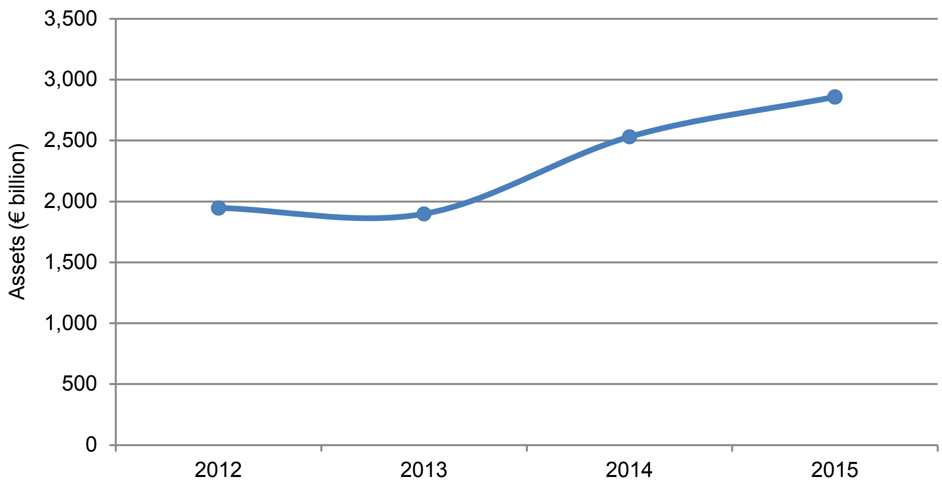
An Phríomh-Oifig Staidrimh
Central Statistics Office

information notice

Measuring Shadow Banking in the Irish National Accounts[1]

