

# Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) - experimental debt securities statistics, explanatory notes: 2016

Explanatory notes for the compilation of experimental debt securities statistics in the enhanced financial accounts (UK flow of funds) matrices publication.

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Next release: To be announced

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# 1 . AF.31 – Short-term debt securities

## Introduction

This note explains the sources and methods used in the compilation of the experimental from-whom-to-whom short-term debt securities statistics. Table 1 shows the estimates for balance sheet assets by sector, together with the counterparty sector that holds the liability, for 2016. This data is consistent with the <a href="UK Economic Accounts (UKEA)">UK Economic Accounts (UKEA)</a>, on a <a href="Blue Book 2017">Blue Book 2017</a> basis, except where explicitly highlighted. The second part of this note describes the data sources for these estimates, as well as highlighting areas for review.

Office for National Statistics (ONS) will continue the programme of development and quality assurance of these newly released <a href="Experimental Statistics">Experimental Statistics</a> and any improvements identified in the wider datasets will be integrated within the national accounts at the earliest opportunity.

We welcome feedback on the data sources and methods outlined in these notes. Any feedback on the <a href="mailto:Experimental Statistics">Experimental Statistics</a> and accompanying explanatory notes can be sent to <a href="mailto:flowoffundsdevelopment@ons.gov.uk">flowoffundsdevelopment@ons.gov.uk</a>

Table 1: From-whom-to-whom balance sheet short-term debt securities statistics, 2016, £ billion

Liabilities:												
Assets:	PC	PNFC	MFI	OFI	ICPF	CG	LG	НН	NPISH	RoW	Total	Unknown
PC			0.4	0.1		0.3					0.8	0.0
PNFC		0.4	22.4	4.3		0.7				0.0	27.9	0.0
MFI		0.1	5.3	0.0		7.6	0.0			41.2	54.3	0.0
OFI		0.0	42.6	0.0		36.3				40.5	124.4	5.0
ICPF			6.3			4.6				6.7	18.6	1.0
CG		0.7	0.0							6.8	7.5	
LG		0.0	0.7	0.0		0.9			1.8		3.4	
НН							0.0				6.4	6.4
NPISH				0.3		0.0	0.0				3.6	3.3
RoW		35.3	149.0	1.6		44.5					232.8	2.4
Total		36.6	236.2	15.0		94.9	0.0		1.8	95.2		
Unknown			9.6	8.7		0.0				0.0		

Source: National Statistics

#### Notes:

<sup>1.</sup> PC = public corporations, PNFC = private non-financial corporations, MFI = monetary financial institutions, OFI = other financial institutions except MFIs and ICPFs, ICPF = insurance corporations and pension funds, CG = central government, LG = local government, HH = households, NPISH = non-profit institutions serving households, RoW = rest of the world.

# Data sources by institutional sector

Estimates for short-term debt securities relate to the issuance and holdings of money market instruments (MMIs) with an original maturity of one year or less. This includes certificates of deposit, commercial paper, Treasury and local authority bills and all other MMIs. All institutional sectors can theoretically issue and hold short-term debt securities; it is currently assumed that issuance by public corporations (PCs) will be zero. In general, holdings split by sector are not known and are thus estimated based on a series of assumptions.

## Short-term debt securities issued by private non-financial corporations (PNFCs)

These estimates relate to commercial paper issued by PNFCs and are based on various survey and administrative data. The split of holdings by sector is predominantly not explicitly available and therefore estimated as outlined in this section. There is currently no assumption made for the split of holdings of sterling commercial paper issued by PNFCs; this should likely be split across all institutional sectors.

Short-term debt securities held by private non-financial corporations (PNFCs) are estimated based on reported data for PNFC holdings of foreign currency commercial paper issued by UK companies, collected on the ONS Financial Assets and Liabilities Survey (FALS). Of the total, 95% is assumed to be counterpart to PNFCs. There is no estimate currently made for PNFC holdings of sterling commercial paper issued by PNFCs.

Short-term debt securities held by monetary financial institutions (MFIs) are sourced from Bank of England (BoE) surveys of banks and building societies. Of total MFI holdings of foreign currency commercial paper issued by other UK residents, 95% are assumed to be counterpart to PNFCs; the remaining 5% is assumed to be counterpart to other financial institutions (OFIs). The actual split of holdings by sector for both sterling and foreign currency issuance is available for more recent periods from BoE surveys and this will be implemented in the future.

