be some data gaps with respect to such pensions, in particular non-insurer-provided Self-Invested Personal Pensions (SIPPs) and Small Self-Administered Schemes (SSASs). We are working to identify and address these gaps.

**Figure 9: Total funds in UK pensions as a proportion of GDP, 2005 to 2015**



Source: Office for National Statistics

Notes:

1. Pension reserves in S.128 are adjusted to exclude “insurance-managed pension funds”.
2. “Estimated” lines are estimated by ONS using regulatory data provided by S&P Global Market Intelligence.

## Notes for: Money in UK pensions and insurance

1. This means that even if a funded DB pension scheme is not fully funded, the household is considered to be entitled to the promised payments in full.

## 5 . Challenges and opportunities

### What is changing

There are a number of changes taking place in the pensions and insurance world in the UK and in the data collected to report on them in the national accounts. In terms of the figures reported in this article, perhaps the biggest change is the establishment of Defined Contribution (DC) “master trusts”<sup>1</sup>, which are classified in S.129. As funds build up in DC master trusts in coming years and as more and more Defined Benefit (DB) pension schemes in the private sector close to new members, there is likely to be a shift from DB to DC in S.129. Similarly, if we follow Eurostat’s guidance on treating annuities as DB pensions and if retirees opt for alternatives to annuities, such as drawdown or leaving “accumulation phase” DC pension pots invested<sup>2</sup>, there may be a shift from DB to DC in S.128. This could mean that people become more reliant on DC pensions and that the risks associated with pension saving for retirement shift from the providers (the principal risk-bearers for DB pensions) to households (who assume most of the risk of DC pension saving).

Future ONS publications on pensions in the UK National Accounts will aim to document these changes. We are confident that this will be possible for pensions in S.129 because The Pensions Regulator (TPR) and the Pension Protection Fund (PPF) publish data on indicators for trust-based pension schemes including master trusts and provide us with additional regulatory data, allowing us to produce robust estimates for this sub-sector. For S.128 on the other hand, the future of the kind of analysis presented in this article is uncertain. Regulatory data collection requirements have changed with the move to Solvency II in 2016 and the data feeds that we relied on to compile the accounts are no longer available. We are currently working with the Prudential Regulatory Authority and the Bank of England to address this issue.

Solvency II also provides us with new opportunities, in particular to look in more detail at assets in S.128 and how they are invested. However, it is not yet clear whether we will be able to make links between the asset allocations of insurers and the product categories (such as life insurance and pensions business) presented in this article.

## Feedback

The Enhanced Financial Accounts Development team at ONS is working to increase transparency and to improve the estimates in the national accounts. Within this team, the Pensions in the National Accounts team (which is responsible for this article) would welcome feedback on the data and methods described in this article. In particular:

- we are actively looking for new data sources and would be keen to hear from anyone with data that could help to improve the estimates of insurance and pensions, including pensions that are outside the scope of this article such as non-insurer-provided Self-Invested Personal Pensions (SIPPs) and Small Self-Administered Schemes (SSASs)
- we would like to hear from anyone with expertise on annuities and drawdown who can help us decide on the future treatment of the “decumulation phase” in S.128
- we are reviewing our financial surveys – including the MQ5 Pension Funds Survey and Insurance Companies Survey – to ensure that we only collect data that is not available from regulatory sources; we are keen to hear from people who can help us to improve these surveys, including by identifying alternative data sources which would enable us to remove questions and reduce the length of the questionnaires

## Notes for: Challenges and opportunities

1. Definitions for “master trusts” and other pensions terminology used in this article are provided in Appendix 1.
2. There have been reports in the media of a decline in take-up of annuities, in particular since April 2015 when the rules on at-retirement products changed to provide a greater choice of alternatives.