Figure 1 Potential Shadow Banking Assets



Source: CSO

Introduction

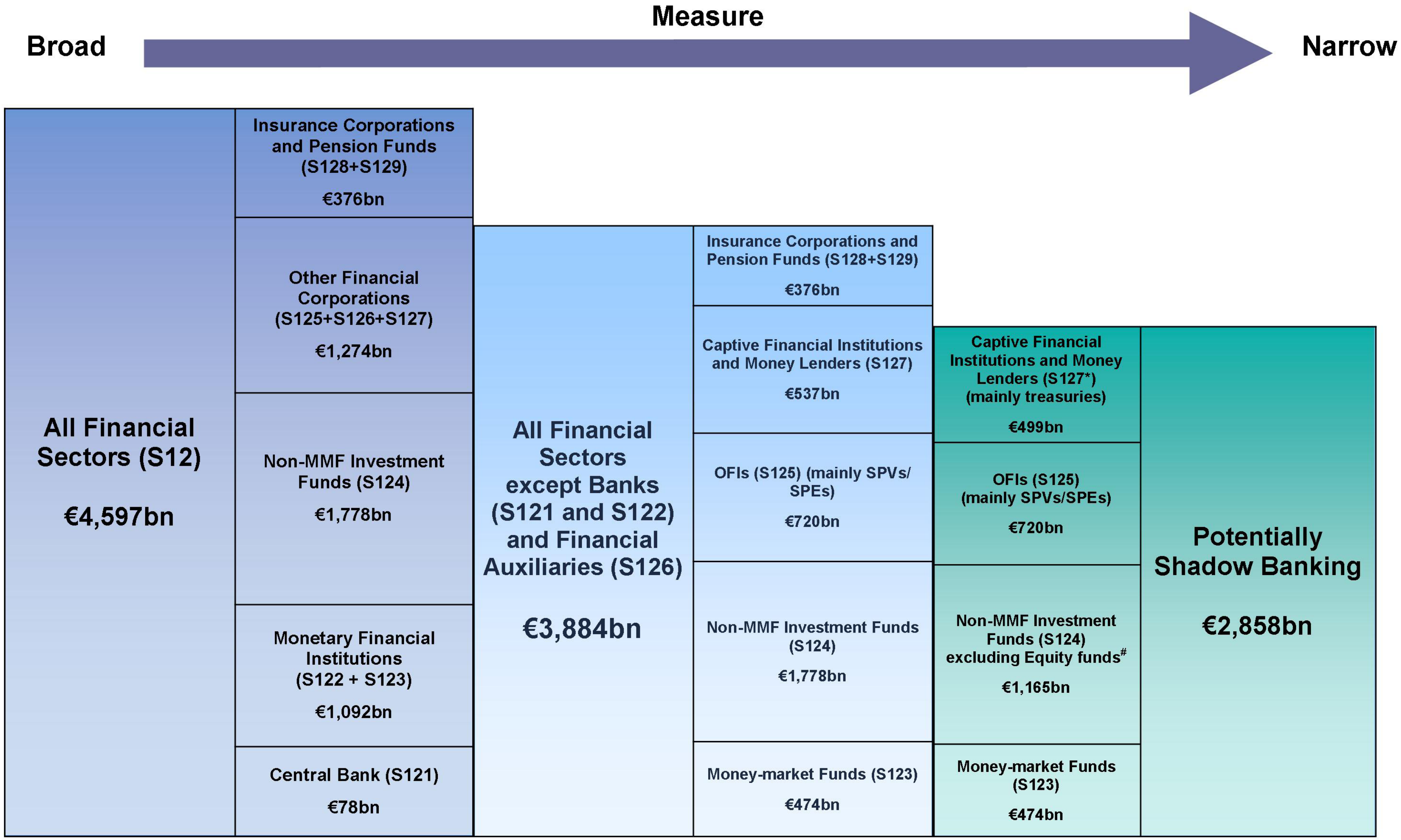
The importance of the financial sector and its constituent parts has been reinforced by the recent financial crisis. This note provides more disaggregated data on the subsectors of the financial sector in Ireland, and provides estimates of shadow banking activity. In particular, providing data on treasuries and special purpose entities, which form part of 'Other Financial Intermediaries'. Here we look at the Irish financial sector in the context of the Organisation for Economic Co-operation and Development's (OECD) work to incorporate shadow banking, as defined by the Financial Stability Board (FSB) within the national accounts framework.

Shadow Banking has been defined by the FSB in its broadest definition as "credit intermediation involving entities and activities outside the regular banking system" (FSB, 2015). This estimate is approximated by all non-bank financial intermediation including investment funds, insurance companies, pension funds and other financial intermediaries. The FSB introduced a narrow definition of shadow banking defined as "a system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and imperfect credit risk, and/or ii) regulatory arbitrage concerns" (FSB, 2011). Full details of these definitions are described in OECD (2016).

The OECD has been working with the FSB to explore how shadow banking activity can be measured within the national accounts framework. Shadow banking is largely defined by the FSB according to functions which do not fall neatly within the subsector approach applied with national accounts. Based on the OECD work in which CSO participated, a broad measure of shadow banking can be derived by excluding those subsectors, not involved in credit intermediation outside the banking sector, namely central banks (S.121), deposit taking corporations (S.122) and financial auxiliaries (S.126).

[1]This represents preliminary work carried out to comply with the OECD's request for evidence of shadow banking in the Irish National Accounts.

Figure 2 2015 Asset Positions (2016 vintage)



Source: CSO

*Excluding Brass plate companies and Holding companies (€39bn).
#Excludes Equity funds (€612 bn). Those remaining are Bond or fixed income funds, Hedge funds or Other funds.

The Data

The primary sources for the data presented in this note are the Central Statistics Office (CSO) National Accounts, CSO Balance of Payments surveys and the Central Bank of Ireland (CBI) Statistics Department Surveys. The data is classified using the European System of Accounts standards (ESA2010) which is consistent with the United Nations System of National Accounts (SNA2008). These classifications enable this presentation of shadow banking to be consistently produced across countries.

