Data Gaps and Shadow Banking: Profiling Special Purpose Vehicles' Activities in Ireland

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Abstract

The role of shadow banking and securitisation has gained increasing national and international attention since the start of the global financial crisis in 2007. Ireland has a sizeable non-bank financial sector with a number of key components including money market funds (MMFs), investment funds (IFs) and other financial intermediaries (OFIs). This Article focuses on the activities of financial vehicle corporations (FVCs) and special purpose vehicles (SPVs) within the OFI sector. The main features of these vehicles and their linkages to the Irish and international economies are examined. The Article also discusses recent regulatory developments and potential financial stability issues arising from their activities. In order to address data gaps and to improve oversight of the SPV sector, the Central Bank of Ireland will extend quarterly reporting requirements to SPVs.

1 The authors are Economists in the Statistics Division and the Markets Supervision Directorate of the Central Bank of Ireland. 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 (ESCB). The authors would like to thank Kenneth Devine, Anastasios Matopoulos and Naoise Metadjer for excellent research assistance. We are grateful to John Flynn, Brian Golden, James Leen, Joe McNeill, Gareth Murphy and David Owens for helpful comments on earlier drafts of the Article.

1. Introduction

The role of shadow banking and securitisation has gained increasing national and international attention since the start of the global financial crisis in 2007. In November 2010, the G20 called for the Financial Stability Board (FSB) to develop recommendations to strengthen the oversight and regulation of the shadow banking system. The FSB defines shadow banking as 'credit intermediation involving entities and activities fully or partially outside of the regular banking system.'[2] Various definitions of shadow banking comprise some or all of the entities in the non-bank financial sector.[3]

Ireland has a sizeable non-bank financial sector comprising money market funds (MMFs), investment funds (IFs) and other financial intermediaries (OFIs). This paper focuses on the activities of financial vehicle corporations (FVCs) and special purpose vehicles (SPVs)[4] within the OFI sector. These vehicles are set up as tax neutral in accordance with Section 110 of the Taxes Consolidation Act 1997 (Section 110).[5] Since the fourth quarter of 2009, the Central Bank of Ireland has collected data on Irish FVCs. These data feed into the European Central Bank's (ECB) FVC data and gives an indication of the level of securitisation activity across the euro area. However, at present there is no comparable Irish or euro area dataset for SPVs.

This data gap presents challenges for financial authorities engaged in mapping and monitoring the shadow banking sector in Ireland and Europe.[6] The main contribution of this paper is to fill in some of the data gaps for the Irish shadow banking system, thereby improving the transparency and oversight of this sector. To that end, this paper examines both the activities of Irish FVCs engaged in securitisation activity and the activities of other SPVs registered in Ireland.

Section 2 discusses the definitions of FVCs and SPVs and outlines our research methodology. Section 3 examines the FVC and SPV industry in Ireland and briefly describes the development of this sector in Ireland. The main findings on the activities of FVCs and SPVs are discussed in Section 4. Section 5 focuses on the new and existing financial services regulations, which can shed light on FVCs' and SPVs' activities in Ireland and briefly discusses potential financial stability issues. Section 6 concludes.

2. Definitions of FVCs/SPVs and Methodology

2.1 Definitions of FVCs and SPVs

FVCs and SPVs are legal entities that are originated by a sponsoring firm, usually a bank, finance company or insurance company. Irish FVCs and SPVs engage in a wide range of activities which may include investment transactions, securitisation transactions, distressed debt transactions, balance sheet management, and fundraising. FVCs are securitisation vehicles and are obliged to report to the Central Bank of Ireland under an ECB Regulation.[7]

2 See FSB (2014).

3 The FSB, in its annual mapping exercise defines shadow banking as the total assets of the non-bank financial sector. FSB (2014) also produce a narrower measure of shadow banking, which is constructed by filtering out non-bank financial activities that have no direct relation to credit intermediation (e.g. equity investment funds, intra-group activities of non-financial groups and retained securitisation). In the academic literature, a number of alternative definitions of shadow banking have been proposed. For example, Claessens and Ratnovski (2014) define shadow banking as "all financial activities, except traditional banking, which rely on private or public backstop to operate."

4 For the purpose of this Article, SPVs refer to those vehicles which do not meet the ECB's FVC definition, see Section 2.

5 See Section 3 for an overview of the Section 110 framework in Ireland.

6 See Godfrey and Golden (2012).

7 Regulation ECB/2008/30 concerning statistics on the assets and liabilities of FVCs, which are engaged in securitisation type transactions. An entity would qualify as an FVC if their principal activity meets the following criterion: *'it intends to carry out, or carries out, one or more securitisation and is insulated from the risk of bankruptcy or any other default of the originator'*. On the issuance side, an entity must *'issue or intends to issue, securities, securitisation fund units, other debt instruments and/or financial derivatives'* in either a public or private issuance. Furthermore, if the vehicle is part of a multi-vehicle structure where one of the other vehicles is an FVC then it would also be considered an FVC even if it was not directly involved in securitisation itself.

