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New data collection on SPVs in Ireland: findings and implications for the measurement of shadow banking¹

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¹ This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

New Data Collection on SPVs in Ireland: Findings and Implications for the Measurement of Shadow Banking

Dominick Barrett, Brian Golden and Eduardo Maqui

Abstract

Statistical gaps in the non-bank financial sector have attracted increasing global attention in recent years. International organisations have highlighted special purpose vehicles (SPVs) as a significant area requiring more information sources, improved data coverage and monitoring. This paper provides some initial results and analysis of a new database collected by the Central Bank of Ireland. The database covers 822 SPVs with aggregate assets of €324 billion in Q4 2015, improving oversight of these vehicles and filling data gaps. Key findings point to the diversity and complexity of the activities undertaken in the SPV sector, and the range of geographical and institutional sector linkages. The new database also enhances the measurement of the shadow banking sector, resulting in a €172 billion reduction in the measure of shadow banking in Ireland, as estimated for Q4 2015.

Keywords: Special purpose vehicles, non-bank financial sector, shadow banking, Ireland.

JEL classification: C18, G23.

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Introduction

The years since the financial crisis of 2007-2008 have seen an increased focus on closing gaps in available statistical data on financial intermediation outside the banking sector. In particular, the lack of information on special purpose vehicles (SPVs)¹ highlighted gaps for financial stability analysis both on linkages within and between institutional sectors, and on exposures to both domestic and foreign counterparties. In this respect, international organisations such as the International Monetary Fund (IMF) and the Financial Stability Board of the G20 countries (FSB) focused on three inter-related areas requiring more information sources, namely, the build-up of risk in the financial sector, cross-border financial linkages and the exposure of the domestic economy to shocks (IMF and FSB, 2009).

Ireland is a globally significant location for non-bank financial intermediaries whose activities are overwhelmingly with non-residents, and SPVs account for an important portion of this sector.² SPVs are legal entities created by a sponsoring financial or non-financial entity in order to fulfil narrow, specific purposes, typically in the areas of taxation, risk management, funding and liquidity. These objectives can include tax neutrality, the isolation of risks or exposures from the sponsor, lower funding costs through issuing debt collateralised by ring-fenced assets and improving liquidity management through the issuance of debt securities collateralised by non-liquid assets (such as trade receivables). Securitisation is simply a particular form of these activities, whereby contractual debt is re-packaged into debt securities to be sold on to investors.

The Central Bank of Ireland (the Central Bank) has collected comprehensive data at a granular level on securitisation vehicles (known as financial vehicle corporations, or FVCs) since Q4 2009, following the introduction of Regulation ECB/2008/30³. However, information has been limited on vehicles engaged in activities other than securitisation. These SPVs are often part of complex financial structures that span a number of countries, which creates particular challenges for statistical compilers in developing a comprehensive database on their activities and structures.

Against this background, the Central Bank launched an initiative to extend its reporting data to SPVs in Q3 2015, with the objective of closing data gaps, enhancing information on exposures and identifying potential financial stability risks. The new collected data on SPVs domiciled in Ireland aims to enhance knowledge on the types of activities undertaken by these entities, including who sponsors them, and whether they are stand-alone entities or consolidated into larger group structures.⁴ The data also allows for a more precise estimation of the size of non-bank financial intermediation (and shadow banking) in Ireland.

This paper presents some key findings extracted from the new SPVs database. It illustrates the diversity and complexity of the activities undertaken in the Irish SPV sector, and the network of country and institutional sector links. SPVs are often part

¹ SPVs are also known as special purpose entities (SPEs).

² For the purposes of this paper, SPVs refer to vehicles that are primarily engaged in activities other than securitisation.

³ https://www.ecb.europa.eu/ecb/legal/pdf/l_01520090120en00010013.pdf.

⁴ Table 1 includes a glossary of terms, with a brief definition of 'sponsor' and 'consolidator'.

of elaborate multi-vehicle structures, with consolidation and sponsor links across a wide range of countries and sectors. Moreover, the database enhances the understanding of the range of activities and linkages within shadow banking in Ireland.

The remainder of the paper is structured as follows. Section 2 briefly reviews the data and the collection process. Section 3 presents the main findings by focusing on the types of activities undertaken by SPVs and on their geographical and institutional sector linkages. Section 4 quantifies the implications for the estimation of the size of the shadow banking sector in Ireland, and section 5 concludes.

New Data Collection on Irish SPVs

The Central Bank and the Central Statistics Office (CSO) share the collection of data for Ireland on the financial corporations sector, as defined in ESA 2010 under classification categories S122 to S129. This data is based on a combination of granular reporting, mostly at the level of each security on an entity's balance sheet, with those parts of the sector not covered by the current reporting framework estimated using various statistical techniques. Currently, the Central Bank collects granular balance sheet and profit and loss data on deposit taking corporations (S122) and money market funds (S123), and other major components of other financial corporations classified within subsectors S124 to S125 of ESA 2010, namely non-MMF investment funds and FVCs.⁵

The granular data are combined with data from both CSO and the Central Bank on insurance corporations and pension funds (S128 and S129) and with CSO data on treasury companies and asset finance companies. However, a significant residual remains for the financial corporations sector, which is not covered within the current collection process. Data on the remainder of the financial sector (otherwise known as the OFI residual) is limited. This remainder is largely made up of non-FVC S125, S126 and S127 companies, and includes the significant presence of SPVs in Ireland. The new data on SPVs collected by the Central Bank, which is assigned to subsector S127, helps to enhance the quality and coverage of non-bank financial entities by expanding data coverage and improving the identification of the Irish OFI residual.

