

Securities Holdings Statistics in Ireland: Introducing the Enhanced Quarterly Statistics

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Abstract

This Article presents the recently introduced *Securities Holdings Statistics* published by the Central Bank of Ireland, including holdings of debt securities; quoted shares; and investment fund shares and units. During the financial crisis, the availability of only limited information on holdings of securities made it difficult to identify the exposures of market participants and hindered swift policy action. This served to underscore the need for granular, security-by-security information on the operation of financial markets. The collection of data on the holdings of securities was commenced by the European System of Central Banks in early 2014 in order to close these data gaps. In order to meet growing demand for information, this new data release provides detailed insights into the holdings of various financial instrument classes by Irish residents, including households and non-financial corporations. This Article examines the links between the holders and issuers of securities at a granular counterparty sector, country, and instrument level, and it explores the ongoing expansion of the reporting population.

¹ The authors are Senior Economists and a Securities Analyst in the Statistics Division. The views expressed in this article are solely the views of the authors and are not necessarily those held by the Central Bank of Ireland or the European System of Central Banks. The authors would like to thank Joe McNeill, Rory McElligott and Gabriel Fagan for their useful comments.

1. Introduction

With the onset of the global financial crisis in 2008, the need for granular information on the holdings of individual securities became clear. As the crisis unfolded, policy-makers were faced with limited information making it difficult to identify exposures of market participants, or sectors, to particular issuers. The absence of such data hindered swift policy responses and underscored the need for granular information on securities holdings. The collection of Securities Holdings Statistics (SHS) was undertaken in order to address these gaps. The purpose of this new data is to provide comprehensive statistical information on the exposure of economic sectors to specific classes of securities and on the links between the economic sectors of holders and issuers of securities. Such information will also support both the monitoring of the transmission of risks from financial markets to the real economy, and the ongoing analysis of financial market developments. This is particularly important, given the increased interconnectedness of financial markets, both domestically and across borders.

The collection of SHS data commenced in 2014 with the first data referring to holdings at end-2013. Data is collected on a granular, security-by-security basis (s-by-s)² and covers the following instrument types: short-term debt securities; long-term debt securities; quoted shares; and investment fund shares and units. The collection also spans three distinct modules: Sector³, Group, and Eurosystem. At the outset, the actual reporting population⁴ consisted of resident monetary financial institutions (MFIs)⁵, investment funds (IFs), and financial vehicle corporations (FVCs) in addition

to custodians. This has been expanded over time. Some additional material with regard to legal frameworks, the various modules and the data compilation process is presented in an Annex.

The Central Bank of Ireland has commenced the publication of a new quarterly *Securities Holdings Statistics* release in order to meet the increasing demand for information in this area. The release provides information on holdings by each resident institutional sector with detailed breakdowns by financial instrument type and currency of denomination, in addition to information on the exposures of Irish holders of securities by issuer sector and issuer country.

These statistics include heretofore unpublished information on the market value of the debt securities, quoted shares, and investment fund shares and units held by Irish-resident households⁶ and non-financial corporations (NFCs). The new data will facilitate enhanced research, particularly in the area of household wealth dynamics. The new time-series covers a two-year period spanning 2014 to Q2 2016 and will be published quarterly. The data refers to the market value of securities held at each quarter-end. Changes over time relate to movements in Balance Sheet closing positions which reflect both transactions and valuation changes⁷. The focus of this Article will be the sector module which relates to aggregate holdings by each resident institutional sector within a country. The magnitude of the holdings data collected are significant across the euro area (EA). By mid-2014, the total holdings of EA investors exceeded €23 trillion⁸. Within this, the estimated total holdings of Irish-resident investors were approximately €1.7 trillion

2 The presentation in the new quarterly Statistical Release relates solely to s-by-s data and, as such, this is not directly comparable to the extant monthly release on *Holdings of Irish Government Bonds* where the latter is not based on an s-by-s compilation methodology. The existing monthly dataset includes both a nominal add-back and a derived residual, and it is intended to revise and update this release over the coming quarters.

3 This module excludes holdings by national central banks (NCBs) throughout this article.

4 This represents the population of direct reporters at the outset and this has been expanded over time. Direct reporters also included 'heads of banking groups' where these had been both designated as Reporting Banking Groups by the Governing Council and notified of their reporting obligations. The Central Bank of Ireland has not undertaken data collection from a Reporting Banking Group at the time of writing.

5 This relates to holdings by credit institutions (CIs) and money market funds (MMFs) but excludes holdings by NCBs.

6 This sector encompasses the holdings of non-profit institutions serving households (NPISH) throughout this article.

7 Valuation changes will include foreign exchange (FX) movements.

8 This relates to the sector module only.

and this figure has increased over time. We estimate that Irish-resident households held securities valued at some €10 billion.

The rest of the Article is organised as follows. Section 2 examines who holds what across the various institutional sectors resident in Ireland, and addresses the issue of direct data collection from the insurance corporations sector. Section 3 focuses specifically on the holdings of the household and NFC sectors and considers the instrument composition and counterparty of these holdings. This section also examines the scope for Third-party Holdings (TPH) data to assist data users in addressing data gaps, whilst Section 4 concludes.

2. Who Holds What?

The SHS sector module provides aggregate information on the holdings of institutional sectors resident in individual countries where this data is provided by a combination of direct reporters – MFIs, IFS, and FVCs – and custodians. The dataset has come to be used for a range of analytical purposes. The ECB has commenced the publication of EA aggregates and has used this data to undertake a range of analytical tasks, including an examination of the interconnectedness of EA sectors and an investigation of the differences in investment patterns across EA sectors. ESCB data users have undertaken research across themes such as holdings of particular asset classes as well as liquidity, currency preferences, and market concentration in European bond markets (Coates and Dooley, 2016; Boermans, Frost and Steins Bisschop, 2016; Boermans and Vermeulen, 2016; Boermans, 2016). The availability of s-by-s data also has the potential to facilitate a range of further analytical tasks. For instance, this contributes to the enhancement of integrated euro area financial and non-financial accounts by institutional sector (EAA) by enabling an extension of the

whom-to-whom coverage to all marketable instruments. Furthermore, this can be used to examine how the portfolio holdings of each sector differ across financial instrument types, including the original (or residual) maturity of debt securities held.