An entity is an FVC if its main activity is securitisation[8] as defined by the ECB FVC Regulation. The FVC Regulation seeks to collect data on securitisation vehicles' linkages with the banking system. The financing arrangement supporting a securitisation transaction should result in the issuance of some form of marketable debt instrument. Securitisation involves the transfer of credit risk from a bank's balance sheet to a FVC's balance sheet. This transfer of credit risk is funded by the issuance of debt securities, which in some cases, can be brought back on to the balance sheet of the bank (i.e. retained securitisation) and used as collateral with the ECB in monetary operations. Alternatively, the debt securities can be sold on to other investors (e.g. other banks, insurance companies, pension funds, hedge funds).

SPVs have many characteristics of FVCs but fall outside the ECB definition. The main activity of Irish SPVs is loan origination even if a minority of its activities pertain to securitisation. SPVs can also issue debt securities or they may be set up for the purpose of financing a group or part of a group through the use of loans. One of the key challenges of analysing SPVs incorporated in Ireland is the categorisation of these activities owing to the complexity and opaqueness of their transactions.

2.2 Methodology

To examine this sector we construct a unique firm-level dataset of FVCs and SPVs registered with the Companies Registration Office (CRO) in Ireland. This dataset is based on 2012 financial accounts. A number of variables are chosen to review the activities of these entities. These include firm-level information such as total assets under management, the date and address of incorporation, the number of direct employees and the fees paid to Irish corporate service providers (e.g. legal fees, administration fees, audit fees). Information is also collected on relevant counterparties such as the name, location and sector of the FVCs' and SPVs' creditors and debtors. In addition to collating the dataset, a series of meetings were held with the directors of 26 SPVs. The meetings took place from January to March 2015 and assessed to what extent the vehicles were within scope of existing and forthcoming financial services regulations.

The methodology outlined above has a number of limitations. Firstly, there is significant heterogeneity regarding the information reported in the financial accounts. For example, some financial accounts include information on the name and location of the debtors, creditors and derivative counterparties while other accounts do not disclose this level of granularity. Secondly, the heterogeneous nature of the activities within this sector means it is difficult to categorise the vehicles within our dataset. Finally, the analysis is based on data collected from a one-off exercise of 2012 financial returns.

3. The FVC and SPV Industry in Ireland

Based on our analysis of financial accounts of FVCs and SPVs, we estimate that there are approximately 1,300 vehicles located in Ireland at the end of 2012. These vehicles are set up as broadly tax neutral under Section 110.[9] Of this total, approximately 700 entities are FVCs, while the remaining 600 entities can be classified as SPVs. Since the fourth quarter of 2009, data on Irish FVCs has been collected by the Central Bank of Ireland.[10] The most recent FVC data shows that there are 779 FVCs resident in Ireland in the first quarter of 2015 (Chart 1).

Within the euro area there are ten countries which have resident FVCs. Ireland has the largest proportion of domiciled FVCs by numbers and assets of any euro area country (Chart 2). Other jurisdictions such as Luxembourg and the Netherlands also have

8 Securitisation is defined as a transaction(s) where the credit risk of an asset is transferred to the balance sheet of an entity, either through the economic transfer (purchase) of the asset or through the use of derivatives.

9 Section 55 of the Finance Act 1996, http://www.irishstatutebook.ie/1996/en/act/pub/0009/print.html#sec55

10 See Godfrey and Jackson (2011).

Chart 1: Overview of Section 110 vehicles in Ireland

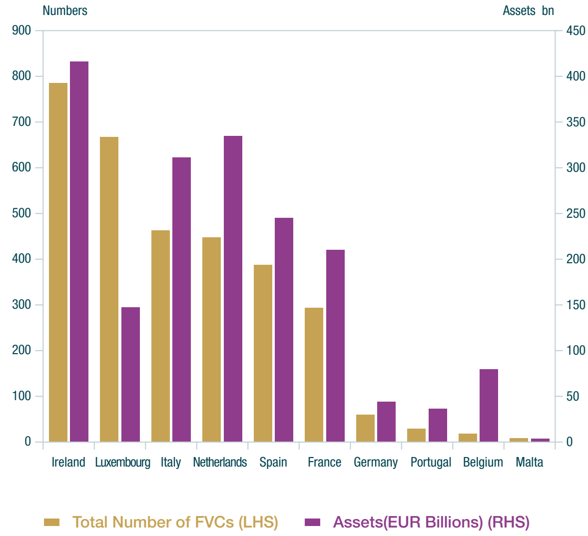
Section 110 vehicles: a tax neutral framework

779 FVCs
Main activity: Securitisation
Reporting since Q4 2009
AUM €415bn (Q1 2015)

Approx. 600 SPVs
Other activities
Non-reporting
Approx. AUM €150bn (2012)

Sources: Central Bank of Ireland, Companies Registration Office (CRO) and authors' calculations.
Note: FVCs include NAMA vehicles.