Regarding the data collection process, the main challenge faced relates to the definition of a reporting population for SPVs. Various SPV definitions exist, and they are either very narrowly focused or straddle multiple types of financial activity. A pragmatic approach was undertaken in this light, confining the reporting population to all companies availing of 'Section 110'⁶ of the Taxes Consolidation Act 1997 (Godfrey et al., 2015). SPVs engaged in securitisation (that is, FVCs) qualifying as 'Section 110' vehicles already report to the Central Bank under Regulation ECB/2008/30. The existing reporting form was extended to the remaining SPVs not

⁵ The total assets of the Irish non-bank financial sector amounted to around €3.8 trillion in Q4 2015, based on quarterly financial accounts data published by the Central Bank of Ireland: <http://www.centralbank.ie/polstats/stats/qfaccounts/Pages/Data.aspx>.

⁶ 'Section 110' companies are Irish domiciled SPVs holding or managing assets that qualify for tax neutrality.

required to report under Regulation ECB/2008/30.⁷ This approach provides a clear definition of what entities are included in the extended reporting framework. The disadvantage of this strategy is that it is limited to entities availing of 'Section 110', as some vehicles operate outside this designation.⁸

The SPVs database, introduced for the first time in the Q3 2015 reporting period, covers 822 vehicles reporting total assets of €324 billion in Q4 2015, with most instruments reported on a security-by-security basis. Besides requesting detailed balance sheet information, a registration form requires information on whether the vehicle is consolidated into another entity, the sponsor of the vehicle and whether another entity has an unconsolidated interest in the vehicle. This information, which is critical in order to identify who created and sustains the SPV, is often not available from balance sheet or financial accounts information. Moreover, it allows the identification of a complex range of SPV types and activities in the sector.

Key Findings

The Central Bank and the Central Statistics Office (CSO) share the collection of data for Ireland on the financial corporations sector, as defined in ESA 2010 under classification categories S122 to S129. This data is based on a combination of granular reporting, mostly at the level of each security on an entity's balance sheet, with those parts of the sector not covered by the current reporting framework estimated using various statistical techniques. Currently, the Central Bank collects granular balance sheet and profit and loss data on deposit taking corporations (S122) and money market funds (S123), and other major components of other financial corporations classified within subsectors S124 to S125 of ESA 2010, namely non-MMF investment funds and FVCs.

Types and Activities

A diverse range of activities are identified in the SPV sector, often taking place within a network of entities which facilitates intermediation activity elsewhere in the chain. The SPV database can help assess any potential financial stability risks arising from the activities of SPVs domiciled in Ireland, for example, if the activities of SPVs involve loan origination and bank-linked asset management. The range of activities undertaken is outlined in Table 1, with the corresponding percentage distribution of total assets shown in Figure 1. Fourteen different types of activity are identified for SPVs, although the top three categories account for 70 per cent in terms of total assets, namely, intra-group financing, external financing and fund-linked asset management.⁹

⁷ Further information can be found at: <http://www.centralbank.ie/polstats/stats/reporting/Pages/spv.aspx>.

⁸ 'Section 110' vehicles cover the SPV population for the most part.

⁹ The only instances where an SPV could undertake more than one activity occurs for the operational and financial leasing categories and, in these cases, the vehicle is classified into the predominant activity in terms of assets held.