## 6 . Appendix 1: Glossary of pensions terminology used in this article

Term	Meaning
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Additional voluntary contributions (AVCs)	An AVC is a pension top-up arrangement where an employee pays additional amounts into a pension run by their employer.
Annuity	A financial instrument provided by an insurance company that pays a guaranteed annual income to the holder (normally in retirement).
Contract-based pensions	Pensions where the legal contract is between the individual and the pension provider, usually an insurance company. Contract-based pensions are also known as personal pensions.
Defined Benefit (DB) pensions	Pensions in which the rules of the scheme specify the rate of benefits to be paid; the benefits promised to members must be paid in retirement irrespective of the performance of any invested funds. They are associated with occupational or “trust-based” pension schemes. In the national accounts, DB pensions are mainly reported in S.129 pension funds.
Defined Contribution (DC) pensions	Pensions in which the benefits depend on the contributions paid into the fund, investment performance and the type of product purchased upon retirement. DC pensions are also known as money purchase pensions. They may be individual or workplace pensions; and they include money purchase AVCs. In the national accounts, DC pensions are reported in both S.128 insurance corporations and S.129 pension funds.
Drawdown	An arrangement where an individual does not buy an annuity with their pension pot on retirement, but instead draws down money from the fund.
Funded pension scheme	A scheme in which benefits are met from a fund (assets) built up in advance from contributions and investment income.
Group personal pensions (GPPs)	An arrangement made for the employees of a particular employer or group of employers to participate in a personal pension on a group basis. Although the employer facilitates the arrangement, the contract is between the individual and the pension provider, normally an insurance company.
Household pension entitlement	In the national accounts, all pensions involve a “household pension entitlement”. For DB pensions, these entitlements are measured as the actuarial value of the scheme’s liability towards the household up to the date of the accounts. For DC pensions, they are simply equal to the assets in the “pension pot” at the date of the accounts.
Hybrid pension schemes	Hybrid pension schemes combine DB and DC elements. In the UK National Accounts, following international guidance, hybrid schemes are included with DB pensions (mainly in S.129 pension funds ).
Insurance-managed pension funds	An arrangement where an insurance company acts as external investment manager for a trust-based pension scheme, but ownership of the assets and responsibility for the liabilities remains with the scheme.
Master trust	A multi-employer occupational, trust-based pension scheme with one legal trust and board of trustees covering the staff of many unconnected employers. Several large master trusts, including the government’s <a href="#">NEST</a> pension scheme, have been established since 2012 as part of the government’s auto-enrolment policy.
Trust-based pensions	Occupational pension schemes in the private sector are also known as trust-based workplace pension schemes. They are set up under trust law by one or more employers for the benefit of their employees.

Unfunded pension scheme      A DB pension scheme, usually in the public sector, in which liabilities are not underpinned by a corresponding fund or funds (there are no assets).

## 7 . Appendix 2: Breakdown of regulatory data for insurers' reserves relating to pensions business

Table A.1 shows the product categories relating to pensions business from the regulatory data supplied by Standard and Poor's Global Market Intelligence. These product categories are produced by aggregating the regulatory micro-data to the level that is required for compiling the national accounts.

**Table A.1: Insurance companies' pension reserves by product category and line in the national accounts, 2015**

Product category	Line in national accounts	Reserves (£billion)
Accumulation phase: individual personal pensions	AF.62	285
Accumulation phase: workplace pensions	AF.63	193
Decumulation phase: annuities and drawdown	AF.62 and AF.63	291
Total pensions-related reserves of insurers (net)		769

Source: Regulatory data provided by S&P Global Market Intelligence

Note:

1. Pension reserves exclude "insurance-managed pension funds".

We manipulate the data to produce the estimates for S.128 using assumptions such as the one described in Section 3 of this article for estimating the split between annuities and drawdown associated with workplace pensions and annuities and drawdown associated with individual pensions. At present, we do not separate annuities and drawdown because both are treated as Defined Contribution (DC) pensions. However, this may change if we class annuities as Defined Benefit (DB) and drawdown as DC.