Chart 2: Q1 2015: Number and Assets of FVCs in Euro Area



Sources: Central Bank of Ireland and European Central Bank (ECB).

sizeable FVC populations. However, at present there is no comparable euro area dataset for SPVs who fall outside the FVC definition.

Certain taxation provisions in Ireland allow FVCs and SPVs to be structured as broadly profit- and tax- neutral. These provisions were originally introduced in 1991[11] to facilitate the securitisation of mortgages. These provisions were extended to transactions outside the IFSC with the implementation of Section 110 (effective in 1999). The Section 110 regime was expanded by the Finance Act 2003[12], the Finance Act 2008[13] and again in the Finance Act 2011[14] to broaden the range of financial assets a Section 110 company can hold, manage or lease.

A company must meet a number of conditions to qualify under the Section 110 framework. Firstly, the company must be resident in Ireland. Secondly, it must acquire "qualifying assets" which include shares, bonds, investment in money market funds, commodities, leases, hire purchase agreements, greenhouse gas emissions, contracts for insurance and reinsurance, and the ownership, management and leasing of plant and machinery. Thirdly, the market value of the qualifying assets must be at least €10 million on the date the assets are first acquired by the newly incorporated Section 110 company. Finally, the company must notify the Irish tax authorities if it wishes to avail of the Section 110 framework.

In addition to the Section 110 provisions, other reasons for FVCs and SPVs locating in Ireland include an extensive double taxation treaty network, a common law environment, a corporate administration support network, an efficient listing of securities on the Irish Stock Exchange (ISE), and Ireland's membership of the OECD and European Union.

11 Section 31 of the Finance Act 1991, http://www.irishstatutebook.ie/1991/en/act/pub/0013/print.html#sec31
12 Section 48 of the Finance Act 2003, http://www.irishstatutebook.ie/2003/en/act/pub/0003/sec0048.html#sec48
13 Section 36 of the Finance Act 2008, http://www.irishstatutebook.ie/2008/en/act/pub/0003/sec0036.html#sec36
14 Section 40 of the Finance Act 2011, http://www.irishstatutebook.ie/2011/en/act/pub/0006/sec0040.html#sec40

4. Main Findings

This section presents the main findings of our research which is divided as follows: technical features, domestic linkages, international linkages and a series of case studies. The case studies are generic but reflect some of the business models employed by FVCs and SPVs incorporated in Ireland.

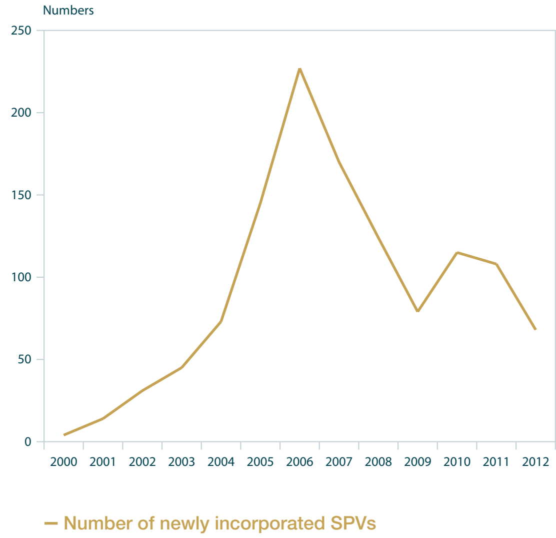
4.1 Technical features of FVCs and SPVs

Our analysis of firm-level financial accounts found that many of these vehicles are set up using an orphan entity ownership structure. As noted by BIS (2009), one of the consequences of this ownership structure is that it ensures that the entity is not owned by the originator, but rather by a charitable trust. These trusts are usually set up by a corporate service provider or a law firm. This structure ensures that the entity should not be affected by any legal claims against the originator (BIS, 2009). In addition, our analysis found that the majority of FVCs and SPVs incorporated in Ireland have no direct employees.

Other legal protections used by the industry include the use of "limited recourse" and "non-petition" covenants within the legal contracts. "Limited recourse" means that creditors of the vehicle only have a claim on what the entity is paid. "Non-petition" refers to a situation whereby creditors give up the right to petition for liquidation of the vehicle. Many of the contracts underpinning the incorporation and activities of these vehicles are governed by UK or US law even though the entities are registered in Ireland. In this way, the industry continues to use the legal frameworks of jurisdictions where the main legal tenets have generally been tested, even though the vehicles are registered outside of these jurisdictions.

The lifecycle of a FVC or SPV is dependent on the motivation and nature of its activities. Based on our discussions with industry, the average lifecycle of a vehicle can range from approximately five to ten years. Using financial account information for FVCs and SPVs that are active in 2012, we found that most vehicles were established in 2006 (Chart 3). It is noteworthy that the number of new vehicles incorporated in Ireland falls significantly in 2009 which coincides with the global financial crisis and the collapse in the securitisation market in Europe.