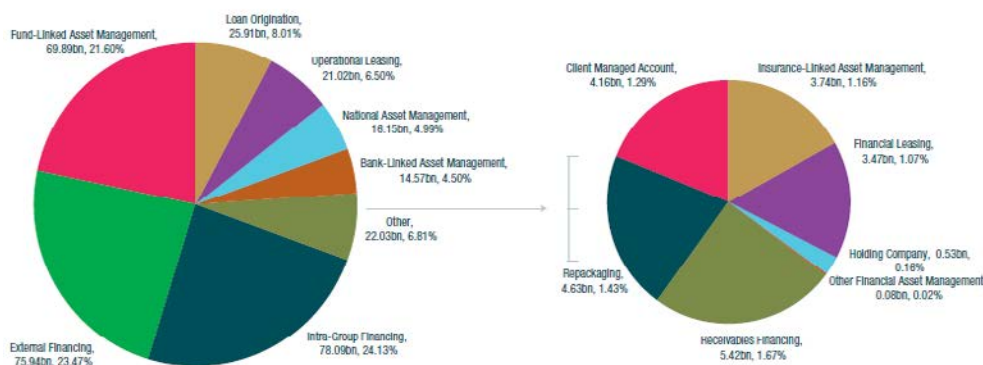
Table 1: Glossary of terms

Vehicle Type	Activity Description
Intra-Group Financing	Loan funding from, and to, inter group companies.
External Financing	Funding obtained from external sources and provided to the parent as a loan.
Fund-Linked Asset Management	Linked to investment funds/firms, which hold debt, equity, loans, or other financial assets with the goal of capital appreciation, interest or dividend income.
Loan Origination	Funding obtained from the parent and furthered to external sources.
Operational Leasing	Hold fixed assets such as plant and machinery for the purposes of leasing them out.
National Asset Management	Set up by national authorities to resolve insolvent financial institutions (incl. NAMA).
Bank-Linked Asset Management	Linked to deposit taking corporations, which hold debt, equity, loans, or other financial assets with the goal of capital appreciation, interest or dividend income.
Receivables Financing	Funding secured by trade/other receivables, furthered to the parent/external sources.
Repackaging	The proceeds and/or capital gains/losses from the SPV's financial assets are structured so that investors obtain different exposure than had they simply purchased the assets.
Client Managed Account	Set up by financial institutions on behalf of clients which hold debt, equity, loans, or other financial assets with the goal of capital appreciation, interest or dividend income.
Insurance-Linked Investments	Primarily hold Insurance-Linked Securities such as catastrophe bonds, or investments in life settlement policies.
Financial Leasing	Engaged in lease-in lease-out agreements, or as a financial intermediary in a chain of vehicles in which the end vehicle is involved in the leasing of equipment or fixed assets.
Holding Company	Owns enough voting stock in another company to control its policies and management and exists for this sole purpose.
Other Financial Investments	Not linked to banks, client accounts, or investments funds/firms, but hold debt, equity, loans, or other financial assets with the goal of capital appreciation, interest or dividend income.
Other terms	Description
Consolidator	The ultimate parent of the SPV, into which the SPV's accounts are consolidated. Consolidation is determined by the ability to

	exercise a sufficient level of control over the entity.
Sponsor	This refers to the entity on whose behalf the SPV was established. For example, where an investment fund sets up a vehicle to hold assets, the fund manager would be considered the sponsor. If a bank sets up an SPV in order to remove mortgages from its balance sheet, this bank would be considered the sponsor. This does not however refer to a charitable trust that owns shares of the SPV in an orphan vehicle structure.
Residency	Refers to the country of residency of the consolidator/sponsor, and would not necessarily reflect the country of residency of the shareholders of these.

Intra-group financing is dominated by non-financial sponsors, mainly reflecting the treasury operations of multinational corporations and concentrated in a relatively small number of, mostly US-linked, vehicles. External financing also reflects such activities but also includes a sizeable presence of Russian banks issuing debt through the Irish stock exchange. Fund-link asset management would appear to be driven primarily by taxation neutrality considerations, availing of Ireland's extensive double taxation treaties, with UK-based sponsors featuring strongly. Bank-linked sponsors are mainly connected to vehicles with a focus on asset management activity designed to achieve capital appreciation. For bank sponsored vehicles loan origination is also a significant activity, though concentrated in a small number of vehicles.

Figure 1: SPV distribution by activity type (€bn and percentage of total assets)



Source: Central Bank of Ireland.

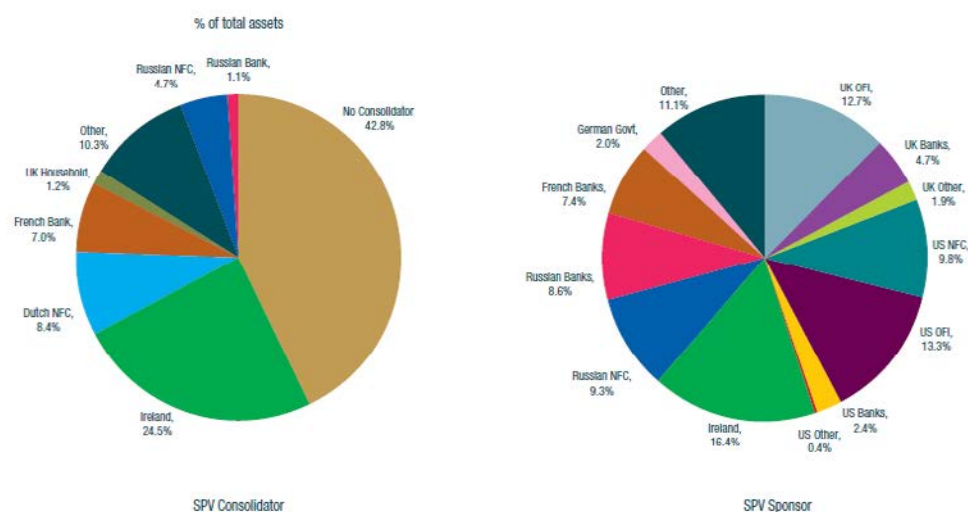
Linkages

The registration form provides data on the name, country, sector of the entity into which the SPV is consolidated and its sponsor, if any. Consolidation and sponsor information allow for a more precise analysis of any potential risks emanating from Irish SPVs. These risks would apply to the vehicle itself when it is unconsolidated, or would be otherwise attributable to the entity that the SPV is ultimately consolidated into. These parent entities are generally outside Ireland and could, on occasions, step in to protect the vehicle in particular circumstances. While some information is available on country and sector links, the extent of international co-operation required for a comprehensive analysis of SPV global linkages is evident.

The main cross-border consolidator links are to the Dutch and Russian NFC sectors and the French banking sector (Figure 2a). Unlike FVCs, which are bankruptcy remote vehicles, over half of Irish domiciled SPVs are consolidated into other entities. There are also linkages for the non-consolidated entities, with around one sixth declaring an unconsolidated interest by another entity. Geographic and sector linkages are also highlighted by the 'Other' sector, which includes 37 consolidator links to institutional sectors in 22 countries, reflecting relatively small SPVs engaged in a diverse range of activities.