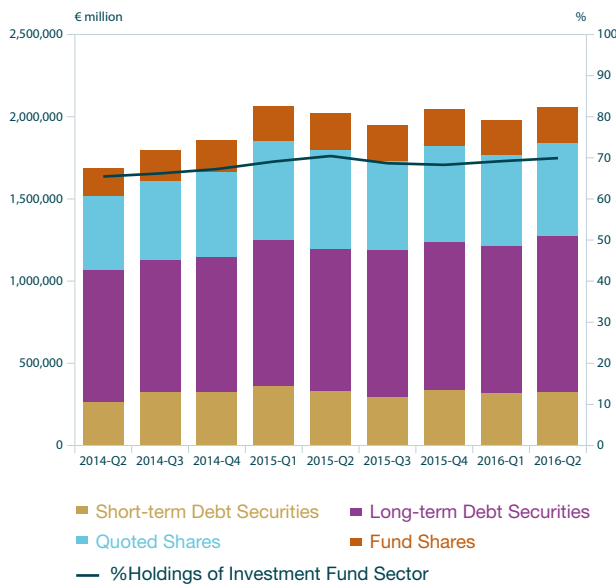
By mid-2014, total holdings by EA investors amounted to some €23 trillion. This covered both securities issued by EA residents (€18 trillion) and non-EA residents (€5 trillion) (ECB, 2015). In this section, we present aggregate statistics on the holdings of securities by Irish residents using the quarterly statistics introduced by the Central Bank of Ireland in early 2017. We also explore extant data gaps with regard to holdings by the insurance corporations sector in Box A below.

2.1 Comparative securities holdings across holder sectors

The estimated market value of holdings of securities by all Irish residents stood at just over €2 trillion by Q2 2016⁹ compared to less than €1.7 trillion in the same period in 2014. This represents an increase of 22 per cent over a two-year period. Holdings of debt securities remained the predominant asset class throughout but eased back slightly from 63 per cent to 62 per cent of the total over this period. By contrast, holdings of quoted shares increased by 1 per cent to 28 per cent of the total between 2014 and 2016 whilst holdings of investment fund shares and units remained static at approximately 10 per cent. The IF sector was by far the largest holder sector by Q2 2016 accounting for some 70 per cent of total holdings (in euro terms) compared to 65 per cent two years previously (Chart 1). For comparative purposes, Chart 2 illustrates the absolute value of holdings by resident holder sector as at Q2 2016. This very clearly demonstrates the disparity in the size of each holder sector and the capacity for the IF sector to shape any analysis by issuer counterparty or currency at the aggregate level.

⁹ This does not include any securities held by the Central Bank of Ireland or by Irish Government entities such as the Ireland Strategic Investment Fund (ISIF). Quoted shares held by the FVCs are not included at present and unquoted shares are not included for any institutional sector.

Chart 1: Total Holdings of Irish Residents by Instrument Type Q2 2014 - Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

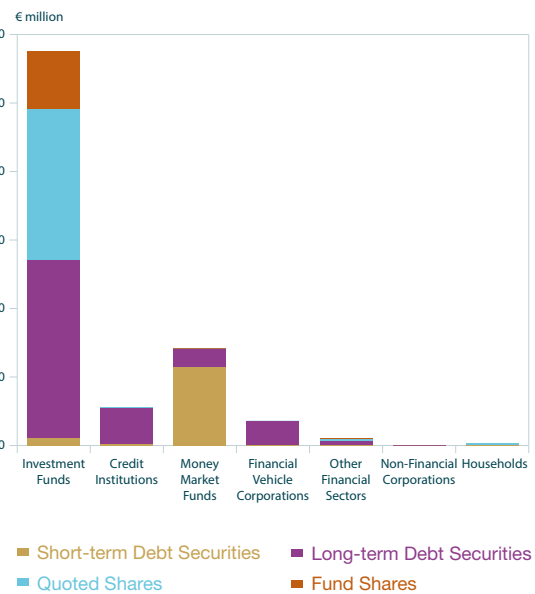
Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.

There are significant differences in the size of holdings across sectors. This ranges from IFs at €1.4 trillion to households at less than €10 billion¹⁰. Comparing institutional sectors at the level of aggregate holdings, however, only provides limited information. An analysis of securities held by instrument type provides information on variations in terms of portfolio composition (Chart 3). The credit institutions and MMFs sub-sectors hold 99 per cent of their securities in the form of debt securities¹¹. Conversely, Irish-resident households have a marked preference for quoted shares, as these instruments account for 74 per cent of total holdings. The IF sector has a more balanced portfolio of securities holdings with no instrument type accounting for more than 50 per cent of the total. In light of the dominance of debt securities and quoted shares as a proportion of total securities held by all Irish residents, the remainder of this section will

¹⁰ In part, this difference may arise due to the fact that resident IFs are direct reporters at present, whereas household and NFC holdings data is sourced from resident custodian reporting. The latter will provide incomplete coverage (see Box B).

¹¹ In the case of credit institutions, these may include intra-group (or own) holdings.

Chart 2: Total Holdings of Irish Residents by Holder Sector & Instrument Type Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.

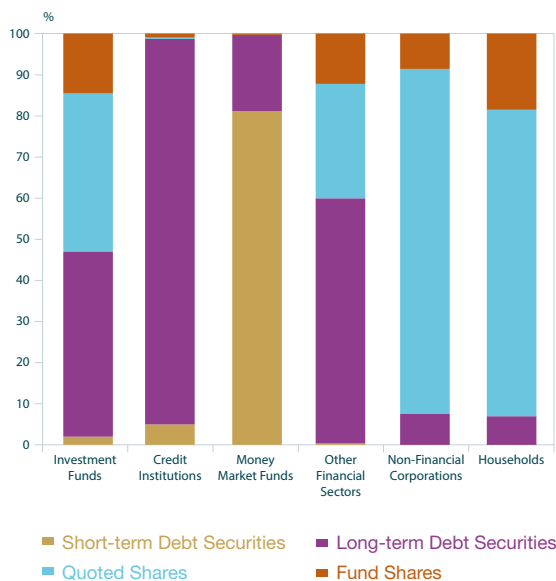
- (ii) Holdings of quoted shares by the FVC sector are not available at present. Unquoted shares are not included for any institutional sector.
- (iii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
- (iv) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

focus on the issuers of debt securities and quoted shares held by Irish residents.