Short-term debt securities held by other financial institutions (OFIs) are estimated based on ONS surveys of financial institutions. All OFI holdings of UK foreign currency commercial paper are assumed to be counterpart to PNFCs. Of securities dealers' holdings of foreign currency commercial paper, 95% are included here; the remaining 5% are included within OFI holdings of OFI-issued commercial paper.

Short-term debt securities held by central government (CG) relate to Debt Management Office (DMO) purchases of sterling commercial paper sourced from government accounts.

Short-term debt securities held by local government (LG) are estimated based on administrative data provided by the Department for Communities and Local Government (DCLG). This series has been zero since Quarter 3 (July to Sept) 1997.

Short-term debt securities held by the rest of the world (RoW) are predominantly based on known issues of foreign currency commercial paper made by UK companies abroad. This series also includes a proportion of the residual figure for RoW MFIs' holdings of MMIs issued by UK non-banks collected by the Bank for International Settlements; 95% of the total is assumed to be counterpart to PNFCs.

## Short-term debt securities issued by monetary financial institutions (MFIs)

These estimates relate to certificates of deposit (CDs), commercial paper and bills issued by monetary financial institutions (MFIs). The split of holdings by sector is predominantly estimated based on various survey and administrative data. Known holdings are subtracted from the total issuance figure reported on BoE surveys and the residual amount apportioned across sectors based on a series of assumptions. There are differences between these data and similar series published by the BoE due mainly to methodological differences. The Bank and ONS are currently working together to review all MFI data with a view to bring the two datasets into line with one another in the future where relevant.

Short-term debt securities held by public corporations (PCs) are an estimate of holdings of certificates of deposit issued by UK banks based on the total issuance figures from the BoE. This estimate is periodically reviewed and therefore may be constant for several quarters.

Short-term debt securities held by private non-financial corporations (PNFCs) are estimated based on data obtained from the financial assets and liabilities survey (FALS) and the data for total issuance by MFIs reported on BoE surveys. With respect to bank-issued sterling and foreign currency MMIs, 10% and 2% of the residual amount is assumed to be counterpart to PNFCs respectively. For MMIs issued by building societies, 2% of the residual sterling figure is assumed to be counterpart to PNFCs, with 10% and 20% of the residual foreign currency CDs and commercial paper issued respectively included here.

Short-term debt securities held by monetary financial institutions (MFIs) are sourced from Bank of England (BoE) surveys of banks and building societies where these data are explicitly reported. This series includes holdings of sterling and foreign currency bills accepted by other UK banks.

Short-term debt securities held by other financial institutions (OFIs) are estimated based on data reported on ONS surveys of financial institutions and a proportion of the residual issuance figure from BoE surveys. Holdings data are collected on the ONS Financial Services Survey (FSS), the securities dealers' survey and surveys of investment and unit trusts. Of the residual sterling and foreign currency bank issuance data, 5% and 40% respectively are assumed to be held by OFIs; for building society issuance data, 40% and 5% of the residual sterling and foreign currency figures respectively are assumed to be counterpart to OFIs.

Short-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance corporations and pension funds, where these data are explicitly reported.

Short-term debt securities held by central government (CG) are based on administrative data within government accounts that relate to Debt Management Office (DMO) holdings of sterling bank-issued certificates of deposit and other central government holdings of foreign currency MMIs.

Short-term debt securities held by local government (LG) are sourced from administrative data provided by the Department for Communities and Local Government. This series also includes Emerging Market Fund certificates of deposits issued by banks and building societies.

Short-term debt securities held by non-profit institutions serving households (NPISH) are derived as a proportion of the residual issuance figure from BoE. This includes: 10% of the residual sterling bank-issued CDs and commercial paper; 1% of the residual foreign currency bank-issued CDs and commercial paper; 10% of the residual sterling building society-issued CDs and foreign currency building society-issued commercial paper; and 1% of the residual foreign currency building society-issued CDs and sterling building society-issued commercial paper.