While the range of SPV sponsors is quite diverse, typically the same type of sponsor tends to concentrate in similar activities. A broad overview of sponsor linkages suggests that UK and US OFIs, French and Russian banks and US and Russian NFCs are the most prominent sponsors of bankruptcy remote vehicles engaging in off-balance sheet activity (Figure 2b). The 'Other' sector includes 66 sponsorship links to sectors in 35 countries, a significantly larger network than for consolidation links.

Figures 2a and 2b: SPV distribution by consolidator residency and institutional sector and sponsor residency and institutional sector (percentage of total assets)

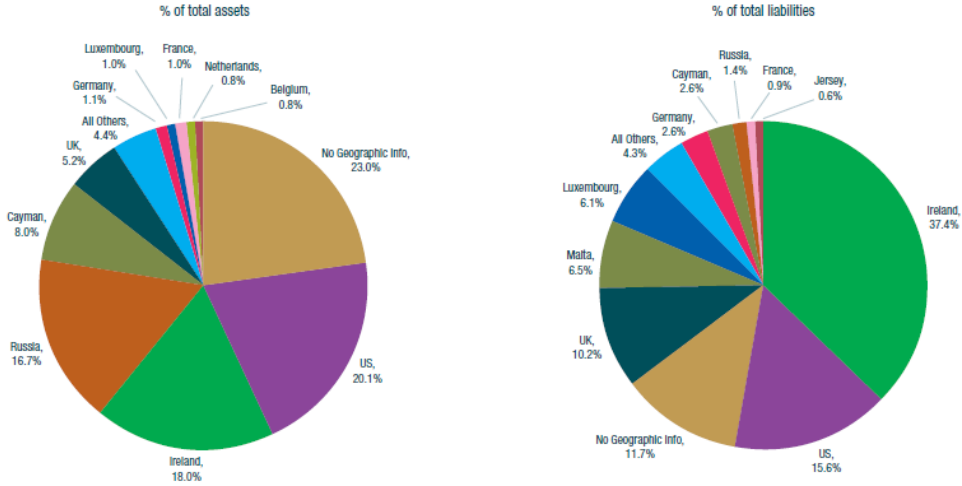


Source: Central Bank of Ireland.

Analysis of assets and liabilities on SPV balance sheets also allows for the identification of cross-border exposures, many of which arise as part of complex multi-vehicle structures (Figures 3a and 3b). US, Russia, Cayman Islands and UK stand

out in terms of immediate cross-border linkages of Irish SPV assets. On the liability side, US, UK, Malta and Luxembourg represent the most important country linkages of Irish SPVs.

Figures 3a and 3b: Geographical linkages of SPV assets and liabilities (percentage of total assets and liabilities)



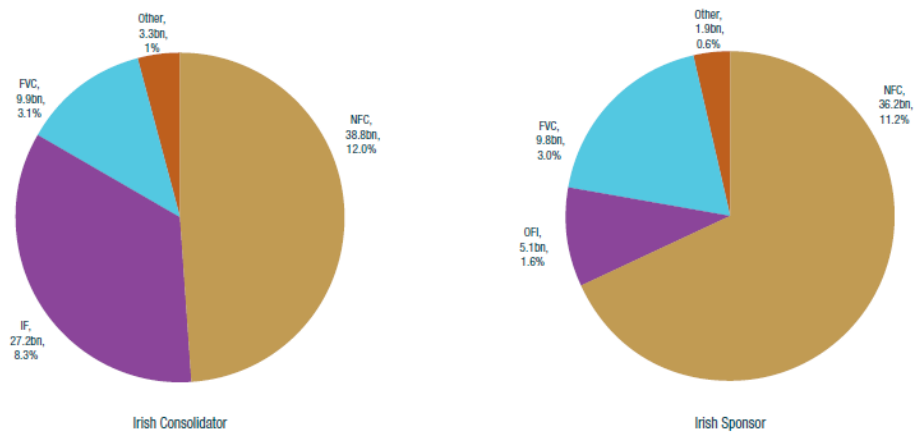
Source: Central Bank of Ireland.

Despite significant consolidation and sponsor links to domestic entities in the Irish NFC, investment fund, and FVC institutional sectors, the potential impact on the Irish economy from links to Irish SPVs appears to be limited (Figures 4a and 4b). Irish NFC links largely reflect a small number of SPVs sponsored by multinational companies domiciled in Ireland as part of intra-group funding activities for their global operations. A significant portion of the remainder is accounted for by external financing activities carried out by large multinationals and SPVs undertaking operational leasing activities involving aircraft.¹⁰ In most cases, the SPV is both sponsored by and consolidated into the Irish NFC. Links to the Irish investment fund industry reflect international vehicle structures, mainly sponsored by funds located in the US, UK and Ireland. Finally, the link to the Irish FVC sector includes a resolution vehicle which is part of the NAMA¹¹ structure, as highlighted in the figures.

¹⁰ Aircraft leasing is included with non-financial corporates within Irish national and financial accounts statistics.

¹¹ NAMA is an Irish state agency set up to hold distressed bank loans following the crisis. It is structured so that vehicles dealing with specific areas, such as loan management, property management or management services are 100 per cent owned by a master vehicle.

Figures 4a and 4b: SPV with IE resident consolidator and sponsor by institutional sector (€bn and percentage of total assets)



Source: Central Bank of Ireland.

The impact on Ireland from SPVs is very limited in terms of the contribution to Irish GDP. These entities are generally designed to be tax neutral. As such, the contribution to the domestic economy is limited, and is largely confined to the payment of fees for professional services, particularly in the legal and accountancy fields.