2.2 Analysis by issuer counterparty and currency

2.2.1 Holdings by issuer region

An analysis by the region of issuer — and regardless of instrument type — indicates that most holder sectors demonstrate a clear distance effect with securities' holdings concentrated in the EU. Similar to Galstyan et al (2016), this sensitivity applies in the case of holdings by credit institutions and households but it is less clear for IFs. In the case of debt securities held, the data indicates that resident IFs and MMFs have broadly similar exposures as they hold a large portion of these instruments issued by non-EA (or rest of the

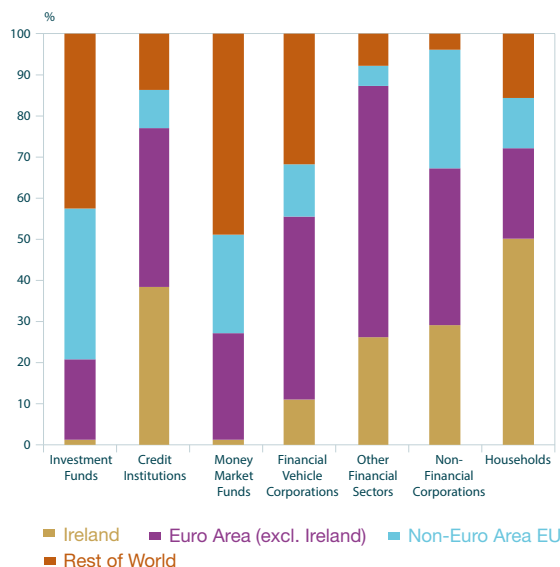
Chart 3: Proportionate Distribution of Holdings of Irish Residents by Holder Sector & Instrument Type Q2 2016


Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings of quoted shares by the FVC sector are not available at present. Unquoted shares are not included for any institutional sector.
(iii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
(iv) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

world) countries (Chart 4). Credit institutions, NFCs and, in particular, the household sector hold a much larger proportion of Irish-issued debt securities. An analysis of the holdings of debt securities issued by EA issuers suggests some interesting variations by holder sector and the level of exposure to peripheral EA countries. For instance, 24 per cent of all holdings of EA-issued debt securities¹² consisted of issuance by entities in Greece, Italy, Spain and Portugal. The equivalent figure, however, was far higher in the case of Irish-resident credit institutions where this cohort of countries accounted for 55 per cent of their holdings of EA-issued debt securities in Q2 2016.

An analysis by issuer region (Chart 5) for quoted shares also indicates a notable variance by holder sectors. In the case of quoted shares, IFs held a large proportion of shares issued outside the EU (72 per cent)

Chart 4: Proportionate Distribution of Holdings of Debt Securities by Irish Residents by Holder Sector & Issuer Region Q2 2016


Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
(iii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

as at Q2 2016. The majority of these are US issuance. By contrast, Irish-issued quoted shares are the most predominant instrument class amongst Irish-resident households. Irish-issued quoted shares accounted for 43 per cent of holdings for this sector. Conversely, credit institutions hold a higher proportion of shares issued by EA countries (excluding Ireland), albeit these are still a small proportion of their total holdings.

2.2.2 Holdings by issuer sector

Although IFs and MMFs seem to have similar profiles in the case of exposures by issuer region for debt securities, this does not hold true in the case of the issuer sectors. A significant majority of the MMF-held debt securities were issued by the credit institutions sector (64 per cent) whereas this sector only accounts for 12 per cent of IF holdings of debt

¹² In this case, EA issuance excludes issuance by Irish-resident entities.

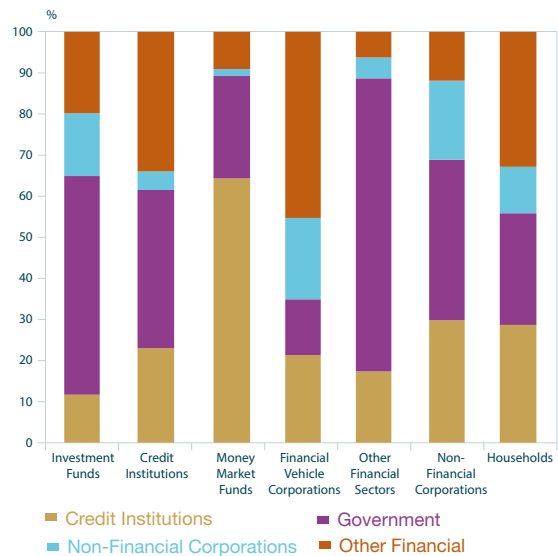
Chart 5: Proportionate Distribution of Holdings of Quoted Shares by Irish Residents by Holder Sector & Issuer Region Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings of quoted shares by the FVC sector are not available at present. Unquoted shares are not included for any institutional sector.
(iii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
(iv) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

Chart 6: Proportionate Distribution of Holdings of Debt Securities by Irish Residents by Holder Sector & Issuer Sector Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
(iii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

securities. Sovereign bonds account for more than half of the holdings of debt securities by the IF sector (Chart 6). The 'Other Financial Sectors' category shows a marked inclination towards holdings of sovereign debt. In the case of quoted shares (Chart 7) the issuer sector tended to be similar across all holder sectors as at Q2 2016. NFC issuance of quoted shares accounted for at least 75 per cent of issued shares held in each case but the overall exposure to this instrument class does vary significantly by holder sector¹³.