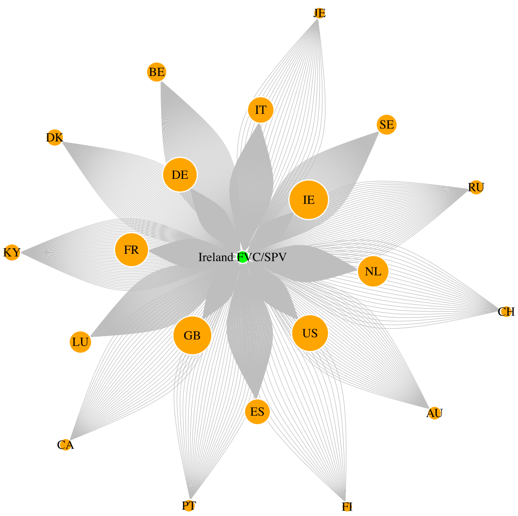
Chart 3: Number of new FVCs and SPVs in Ireland by year of incorporation, at end-2012



Sources: Companies Registration Office (CRO) and authors' calculations.

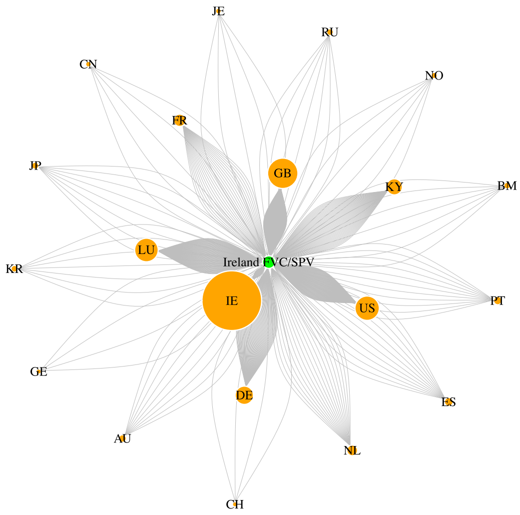
Irish domiciled FVCs are usually funded through a number of different types of debt issuance depending on the nature of the securitisation that the FVC is involved in. This can range from commercial or consumer asset backed securities, commercial or residential mortgage backed securities, commercial paper, profit participation notes and different types of floating notes. Debt securities issued by FVCs have to be marketable and are usually issued in multiple tranches depending on the level of subordination of the security issued. The more senior notes would have first claim on any cash that a FVC receives, while the more junior notes would have more risk exposure but would receive a higher rate of interest in compensation.

Chart 4: Top 20 Cross-Border Linkages – FVC/SPV Debtor Links



Source: Companies Registration Office (CRO) and authors' calculations

Chart 5: Top 20 Cross-Border Linkages – FVC/SPV Creditor Links



Source: Companies Registration Office (CRO) and authors' calculations

Note: AU = Australia; BE = Belgium; BM = Bermuda; CA = Canada; CH = Switzerland; CN = China; DE = Germany; DK = Denmark; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; GE = Georgia; IE = Ireland; IT = Italy; JE = Jersey; JP = Japan; KY = Cayman Islands; KR = Korea; LU = Luxembourg; NL = Netherlands; NO = Norway; PT = Portugal; RU = Russia; SE = Sweden; US = United States.

Irish domiciled SPVs can be funded via the issuance of different note types including, for example, profit participation notes, loan notes, index linked notes, floating rate notes and limited recourse notes. The risks and characteristics associated with these notes vary widely. For example, the returns from a profit participation note relate to the profits of the SPV. The number of investors can also vary significantly, for example, depending on whether it is a privately issued loan note or a publically listed note.

4.2 Domestic linkages

There are 22 FVCs with approximately €39 billion linked to Irish banks in the first quarter of 2015. The remaining FVCs and SPVs have limited direct links to the Irish economy as the majority of their assets and liabilities are located outside of Ireland. The main benefit to the Irish economy comes through fees paid to Irish corporate service providers, law firms, auditors and the ISE. Based on our analysis of FVCs' and SPVs' financial accounts, we estimate that the average set up fees paid to Irish service providers is approximately €50,000 and the average annual administrative fees paid to Irish service providers ranges in broad terms between €40,000 to €80,000.[15] While these vehicles have little interaction with the domestic economy, they can have a significant impact on Irish macroeconomic statistics. This is due to the fact that these vehicles are recorded as residents, meaning there is a sizable impact on external sector statistics.

4.3 International linkages

FVCs and SPVs are connected to the wider global financial system as the majority of their creditors and debtors are located outside

15 Fees depend on the complexity of the vehicles (number of debt securities issued etc.) and stage in the life cycle of the vehicle (e.g. fees are higher in year 1 with start-up fees). The financial accounts are not consistent in the treatment of fees and thus our estimated range is a guide only.

of Ireland. Charts 4 and 5 present the top 20 cross-border linkages of Irish domiciled FVCs and SPVs. The charts are un-weighted networks and therefore the size of the node represents the number of FVCs and SPVs linked to that country as opposed to the euro value of the exposure. Chart 4 shows that the top 20 locations of debtors to Irish domiciled FVCs and SPVs. The United States, the UK, Germany, France, Italy, Russia and the Netherlands are the top locations of debtors for these vehicles.