Implications for the Measurement of the Irish Shadow Banking Sector

The FSB conducts an annual shadow banking monitoring exercise, where non-bank financial entities are included within shadow banking unless a clear rationale can be presented for their exclusion. Ireland took part for the first time in 2015, providing results based on data up to Q4 2014. The FSB defines shadow banking as “credit intermediation involving entities and activities outside of the regular banking system” (FSB, 2015). The OFI residual was included in its entirety in the measurement of shadow banking for Ireland, on the basis that no breakdowns by type of activity were available.

Following the FSB's measure of shadow banking, which provides comparable cross-country estimates that are widely quoted, the quantification of the SPV sector has a significant impact on the size of shadow banking in Ireland. The 2015 FSB shadow banking monitoring exercise estimated the Irish shadow banking sector at €2.25 trillion for end-2014, including the entire OFI residual (€498 billion for end-2014) (FSB, 2015). The new collected SPV database provides a more precise identification of much of the Irish OFI residual, raising the prospect that over half of the SPV sector can be excluded from shadow banking in this year's exercise, based on data up to Q4 2015.

The FSB measure is relatively broad in terms of the range of shadow banking definitions that exist in the literature. The estimation of the size of the SPV sector would not necessarily have an impact on other definitions of shadow banking, where

the SPV sector may not be included in the first place. McCulley (2007) refers essentially to non-bank financial institutions engaged in maturity transformation, where liabilities mature on average before asset holdings. Moreover, alternative academic definitions of shadow banking tend to focus on specific areas, such as money market funds, wholesale funding, deposit taking or lending activity, securitisation products or securities financing (Gorton et al., 2010; Gennaioli et al., 2011; Claessens et al., 2014 and Pozsar, 2014).

The FSB's main measure of shadow banking is relatively broad in a number of respects. Firstly, the definition is based on shadow banking activities covering credit intermediation involving significant maturity/liquidity transformation or leverage. These are outlined under five economic functions, namely, (i) mutual funds susceptible to runs, (ii) lending dependent on short-term funding, (iii) intermediation dependent on short-term funding or secured funding of client assets, (iv) facilitating credit creation, and (v) securitisation (FSB, 2015). Secondly, where an entity engages in such activity, the total assets of the entity are included. Thirdly, entities are included on a non-consolidated basis, so that if entity *x* is consolidated into another entity *y* shadow banking equals the sum of total assets of entities *x* and *y*. Exceptions are allowed where entity *y* is not a shadow bank (e.g. it may be a bank or an NFC). Entities sponsored by, but not consolidated into NFCs can also be excluded. Finally, the total assets of non-bank financial intermediaries are included, when there is insufficient evidence to prove they should be excluded. In the case of Ireland, the OFI residual was included in its entirety on this basis.

With respect to the FSB definition, the new collected SPV database provides some important insights. Credit instruments (issuing/holding debt securities or originating loans) can be identified, as can consolidation and sponsorship patterns. Table 2 provides estimates of the size of SPVs within the shadow banking sector in terms of total assets, based on the current FSB methodology (Column 1). However, SPVs should only be included where they are part of a shadow banking credit intermediation chain. This means that SPVs should be excluded where the balance sheet contains no credit instruments, or where they are consolidated into a bank or linked to an NFC. Columns 2 and 3 provide revised estimates after taking both of these adjustments into account. These estimates reduce the size of shadow banking activity linked to the SPV sector by €172 billion, as shown in column 4, from €324 billion to €152 billion as of Q4 2015. This is largely due to the exclusion of SPVs consolidated into non-shadow banking entities. It should be noted however, that the FSB definition is subject to refinement on an annual basis and estimates included in Table 2 are based on the methodology used in the 2015 FSB shadow banking monitoring exercise.

Table 2: Irish SPV Shadow Banking Total Asset Estimates based on the FSB's 2015 Methodology

			(1)	(2)	(3)	(4)
Consolidated? If Yes, consolidator by sector. If No, sponsor by sector		Included in shadow banking?	Total Assets of all Irish SPVs	Total Assets of Credit SPVs	Amount included in measurement of shadow banking	Amount excluded from measurement of shadow banking
YES	Bank	NO	33.5	30.1	-	33.5
	Other financial corporation*	YES	57.9	46.2	46.2	11.7
	Non-financial corporation	NO	93.8	84.8	-	93.8
NO	Bank	YES	46.6	40.1	40.1	6.5
	Other financial corporation*	YES	70.7	65.4	65.4	5.3
	Non-Financial Corporation	NO	21.1	16.1	-	21.1
			323.6	282.7	151.7	171.8

Note: Figures in €bn. Source: Central Bank of Ireland, authors' calculations. *All SPVs linked to non-bank financial corporations are included in the adjusted shadow banking estimate following a prudent approach. It also includes a very small number of vehicles linked to non-profit entities that undertake similar activities to investment funds.

Conclusions

This paper explores a new database on SPVs collected by the Central Bank and provides some initial findings and analysis. The database covers 822 SPVs with aggregate assets of €324 billion in Q4 2015, improving oversight of these vehicles and filling data gaps. Key findings point to the diversity and complexity of the activities undertaken in the SPV sector, and the range of geographical and institutional sector linkages. The analysis of the new SPVs database has resulted in a €172 billion reduction in the measurement of the size of the shadow banking sector in Ireland.

