



**Collection of data on non-bank financial
intermediation and other relevant trends in the
financial world in the National Accounts**

Guide for Compilers and Users

2020

1. Introduction

1. The financial crisis of 2008 revealed the fragile regulation of the global financial system and highlighted the potential build-up of systemic risk due to increased credit intermediation involving entities outside the regular banking system (initially called “shadow banking”, but now referred to as ‘non-bank financial intermediation’), when it involves liquidity, maturity and credit transformation as well as the build-up of leverage. Because of the importance of this phenomenon, the G20 agreed on the need to more closely measure and monitor non-bank financial intermediation (as part of recommendation II.5 of the G20 Data Gaps Initiative), and to approximate this from a macroeconomic perspective by further breaking down the financial corporations’ sector in the System of National Accounts (SNA).

2. In response to this recommendation, a template was developed including additional sector and instrument breakdowns to obtain a more granular overview of the financial sector¹ and to provide more insight in relevant trends in non-bank financial intermediation and in the financial world more in general. This template was endorsed by G20 countries on the 31st of July 2018, as part of the ‘more advanced ambitions’,² focusing on annual and quarterly stock data. For these more advanced ambitions, no formal engagement is requested by 2021, but countries are encouraged to deliver what is available at the national level, and to consider these requests, when they make plans for further development of their statistics.

3. Whereas the international standards for compiling national accounts, the 2008 SNA, already include definitions and guidelines for the main subsectors within the financial corporations’ sector and for the main financial instruments, the further breakdowns included in the non-bank financial intermediation template require additional guidance. This paper presents definitions for the new subsectors and instruments.³ The definitions have been derived by assessing information and guidance already included in international standards (e.g. 2008 SNA, and the European System of Accounts (ESA) 2010) and by exploring additional sources in case specific subsectors or instruments were not covered or in case information was not fully harmonised or sufficiently specific. These additional data sources, amongst others, include information published by the Financial Stability Board, ECB regulations, guidelines for monetary financial statistics and explanatory notes, the IMF Handbook on Securities Statistics, and the IMF Monetary and Financial Statistics Manual and Compilation Guide. Furthermore, in some cases, the Internet (e.g. Investopedia and Wikipedia) was consulted to obtain more insight in specific activities.⁴

4. This paper is organised as follows. Section 2 presents definitions for the new categories as included in the various financial corporations’ subsectors. Section 3 concentrates on the definitions for additional instruments requested in the template.

¹ OECD Study on capturing trends in financial world within SNA, <https://community.oecd.org/docs/DOC-157792>.

² Please note that the general collection templates for institutional sector accounts data include “target” and “encouraged” items, for which G20 countries committed to provide at least the target items by 2021. The ‘more advanced ambition’ templates include “encouraged” items only, with two levels of priority (“tier 1” and “tier 2”), for which G20 countries are not obliged but encouraged to provide data by 2021.

³ Please note that the guidelines do not provide any guidance for the subsectors of the financial corporations that are already requested in the G20 general templates.

⁴ A first version of this paper was presented at the meeting of the Working Party on Financial Statistics in November 2019. This has been followed by a written consultation, involving many stakeholders, in order to arrive at harmonised terminology and full consistency across statistical domains. The feedback received has been incorporated in this updated version.

2. Additional sector breakdowns for the financial corporations' sector

5. Financial corporations consist of all resident corporations that are principally engaged in providing financial services, including insurance and pension funding services, to other institutional units. The financial corporations' sector can be divided into nine subsectors according to its activity in the market and the liquidity of its liabilities (2008 SNA, §4.102).

- Central bank (S121);
- Deposit-taking corporations except the central bank (S122);
- Money market funds (MMF) (S123);
- Non-MMF investment funds (S124);
- Other financial intermediaries except insurance corporations and pension funds (ICPF) (S125);
- Financial auxiliaries (S126);
- Captive financial institutions and money lenders (S127);
- Insurance corporations (IC) (S128);
- Pension funds (PF) (S129).

6. In the non-bank financial intermediation template, some of these groupings are further broken down by type of funds or entities. This concerns i) Money market funds (S123), ii) Non-money market investment funds (S124), iii) Other financial intermediaries (S125), iv) Captive financial institutions (S127), v) Insurance companies (S128), and vi) Pension funds (S129). This section provides definitions for these additional breakdowns. These definitions should be applied to allocate institutional units to the relevant subsectors. Please note that the definitions are based on the assumption that an entity is considered as an institutional unit as defined in the SNA and that existing definitions for the nine financial subsectors as listed above are also taken into account.

2.1. Money market funds

7. Money market funds (MMFs) are collective investment schemes that raise funds by issuing shares or units to the public, the proceeds of which are invested primarily in the following instruments: money market instruments, MMF shares or units, transferable debt instruments with a residual maturity of not more than one year, bank deposits, and instruments that pursue a rate of return that approaches the interest rates of money market instruments (2008 SNA, §4.107). This subsector covers investment trusts,⁵ unit trusts⁶ and other collective investment schemes whose shares or units are close substitutes for deposits

⁵ An investment trust is a form of investment fund bound by a trust deed that invests the funds of shareholders and issues a fixed number of shares. For that reason, all investment trusts are closed-end funds (see 'investment trust' on Wikipedia). Please note that a trust is a legal construction in which three parties are involved, i.e. the trustor, the trustee and the beneficiary. The relationship between these three is setup in a way that the trustor transfers a property upon the trustee for the benefit of the beneficiary (see 'trust law' on Wikipedia). Whereas many of these legal constructions are included in the captive financial institutions as they are only transacting on behalf of a specific trustor for the benefit of a specific beneficiary, they can also be set up in flexible ways to act as an investment vehicle where both assets and liabilities may be transacted on the open market.

⁶ Unit trusts refer to collective investment entities constituted under a trust deed (see 'unit trust' on Wikipedia and Investopedia). In a unit trust, the unit holder is not a shareholder and a unit is not a share, but it represents the investor's interest in the unit trust's investment portfolio (see 'investment trust' on BusinessDictionary.com).

(ESA 2010, §2.80).⁷ ECB regulations provide further qualifying criteria, including on the quality and maturity profile of the assets, and that MMFs cannot have exposure to equities and commodities (ECB/2013/33). As these funds are characterised by high liquidity and investments in short term assets, they may be liable to runs as well as leverage problems giving rise to systemic risk.

8. The non-bank financial intermediation template requests the following breakdown of MMFs:⁸

- Sub-sectors of Money Market Funds (S123):
 - S123A: Constant Net Asset Value (NAV) MMFs;
 - S123B: Variable NAV MMFs.

9. The net asset value (NAV) of an investment fund is the value of its assets minus its liabilities (the latter excluding investment fund shares).⁹ Constant NAV MMFs, also referred to as stable NAV MMFs,¹⁰ aim to maintain a stable share price (typically one unit of currency) at which investors may redeem or purchase shares. This stability can be achieved by valuing the fund's investments at amortized cost rather than at market value (if the two valuations do not significantly diverge from each other) and to distribute extra interest earnings that are generated via the fund's holdings to investors via dividend payments. On the other hand, the incurrence of investment losses or increased operating expenses may result in the fund losing its one unit of currency share price (referred to as 'breaking the buck'), although this only seems to occur rarely. Variable NAV MMFs, also referred to as floating NAV MMFs, offer redemptions and acquisitions at a price equal to the given fund's NAV per share. Therefore, the share price of such a fund can fluctuate according to changes in the prices of the fund's investments among other market factors. Variable NAVs are calculated using the market value of the underlying holdings.

10. This leads to the following definitions:

- **Constant NAV MMFs** are MMFs that aim to maintain a stable share price (typically one unit of currency).
- **Variable NAV MMFs** are MMFs that do not aim to maintain a stable share price. Consequently, they have share prices that may fluctuate.

2.2. Non-money market investment funds

11. Non-MMF investment funds are collective investment schemes that raise funds by issuing shares or units to the public and that invest the proceeds mainly in financial assets other than short-term assets and in non-financial assets (usually real estate). Non-MMF investment funds cover investment trusts, unit trusts and other collective investment schemes whose investment fund shares or units are not seen as close substitutes for deposits. They are not transferable by means of cheque or direct third-party payments

⁷ Please note that different terminology may be used across countries. In that regard, it is important to focus on the specific characteristics of financial entities to decide upon their classification instead of focusing on the term that is used to describe them.