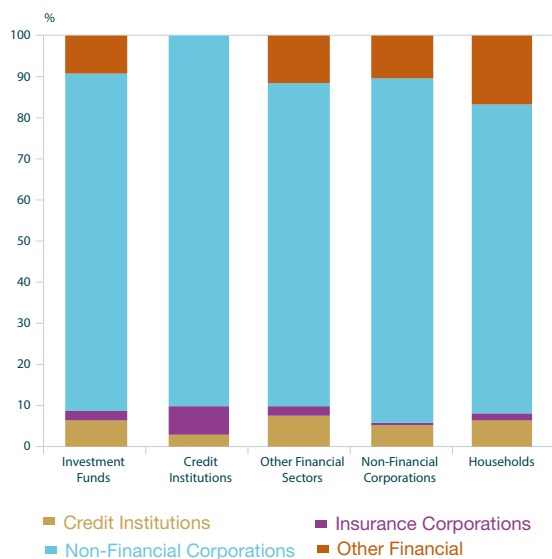
2.2.3 Holdings by currency of denomination

There are some marked variances with regard to the currency of denomination of debt securities held. For the IF sector, only 20 per cent of total holdings are in the form

of euro-denominated debt securities. This is low when compared to other institutional sectors but it may simply reflect the broader diversity of the IF sector¹⁴. For instance, euro-denominated holdings account for close to 90 per cent of debt securities held by Irish-resident households and NFCs. IFs and MMFs, however, are more likely to hold GBP£-denominated debt securities. In the case of holdings of quoted shares at Q2 2016, a similar pattern emerges with approximately 50 per cent of holdings by households and NFCs denominated in euro. The equivalent figure for IFs is less than 20 per cent as they are significantly more likely to hold US\$-denominated quoted shares.

¹³ For instance, the market value of quoted shares held ranged from €551 billion for IFs to €0.4 billion for credit institutions.

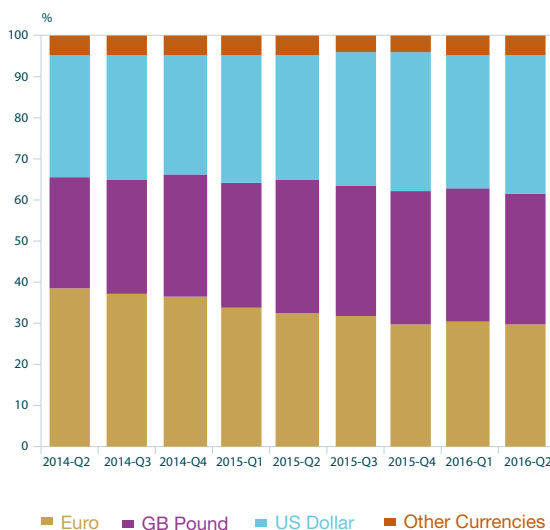
¹⁴ Resident IFs in Ireland may be authorised in currencies other than the euro and it may be the case that where a fund is authorised in a non-euro currency, they are more likely to hold investments in the base (or matching) currency.

Chart 7: Proportionate Distribution of Holdings of Quoted Shares by Irish Residents by Holder Sector & Issuer Sector Q2 2016

Source: Securities Holdings Statistics, Central Bank of Ireland.

Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.

- (ii) The 'Other Financial Sectors' category includes data for insurance corporations, pension funds and other financial intermediaries' sub-sectors and the data source is resident custodian reporting.
- (iii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.

Chart 8: Proportionate Distribution of Holdings of Debt Securities by Irish Residents by Nominal Currency Q2 2014 - Q2 2016

Source: Securities Holdings Statistics, Central Bank of Ireland.

Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.

Box A: Custodian (Indirect) Reporting and Estimates of the Holdings of the Insurance Corporations Sector

The foregoing includes data relating to the insurance corporations sector only insofar as this is covered by custodian reporting. The original legal frameworks concerning statistics on holdings of securities came into effect from end-2013 and specified direct reporting across a limited range of institutional sectors. These did not cover the insurance corporations sector, so data initially collected with regard to securities holdings by this sector was based on custodian reporting¹⁵. It was not until the legal frameworks were amended in 2015 that the insurance sector was obliged to report directly.¹⁶ This change reflects the ongoing process of improved coverage for the SHS data. In order to limit the administrative burden and to avoid the duplication of tasks associated with the new reporting requirements, the updated Regulation also permitted NCBs to derive the necessary SHS quarterly statistics – with supplementary annual reporting, as required – from data collected for supervisory purposes under the Solvency II Directive¹⁷.

¹⁵ This data is currently included under the heading 'Other Financial Sectors' in our published time-series. Data for insurance corporations will be presented separately in due course.

¹⁶ Guideline of the European Central Bank (ECB/2015/19) amending ECB/2013/7 concerning statistics on holdings of securities; and Regulation of the European Central Bank (ECB/2015/18) amending ECB/2012/24 concerning statistics on holdings of securities.

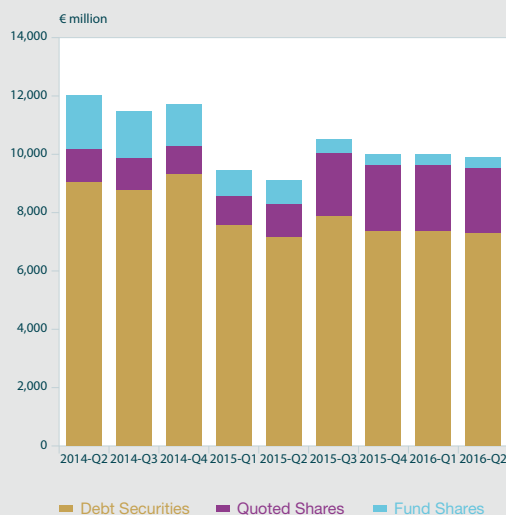
¹⁷ Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

Box A: Custodian (Indirect) Reporting and Estimates of the Holdings of the Insurance Corporations Sector

Similar to other institutional sectors, the required insurance corporations' SHS data relates to end-quarter positions on an s-by-s basis. Direct reporting commenced in 2016¹⁸ but, to date, this new information has not been included in the published series produced by the Central Bank of Ireland. It is intended to commence inclusion of this data from late 2017 in order to facilitate the production of an initial time-series. The available custodian reported data may provide useful indicators of trends in holdings of securities but does not capture the total quantum of holdings of insurance corporations.

The available custodian data for this sector in Ireland indicates that the total holdings have fallen from €12 billion to €10 billion (or by 18 per cent) over a two-year period (Box A, Chart 1). Over the same period, the composition of instrument type has also shifted somewhat from debt securities and investment funds shares and units to quoted shares. The latter now account for approximately 23 per cent of the *reported* total compared to 9 per cent two years previously.