Short-term debt securities held by the rest of the world (RoW) are estimated based on BoE survey data and a proportion of the residual issuance figure. BoE data on certificates of deposit and commercial paper lodged for non-residents in UK MFIs are included here along with non-resident acceptances held by UK banks. Set proportions of the residual issuance figures are also included: 40% of the residual sterling bank-issued CDs and commercial paper; 20% of the residual sterling building society-issued CDs and commercial paper; 92% of the residual foreign currency bank and building society-issued CDs and commercial paper.

## Short-term debt securities issued by other financial institutions (OFIs)

The figure for total issuance is calculated as the sum of the known holdings, which are based on ONS and Bank of England (BoE) survey data and a series of assumptions. It is assumed that only the monetary financial institutions (MFIs), other financial institutions (OFIs), households (HH) and non-profit institutions serving households (NPISH) sectors will hold LA bills but in theory other sectors could also hold these bills.

Short-term debt securities held by public corporations (PCs) relate to temporary deposits with OFIs, estimated based on published accounts for specific public corporations.

Short-term debt securities held by public non-financial corporations (PNFCs) are estimated based on total issuance data from ONS surveys of financial institutions. Of the total foreign currency commercial paper issued by OFIs, 5% is assumed to be counterpart to PNFCs. An estimate is also made for PNFC holdings of sterling short-term paper issued by OFIs.

Short-term debt securities held by monetary financial institutions (MFIs) are sourced from BoE surveys of banks and building societies. Of MFI holdings of foreign currency commercial paper issued by other UK residents, 5% are assumed to be counterpart to OFIs; the remaining 95% is assumed to be issued by PNFCs. The actual split of holdings by sector is available from BoE and this will be implemented in the future.

Short-term debt securities held by other financial institutions (OFIs) are estimated based on ONS surveys of securities dealers. Of the total holdings of foreign currency commercial paper by securities dealers, 5% are assumed to be issued by OFIs. There is currently no explicit estimate made for OFI holdings of sterling commercial paper issued by OFIs; this therefore accounts for some of the unknown counterpart data.

Short-term debt securities held by local government (LG) are estimated based on administrative data obtained from the Department for Communities and Local Government. A proportion of investments outstanding are assumed to be counterpart to OFIs.

Short-term debt securities held by non-profit institutions serving households (NPISH) relate to securities dealers partner's capital sourced from the ONS survey of securities dealers.

Short-term debt securities held by the rest of the world (RoW) are estimated based on data from the Bank for International Settlements (BIS) on RoW MFIs' holdings of foreign currency commercial paper issued by UK non-banks; 5% of the total is assumed to be counterpart to OFIs with the remaining 95% counterpart to PNFCs. There is currently no explicit estimate made for RoW holdings of sterling commercial paper issued by OFIs; this therefore accounts for some of the unknown counterpart data.

## Short-term debt securities issued by central government (CG)

These estimates relate to sterling and euro Treasury bills issued by the central government and held by all institutional sectors other than the central government itself; Treasury bills held by National Debt commissioners, the Exchange equalisation account and other central government departments are excluded. Estimates of total issuance are sourced from government accounts, with the split of holdings by sector based on various ONS and BoE survey data. Any residual holdings are split equally between the OFI and RoW sectors.

Treasury bills held by public corporations (PCs) are estimated based on monthly data provided by Royal Mail.

Treasury bills held by private non-financial corporations (PNFCs) are sourced from the ONS Financial Assets and Liabilities Survey. In Quarter 1 (Jan to Mar) 2000, this series also includes the investment in Treasury bills of deposits for 3G licences.

Treasury bills held by monetary financial institutions (MFIs) are predominantly sourced from BoE surveys of banks and building societies. Holdings of bills by the Central Bank are not included in this series as these are often very short-term. Holdings of European Currency Unit Treasury bills are included here prior to 1999, sourced from government accounts.

Treasury bills held by other financial institutions (OFIs) are derived as the residual sector for this instrument; 50% of the total residual amount is allocated here with the other 50% allocated to RoW holdings.

Treasury bills held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of pension funds, long-term insurance corporations and general insurance corporations.

Treasury bills held by local government (LG) are sourced from administrative data reported by the Department for Communities and Local Government. This includes holdings of Treasury bills by externally- managed funds.