⁸ This breakdown is requested at the Tier 2 level.

⁹ ECB/2014/15, Guideline of the European Central Bank on monetary and financial statistics, Official Journal of the European Union, www.ecb.europa.eu/ecb/legal/pdf/oj_jol_2014_340_r_0001_en_txt.pdf.

¹⁰ It may also refer to 'low volatility NAV' MMFs in the euro area.

(2008 SNA, §4.108; ESA 2010, §2.83). Non-MMF investment funds can be distinguished as either open-ended or closed-ended:¹¹

- Sub-sectors of Non-Money Market Funds (S124)
 - S124A: Open end funds
 - S124B: Closed end funds

12. An open-end non-MMF is a non-money market fund whose investment fund shares or units are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking's assets (ESA 2010, §2.84a). Considering the ECB Manual on Investment Fund Statistics,¹² this means that when an investor sells their shares, these shares are taken out of circulation rather than exchanged with a corresponding buyer. In some cases, certain restrictions regarding the issuance or redemption of shares or units may exist. Open-end non-MMFs may only allow investors to buy new shares or sell their shares above a certain minimum amount. Likewise, investment funds shares or units could be issued or redeemed only at predetermined points in time. Moreover, issues of new shares may be temporarily suspended due to market conditions or in light of very high amounts of funds' total assets. In these cases, the non-MMF should still be classified as an open-end non-MMF as, despite some restrictions, investors have the possibility to buy/sell investment fund shares directly from/to the fund. Exchange traded funds (ETFs) mainly exhibit features that are typical of open-end funds: the valuation of ETF shares is very close to that of open-end funds which can be bought or sold at a price which is set equal to their net asset value at the end of each trading day. Open-end funds, as well as closed-end funds, can be broken down further according to the nature of their investment; see below.

13. A closed-end investment fund, on the other hand, is a collective investment scheme which, unlike an open-end investment fund, raises a fixed share capital, where investors entering or leaving the fund must buy or sell existing shares (ESA 2010, §2.84b). The ECB Manual on Investment Fund Statistic explains that also private equity funds (including venture capital funds) are normally constituted as closed-end funds or as limited partnerships managed by a private equity company or venture capital company in the case of venture capital funds. Private equity funds are unleveraged investment funds that predominantly invest in equity instruments and instruments that are economically similar to equity instruments issued by unlisted companies. A sub-category of private equity funds are venture capital funds, which invest in start-up companies (ECB/2014/15). Most private equity funds (including venture capital funds) are classified as equity funds if they primarily invest in equity or as other funds if they largely invest in unlisted companies e.g. via loans or participations. While private equity *funds* (including venture capital funds) are classified as investment funds in line with Article 1 of Regulation (EU) No 1073/2013 (ECB/2013/38), private equity *companies* and venture capital *companies* are classified as either other financial intermediaries (S125) or as financial auxiliaries (S126). If these companies invest on their own account and raise funds on the open market in a form other than issuing shares or units to the public, they are classified in S125. If they do not act on their own behalf but solely manage the assets of private equity funds and venture capital funds¹³ they are classified in S126.

14. This leads to the following definitions:

¹¹ This breakdown is requested at the Tier 1 level.

¹² European Central Bank, Manual on Investment Funds Statistics, based on regulation ECB/2013/38 and guideline ECB/2014/15, See the following [link](#).

¹³ Please refer to §58 in Section 2.3 for more details on the distinction between trusts and asset management companies.

- **Open-end non-MMFs** are non-MMFs whose investment fund shares or units are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking's assets.
- **Closed end non-MMFs** are non-MMFs that raise a fixed share capital, where investors entering or leaving the fund must buy or sell existing shares.

15. Following on this distinction between open and closed end funds, the non-bank financial intermediation template requests breakdowns of these funds into main type of investment:¹⁴

- Sub-sectors of Non-Money Market Funds Open end funds (S124A):
 - S124A1: Non-MMFs Open end funds - Real estate funds;
 - S124A2: Non-MMFs Open end funds - Equity funds;
 - S124A3: Non-MMFs Open end funds - Bond funds;
 - S124A4: Non-MMFs Open end funds - Mixed or balanced funds;
 - S124A5: Non-MMFs Open end funds - Hedge funds;
 - S124A9: Other Non-MMFs Open end funds.
- Sub-sectors of Non-Money Market Funds Closed end funds (S124B):
 - S124B1: Non-MMFs Closed end funds - Real estate funds;
 - S124B2: Non-MMFs Closed end funds - Equity funds;
 - S124B3: Non-MMFs Closed end funds - Bond funds;
 - S124B4: Non-MMFs Closed end funds - Mixed or balanced funds;
 - S124B5: Non-MMFs Closed end funds - Hedge funds;
 - S124B9: Other Non-MMFs Closed end funds.

16. The definitions that follow generally characterise both open end and closed end funds. The breakdown by main type of investment should be based on its prevailing investment allocation policy. This may be “derived from the public prospectus, fund rules, instruments of incorporation, established statutes or by-laws, subscription documents or investment contracts, marketing documents, or any other statement with similar effect” (ECB/2014/15). In the unlikely event that such information is absent, the fund may be classified as a mixed fund if it meets the relevant criteria (see the section on mixed funds below). ECB guidance notes that a 50% investment rule should be implemented, i.e. if a fund invests at least 50% in a given type of asset, then it should be considered under that category (ECB, 2017). Investment funds that primarily invest in other investment funds' shares or units (referred to as funds of funds) should be categorised according to the type of fund they invest in. For instance, funds that mainly invest in hedge funds should be considered as a hedge fund.

Real estate funds

17. Real estate funds are those funds that primarily invest in assets linked to real estate. This category also includes real estate investment trusts (REITS), which are

¹⁴ As open-end funds are more common than closed end funds, the breakdown for the former is requested at the Tier 1 level whilst for the latter it is requested at the Tier 2 level.

defined in the UN/ECB Handbook of National Accounting, Financial Production, Flows and Stocks in the System of National Accounts (§2.22c)¹⁵ as companies that own – and typically operate – income-producing real estate or real estate related assets.

Equity funds

18. Equity funds are those funds that primarily invest in equity instruments.

Bond funds

19. Bond funds (also referred to as fixed income funds) are those funds that primarily invest in longer-term (original maturity more than one year) debt instruments such as government, municipal and corporate bonds.

Mixed or balanced funds

20. Mixed or balanced funds (or sometimes referred to as hybrid funds) are those funds investing in a mixture of different asset class categories with no prevailing policy in favour of one specific instrument. These funds can be distinguished from the other fund types based on the given asset allocation as stated in the funds' prospectuses. As previously mentioned, when a fund invests more than 50% in a given instrument, then the fund should be classified under the relevant category, rather than being classified as a mixed fund. On the other hand, if the fund defines investment strategies such that no given instrument always has more than 50% of the fund's allocation and additionally no explicit preference for a certain instrument is stated, then this should be considered as a mixed fund. Where a fund breaches a threshold suggesting a potential fund type change, this should be verified from a source associated with the fund. A temporary move above 50% of a given instrument may not be caused by an explicit change in investment policy. If the latter holds, this should not lead to a reclassification.

Hedge funds

21. The ECB defines hedge funds as “any collective investment undertakings [...] which apply relatively unconstrained investment strategies to achieve positive absolute returns, and whose managers, in addition to management fees, are remunerated in relation to the fund's performance. For that purpose, hedge funds have few restrictions on the type of financial instruments in which they may invest and may therefore flexibly employ a wide variety of financial techniques, involving leverage, short-selling or any other techniques.” (ECB/2014/15). As such, hedge funds encompass a heterogeneous range of collective investment schemes that can employ a wide set of different investment strategies in order to maximise absolute returns (which often requires taking higher risk positions). They typically require high minimum investments for each of the participating entities, and, although generally open-ended, redemptions may be restricted to pre-determined time intervals (Lemke et al., 2014). Therefore, while other funds can be defined by their investment allocations, this is not the case for hedge funds. The ECB guideline states that “criteria to identify hedge funds must be assessed against the public prospectus as well as fund rules, statutes or by-laws, subscription documents or investment contracts, marketing documents or any other statement with similar effect of the fund” (ECB/2014/15).