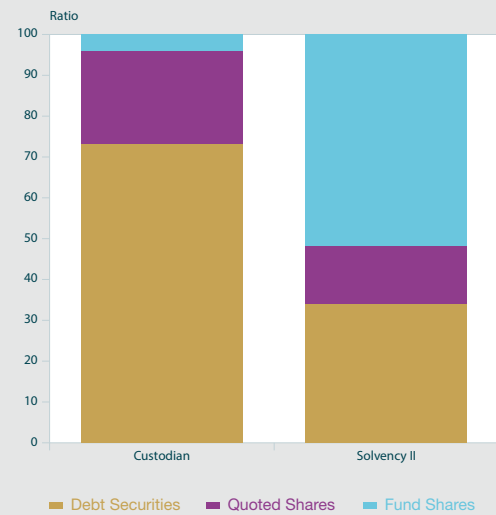
Box A Chart 1: Total Holdings of Irish Resident Insurance Corporations (Custodian Reporting Only) by Instrument Type Q2 2014 - Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

Note: (i) Data only relates to holdings reported to the Central Bank of Ireland.

Box A Chart 2: Instrument Type Composition for Irish Resident Insurance Corporations – Custodian (Indirect) versus Solvency II (Direct) Reporting Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

Note: (i) Data only relates to holdings reported to the Central Bank of Ireland.

(ii) Direct reporting data for the insurance corporations sub-sector are provisional only and subject to revision.

Resident-custodian reporting provides only partial coverage for insurance corporations, as non-resident custodians are extensively used. The recent introduction of direct reporting will ensure a much more comprehensive coverage of the sector. A provisional estimate¹⁹ of actual holdings, based upon the new direct reporting template, indicate that current (resident) custodian data accounts for approximately 5 per cent of total holdings of the insurance corporations sector. The instrument composition appears to be quite different between the two data sources (Box A, Chart 2). The direct reporting data (Solvency II) indicates that a much larger proportion of the total is held in the form of investment fund shares and units.

¹⁸ Reference period Q1 2016 with first data transmitted to the ECB in June 2016.

¹⁹ This is solely an estimate and is subject to revision as data improves over time. Estimate is based on data compiled on a home basis.

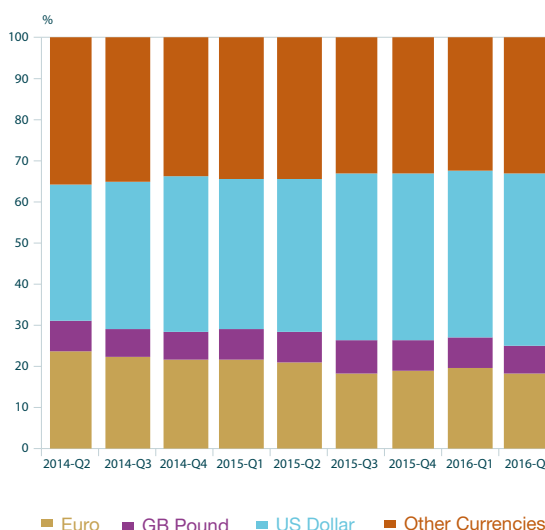
Chart 8 indicates that exposures to euro-denominated debt securities have fallen over the past two years with a concomitant increase in GBP£- and US\$-denominated debt securities. When considering these trends over time, however, it is important to bear in mind that IFs constitute the single largest holder sector and are much more likely to hold non-euro denominated securities. Chart 9 suggests a broadly similar development with regard to quoted shares. In the latter case, holdings of euro-denominated quoted shares have fallen slightly over time whereas holdings of US\$-denominated securities increased.

3. Analysing Securities Holdings for Irish-resident Households and NFCs

Section 3 focuses specifically on a detailed analysis of SHS data for Irish-resident households and NFCs over time, for two distinct reasons. Firstly, this granular information – as collated through the SHS Sector module over the past two years – has not been published by the Central Bank before now. Secondly, although holdings of securities by Irish households will appear immaterial when placed alongside the IF sector, there is merit in promoting a deeper understanding of developments in these holdings, particularly in the context of household saving and wealth dynamics: *'households account for a significantly more modest share of securities holdings than institutional investors do.....according to official statistics securities holdings may represent a significant proportion of households' financial assets, thus reflecting a considerable part of the overall households' wealth'* (Sanchez-Munoz and Israel, 2007).

The custodian method is generally used where the costs of collecting the data directly from certain investors, such as households and NFCs, would be prohibitively expensive. In such cases, holdings data is typically obtained from domestic custodians who will report on behalf of their clients. This approach underpins the data

Chart 9: Proportionate Distribution of Holdings of Quoted Shares by Irish Residents by Nominal Currency Q2 2014 - Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.

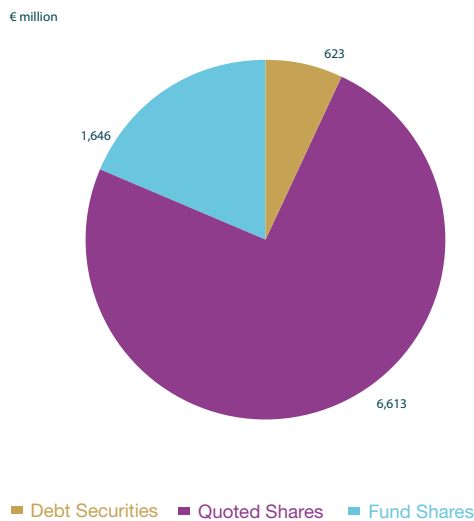
(ii) Holdings of quoted shares by the FVC sector are not available at present. Unquoted shares are not included for any institutional sector.

presented below but does not provide complete coverage. In Box B, we also explore the use of Third-party Holdings (TPH) data to close data gaps, using the household sector as an example.