Treasury bills held by non-profit institutions serving households (NPISH) are assumed to be negligible and estimated at 10 million a quarter since 2001.

Treasury bills held by the rest of the world (RoW) are estimated based on data reported on BoE surveys for sterling and euro Treasury bills lodged for non-residents in UK MFIs as well as 50% of the residual amount.

## Short-term debt securities issued by local government (LG)

These estimates relate to local authority (LA) bills issued by local government in the UK; this series has been zero since Quarter 4 (Oct to Dec) 1998. The figure for total issuance is calculated as the sum of the known holdings, which are based on ONS and BoE survey data and a series of assumptions. It is assumed that only the MFI, OFI, HH and NPISH sectors will hold LA bills but in theory other sectors could also hold these bills. LA bills held by the HH and NPISH sectors are assumed to be zero across the time period.

Local authority bills held by monetary financial institutions (MFIs) are sourced from BoE surveys of banks and building societies. Bank acceptances of local government-issued bills are also included here.

Local authority bills held by other financial institutions (OFIs) are estimated based on data reported in ONS surveys of financial institutions.

# Short-term debt securities issued by non-profit institutions serving households (NPISH)

These estimates relate solely to short-term investments of local government in the NPISH sector, for example, in local government-owned schools. Data are sourced from administrative data provided by the Department for Communities and Local Government; a proportion of the short-term investments outstanding are assumed to be counterpart to the NPISH sector.

Data for monetary financial institutions (MFIs) holdings of MMIs issued by the NPISH sector are available from BoE surveys; these data will be included here in the future (these figures are negligible)

## Short-term debt securities issued by the rest of the world (RoW)

These estimates relate to UK holdings of bills, commercial paper and certificates of deposit issued by the rest of the world. The figure for total UK holdings of RoW-issued MMIs is derived as the sum of the known holdings; these are sourced from various ONS and BoE surveys as well as administrative data for central government holdings. It is currently assumed that holdings by public corporations, local government, households and non-profit institutions serving households (NPISH) will be zero.

Short-term debt securities held by private non-financial corporations (PNFCs) are predominantly sourced from the ONS Financial Asset and Liabilities Survey. Of total net new issues of sterling commercial paper by non-resident issuers sourced from the BoE capital issuance survey, 60% are also included here.

Short-term debt securities held by monetary financial institutions (MFIs) are sourced from the BoE surveys of banks and building societies. This includes MFI holdings of RoW-issued certificates of deposit, commercial paper and bank acceptances of non-resident issued bills.

Short-term debt securities held by other financial institutions (OFIs) are predominantly sourced from ONS surveys of securities dealers and other financial institutions. This series also includes 30% of total net new issues of sterling commercial paper by non-resident issuers sourced from the BoE capital issuance survey.

Short-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance corporations and pension funds, where these data are explicitly reported.

Short-term debt securities held by central government (CG) are estimated based on data provided by the BoE for reserve assets and data from the Debt Management Authority on holdings of foreign currency assets.

# 2 . AF.32 – Long-term debt securities

## Introduction

This note explains the sources and methods used in the compilation of the experimental from-whom-to-whom long-term debt securities statistics. Table 2 shows the estimates for balance sheet assets by sector, together with the counterparty sector that holds the liability, for 2016. This data is consistent with the <a href="UK Economic Accounts">UK Economic Accounts</a> (UKEA), on a <a href="Blue Book 2017">Blue Book 2017</a> basis, except where explicitly highlighted. The second part of this note describes the data sources for these estimates, as well as highlighting areas for review.

Office for National Statistics (ONS) will continue the programme of development and quality assurance of these newly released <a href="Experimental Statistics">Experimental Statistics</a> and any improvements identified in the wider datasets will be integrated within the national accounts at the earliest opportunity. Differences between these statistics and other known published sources are also explained where relevant in the second part of this note.