¹⁵ <https://unstats.un.org/unsd/nationalaccount/docs/FinancialHB-Unedited.pdf>.

Other funds

22. Other funds represent a residual category to include those investment funds other than real estate funds, equity funds, bond funds, mixed funds, or hedge funds. For instance, this may include funds that primarily invest in commodities.

23. This leads to the following definitions:

- **Real estate funds** are non-MMFs that primarily invest in assets linked to real estate.
- **Equity funds** are non-MMFs that primarily invest in equity instruments.
- **Bond funds** are non-MMFs that primarily invest in longer-term debt instruments.
- **Mixed funds** are non-MMFs that invest in a mixture of different asset class categories with no prevailing policy in favour of one specific instrument.
- **Hedge funds** are non-MMFs that apply relatively unconstrained investment and /or financing strategies in order to maximise absolute returns. Hedge funds managers are typically remunerated in relation to the fund's performance, in addition to management fees.
- **Other non-MMFs** include those non-MMFs that are not covered in one of the above categories.
- Funds of funds should be categorised according to the type of fund they invest in.

2.3. Other financial intermediaries (OFIs) sector breakdown

24. Other financial intermediaries except insurance corporations and pension funds (S125) are financial corporations that are engaged in providing financial services by incurring liabilities, in forms other than currency, deposits or close substitutes for deposits, on their own account for the purpose of acquiring financial assets by engaging in financial transactions on the market (2008 SNA, §4.109). These financial corporations carry out transactions (on both sides of the balance sheet) on open markets. They generally raise funds on wholesale financial markets, and usually not in the form of deposits, and use the funds to extend loans and to acquire other financial assets.

25. These financial corporations are involved in various kinds of credit intermediation that may qualify as non-bank financial intermediation. Entities within this subsector may be involved in loan provision that is dependent on short-term funding, in securitisation-based credit intermediation, and funding of financial entities. Looking at the need for having more insight into the developments of financial markets and in particular the developments in the non-bank financial intermediation world, it would be important to collect information on the various types of entities that are included in this specific subsector.

26. In the non-bank financial intermediation template, the OFI sector is divided into five subsectors:¹⁶

¹⁶ This is in line with the breakdowns as included in 2008 SNA and ESA 2010, except that in 2008 SNA standards, central clearing counterparties (CCPs) form a separate subsector (as in the Financial Stability Board sector classification), whereas they are included in 'other OFIs' in the classification presented here.

- Financial vehicle corporations engaged in securitisation transactions (S125A);¹⁷
- Financial corporations engaged in lending (FCLs) (S125B);
- Security and derivative dealers (S125C);
- Specialised financial corporations (S125D); and
- Other OFIs (S125E);
 - of which central clearing counterparties¹⁸ (S125E1).

Financial vehicle corporations (FVCs) engaged in securitisation transactions (S125A)

27. Many financial corporations may be involved in the securitisation process, securitising loans or other assets. If they engage in this kind of financial intermediation fully on their own account, they are part of the sector ‘other financial intermediaries except insurance corporations and pension funds’.¹⁹ Securitisation entities play an important role in the non-bank financial intermediation system and may incur large leverage. The FSB, in its Policy Framework,²⁰ classifies these entities in the economic function number 5, named “Securitisation-based credit intermediation and funding of financial entities”. Such entities create maturity/liquidity transformation and leverage in the system, as well as increasing interconnectedness between the banking system and non-bank financial entities. For that reason, it is important to distinguish them as a separate subsector within the other financial intermediaries. Currently, several terms are used to describe these types of entities (such as Special Purpose Vehicles, Financial Vehicle Corporations, and Specialised Financial Corporations), but as these terms may also refer to entities that are involved in other types of financial intermediation, it is important to come up with a clear terminology and definition for the entities to be recorded under this heading.²¹

28. ESA 2010 explains that financial vehicle corporations engaged in securitisation “are undertakings carrying out securitisation transactions” (§2.90). To have a better understanding of the types of activities that this concerns, the Handbook on Securities Statistics (IMF, §6.2 to 6.8) provides a useful definition of securitisation. It explains that securitisation processes consist of the issuance of debt securities for which coupon and principal payments are backed by payments on specified assets or future income streams.²² A variety of assets and income streams may be securitised, including, among others, residential and commercial mortgage loans, consumer loans, corporate loans, government loans, credit derivatives, and future revenue. For any entity, the securitisation process may enable them to reduce funding costs and regulatory capital requirements, to diversify funding sources and to transfer risks related to a pool of assets.

¹⁷ With regard to financial vehicle corporations engaged in securitisation, while both ESA 2010 and the G20 template on non-bank financial intermediation adopt the same label, the 2008 SNA uses the term “Financial corporations” instead of “Financial vehicle corporations”.

¹⁸ Please note that different terminology may be used in official standards to refer to similar subsectors. In the case of clearing houses, the 2008 SNA and ESA 2010 refer to “Central Clearing Counterparties” while in the FSB template, it is referred to as “Central Counterparties”. In the collection template, the term “Central clearing counterparties” is used to comply with official standards.

¹⁹ If they do not operate on their own account, they should be classified as captive financial institutions.

²⁰ FSB Policy Framework, 2013 www.fsb.org/wp-content/uploads/r_130829c.pdf.

²¹ As mentioned before, as different terminology may be used within and across countries, it is important to focus on the specific characteristics of financial entities to decide upon their classification instead of focusing on the term that is used to describe them.

²² Definition of securitisation process, Chapter 6 of the Handbook on Securities Statistics, IMF www.imf.org/external/np/sta/wgsd/pdf/hss.pdf.

29. The IMF Handbook on Securities Statistics distinguishes three types of securitisation process:

- Type 1: Transactions where the original asset owner, also called “originator” creates new debt securities that are backed by income streams generated by the assets. The assets remain on the balance sheet of the debt securities’ issuer (the original asset owner), typically as a separate portfolio. The issue of debt securities provides the original asset owner with additional funds. This type of securitisation scheme does not involve a securitisation corporation, and there is no transfer of assets.
- Type 2: Transactions involving issuance of debt securities by a securitisation corporation where the underlying assets have been transferred from the original asset owner’s balance sheet. This type of securitisation scheme is typically referred to as traditional (or true sale) securitisation. The proceeds received from selling the debt securities to investors fund the purchase of the assets. The income stream from the pool of assets (typically, interest payments and principal repayments on the loans) is used to make the coupon payments and principal repayments on the debt securities.
- Type 3: Transactions involving the transfer of credit risk only, related to a pool of assets, but not the transfer of assets themselves, either through a securitisation corporation or through the direct issue of debt securities by the original asset owner. This type of securitisation scheme is often referred to as synthetic securitisation. The original asset owner buys protection against possible default losses on the pool of assets using credit default swaps.

30. Only financial corporations that are involved in securitisation processes according to types 2 and 3 (when it involves a securitisation corporation) are to be considered as financial vehicle corporations engaged in securitisation transactions.

31. The ECB regulation No. 1075/2013 of October 18, 2013²³ also provides a detailed and clear definition of the securitisation process, in line with the IMF Handbook on Securities Statistics. It explains that the principal activity of these financial vehicle corporations is securitisation, which involves i) the transfer of a pool of assets, or the credit risk relating to a pool of assets or insurance risk from a (re)insurance undertaking; and ii) the issuance of financing instruments (debt securities, debt instruments, securitisation fund units, and/or financial derivatives) offered for sale to the public or sold based on private placements. It is important that the financing instruments issued represent the payment obligations of the FVC, and are isolated from any obligations of the originator of the assets/risks transferred to the FVC. The most typical form of securitisation is the purchase of loans from a credit institution or another financial intermediary. However, if the entity is acting as a first lender, originating new loans, this entity can’t be qualified as a FVC, since no assets and credit risk is transferred. It is important to note that the ECB regulation also takes into account securitisations in which multiple FVCs are involved in a single operation. For example, one FVC may hold the assets underlying the asset-backed securities issued by a different FVC (not necessarily resident in the same jurisdiction). Such structures can be quite common and use debt or equity instruments to pass on risks and funds between the FVCs involved in the securitisation.