3.1 Securities Holdings and the Irish-resident household sector

The aggregate market value of securities held by Irish-resident households stood at approximately €8.9 billion by Q2 2016 (Chart 10). This represented an increase of €0.7 billion (or more than 8 per cent) over the past two years. In absolute terms, the principal contributor to this increase was the change in the value of holdings of investment fund shares and units. The value of these holdings increased by approximately €1 billion to €1.6 billion (or by 151 per cent) over this period. By contrast, the value of holdings of debt securities increased by 13 per cent whilst

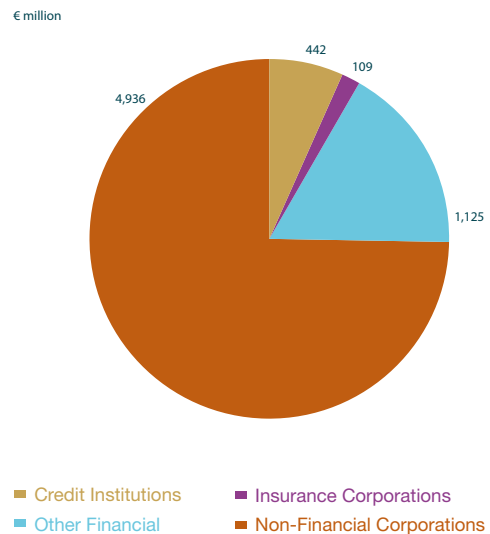
Chart 10: Holdings of the Irish Resident Household Sector by Instrument Type Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.
(iii) Data are estimates and are subject to revision.
(iv) Holdings by households include the NPISH (non-profit institutes serving households) sub-sector.

Chart 11: Holdings of Quoted Shares by the Irish Resident Household Sector by Issuer Sector Q2 2016



Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.
(iii) Data are estimates and are subject to revision.
(iv) Holdings by households include the NPISH (non-profit institutes serving households) sub-sector.

the value of quoted shares decreased by 6 per cent. The data presented here indicates that quoted shares are the predominant instrument class within household holdings of securities. By Q2 2016, the total value of holdings in the form of quoted shares came to approximately €6.6 billion (or 75 per cent of the total). The balance of this portfolio consisted of investment fund shares and units and debt securities, representing 19 per cent and 7 per cent, respectively. In light of the foregoing, the analysis that follows will focus on the counterpart dimensions to holdings of quoted shares.

3.1.1 Estimated holdings of quoted shares by households

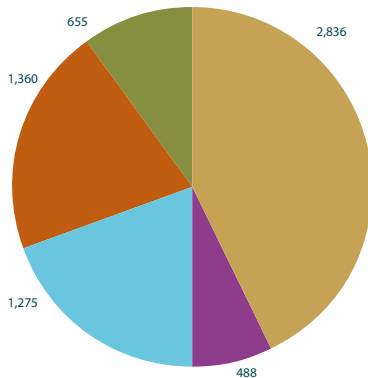
Over the past two years, the total holdings of quoted shares by Irish households has fallen by

6 per cent and the composition by issuer sector has also seen some changes. NFCs represent the primary issuer sector for quoted shares held (Chart 11). By Q2 2016, this issuer sector accounted for 75 per cent of the total (albeit that this had fallen slightly compared to the same period in 2014). The 'Other Financial Sectors' category was the second largest issuer sector accounting for 17 per cent of holdings by Q2 2016, representing an increase of 37 per cent compared to the same period in 2014. Issuances by the credit institutions sector accounted for 7 per cent of the total by Q2 2016 but there has been a notable decrease in the market value of these holdings over time. These decreased by 35 per cent year-on-year when compared to 2015²⁰. The insurance corporations sector accounted for a minimal amount of quoted shares held.

²⁰ This refers to a fall in the closing position or amount outstanding (i.e. transactions and/or valuation changes over time).

Chart 12: Holdings of Quoted Shares by the Irish Resident Household Sector by Issuer Region Q2 2016

€ million



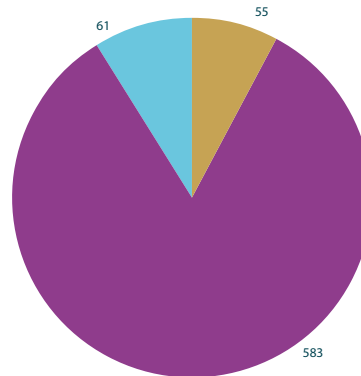
■ Ireland ■ Euro Area (excl. Ireland) ■ Non-Euro Area EU
■ United States ■ Rest of World

Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.
(iii) Data are estimates and are subject to revision.
(iv) Holdings by households include the NPISH (non-profit institutes serving households) sub-sector.

Chart 13: Holdings of the Irish Resident NFC Sector by Instrument Type Q2 2016

€ million



■ Debt Securities ■ Quoted Shares ■ Fund Shares

Source: Securities Holdings Statistics, Central Bank of Ireland.

- Notes: (i) Data only relates to holdings reported to the Central Bank of Ireland.
(ii) Holdings for households and NFCs relate solely to data reported by Irish-resident custodians.
(iii) Data are estimates and are subject to revision.

At €2.8 billion (or 43 per cent), Ireland was the principal country of issuer for holdings of quoted shares in Q2 2016 (Chart 12). This had decreased by 6 per cent when compared to 2015. The US is the second largest issuer country for holdings of quoted shares. The value of these issuances have also fallen but the US does account for more than half of the non-EU total. The UK was also an important issuer country throughout our time-series but the market value of holdings of UK-issued quoted shares has fallen significantly over the past year²¹. These fell by more than €0.5 billion (or 30 per cent).

3.2 Securities Holdings and the Irish-resident NFC sector

The total quantum of holdings of securities for the Irish-resident NFC sector – at least those

held with resident custodians – is quite small. This figure, however, will exclude holdings by NFCs with non-resident custodians and as a result, any significant holdings by – for instance – resident multinational corporations (MNCs) is unlikely to be captured in the data presented here. By Q2 2016, the market value of these holdings is estimated at €0.7 billion. This represents an increase of 7 per cent when compared to the same period in 2014, although this remains slightly below the peak reported by end-2015. The holdings of securities of NFCs are predominately in the form of quoted shares (Chart 13). Debt securities and fund shares represent less than 10 per cent each (or approximately €60 million in each case).

²¹ This refers to a fall in the closing position or amount outstanding (i.e. transactions and/or valuation changes over time).