Figure 2 shows the financial sectors included in the broad and narrow measures of shadow banking for 2015 asset positions (2016 vintage). Initially, all financial sectors (S.12) are considered and grouped according to their published estimates. After removing banks and financial auxiliaries, we have a reduced estimate from €4,597bn to €3,884bn.

Next we want to remove the areas that are not included in the narrow definition of shadow banking, as defined by the FSB. The Insurance Corporations and Pension Funds sectors are removed along with Brass Plate Companies, Holding Companies and Equity Investment Funds. The remaining sectors are those that are considered in the FSB's narrow definition as areas that are potentially shadow banking. The remaining provisional estimate of €2,858bn is large, though this is reflective of the type of behaviour present in the Irish economy. The data in Figure 2 is also shown in Table 1 along with the corresponding sector breakdowns for the years 2012, 2013 and 2014. The areas included in the narrow definition of shadow banking are compared for these years in Figure 3.

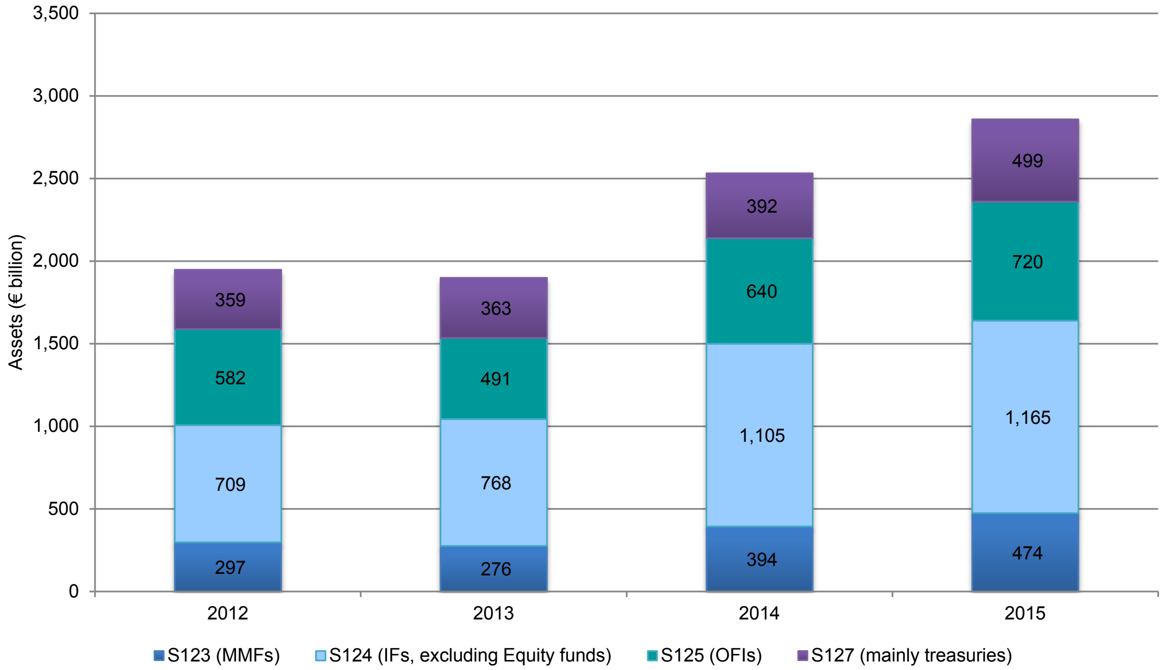
Table 1 Asset Positions (2016 vintage) **€ billion**