Irish domiciled SPVs are often part of complex multi-vehicle operations operating across borders. The new collected database addresses important data gaps on SPV activities, and brings improvements for the assessment of potential financial stability risks arising from these. In this context, the need to co-operate across borders and to improve data sharing capabilities is essential to fully understand the rationale underlying SPV activities and any risks arising. The new data will, therefore, help

inform discussions at international level, as the availability of granular data for SPVs is limited.

Work is ongoing within the Central Bank to further develop the SPV database. The SPVs database enhances coverage of the S127 subsector, and fosters work with the CSO to integrate these within macroeconomic aggregates. While the new database represents a significant step forward, further work is required, both domestically and at international level, to develop a full understanding of SPV activities and to better inform policy making in this area.

A key challenge is to develop a comprehensive register of all SPV type activities, including those not covered by 'Section 110'. The work also feeds into international initiatives at the FSB and the European Systemic Risk Board (ESRB) level to address data gaps on shadow banking. However, the cross-border nature of SPV activities highlights the need for international co-operation and data sharing to fully understand the rationale underpinning the various SPV structures.

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Disclaimer: The views expressed in this paper are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the Eurosystem.



- **Global attention** on statistical gaps in the non-bank financial sector;
- **New database** collected by Central Bank of Ireland;
 - **820 non-securitisation SPVs** with total assets of **€322.3 bn** at end-2015.
- **Very diverse activities, country and sector links** within complex vehicle structures;
- Enhances **measurement** of **shadow banking** based on FSB definition;
 - **€178.5 billion reduction** for Ireland.



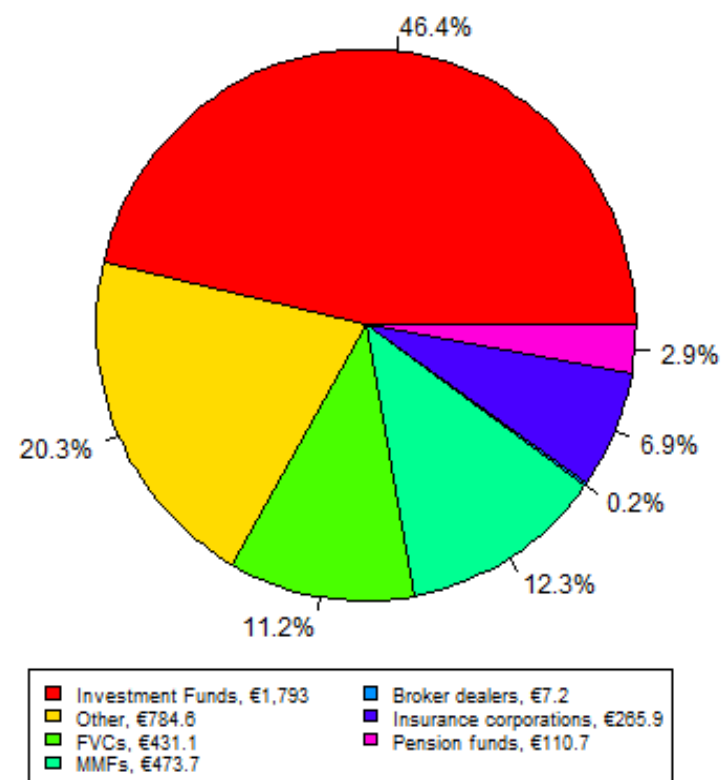
- **Ireland** is a **globally significant location** for non-bank financial intermediaries;
- **IMF and FSB** highlight need for more information sources;
- **Limited information** on non-securitisation vehicles;
- **Extension of FVCs* reporting** to SPVs in Q3 2015;
- **Gaps for financial stability analysis:** linkages within and between institutional sectors, and on exposures to both domestic and foreign counterparties.

* FVCs are securitisation vehicles which report under ECB Regulation ECB/2008/30.



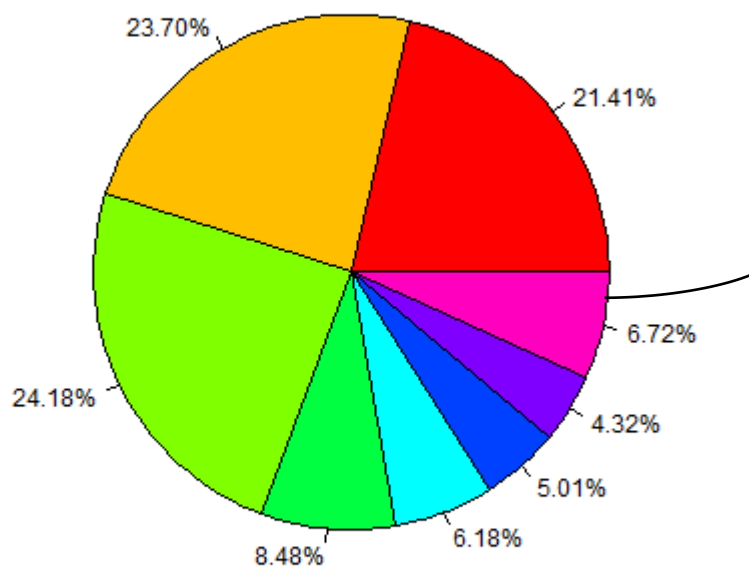
- Granular data on 70% of the non-bank financial sector (77% with insurance);
- Large OFI residual where coverage is limited;
- SPV data extends granular data coverage to 84%;
- Definitional issues in S125 to S127.