32. The asset side of the FVCs’ financial balance sheet is usually mainly composed of loans originated by deposit taking corporations, and to a lesser extent of debt securities

²³ ECB Regulation www.ecb.europa.eu/ecb/legal/pdf/en_02013r1075-20131127-en.pdf.

and equity. The liability side is mostly composed of debt securities with a maturity mainly over two years, and to a lesser extent of deposits, loans received and equity.

33. This leads to the following definition:

- **Financial vehicle corporations engaged in securitisation transactions** are institutional units that carry out securitisation transactions, i.e. issue debt securities whose coupon and principal payments are backed by payments on specified assets or future income streams on assets, which have not been originated by the unit. The unit receives external funding that is independent of the sponsor, i.e. the entity ultimately responsible for setting up the unit, or related part of the sponsor. If the unit principally acts as a first lender, originating new loans, it does not qualify as an FVC engaged in securitisation.

Financial corporations engaged in lending (FCLs) (S125B)

34. The 2008 SNA and ESA 2010 do not explicitly define financial corporations engaged in lending (FCLs). They simply describe entities that can be classified in this subsector according to their activities such as financial leasing, and the provision of personal and/or commercial finance.²⁴

35. The glossary of the Guideline ECB/2014/15²⁵ defines FCLs as Other Financial Institutions (OFIs) that are principally specialised in asset financing for households and non-financial corporations. They explain that it includes corporations specialising in financial leasing, factoring, mortgage lending and consumer lending. The ECB definition closely aligns with what the IMF Monetary and Financial Statistics Manual and Compilation Guide (Chapter 3, §3.155)²⁶ defines as “finance companies”. They explain that finance companies are financial corporations that extend credit mainly to households and non-financial corporations, offering services as consumer loans, credit cards, small business loans, mortgage loans, economic development loans, and purchases of bankers’ acceptances and trade receivables.

36. It is sometimes difficult to clearly distinguish between financial corporations engaged in lending and specialised financial corporations (S125D), as the latter may also be involved in some form of lending. However, whereas the former provide generic lending facilities to larger, more general, groups of clients (such as consumer credit, leasing and factoring), the latter usually provide a wider range of services (in addition to providing credit) and target very specific groups of clients. This for example concerns corporations that provide short-term financing for corporate mergers and takeovers, export/import finance, and venture capital and development capital firms.

37. To complement the definitions provided by international standards, other sources have been reviewed to provide more insight in the specific types of corporations engaged in lending. *Financial leasing companies* are companies that pass the economic ownership of an asset to a lessee in return for a compensation (2008 SNA, §17.304). Financial leasing companies can be banks, bank-owned subsidiaries, independent firms or the financing arms of manufacturing companies, which are known as captive lessors. However, only financial

²⁴ Please note that the ESA 2010 also refers to factoring, whereas this is referred to in the category of specialised financial corporations in the 2008 SNA. As it concerns a more generic type of lending, it indeed makes more sense to classify them as financial corporations engaged in lending.

²⁵ https://www.ecb.europa.eu/ecb/legal/pdf/oj_jol_2014_340_r_0001_en_txt.pdf.

²⁶ <http://www.imf.org/en/Publications/Manuals-Guides/Issues/2018/09/21/Monetary-and-Financial-Statistics-Manual-and-Compilation-Guide-43001>.

leasing²⁷ companies that are separate institutional units and as such classified in the OFI sector should be included in the FCLs subsector.

38. “*Factoring* is a financial transaction and a type of debtor finance in which an undertaking sells its accounts receivable (i.e. invoices) to a third party (called a factor or a factoring company) at a discount. Factoring is commonly referred to as accounts receivable factoring, invoice factoring, and sometimes accounts receivable financing” (Wikipedia). The ECB distinguishes two main aspects that are particularly specific to factoring transactions²⁸:

- A factoring transaction always involves three parties: a factoring company (purchaser of receivables), a factoring client (seller of receivables), and a debtor.
- The sale/purchase/assignment of the receivable is used as a means to finance the factoring client.

39. Factoring is a method used by some firms to obtain cash: certain companies factor accounts when the available cash balance held by the firm is insufficient to meet current obligations and accommodate its other cash needs. Accounts receivable financing also transfers the default risk associated with the accounts receivables to the factoring company. The factoring company perceives payments from the original company's customers and collects the debts. It then pays the original company any remaining amount received beyond the financing percentage, minus a factoring fee (see Investopedia).

40. This leads to the following definition:

- **Financial corporations engaged in lending (FCLs)** are institutional units that grant credit or loans to households and non-financial corporations for the purpose of financial leasing, mortgage lending, consumer lending, hire purchase, factoring, and other more generic purpose types.

Security and derivative dealers (S125C)

41. Neither the 2008 SNA nor ESA 2010 provide a definition for security and derivative dealers. Other sources have been explored to find specific information on security and derivative dealers (SDDs) to come up with a clear definition for this subsector.²⁹

42. The ECB defines SDDs in its Guideline on monetary and financial statistics (ECB/2014/15) as follows: SDDs are investment firms or individuals specialised in securities trading, which are authorised to provide investment services to third parties. These investment companies trade on their own account and at their own risk in financial instruments with the aim of making benefits from the margin between the purchase and the sale price. This type of trading is part of their market-making activities (see a reference to this definition in the European Systemic Risk Board EU Shadow Banking Monitor²⁹).

43. The ECB/2014/15 is explicit in the delineation of investment services as follows:
i) trading of new or outstanding financial instruments through the acquisition and sale of

²⁷ In a financial lease agreement, ownership of the asset is transferred to the lessee at the end of the lease term. However, in operating lease agreement, the ownership of the asset is retained during and after the lease term by the lessor (2008 SNA, §17.301). Operating lease are treated as expenses (i.e. off balance sheet items) where as a financial lease is included as an asset for the lessee.

²⁸ https://www.ecb.europa.eu/pub/pdf/other/AnaCredit_Manual_Part_III_Case_studies.en.pdf

²⁹ The FSB, in its Policy Framework, classifies these entities in economic function number 3, named “Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets”.

those financial instruments for the account and/or risk of the “security and derivative dealer” for the exclusive purpose of benefiting from the margin between the acquisition and selling price; this also includes market making activities; ii) underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis; iii) assisting firms in issuing new financial instruments through the placement of new financial instruments that involves either a firm underwriting commitment or standby commitment to issuers of new issues.

44. The difference between a dealer and a broker is that a dealer acts as a principal in trading on its own account, as opposed to a broker who acts as an agent, who executes orders on behalf of its clients. Some security broker-dealers may also use client assets to finance their own business.

45. The IMF Monetary and Financial Statistics Manual and Compilation Guide includes in the OFI sector a type of entities called “underwriters and dealers specialised in securities market activities”, which assist firms in issuing securities through the underwriting and market placement of new securities issues. These entities may trade in new or outstanding securities on their own account. Looking at the definition, it seems that this category is similar to security dealers and can be classified under the security and derivative dealers subsector. In addition, the IMF Guide also specifies that only entities that organise transactions between securities buyers and sellers, and purchase and hold securities on their own account can be classified as other financial intermediaries. If they do not purchase and hold securities on their own account, they are classified under the subsector financial auxiliaries (S126).

46. Broker-dealers may also be involved in securitisation processes but this is not their principal activity as is the case for financial vehicle corporations engaged in securitisation. In the securitisation chain, they are usually involved in the structuring of the loans and selling them to securitisation vehicles.

47. This leads to the following definition:

- **Security and derivative dealers (SDDs)** are institutional units that buy and sell securities or financial derivatives on their own account and at their own risk, providing investment services to third parties and being involved in market-making activities, with the aim of deriving benefits from the margin between the purchase and the sale price.