Sector	**2012**	**2013**	**2014**	**2015**	**Previously Published**
Financial Sector (S.12)	**3,569**	**3,491**	**4,204**	**4,597**	**Yes**
Central Bank (S.121)	136	104	83	78	Yes
Deposit-taking Corporations (S.122)	818	725	668	618	No
Money-market Funds (S.123)	297	276	394	474	Yes
Non-MMF Investment Funds (S.124)	1,018	1,180	1,627	1,778	Yes
Equity Funds	*309*	*412*	*523*	*612*	*Yes*
All Other Funds	*709*	*768*	*1,105*	*1,165*	
Other Financial Intermediaries (S.125)	582	491	640	720	No
Financial Auxiliaries (S.126)	17	18	14	17	No
Captive Financial Institutions and Money Lenders (S.127)	403	391	429	537	No
Mainly Treasuries	*359*	*363*	*392*	*499*	*No*
Holding Companies	*44*	*28*	*37*	*39*	*No*
Insurance Corporations and Pension Funds (S.128 + S.129)	297	307	349	376	Yes
Potentially Shadow Banking	**1,947**	**1,899**	**2,531**	**2,858**	

Source: CSO and CBI

An increase in the shadow banking sector is seen from 2013 to 2015. This is largely driven by an increase in the Non-MMF Investment Funds sector (S.124). Note that part of this increase is due to the change in reporting basis of derivatives which moved from reporting derivative positions on a gross rather than on a net basis (see CSO, 2016 for further details).

Figure 3 Financial Sectors that are potentially shadow banking (narrow definition, 2016 vintage)



Source: CSO

Separate to the OECD initiative, the FSB conducts an annual shadow banking monitoring exercise in which the Central Bank participates. This focuses on a narrower definition of shadow banking which is defined as 'as system of credit intermediation that may raise (i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and imperfect credit risk transfer, and/or (ii) regulatory arbitrage concerns, (FSB, 2015). This measure aims to include only those entities involved in credit risk which may give rise to systemic risk. The Central Bank has provided estimates to the FSB, based on the narrow definition. These estimates are shown in Table 2. The estimates, published in the Central Bank's second Macro-financial review of 2016 (CBI, 2016), are compiled in accordance with the Guidelines provided by the FSB for the 2015 report. However, work is still ongoing in the FSB on refining the final shadow banking estimates.

Table 2 Shadow Banking Assets Positions for 2015[2] (CBI, 2016 vintage) **€ billion**

Shadow Banking Assets	**2,514**	
MMFs	473	*All MMFs are included.*
Investment Funds	994	*Open-ended Funds holding over 20% of assets under management in credit-related assets and materially leveraged closed-ended non-equity funds. In practice, this excludes most equity and real estate funds*
Broker Dealers	7	*Broker dealers dependent on sort-term funding or secured funding*
Structured Finance Vehicles	417	*Securitisation vehicles minus an estimate for retained securitisation.*
Residual Shadow Banking	623	
of which		
Non-securitisation SPEs	*151*	*Those SPEs that form part of shadow banking credit intermediation chains, i.e. those holding credit instruments and sponsored by non-bank financial entities.*
Other	*471*	*Where entities cannot be identified, they have been included to date, under the FSB process. With data now available, treasury companies linked to non-financial corporations may be excluded in next year's FSB process.*

[2]There are minor differences in vintage and classifications in the financial sector data used by both institutions.

Source: CBI

Developments

Future work will look at the breakdown of those sectors in the narrow definition of shadow banking by instrument and resident/non-resident positions. This may be useful to monitor to what extent the relevant units are engaged in shadow banking activities. A further breakdown of the data will be considered via from-whom-to-whom matrices (i.e. the interconnectedness of the financial sectors). This may reveal to what extent assets in the financial system are financed by the financial system itself and what part is transferred to final investors outside the financial system. An example of this methodology can be seen in Boer's (2016) work on shadow banking in the Dutch National Accounts.

Enquiries to:

Sarah O'Rourke,
Financial Accounts, 01 498 4306

Brian Golden
Statistics Division, 01 224 6926

Christopher Sibley,
Balance of Payments, 01 498 4305

Central Statistics Office
Ardee Road
Rathmines
Dublin 6
D06 FX52
faccount@cso.ie

Central Bank of Ireland
New Wapping Street
North Wall Quay
Dublin 1

April 2017

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