Non-bank financial system by sector, Q4 2015
(€ bn and % of total assets)



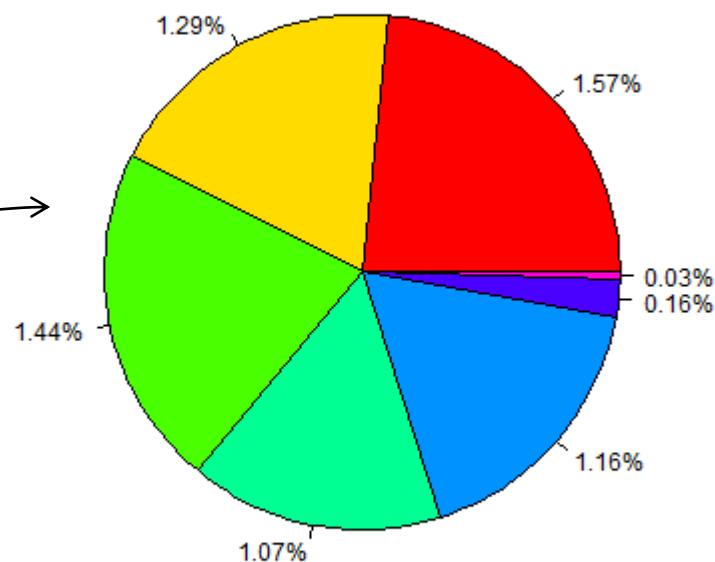
Source: Central Bank of Ireland.

**SPV distribution by activity type
(€ bn and % of total assets)**



■ Fund-linked asset management, €69.05	■ Operational leasing, €19.93
■ External Financing, €76.44	■ National asset management vehicles, €16.15
■ Intra-group financing, €77.98	■ Bank-linked asset management, €13.94
■ Loan origination, €27.38	■ Other, €21.86

**SPV distribution by activity type
(€ bn and % of total assets as a breakdown
of 'Other' presented in the lhs figure)**



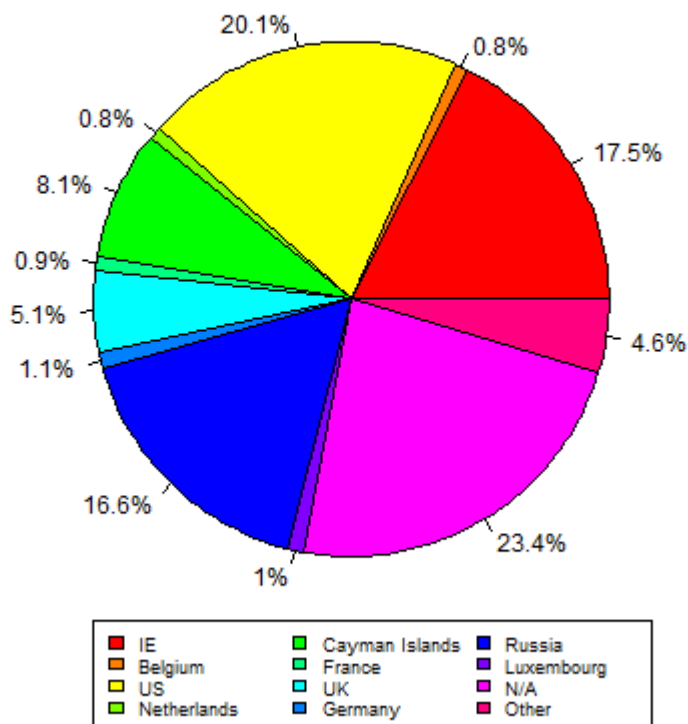
■ Receivables financing, €5.08	■ Insurance-linked asset management, €3.74
■ Client managed account, €4.16	■ Holding company, €0.53
■ Repackaging, €4.63	■ Other asset management, €0.08
■ Financial leasing, €3.44	

Source: Central Bank of Ireland.

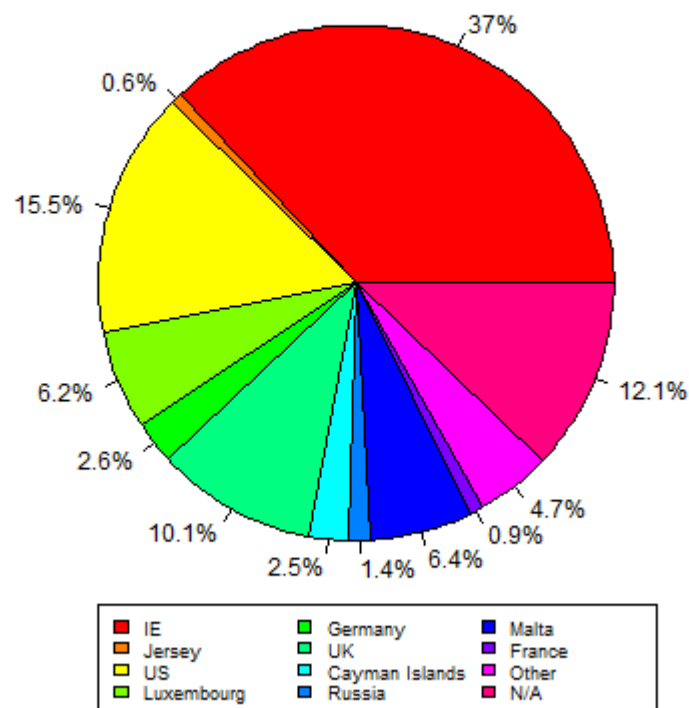
Source: Central Bank of Ireland.