Specialised financial corporations (S125D)

48. Specialised financial corporations include corporations that specialise in specific forms of financial intermediation. As explained before, they differ from (other) corporations engaged in lending (S125B) in that they specialise in specific forms of financial intermediation that often involves the provision of a broader set of services, often targeted towards a specific group of clients, whereas (other) corporations engaged in lending cover more generic types of lending, often provided to a wider range of clients. Specialised financial corporations include corporations that provide short-term financing for corporate mergers and takeovers, export/import finance, and venture capital and development capital firms (2008 SNA, §4.110e).³⁰

³⁰ Please note that the SNA also considers factoring companies as specialised financial corporations, but as they mainly engage in lending, not providing a wide range of additional services to the companies from which they acquire the accounts receivable, it makes more sense to include them in financial corporations engaged in lending.

49. The IMF Monetary and Financial Statistics Manual and Compilation Guide (§3.162) specifies the services provided by highly specialised financial entities classified under this subsector as follows: export/import finance companies offer a broad range of financial and documentary services associated with international trade; venture capital firms pool funds of third-party investors in start-up companies; mezzanine companies provide short-term financing for corporate mergers and acquisitions. The IMF Guide and the UN/ECB Handbook of National Accounting, Financial Production, Flows and Stocks in the System of National Accounts (Chapter 2)³¹ provide similar definitions.³²

50. To complement the definitions provided by international standards, other sources have been reviewed to find specific characteristics of the certain types of specialised financial corporations. According to Investopedia, a venture capital firm is a corporation that provides capital to firms with high potential of growth in exchange for equity or an ownership stake. Generally, these corporations fund emerging and small companies that wish to expand. They expect high return on their investments if these companies are a success. This is quite a risky activity due to the uncertainty related to a new company, which often only starts commercialising its idea. Development capital corporations fund the expansion of established and profitable companies. They differ from venture capital firms, which mainly fund emerging companies. This is an activity less risky and more rewarding than funding new firms. Thereby, the differentiation between venture capital firms from other private equity firms is similar to the one described for venture capital funds and private equity funds (see Section 2.2, §13).

51. According to Trade Finance Global, import/export finance companies help a firm to increase its growth and its international trade. They fund the finance gap between the reception of the goods and the payment to the seller (import finance), or between the delivery of the goods and the receipts from the buyer (export finance). This enables limiting non-payment risk once a company delivers the product or ships the goods. It also increases trust between the buyer and the seller. Import finance may involve both on-balance as off-balance sheet financial instruments, such as standby letter of credit or bank guarantees. The benefit for importers is that they can grow without taking on equity.

52. This leads to the following definition:

- **Specialised financial corporations** are OFIs (except insurance corporations and pension funds) that have a dedicated scope, providing specific forms of financial intermediation often involving a wide range of services and targeting a specific set of clients. It includes providing short-term finance for corporate mergers and takeovers, export/import finance, and providing venture and development capital.

Other financial intermediaries (S125E)

53. This subsector captures the other types of financial intermediaries that have not been covered by the categories stated above, such as investment banks, asset management companies and central clearing counterparties. The latter are included as a separate ‘of which’ category.

³¹ <https://unstats.un.org/unsd/nationalaccount/docs/FinancialHB-Unedited.pdf>.

³² Both manuals also consider factoring companies as specialised financial corporations, but as it concerns a more generic form of credit provision, it is decided to include these in financial corporations engaged in lending (see Footnote 24).

54. The IMF Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG) identifies a number of other types of OFIs, such as investment banks and asset management agencies.

55. *Investment banks* assist corporations in raising funds in equity and debt markets and provide strategic advisory services for mergers, acquisitions, and other types of financial transactions. In addition to assisting with raising funds for their corporate clients, investment banks invest their own funds, including in the securities offerings of their clients, and hedge funds dedicated to direct investments in corporations. Investment banks do not usually have deposit liabilities that meet the definition of broad money as described by the IMF Monetary and Financial Statistics Manual and Compilation Guide (§3.158) and by the UN/ECB Handbook of National Accounting Financial Production, Flows and Stocks in the System of National Accounts (§2.26e). If they meet the criteria of financial intermediation and their business includes receiving deposits and/or close substitutes for deposits from institutional units for their own account, granting loans and/or making investments in securities (ESA 2010 §2.75), or if investment banks have a banking licence, they are classified as deposit-taking corporations and not as a form of non-bank financial intermediation.

56. *Asset management companies (AMCs)* invest pooled funds on behalf of clients into a variety of assets. Investopedia explains that, “because they have a larger pool of resources than an individual investor could access on their own, asset management companies provide investors with more diversification and investing options. Buying for so many clients allows AMCs to practice economies of scale, often getting a price discount on their purchases. Pooling assets and paying out proportional returns also allow investors to avoid the minimum investment often required when purchasing securities on their own, as well as the ability to invest in a larger assortment of securities with a smaller amount of investment funds.” In this respect, it is important to distinguish between the intermediation services provided by these types of companies and any pooled-fund structures (e.g. mutual funds or equity index funds) that may be under their management. Asset management companies differ from investment funds in that they offer possibilities to invest in various kinds of assets in a customized way, instead of providing standardized shares or units backed by a fixed portfolio. Furthermore, the investor is not investing in securities issued by the asset management company, but in the securities as obtained on its behalf by the asset management company. In case the asset management company mainly helps clients to buy investments, but do not become the owners of the assets themselves, they should be classified as financial auxiliaries. In the case that they also take position on their own behalf, they should be classified as other financial intermediaries.

57. This leads to the following definitions:

- **Other OFIs** include all types of OFIs (except insurance corporations and pension funds) that have not been covered in the other subsectors.

Of which: Central clearing counterparties (S125E1)

58. Central clearing counterparties (CCPs) provide clearing and settlement transactions in securities and derivatives. Clearing relates to identifying the obligations of both parties to the transaction, while settlement is the exchange of the securities or derivatives and the corresponding payment. CCPs are actively involved in the transactions and mitigate counterparty risk (2008 SNA, §4.110d), i.e. they take the financial risk of the transaction

between counterparties on their own account. In other words, CCPs become the counterparty of the original buyer and seller, and as such they guarantee the terms of a trade even if one party defaults on the agreement. Deposits that CCPs collect to mitigate the financial risks they assume, are restricted and only held as collateral, and are not included in the broad money concept (money supply M3).

59. In line with the clear definitions in international standards (2008 SNA and IMF MFSMCG), central clearing counterparties are defined as follows:

- **Central clearing counterparties (CCPs)** are OFIs (except insurance corporations and pension funds) that provide clearing and settlement transactions in securities and derivatives, taking the financial risk of the transaction between counterparties on their own account, and becoming the counterparty of the original buyer and seller.

2.4. Captive financial institutions and money lenders' sector breakdown

60. Captive financial institutions and money lenders consist of “institutional units providing financial services, where most of either their assets or liabilities are not transacted on open financial markets or private placements. It includes entities transacting with only a limited group of units (such as with subsidiaries) or subsidiaries of the same holding corporation or entities that provide loans from own funds, or funds provided by only one sponsor” (2008 SNA, §4.113, ESA 2010, §2.98). It includes trusts³³, estates, agency accounts, brass plate companies, holding companies, and conduits that qualify as institutional units and raise funds in open markets to be used by their parent corporation, and units which provide financial services exclusively with own funds or funds provided by a sponsor to a range of clients (2008 SNA, §4.114; ESA 2010, §2.99; BMP6, §4.83). As most of either their assets or liabilities are not transacted on the open market, these entities are not regarded as being engaged in financial intermediation. Furthermore, as they may take ownership of the financial assets and liabilities being transacted, they are not regarded as financial auxiliaries.

61. Captive financial institutions are broken down into trusts, estate and agency accounts, corporate groups' captive financial entities (of which brass plate companies), and other captive finance companies and money lenders.

Box 1. Special purpose entities

As a number of captive financial institutions is often referred to as SPE-type entities, it is important to provide somewhat more explanation on SPEs. The 2008 SNA indicates specific characteristics that may apply to SPEs (§4.56 and 4.57), which have been further elaborated by the joint ECB/Eurostat/OECD Task Force on Head Offices, Holding Companies and Special Purpose Entities.³⁴ They explain the following criteria for an entity to qualify as an SPE:

³³ The trusts considered under this section differ from investment trusts classified under money market funds. Please see footnote 5 and 6 for more information on the distinction between various types of trusts.