Box B: Securities Holdings Statistics – Securities Holdings Statistics Database (SHSDB) and Third-party Holdings (TPH)

Holdings of securities by resident households and NFCs are reported to the Central Bank of Ireland by Irish-resident custodians.²² Such holdings, however, do not provide a complete picture as *'resident custodians may only cover a limited part of the holdings by resident investors'* (Sola and Strobbe, 2010). Irish investors, including households and NFCs, are free to hold their securities in custody abroad.²³ Where an investor selects a custodian in a country other than their own country of residence, the securities held are referred to as Third-party Holdings (TPH)²⁴: *'securities may be in custody in the euro area but in a different country from that of the issuer and from that of the holder'* (Sola and Strobbe, 2010).

TPH data refer to holdings by non-resident investors reported by resident custodians (Fache-Rousova and Rodriguez-Caloca, 2014). For instance, an Irish investor may hold a security issued by a German issuer in custody in Belgium where such data would be reported to the National Bank of Belgium. Such data are reported by participating NCBs and collated centrally within the SHSDB²⁵. The available TPH data generally only relates to holdings using other EA-resident custodians. In other words, holdings of securities via custodians resident in financial centres such as London, Geneva or New York will not be captured in the available TPH dataset.²⁶ The data presented throughout Sections 2 and 3 relates solely to holdings of securities by Irish-resident households and NFCs as reported by Irish-resident custodians.

Data on securities deposited with non-resident custodians is difficult to collect and so the approach adopted by NCBs is to collect data on all holdings by resident custodians and share data on holdings by non-residents (third parties) with other compiling NCBs. The quantum of household holdings with non-resident custodians is illustrated below.

The data available from resident custodians enabled us to estimate the total market value of the securities held by Irish households at approximately €8.9 billion by Q2 2016. The TPH data, however, suggests a further €1.1 billion was held with EA custodians. This TPH data also provides a number of additional insights which indicate a different pattern of behaviour in the case of households using non-resident custodians. Indeed, previous research has noted that wealthier households are *'more likely to resort to the financial services provided by non-resident custodians/depositories...'* (Sanchez-Munoz and Israel, 2007).

Firstly, the resident custodians report that quoted shares account for approximately 75 per cent of all household holdings of securities. Conversely, TPH data indicates that 48 per cent of those securities held with non-resident custodians were in the form of investment fund shares and units. Secondly, resident custodian data shows that more than 40 per cent of household holdings were issued by Irish-residents (Section 2.2.1). On the other hand, TPH data indicates that close to 60 per cent of the securities held were issued in Luxembourg (Box B, Charts 1 and 2).

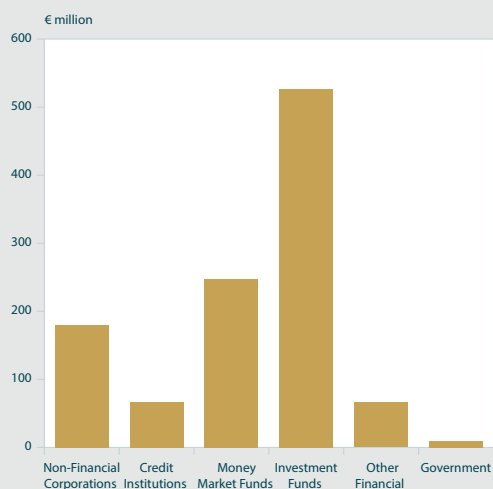
²² Custodian data is only utilised for those economic sectors that do not report directly to a national central bank (NCB). Holdings on behalf of credit institutions, IFs, MMFs and FVCs are not sourced through this reporting channel.

²³ Such securities, then, are held via non-resident custodians. Indeed, some holders may not avail of any custodian.

²⁴ From the perspective of the country of the custodian, these are TPH.

²⁵ As per Sanchez-Munoz and Israel (2007), this central database facilitates the collection of timely data on TPH by statistical compilers in the country where each custodian is located, and inter-NCB exchange on a reciprocal basis.

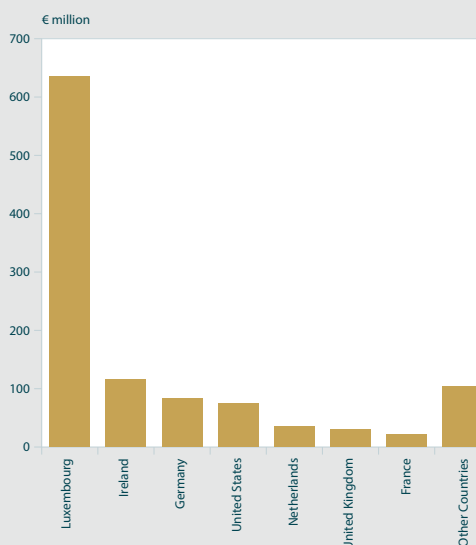
²⁶ Even in those cases where a non-EA custodian uses a sub-custodian chain which includes an EA-resident custodian, the latter custodian is required to report with reference to their own client (i.e. a financial corporation) rather than a look-through to the ultimate holder of the securities.

Box B: Securities Holdings Statistics – Securities Holdings Statistics Database (SHSDB) and Third-party Holdings (TPH)**Box B Chart 1: TPH data for Irish Resident Households held with EA Custodians by Issuer Sector, Q2 2016**

Source: ESCB SHSDB.

Note: (i) Data excludes holdings reported to the Central Bank of Ireland.

(ii) Data relates to TPH with EA-resident custodians only.

Box B Chart 2: TPH data for Irish Resident Households held with EA Custodians by Issuer Country Q2 2016

Source: ESCB SHSDB.

Note: (i) Data excludes holdings reported to the Central Bank of Ireland.

(ii) Data relates to TPH with EA-resident custodians only.

Finally, Switzerland provides some interesting insights as a case study on non-EA TPH. For instance, Sanchez-Munoz and Israel (2007) have previously noted that Swiss Central Bank publications have indicated that the total value of securities held in custody by Swiss-resident credit institutions²⁷ stood at a cumulative US\$530 billion at end-2005.

²⁷ This relates to holdings on behalf of non-resident and non-institutional investors.