**Geographical linkages of SPV assets
(% of total assets)**



**Geographical linkages of SPV liabilities
(% of total liabilities)**



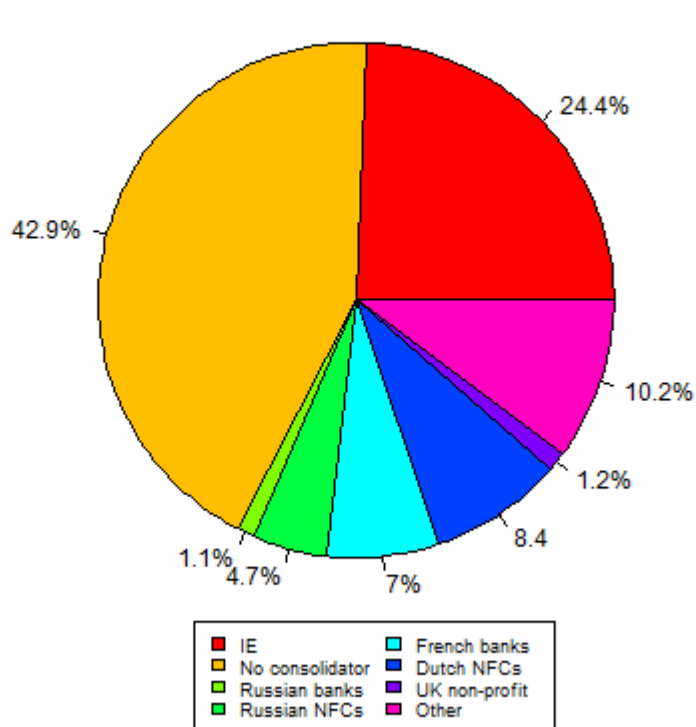
Source: Central Bank of Ireland.

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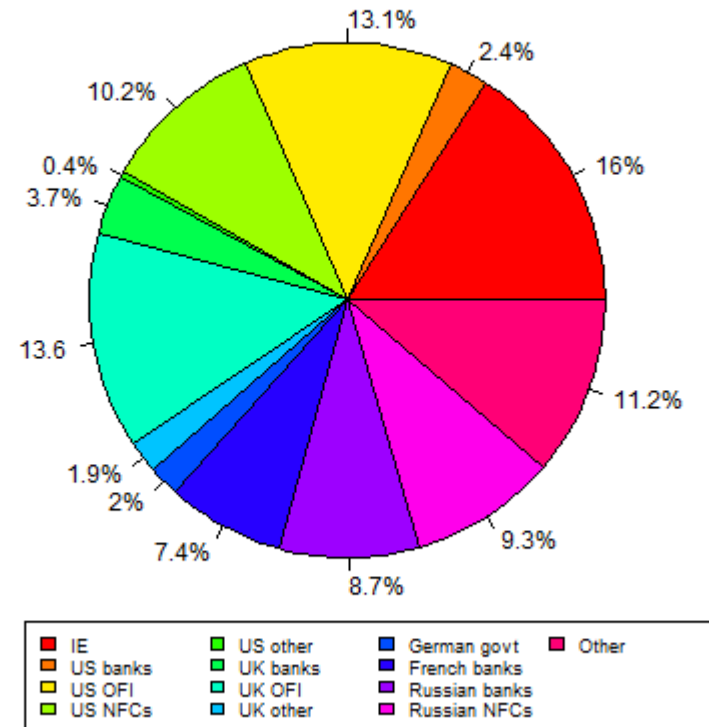
SPV Consolidator/Sponsor Linkages



SPV distribution by consolidator residency and institutional sector (% of total assets)



SPV distribution by sponsor residency and institutional sector (% of total assets)



Source: Central Bank of Ireland.

Source: Central Bank of Ireland.



SPV shadow banking total assets estimates under FSB definition (€ bn)

Consolidated? If Yes, consolidator by sector. If No, sponsor by sector		Included in shadow banking?	(1) Total Assets of all SPVs	(2) Total Assets of credit SPVs	(3) Amount included in shadow banking	(4) Amount excluded from shadow banking
Yes	Banks	NO	33.5	29.7	–	33.5
	OFCs	YES	57.5	44.4	44.4	13.1
	NFCs	NO	92.5	84.7	–	92.5
No	Banks	YES	42.6	34.3	34.3	8.3
	OFCs	YES	74	65.1	65.1	8.9
	NFCs	NO	22.2	16.8	–	22.2
			322.3	275	143.8	178.5

Source: Central Bank of Ireland.

Notes: 'OFCs' refers to other financial corporations. All SPVs linked to non-bank financial corporations are included in the adjusted shadow banking estimate following a prudent approach. It also includes a very small number of vehicles linked to non-profit entities that undertake similar activities to investment funds.



Challenges:

- Assessing potential **financial stability risks**;
- Assessing potential need for **regulatory oversight**;
- Further investigation of the **OFI residual**.

Going forward:

- 1. Co-operation across borders and data sharing** capabilities is essential to fully understand the rationale underlying SPV activities and any risks arising;
- 2. Key challenge:** Develop a comprehensive register of all SPV type activities.



Thank you!