³⁴ https://ec.europa.eu/eurostat/documents/737960/738007/Final_Report_Task_Force_SPEs.pdf/9390b392-62d3-45b4-a4ee-fd9ed7a78da2.

- The entity is a legal entity formally registered with a national authority and is subject to fiscal and other legal obligations of the economy in which it is resident;
- The entity is, directly or indirectly, ultimately controlled by a non-resident parent (in the narrow definition) or by a resident parent³⁵ (in the broad definition);
- The entity has no or few employees;
- The entity has little or no production;
- The entity has a limited or no physical presence in the economy in which it is created by its parent, which is typically located in another country;
- Almost all its assets and liabilities represent investment in or from other countries;
- Its core business consists of group financing and holding activities.

In addition, the IMF Task Force on SPEs³⁶ has formulated a definition of SPEs for the purpose of collecting cross-border statistics, which comes close to the narrow definition of the ECB/Eurostat/OECD Task Force. They state that:

An SPE resident in an economy is a formally registered and/or incorporated legal entity recognized as an institutional unit, with no or little employment up to a maximum of five employees, no or little physical presence, and no or little physical production in the host economy;

SPEs are directly or indirectly controlled by non-residents;

SPEs are established to obtain specific advantages provided by the host jurisdiction with an objective to i) grant its owner(s) access to capital markets or sophisticated financial services; and/or ii) isolate owner(s) from financial risks; and/or iii) reduce regulatory and tax burden; and/or iv) safeguard confidentiality of their transactions and owner(s);

SPEs transact almost entirely with non-residents and a large part of their financial balance sheet typically consists of cross-border claims and liabilities.

The IMF report also includes a typology of SPEs with the aim of delineating them according to their economic functions and linking them to their relevant institutional sector. This shows that the term SPE may apply to entities that are classified in the captive financial institutions (CFIs) sector, but also in other financial corporation subsectors, such as other financial intermediaries (S125) (e.g. factoring companies) or insurance corporations (S128) (e.g. captive insurance companies), and even the non-financial corporations sector (S11) (e.g. operational leasing companies).

The descriptions, as developed by the two Task Forces, show that ‘SPE’ is a term that is related to specific characteristics of an entity that are not directly linked to its sector classification. This means that they may be found in various subsectors. For that reason, the term is not used in reference to any specific financial subsector, although it has to be borne in mind that specific subsectors may indeed include SPE-type entities.

³⁵ The report of the OECD/ECB/Eurostat does not mention “resident parent” in the definition of a SPE *per se* but mentions in the text that “the discussion mainly relates to both SPE-type entities, either owned by resident or by non-residents”.

³⁶ Final report of the IMF Task Force on SPE: www.imf.org/external/pubs/ft/bop/2018/pdf/18-03.pdf.

Trusts, estate and agency accounts (S1271)

62. Neither the 2008 SNA nor ESA 2010 provide specific definitions or guidance for trusts, estate and agency accounts. They only note that these should be classified under captive financial institutions (see 2008 SNA, §4.114a and ESA 2010, §2.99). However, the Balance of Payment and International Investment Position Manual, Sixth Edition (§4.48), and the IMF Monetary and Financial Statistics Manual and Compilation Guide (§3.183) define a trust as “a legal device by which property is held in the name of one party or parties (administrator or trustee) who is under a fiduciary obligation to hold financial assets and liabilities for the benefit of another party or parties (beneficiary or beneficiaries). A trust also specifies the use of the portfolio holdings and the income generated thereby”. Estate and agency accounts act in a similar way, but under a different legal form.

63. The IMF MFSMCG adds that, in general, trusts are not recognised as separate institutional units but are consolidated within the units that control or benefit from them, except under two circumstances: i) the trust is constituted in a different economy to that of any of the beneficiaries, or ii) it satisfies the definition of a quasi-corporation meaning that it is operated as a separate corporation.³⁷ This means that under sector S1271 only those trusts are covered that qualify as a separate institutional unit. In addition, trusts that are created for investment pooling (e.g. investment trusts or units trusts) are also not included in this subsector, as they do not qualify the criteria for captive financial institutions, as in this case both assets and liabilities are transacted on the open market (see also Sections 2.2 and 2.3). Companies holding/managing wealth and real estate for individuals and families (family trusts) are included in this sector if they are separate institutional units and satisfy the definition of captives.

64. This leads to the following definition:

- **Trusts, estate and agency accounts** are captive financial institutions that hold assets and liabilities on behalf of a party and for the benefit of another party than itself (beneficiary).

Corporate groups' captive financial entities (S1272)

65. Corporate groups' captive financial entities are institutional units created by a financial or non-financial non-resident or resident corporate group to fulfil specific financial activities, other than insurance, for the sponsor. The directors of corporate captive typically have limited or no discretionary powers; activities are strictly defined by the terms of the entity contract or arrangement. A corporate captive is often, though not exclusively, a satellite company of another entity and forms an ancillary part of the associate entity's business by warehousing particular assets or risks. This group includes entities such as:³⁸

³⁹

³⁷ A trust owned by a resident institutional unit can be qualified as a quasi-corporation if it has sufficient information to compile a complete set of accounts and if is operated as if it was a separate corporation and whose de facto relationship to its owner is that of a corporation to its shareholders. Please refer to the definition of a quasi-corporation (2008 SNA, §4.42).

³⁸ This is in line with the first category of the IMF typology of SPEs (see Box 1), but whereas their typology only focuses on entities that are directly or indirectly controlled by non-residents (applying a definition of SPEs that is specifically developed for cross-border statistics), the classification presented here also applies to entities that are directly or indirectly controlled by residents.

³⁹ In the future, a further breakdown of this group could be envisaged to separate out 'holding companies' and 'financing conduits'. For holding companies this would be relevant as they are typically the parent of the enterprise group issuing the groups equity and holding equity in the subsidiaries which sets them apart from the other corporate groups' captive

- financing conduits;
- holding companies;
- intra group lending companies; and
- captive factoring and invoicing companies.

66. International standards have similar definitions for financing conduits. They raise or borrow funds often from unrelated enterprises, and remit those funds to their parent or to another related corporation. These entities do not transact on the open markets on the asset side. Often, the conduit's liabilities are guaranteed by a parent company (ESA 2010, §2.98 and 2.99; 2008 SNA, §4.114c; BPM6, §4.83 and 4.86). Intra-group lending companies taking and granting inter-company loans should also be considered as financing conduits, if they can be considered as separate institutional units (ESA 2010, §2.98 and 2.99; BPM6, §4.83c).

67. International standards define holding companies as institutional units that only hold the assets (owning controlling levels of equity) of a group of subsidiaries without actively directing them (passive units). Their principal activity is owning the group without providing any other service to the enterprises in which the equity is held, and they do not administer or manage other units (ESA 2010, §2.99b; 2008 SNA, §4.114b; BPM6, §4.51d and 4.84). These companies are also described in ISIC, Rev. 4, in section K class 6420.⁴⁰ Entities that are financial intermediaries, e.g. bank holding corporations taking deposits, or insurance holdings engaged in (re-)insurance activities are not to be considered as holding companies, and should be classified according to their financial intermediation activity.

68. The OECD/Eurostat/ECB Task Force on Head Offices, Holding Companies and Special Purpose Entities brought additional clarity on two issues: the institutional independence of the entity as well as the distinction between holding companies (HCs) and head offices (HOs). On the first issue, as holding companies may have resident parents, their institutional independence should be determined. To this end, the standard SNA criteria for an institutional unit should be applied. If a non-resident owns the holding company or the company has multiple parents/shareholders, it is always considered as an institutional unit. On the second issue relating to the distinction between HCs and HOs, the Task Force clearly states that if an entity has at least 50% of its assets consisting of equity vis-à-vis its subsidiaries, it can be considered as a holding company. An employment threshold, taking into account national legislative requirements for the number of employees, may also be helpful. The Task Force indicates that employment of three or more persons may be applied as a first indication for an entity being a head office. In addition, head offices exercise managerial control over its subsidiaries and are actively engaged in production. These types of activities are also described in ISIC, Rev. 4, in section M class 7010.⁴¹

financial entities which are typically subsidiaries. For financing conduits this would be relevant as in a monetary union they may (if wholly owned subsidiaries) be consolidated with their parents in other member states when compiling monetary union accounts.