We welcome feedback on the data sources and methods outlined in these notes. Any feedback on the <a href="mailto:Experimental Statistics">Experimental Statistics</a> and accompanying explanatory notes can be sent to <a href="mailto:flowoffundsdevelopment@ons.gov.uk">flowoffundsdevelopment@ons.gov.uk</a>

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Table 2: From-whom-to-whom balance sheet long-term debt securities statistics, 2016, £ billion

Liabilities:												
Assets:	РС	PNFC	MFI	OFI	ICPF	CG	LG	НН	NPISH	RoW	Total	Unknown
PC		<u> </u>	-	=======================================	=======================================	0.5	0.0	= =====	=======================================	0.1	0.6	0.0
PNFC			0.8			2.4	0.0			13.0	60.7	44.4
MFI	0.1		19.9			636.0	0.0			376.7	1341.9	309.3
OFI	0.6		18.2			193.5	0.0			170.6	660.6	277.7
ICPF	2.1		50.9			564.3	2.6			369.7	1225.5	235.9
CG	0.0		0.0				0.0			77.3	78.1	0.8
LG						0.4					0.6	0.2
НН			0.0				1.4				10.1	8.7
NPISH	0.0					0.2	0.3			1.0	7.6	6.1
RoW		31.5		1.2	1.4	537.4	0.0				1645.0	930.6
Total	24.0	331.0	742.8	953.7	30.1	1934.8	4.4		1.5	1008.4		
Unknown	21.2	299.5	653.1	952.6	28.7				1.5			

<sup>1.</sup> PC = public corporations, PNFC = private non-financial corporations, MFI = monetary financial institutions, OFI = other financial institutions except MFIs and ICPFs, ICPF = insurance corporations and pension funds, CG = central government, LG = local government, HH = households, NPISH = non-profit institutions serving households, RoW = rest of the world.

# Data sources by institutional sector

Estimates for long-term debt securities relate to the issuance and holdings of bonds and other debt instruments with an original maturity of more than one year. All institutional sectors can theoretically issue and hold long-term debt securities; there are currently estimates for all sectors. In general, holdings split by sector are not known and are thus estimated based on a series of assumptions. For numerous counterpart relationships there are currently no estimates; these will have to be developed in the future either by modelling or by introducing a new data collection.

## Long-term debt securities issued by public corporations (PCs)

These estimates include bonds, preference shares and other guaranteed and unguaranteed debt issued by public corporations. The total issuance figure is based on the sum of known issuance and known holdings from a variety of different sources, outlined in more detail in this section. Between Quarter 1 (Jan to Mar) 1999 and Quarter 1 2012, there are issuance estimates for which the counterpart split is unknown; these relate to guaranteed bonds issued by London and Continental Railways, bonds issued by British Energy and other long-term debt issued by public infrastructure companies. The holdings of this debt are most likely split across institutional sectors.

Long-term debt securities held by monetary financial institutions (MFIs) are sourced from Bank of England (BoE) surveys of banks and building societies where these figures are explicitly recorded.

Long-term debt securities held by other financial institutions (OFIs) are sourced from ONS surveys of securities dealers, investment and unit trusts and other financial institutions. It is likely that some of the unknown counterpart data should be allocated to the OFI sector.

Long-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance corporations and pension funds where these data are explicitly reported.

Long-term debt securities held by central government (CG) relate to bonds issued by British Energy and held by the National Loans Fund as well as government holdings of British Nuclear Fuels Limited debentures.

Long-term debt securities held by non-profit institutions serving households (NPISH) are assumed to be zero across the time period.

## Long-term debt securities issued by private non-financial corporations (PNFCs)

These estimates relate to debt securities and preference share capital issued by PNFCs, predominantly sourced from the London Stock Exchange for quoted bonds, and the BoE capital issuance survey for unquoted bonds. Nominal values are converted to market value using a bond market index. Preference share capital sourced from the ONS Foreign Direct Investment Survey is also included in this series. The counterpart data are generally unknown here; the holdings are likely split across sectors.

Long-term debt securities held by the rest of the world (RoW) includes preference share capital held by foreign parent companies in related UK-resident PNFCs. This estimate is sourced from the ONS survey of inward foreign direct investment.

# Long-term debt securities issued by monetary financial institutions (MFIs)

These estimates relate to bonds, preference shares and other debt instruments issued by banks and building societies. The estimate for total issuance is sourced from BoE surveys of MFIs; this may differ from data published by the Bank as a bond market index is applied to convert from nominal to market value. Holdings by sector are generally estimated based on a series of assumptions about the proportional split across the sectors, with the residual amount allocated to the RoW.