On the creditor side (Chart 5), the top locations are the UK, the US, Germany, Luxembourg and the Cayman Islands. The large node for Ireland in the creditor graph is explained by FVCs and SPVs that issue debt securities on the ISE, intra-sector flows and domestic linkages. Information on the location of the final investor is not readily available for debt securities as data are collected on a first counterparty basis. In addition, financing linkages between FVCs and SPVs can also impact the creditor links. As these vehicles can be part of multi-vehicle structures, an Irish registered entity may be listed as a creditor to another Irish registered FVC or SPV. However, the ultimate creditor may be located outside of Ireland.

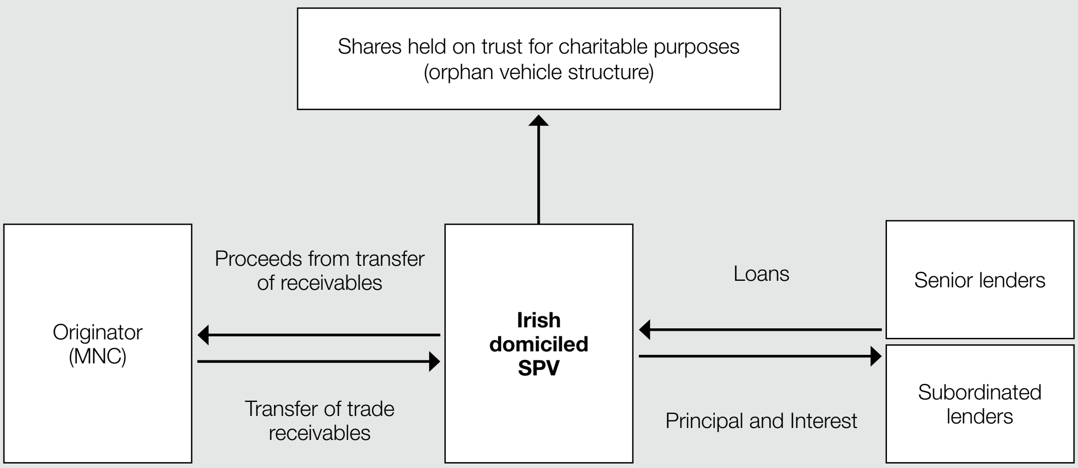
4.4 Case Studies

This section describes some generic case studies of FVCs' and SPVs' activities.

Case Study A: Irish domiciled SPV used as bankruptcy remote funding vehicle

This case study outlines a structure which uses an Irish domiciled SPV to ensure bankruptcy remoteness. Chart A summarises the transaction and the role of the Irish SPV.

Chart A: Summary of Transactions

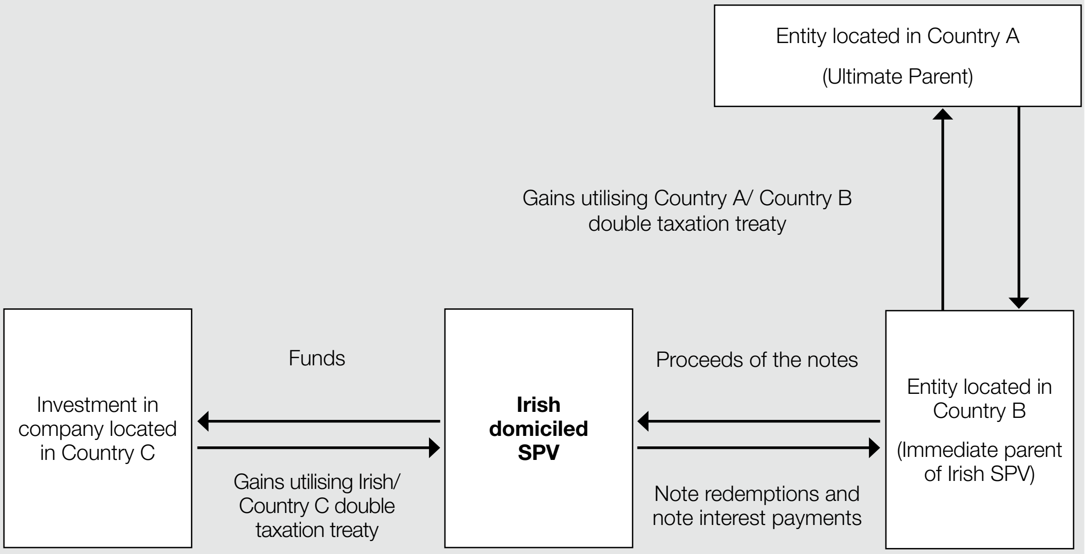


The multinational corporation (MNC) transfers its receivables into an Irish domiciled SPV which uses these assets to attract cheaper funding. The Irish domiciled SPV receives loans from a syndicate of senior and subordinated lenders and uses these funds to buy the trade receivables from the originator (the MNC). The MNC would have to pay a much higher rate if it were to raise finance directly but benefits from cheaper funding by simply isolating the receivables in an Irish domiciled SPV. In order to ensure bankruptcy remoteness, the Irish domiciled SPV is set up using an orphan vehicle structure whereby the shares of the SPV are held on trust for charitable purposes.