⁴⁰ This class includes the activities of holding companies, i.e. units that hold the assets (owning controlling-levels of equity) of a group of subsidiary corporations, and whose principal activity is owning the group. The holding companies in this class do not provide any other service to the businesses in which the equity is held, i.e. they do not administer or manage other units.

⁴¹ This class includes the overseeing and managing of other units of the company or enterprise; undertaking the strategic or organizational planning and decision making role of the company or enterprise; exercising operational control and managing the day-to-day operations of their related units.

69. Captive factoring and invoicing companies may also be part of this subsector. These entities provide factoring and invoicing services within a group. However, if they deal with counterparties on the open markets, they should rather be classified under the OFI sector, as corporations engaged in lending. Finally, other captive financial companies, which deal with financial needs of a group such as financing particular projects, can also be part of subsector S1272.

70. This leads to the following definitions:

- **Corporate groups' captive financial entities** are institutional units created by a financial or a non-financial corporate group to fulfil specific financial activities, other than insurance, for the group. They include financing conduits (including captives involved in intragroup lending), holding companies, captive factoring and invoicing companies, and brass plate companies.
- **Financing conduits** are captive units that raise or borrow funds often from unrelated enterprises, and remit those funds to their parent or to another related corporation. These entities do not transact on open markets on the asset side, and their liabilities are guaranteed by their parent company. **Captives involved in intragroup lending** are financing conduits, which take and grant inter-company loans.
- **Holding companies** are captive units that hold assets of subsidiary corporations without taking any management activities. If anything, it provides accounting, fiscal and administrative services only.
- **Captive factoring and invoicing companies** are entities that provide factoring and invoicing services for a group.

Of which: Foreign owned SPE-type captives (S1272A)

71. Foreign owned SPE-type captives are considered as a separate subcategory in the data collection, as they may have a large distorting effect on results for those countries with a relatively large concentration of these entities, as it often involves large cross-border flows and positions without a clear link to the domestic economy. To avoid this distorting impact on the results, it is recommended that relevant countries show results for this 'of which' category to provide users with more analytically useful results. For other countries with no or a very limited number of these entities, this would not be necessary. There is no standard international definition for foreign owned SPE-type captives. They are sometimes referred to as brass plate companies, but as was the case for SPEs, this is a term that is transversal and may also apply to entities included in the non-financial corporations' sector. However, although the coverage of brass plate companies may be wider than those covered in the corporate groups' captive financial entities category, it may still be relevant to explain their main characteristics. The BPM6 indicates that brass plate companies are labels that are applied to flexible legal structures in particular jurisdictions, which offer various benefits that may include any or all of low or concessional tax rates, speedy and low-cost incorporation, limited regulatory burdens, and confidentiality. The purpose of these entities is often to optimise the taxation of its parent company and prevent the company to reveal the name of its shareholders. These entities are treated as separate institutional units when their owners are not residents of the territory in which they are incorporated (according to the definition of an institutional unit in the 2008 SNA, §4.61-4.62). Typical features of these entities are that parts of their balance sheets are claims on or liabilities to non-residents, that they have few or no employees, and that they have little or no physical

presence (BPM6, §4.50). The 2008 SNA and the ESA 2010 also clarify that these entities “have little physical presence beyond a brass plate”. As mentioned above, they may be included in the corporate groups’ captive financial entities. This will be the case if they mainly engage in financial activities. Conversely, they may also be included in the non-financial corporations’ sector. This will be the case if they mainly engage in non-financial activities, e.g. in collecting and distributing royalty and licences. Particularly for countries in which these entities are relatively important, it would be relevant to separately distinguish them, as their inclusion may significantly distort economic analyses.

- **Brass plate companies** are statistical units, which are owned (directly or indirectly) by a non-resident unit, of which a large part of the balance sheet consists of claims and liabilities towards non-resident units, and that have few or no employees and little or no physical presence in the jurisdiction of incorporation. **Foreign owned SPE-type captives** concern those brass plate companies that are mainly involved in financial activities.

Other captive finance companies and money lenders (S1273)

72. This subsector includes entities that provide financial services exclusively with own funds or funds provided by a sponsor to a range of clients, and incur the financial risk of the debtor defaulting (2008 SNA, §4.114d; ESA 2010, §2.99d). These units include money lenders and corporations which grant loans to students (or loans for foreign trade), from funds received from a sponsor such as a government unit or a non-profit institution. These units should be distinguished from financial corporations engaged in lending (classified in the OFI sector), as they are not financial intermediaries, carrying out transactions on open financial markets.

73. Pawnshops that are mainly engaged in lending are also included in the S1273 sector, in line with the guidance provided by the 2008 SNA, ESA 2010 and BPM6. A pawnshop is an individual or a business that offers secured loans to people, with items of personal property used as collateral (see Wikipedia).

74. This category also includes special purpose government funds (sovereign wealth funds; see ESA 2010, §2.99e) or other special units set up by government “... with characteristics and functions similar to the captive financial institutions and artificial subsidiaries ...” (ESA 2010, §2.27), if they qualify as independent institutional units (usually because they are located in a jurisdiction different from its owner).

75. This leads to the following definition:

- **Other captive finance companies and money lenders** include all types of captive financial institutions that have not been covered in the other subsectors. It includes units which provide financial services exclusively with own funds or funds provided by a sponsor to a range of clients, and incur the financial risk of the debtor defaulting. It also includes special purpose government units, which qualify as institutional units, including sovereign wealth funds.

2.5. Insurance corporations sector breakdown

76. The 2008 SNA and the IMF MFSMCG define insurance corporations as follows: insurance corporations consist of incorporated, mutual and other entities whose principal function is to provide life, accident, sickness, fire or other forms of insurance to individual institutional units or groups of units or reinsurance services to other insurance corporations. ESA 2010 and the ECB regulation on statistical reporting requirements for insurance corporations⁴² provide a similar definition for the insurance corporations sector: it consists of all financial corporations and quasi-corporations, which are principally engaged in financial intermediation as a consequence of the pooling of risks mainly in the form of direct insurance or reinsurance (ESA 2010, §2.100; ECB 2014/50, article 1). The FSB includes insurance companies in the narrow measure of the non-bank financial intermediation to the extent that they are involved in the facilitation of credit creation (Economic Function 4 of the FSB's Policy Framework).

77. The most common form of insurance is called direct insurance whereby the policy is issued by an insurance corporation to another type of institutional unit. However, an important form of insurance is provided by one insurance corporation to another insurance corporation. This sort of insurance is called reinsurance (2008 SNA, §17.2). An insurance corporation may buy insurance to protect itself against an unexpectedly large number of claims or exceptionally heavy claims. Pure reinsurance corporations are to be considered as non-life insurance corporations.

78. The sector breakdown of insurance corporations presented in the G20 questionnaire on non-bank financial intermediation distinguishes life and non-life insurance corporations. Composite insurance corporations engaged in more than one type of insurance activity should be included as life or non-life insurance corporation dependent on their principal activity, ideally measured by value added, which would mean the principal activity of a producer unit is the activity whose value added exceeds that of any other activity carried out within the same unit (2008 SNA, §5.8).

Non-life insurance corporations (S1281)

79. The 2008 SNA stipulates that an insurance corporation is classified as non-life insurance corporation whenever its principal activity is to cover all non-life risks, such as accidents, sickness, fire, etc. (§17.6). The ECB regulation on insurance corporations does not explicitly define non-life insurance corporations, but it states that entities which provide financial benefits to policyholders in certain events such as accidents, sickness or fire, are covered by the regulation. ESA 2010 clearly states services provided by non-life insurance corporations in the form of insurance against the following: fire (e.g. commercial and private property); liability (casualty); motor (own damage and third party liability); marine, aviation and transport (including energy risks); accident and health; or financial insurance (provision of guarantees or surety bonds).