4. Conclusion

This Article has introduced the new quarterly security-by-security data on holdings of securities which helps to close data gaps and will substantially improve the information available on exposures by sector and on interconnectedness. The new data provides detailed insights into the holdings of various financial instrument classes by Irish-residents and examines the links between the holders and issuers of securities at a granular counterparty sector, country, and instrument level. The new data also includes, for the first time, detailed information on holdings of securities by Irish-resident households and NFCs.

It is important to bear in mind that the data presented here for some sectors are lower-bound estimates only, as outlined in Box A. Furthermore, any robust interpretation of the data — and the composition in terms of issuer counterparty and currency — must bear in mind the relative scale of the holdings across the various resident holder sectors. For instance, we have already seen that the IF sector in Ireland is by far the single largest holder of securities and this then has much more significant impact in terms of shaping the aggregate results than, say, Irish-resident households.

The data represent a necessary first step and ongoing data improvements – from the exchange of TPH data to the expansion of

direct reporting requirements over time – will enhance coverage going forward. These changes, in turn, will mean that the figures analysed above will likely increase as reporting coverage improves over time.

While it is challenging to address all identified data gaps in a quick manner, the SHS project has improved our understanding of exposures and potential vulnerabilities within the financial system. Further enhancements are expected to come on stream in the coming years, including the inclusion of direct reporting data for the insurance corporations sub-sector and the commencement of reporting by Irish-resident designated banking groups under the SHS Group module. These changes, when taken together with other initiatives such as the Analytical Credit Database (AnaCredit) and the recently introduced enhancements to the Locational Banking Statistics, will serve to provide a far greater degree of detailed information on holdings of securities by resident sectors in terms of issuer sector, instrument type and geography.

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Annex: Background on the SHSDB

The legal frameworks underpinning data collection and reporting for SHS came into effect from early 2014 with first reporting commencing for the reference period December 2013. The relevant Guideline and Regulation²⁸ specified that the actual reporting population would consist of resident monetary financial institutions (MFIs), investment funds (IFs), and financial vehicle corporations (FVCs) in addition to custodians. The applicable statistical reporting requirements stipulate that reporting agents provide s-by-s data on their end of quarter positions to the relevant national central bank (NCB) in the case of the following instrument types: short-term debt securities; long-term debt securities; quoted shares; and investment fund shares and units. Each NCB reports information on all holdings of securities with an international securities identification number (ISIN)²⁹ to the ECB using harmonised reporting templates and timelines. In the case of securities without an ISIN, each NCB may decide whether to report the necessary statistical data to the ECB³⁰.

The original Regulation and Guideline have been updated twice since 2013. In 2015, these frameworks were amended, in part at least, to introduce direct reporting by insurance corporations in order to provide adequate statistics on the financial activities of this sector. Further amendments introduced in 2016 provided for the collection of additional attributes in order to ensure the adequacy of information on holdings of securities of banking groups (under the group module).

The data transmitted to the ECB are collated and disseminated through a centralised Securities Holdings Statistics Database (SHSDB). The provision of granular, security-by-security information by reporting agents

ensures that this can then be combined with reference data for each individual security where the latter is sourced from other ESCB databases. Specifically, ISIN data can be linked to the Centralised Securities Database (CSDB)³¹. As a result, the transmitted SHS data can be enriched using the CSDB to provide a range of attributes. This, in turn, facilitates the derivation of a range of aggregations and breakdowns for both the issuer and holder side (ECB, 2015). Prior to the collection of security-by-security information for SHS purposes, reporting agents were required to report aggregate data whereas the current model eliminates work for the reporting agents as they are no longer required to provide such statistical breakdowns.

In the case of securities held in custody, these are reported by custodians on behalf of investors. For reporting purposes under SHS, a custodian is an entity undertaking the safekeeping and administration of financial instruments for the account of clients (including custodianship and related services)³². Custodians are required to provide information relating to securities they hold in custody on behalf of residents that do not report their own holdings; securities they hold on behalf of non-financial investors in other euro area (EA) member-states; and securities issued by EA issuers and held on behalf of non-EA residents. In the case of the enhanced quarterly statistics introduced by the Central Bank of Ireland in early 2017, indirect (or custodian) reporting is the source of data for those institutional sectors that are not yet themselves direct reporters (i.e. insurance corporations, pension funds, households, etc.).

There are, however, some limitations to this data source. Sola and Strobbe (2010) have previously noted that the quality of the data reported by most custodians can sometimes be problematic. These limitations include

²⁸ Guideline of the European Central Bank (ECB/2013/7) concerning statistics on holdings of securities; and Regulation of the European Central Bank (ECB/2012/24) concerning statistics on holdings of securities.

²⁹ An ISIN is a unique identifier for securities such as bonds and shares. This is the identifier used to collate and process reference data in the ESCB's Centralised Securities Database.

³⁰ In addition to end-quarter positions, NCBs also report end-quarter financial transactions over the reference quarter or other data necessary to derive these transactions.

³¹ The ESCB's CSDB is a multi-purpose platform containing reference information (i.e. price, issuer name, issuer country/sector, outstanding amount) on over six million outstanding debt securities, equities and investment fund shares.

³² At present, this is defined as an entity belonging to the 'financial corporations' sector (under ESA 2010).

shortcomings in sector classification and the identification of specific financial instruments. This notwithstanding, these limitations tend to affect non-financial investors to a more limited extent than financial investors and it is generally considered that *'custodian reporting is an acceptable approach to collect holdings data not only regarding households but also for non-financial corporations and non-profit institutions'*.

As already mentioned, the SHS project contains three modules: SHS Sector; SHS Group; and SHS Eurosystem. These differ with regard to the granularity of the information on the holder's side. The sector module provides aggregate information on the holdings of institutional sectors resident in each country. The group module provides information on the individual holdings of a small number of banking groups (or holder-by-holder information) where these are the largest groups with head offices in the euro area. The third and final module solely relates to holdings by the Eurosystem, including the own holdings of each participating NCB. The sector module is currently reported by the Central Bank of Ireland whereas the group module is not yet applicable. The latter will come into effect from late 2018 on foot of the designation of a number of Irish-headquartered banking groups. The data presented throughout this Article relates solely to the sector module.