Case Study B: Irish domiciled SPV used in a tax efficiency structure

This case study outlines a structure which uses an Irish domiciled SPV to ensure tax efficiency. Chart B summarises the transaction and the role of the Irish SPV.

Chart B: Summary of Transactions

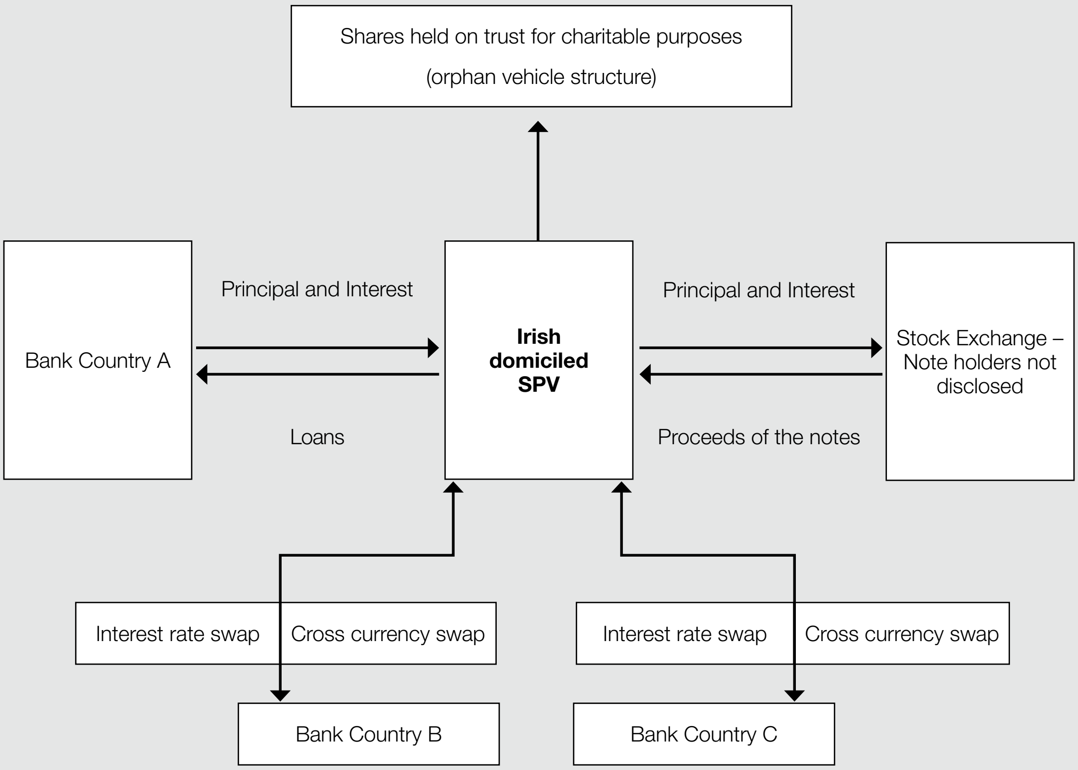


Cross-border payments made by the Irish SPV under a profit participating note to a country within the EU or with whom Ireland has signed a double taxation treaty are free of Irish withholding tax. However, in this case study, payments by an Irish SPV to Country A do not gain this exemption owing to the fact that Ireland does not have a double taxation treaty with Country A. Country B, on the other hand, has a double taxation treaty with Country A which allows the payments to be made free of withholding tax. Ireland is often the chosen host jurisdiction for investment vehicles owing to Ireland's wide network of comprehensive double taxation treaties. As illustrated in Chart B, the Irish domiciled SPV is utilised to take advantage of the Irish tax treaty with Country C owing to the fact that it is a more favourable treaty than the tax treaty between Country B and C.

Case Study C: Irish domiciled SPV structure and relevant regulations

Chart C presents an example of a simple SPV structure which makes loans to a regulated European bank.