Long-term debt securities held by private non-financial corporations (PNFCs) are assumed to account for 10% of the total issuance of debt securities by MFIs sourced from BoE surveys.

Long-term debt securities held by monetary financial institutions (MFIs) are sourced from BoE surveys of banks and building societies, with holdings by building societies currently estimated. MFI holdings of debt securities issued by MFIs with greater than five years' original maturity are not currently included here but instead form part of the unknown counterpart data. These amounts will be investigated as part of the wider review of MFI data.

Long-term debt securities held by other financial institutions (OFIs) are estimated based on the residual amount outstanding: 7.5% of the residual amount of foreign currency debt securities of between one and five years' maturity are assumed to be counterpart to OFIs, with 17.5% and 20% of the residual amount for sterling debt securities issued by banks and building societies respectively included here.

Long-term debt securities held by insurance corporations and pension funds (ICPFs) are estimated based on the residual amount outstanding: 52.5% and 60% of the residual amount of sterling debt securities of between one and five years' maturity issued by banks and building societies respectively are assumed to be counterpart to OFIs, with 22.5% of the residual amount for foreign currency debt securities included here.

Long-term debt securities held by central government (CG) are sourced from administrative data in government accounts.

Long-term debt securities held by households (HH) are assumed to be negligible and thus estimated at zero across the period.

# Long-term debt securities issued by other financial institutions (OFIs)

These estimates relate to debt securities and preference share capital issued by OFIs, predominantly sourced from the London Stock Exchange for quoted bonds and the BoE capital issuance survey for unquoted bonds. Nominal values are converted to market value using a bond market index. Preference share capital sourced from the ONS Inward Foreign Direct Investment Survey is also included in this series. The counterpart data are all unknown here other than FDI share capital; the unknown holdings are likely split across sectors.

## Long-term debt securities issued by insurance corporations and pension funds (ICPFs)

These estimates relate to debt securities and preference share capital issued by ICPFs, predominantly sourced from the London Stock Exchange for quoted bonds and the BoE capital issuance survey for unquoted bonds. Nominal values are converted to market value using a bond market index. Preference share capital sourced from the ONS Inward Foreign Direct Investment Survey is also included in this series. The counterpart data are all unknown here other than FDI share capital; the unknown holdings are likely split across sectors.

# Long-term debt securities issued by central government (CG)

These estimates relate to bonds issued by the central government and held by all institutional sectors. The figure for total issuance is sourced from government accounts with the split of holdings across sectors estimated based on various ONS and BoE survey data and other government administrative data. This series also includes debt securities issued by nationalised financial institutions; holdings by sector of these securities are not known but are likely split across sectors.

Long-term debt securities held by public corporations (PCs) are estimated based on monthly data provided by Royal Mail as well as incorporating data available from public accounts.

Long-term debt securities held by private non-financial corporations (PNFCs) are sourced from the ONS Financial Assets and Liabilities Survey. Until 2005, this series also includes an adjustment to remove gilts held by the Nuclear Decommissioning Fund, classified as a public corporation.

Long-term debt securities held by monetary financial institutions (MFIs) have a split source. Banks' data are sourced from BoE surveys of banks and building societies, whereas building society holdings are currently estimated based on historic data from the Building Society Commission.

Long-term debt securities held by other financial institutions (OFIs) are sourced from ONS surveys of securities dealers, investment and unit trusts, and other financial institutions. This also includes a balancing adjustment to redistribute the holdings between OFIs and non-profit institutions serving households (NPISH). Gilts held by nationalised financial institutions are removed from this series.

Long-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance corporations and pension funds. A balancing adjustment is placed here to move some holdings into the non-profit institutions serving households (NPISH) sector.

Long-term debt securities held by local government (LG) are based on data provided by the Department for Communities and Local Government. This includes investment in gilts by externally-managed funds.

Long-term debt securities held by non-profit institutions serving households (NPISH) are derived as the residual sector for this instrument.

Long-term debt securities held by the rest of the world (RoW) are sourced from reserves data supplied by the Bank of England (BoE) for non-residents' investment in British government securities. This series also includes RoW holdings of other central government bonds until Quarter 3 (July to Sept) 2008 derived as part of the residual issuance.