Chart C: Summary of Transactions

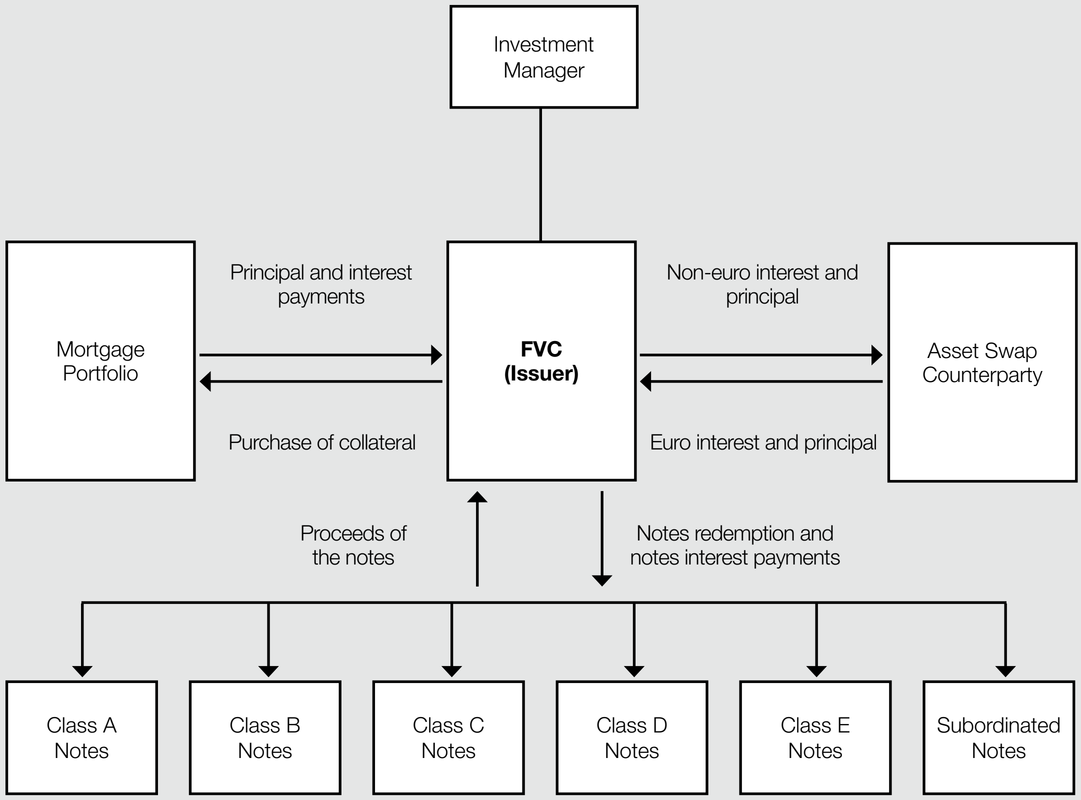


The SPV funds itself by issuing paper which is listed on a stock exchange and must therefore comply with disclosure requirements and listing rules (e.g. Prospectus and Transparency Directives). As the SPV hedges various exposures with derivatives it must comply with the European Market Infrastructures Regulation (EMIR) and report information on its derivatives trades to a trade repository. SPVs with strong cross-sector and border interlinkages (including SPVs with strong interconnectedness with the regulated banking system as illustrated in Chart C), can raise concerns regarding contagion and financial stability.

Case Study D: Irish domiciled FVC structure investing in mortgage backed securities

Chart D presents an example of a FVC structure which invests in mortgage backed securities and issues different types of debt securities.

Chart D: Summary of Transactions



This FVC funds itself by issuing multiple "tranches" of debt securities and invests in a portfolio of mortgages from a bank. These transactions can be cross-border in nature. Each class of debt security has a different seniority with a credit rating assigned depending on the level of seniority. The notes are redeemed in order of seniority and any defaults affect the subordinated notes first which results in the lower rated securities receiving higher interest payments. An asset swap counterparty can also be involved to hedge any currency risks if the notes have been issued in a different currency to that of the mortgages held.

Considering the complexity of these transactions in terms of the number of vehicles, securities and jurisdictions involved, it is possible that these entities may be used by originators to obscure the true economic nature of their activities.

5. Regulatory Developments and Financial Stability Issues

5.1 Relevant securities and markets regulations

No single regulation covers all of the activities of FVCs and SPVs. As noted by the Central Bank of Ireland (2014), various sectoral financial services regulations are likely to apply, directly or indirectly, to these vehicles (e.g. banking, insurance and fund regulations, investor disclosure and market monitoring regulations). These regulations will better inform regulators seeking to assess the financial stability impact of FVCs' and SPVs' activities.

For example, FVCs and SPVs who engage in derivative trading will be within scope of the European Union regulation on derivatives, central counterparties and trade repositories, the European Market Infrastructure Regulation (EMIR). EMIR imposes reporting requirements on all entities entering into derivative contracts. Our analysis suggests a significant minority of Irish domiciled FVCs and SPVs are involved in derivative contracts.

FVCs and SPVs may also fall under the Prospectus and Transparency Directives should they decide to publically issue debt.[16] The prospectus must contain all information which, according to the particular nature of the issuer (and of the securities issued), is necessary to enable investors to make an informed assessment of the investment. Information includes details of the assets and liabilities, financial position, profit and losses, and prospects of the issuer and of any guarantor; and the rights attaching to such securities. Publically listed debt issuances have fewer reporting requirements than equity issuances under the Regulation. There is, for example, no public register requirement of debt securities holders as exists for equity. Regulators may be able to get information on a first counterparty basis but this may not identify the beneficial owner of the debt. If the first counterparty is a stock exchange, regulators have no information on the final investor. Our initial analysis shows that most FVCs and some SPVs are issuing debt publically but there are a significant number issuing debt privately.

The Securities Financing Transaction Regulation (SFTR) is a new proposal by the European Commission to develop a reporting regime for securities financing transactions (i.e. lending and borrowing of securities and commodities, repurchase or reverse repurchase transactions, or buy-sell back or sell-buy back transactions). Our analysis suggests the use of securities transaction financing by Irish domiciled FVCs and SPVs is relatively limited.

In addition to the securities and markets regulations outlined above, there are forthcoming requirements under the Credit Ratings Agencies Regulation (CRA3) for reporting of financial information on rated instruments. This will provide some information on privately issued debt which is rated. Unrated privately issued debt by SPVs will continue to fall outside of scope. Risk retention requirements have also been put in place for banks and insurers issuing securitisations.[17] There have been calls from the Bank of England and ECB (2014, 2015), European Commission (2015) and Segoviano *et al*. (2015) amongst others, to standardise and simplify securitisation in order to reduce the financial stability risks posed by the lack of transparency in the sector.

Overall, while these existing and new regulations will improve oversight and transparency of this sector, some FVCs and SPVs may remain partially or fully outside the regulatory perimeter. This presents challenges for authorities engaged in mapping and monitoring FVC and SPV activities and the shadow banking system in general. In addition, due to the cross-sectoral and global flow of funds within the FVC and SPV sector (see

16 On a regulated market or make an offer of securities to the public within the European Economic Area.

17 By virtue of Article 135(2) of Directive 2009/138/EC (Solvency II) for insurance undertakings and by virtue of Article 405 of Regulation (EU) No 575/2013 (CRR) for credit institutions.

Sections 4.3 and 4.4), good macro-oversight of this sector will require data sharing and general co-operation amongst regulators.

5.2 Financial Stability Issues

Securitisation and other non-bank credit intermediation allow investors to diversify and manage risk. This allows borrowers to reduce the cost of capital by ring-fencing assets and activities or by accessing new pools of credit. However, despite these benefits, distress in the non-bank financial sector can also lead to the build-up of systemic risk and thereby threaten the functioning of the entire financial system (Segoviano *et al*., 2015). Some potential risks identified by international standard setters such as the FSB (2011) and others include the concentration of business models and assets, high leverage, maturity or liquidity mismatch, illiquid assets, and imperfect credit risk transfer. Our analysis, although preliminary in nature, identified some of these features in Irish domiciled FVCs and SPVs (e.g. similar business models, illiquid assets, etc.)

FVCs and SPVs have significant interconnectedness with the regulated banking system owing to direct contractual arrangements such as funding linkages.[18] The extent of the interconnectedness is hard to measure accurately as the linkage may be implicit rather than explicit.[18] This complexity makes risk assessment more challenging. For example, it obscures the assessment of the loss absorption capacity of the vehicle and makes balance sheet data (e.g. leverage) less meaningful.

Non-bank entities such as FVCs and SPVs are subject to both lighter regulatory requirements and less intensive supervision than banks. As these entities remain on or outside the regulatory perimeter, they can also potentially exacerbate the vulnerabilities within the financial system. Given the limitations in regulatory oversight, Constancio (2015) highlights the need to develop a monitoring framework for the non-bank financial system including the expansion of macroprudential tools for non-bank financial entities.

To fully assess the financial stability implications of this sector, detailed granular data is required. As SPV risks are mainly external, these data are required to map the international linkages of SPVs and their interconnectedness with the regulated banking system. In order to fill some of these data gaps, the Central Bank of Ireland will extend its reporting requirements to include SPVs, requiring them to report the same quarterly data as FVCs.

6. Conclusion

The global financial crisis highlighted the need to better understand the activities of entities within the shadow banking system. Owing to limited granular data for a significant portion of the shadow banking system in Ireland, it is difficult to assess fully the financial stability implications of activities within this sector. Motivated by these data gaps, we construct a unique firm-level dataset of FVCs and SPVs which are incorporated in Ireland and which avail of the Section 110 framework. Based on these data, we estimate that there are approximately 1,300 FVCs and SPVs registered in Ireland in 2012. These vehicles are engaged in a broad array of activities including investment transactions, securitisation transactions, distressed debt transactions, balance sheet management, and fundraising. Irish domiciled FVCs and SPVs also have significant interconnectedness with the regulated banking system.

While existing and new financial services regulations will improve oversight and transparency of this sector, some SPVs may remain fully or partially outside the regulatory perimeter. This presents challenges for authorities engaged in mapping and monitoring SPV activities and the shadow banking system in general. Some of the characteristics of Irish FVCs and SPVs could potentially pose risks to international financial stability (as outlined by the FSB and others) owing to their activities, their international financial linkages and the limited oversight of the sector. Later this year, the Central Bank of Ireland will extend its FVC reporting requirements to SPVs in order to improve the transparency and oversight of this sector.

18 See Gorton and Souleles (2007) and Archarya *et al*. (2013) for discussions of the importance of funding linkages and sponsor support in determining the functionality of the SPV market.

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