# Long-term debt securities issued by local government (LG)

These estimates relate to debt securities issued by UK local authorities that are held by all institutional sectors. The figure for total issuance is sourced from data provided by the Department for Communities and Local Government on outstanding bonds and other marketable debt.

Long-term debt securities held by public corporations (PCs) are estimated based on data reported in the ONS Financial Assets and Liabilities Survey. It is assumed that these holdings will be zero.

Long-term debt securities held by private non-financial corporations (PNFCs) are estimated based on data reported in the ONS Financial Assets and Liabilities Survey. It is assumed that these holdings will be zero.

Long-term debt securities held by monetary financial institutions (MFIs) are sourced from BoE surveys of banks and building societies. Although only the building societies data are used, the holdings of banks are currently estimated to be zero.

Long-term debt securities held by other financial institutions (OFIs) are estimated based on data reported in ONS surveys of financial institutions. This estimation is periodically reviewed and therefore figures are often constant over several quarters.

Long-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance companies and pension funds where these figures are explicitly reported.

Long-term debt securities held by central government (CG) are sourced from administrative data in government accounts. This series has historically been zero.

Long-term debt securities held by households (HH) are derived as the residual sector for this instrument.

Long-term debt securities held by non-profit institutions serving households (NPISH) are sourced from a sample of individual charity accounts and grossed up.

Long-term debt securities held by the rest of the world (RoW) are assumed to be zero across the time period.

# Long-term debt securities issued by non-profit institutions serving households (NPISH)

These estimates relate to quoted and unquoted bonds issued by NPISH; there are currently no assumptions made for the split of holdings by sector. The figure for total issuance is sourced from the London Stock Exchange for estimates of quoted bonds and the BoE capital issuance survey for estimates of unquoted bonds. A bond market index is applied to convert figures from nominal to market value.

# Long-term debt securities issued by the rest of the world (RoW)

These estimates relate to UK holdings of bonds, preference shares, government securities and any other long-term debt instruments issued by the RoW. The total figure is calculated as the sum of the holdings by sector; data are sourced from various ONS and Bank of England (BoE) surveys as well as administrative data for holdings by the central government.

Long-term debt securities held by public corporations (PCs) relate to preference share capital held by UK public corporations in related entities abroad, estimated based on data reported on the ONS outward Foreign Direct Investment (FDI) Survey. This estimate is periodically reviewed and therefore figures may remain constant over several quarters.

Long-term debt securities held by private non-financial corporations (PNFCs) include holdings of bonds and preference share capital held by UK PNFCs in related entities abroad. The former estimates are sourced from the ONS Financial Assets and Liabilities Survey; the latter are sourced from the ONS outward FDI survey.

Long-term debt securities held by monetary financial institutions (MFIs) are sourced from BoE surveys of banks and building societies. Building societies' holdings are estimated as a proportion of their total investment in non-residents; 65% of total sterling investments are assumed to be investments in long-term debt securities while 99% of total foreign currency investments are included here.

Long-term debt securities held by other financial institutions (OFIs) include holdings of bonds and notes and preference share capital held by UK OFIs in related entities abroad. The former are sourced from ONS surveys of securities dealers, unit and investment trusts, and other financial institutions; the latter are sourced from the ONS Foreign Direct Investment (FDI) Survey. An adjustment is included here to remove holdings of long-term debt securities by nationalised financial institutions that are now included within the central government sector.

Long-term debt securities held by insurance corporations and pension funds (ICPFs) are sourced from ONS surveys of insurance corporations and pension funds for holdings of bonds, preference shares and government securities. Preference share capital held by UK ICPFs in related entities abroad is sourced from the ONS outward FDI survey.

Long-term debt securities held by central government (CG) are predominantly sourced from data provided by the BoE for international reserves. This series also includes holdings of Bulldog bonds by the Debt Management Office based on administrative data in government accounts. Holdings of long-term debt securities by nationalised financial institutions are removed from the OFI sector and included here.

Long-term debt securities held by non-profit institutions serving households (NPISH) are estimated based on HM Revenue and Customs data.