80. The IMF MFSMCG recommends to include in this subsector captive insurance subsidiaries that are created by corporations to handle their insurance needs, if the latter are institutional units separate from their parents. Captives collect premiums from their parent corporation, then reinsure themselves, or invest their assets to build up reserves against future claims of the parent corporation. Also deposit insurers, issuers of deposit guarantees, and other issuers of standardized guarantees are considered as non-life insurance corporations, if they are separate institutional units and function like insurers by

⁴² ECB Regulation on statistical reporting requirements for insurance corporations www.ecb.europa.eu/ecb/legal/pdf/en_reg_2014_50_sign.pdf.

constituting reserves and charging premiums proportional to the cost of the service provided (2008 SNA, §4.115; IMF MFSMC §3.191).

81. As aforementioned, the 2008 SNA classifies pure reinsurance corporations in the non-life insurance corporations sector. Reinsurance corporations insure the insurance policies written by other insurance corporations in exchange for insurance premiums. Insurance corporations purchase reinsurance to offset policy risk, thereby capping the net loss incurred if the insured event occurs.

82. This leads to the following definition:

- **Non-life insurance corporations** are financial corporations or quasi-corporations that cover all non-life risks, such as fire (e.g. commercial and private property); liability (casualty); motor (own damage and third party liability); marine, aviation and transport (including energy risks); accident and health; or financial insurance (provision of guarantees or surety bonds). Deposit insurers, issuers of deposit guarantees, and other issuers of standardised guarantees are also classified as non-life insurance corporation, unless classified within the government sector, if they are separate institutional units and function as insurers by constituting reserves and charging premiums proportional to the cost of the service provided. Reinsurance corporations are also included in this subsector.

Life insurance corporations (S1282)

83. Life insurance corporations are insurance undertakings, which principal activity is to cover life risks; this is, to provide the policyholder (or a nominated person) with an agreed sum, or an annuity, at a given date or earlier if the policyholder dies beforehand. In this regard, the ECB regulation on insurance corporations does not explicitly define life insurance corporations, but it states that financial corporations or quasi-corporations that provide life insurance services, where policyholders make regular or one-off payments to the insurer in return for which the insurer guarantees to provide the policyholders with an agreed sum, or an annuity, at a given date or earlier are covered by the regulation. According to the 2008 SNA, the holder of a life insurance policy is always an individual. As such, it does not include social insurance type of arrangements, which cover broader groups of insured persons. If a company takes out an insurance policy on the life of an employee, this should be treated as “term insurance”, and therefore as non-life insurance according to the 2008 SNA.⁴³ Consequently, life insurance transactions always take place between insurance corporations and individual households, resident and non-resident (2008 SNA, §17.52).

84. The IMF MFSMCG adds that “life insurance corporations invest premiums to build up portfolios of financial assets to be used to meet future claims of policyholders, spreading risks of the policyholders over time” (§3.190). These portfolios may also include non-financial assets.

85. This leads to the following definition:

⁴³ A policy that provides a benefit in the case of death within a given period but in no other circumstances, usually called term insurance, is regarded as non-life insurance because, as with other non-life insurance, a claim is payable only if a specified contingency occurs and not otherwise. In practice, because of the way in which insurance corporations keep their accounts, it may not always be possible to separate term insurance from other life insurance. In these circumstances, term insurance may have to be treated in the same way as life insurance for purely practical reasons (2008 SNA, §17.6).

- **Life insurance corporations** are financial corporations or quasi-corporations that provide individual life insurance services, where policyholders make regular or one-off payments to the insurer in return for which the insurer guarantees to provide the policyholders with an agreed sum, or an annuity, at a given date or earlier.

2.6. Pension funds sector breakdown

86. According to §17.88 of the 2008 SNA, pension funds are financial corporations and quasi-corporations, which are principally engaged in financial intermediation as the consequence of the pooling of social risks and needs of groups of insured persons (social insurance). Pension funds as social insurance schemes provide income in retirement, and often benefits in case of death and disability. They should constitute institutional units separate from the units that create them, and they hold and manage the assets to be used to meet the future pension obligations and to distribute the pension benefits (2008 SNA, §4.116; ESA 2010, §2.105). Such funds have autonomy of decision and keep a complete set of accounts. Non-autonomous pension funds are not institutional units and remain part of the institutional unit that set them up. In some countries, social risks may be insured by life insurance corporations as well as through pension funds. In contrast to life insurance corporations, pension funds are restricted by law to specified groups of employees and self-employed. Insurance corporations, which manage a pension scheme, are to be classified under the insurance corporation sector.

87. The distinction between the pension administrator and the pension manager is important, as in the central framework of the national accounts, pension liabilities are recorded according to the sector classification of the pension administrator. The latter is responsible for the day-to-day administration of the pension scheme. The pension manager is responsible for managing the scheme, i.e. determining the terms of the scheme and bearing the ultimate responsibility for the entitlements. The pension manager is also often referred to as ‘pension sponsor’. In case of employment-related schemes, the pension manager or sponsor will usually be the employer. In some cases, the same unit may carry out both functions of pension manager and pension administrator, but this may also be performed by two different units.

88. These entities are normally not regarded as part of the narrow measure of non-bank financial intermediation, as they usually combine long-term liabilities with long-term investment. However, there is a considerable interest in data on pensions, especially related to concerns about the solvency of pension systems and policy issues regarding generational equity in ageing societies. In that regard, there is a need for more granular data to better capture and measure pension funds’ activities.

89. The 2008 SNA introduced a supplementary table on social insurance pension schemes (2008 SNA, Table 17.10), to provide a comprehensive overview of liabilities of all social insurance pension schemes in an economy: both those which are recognised in the central framework of the national accounts (employment-related pension schemes), and those which are not recognised in the central framework (social security schemes). Both Eurostat and the OECD have started to collect pension data from its member countries based on a supplementary table (Table 2900), which is consistent with SNA Table 17.10. Eurostat also produced a Technical Compilation Guide for Pension Data in National

Accounts,⁴⁴ which provides European member countries operational guidance to compile data on social insurance pension schemes. The OECD also provides its non-European constituents with guidelines for completing these statistics.⁴⁵ In this latter methodological document, definitions of the various type of social insurance pension schemes are provided, including defined contribution (DC) schemes and defined benefit (DB) schemes, while the main criteria for classifying the relevant pension schemes are also discussed.

90. A breakdown of pension funds into DC and DB schemes is deemed relevant to provide more insight in who is bearing the risk of any shortfall in the funds. As the setup of these schemes differ, the risks they are liable to also differ, as do the vulnerabilities to the policyholders. For all these reasons, the pension funds sector (S129) is further broken down into DC and DB funds in the G20 more advanced ambition template on non-bank financial intermediation. Mixed pension funds managing defined contribution as well as defined benefit schemes should be classified according to their principal activity, ideally measured by the shares of value added, which comes down to the principal activity of a producer unit being the activity whose value added exceeds that of any other activity carried out within the same unit (2008 SNA, §5.8). This procedure is similar to the classification of composite insurance corporations into life and non-life insurance corporations.

Defined benefit pension funds (S129A)

91. In a defined benefit (DB) scheme,⁴⁶ the benefits payable to an employee on retirement are determined by the use of a formula, either independently or in combination with a guaranteed minimum amount payable. In this case, the risk of the scheme to provide an adequate income in retirement is borne either by the employer or is shared between the employer and the employee (2008 SNA, §17.129). Generally, the factors considered to estimate the defined benefits are the years of service, the salary over a defined period of time, the age at retirement and the indexation rule. Actuarial estimations methods, based on the concept of net present value, are used to calculate positions in pension entitlements for these pension schemes.

92. This subsector includes autonomous pension funds that mainly administer DB schemes. Regarding DB schemes for general government employees, if they are administered by an autonomous pension fund, they will be included in this sector as well. DB schemes for general government employees that are managed and administered by the general government are not included in this sector but classified in the general government sector. A similar line of reasoning applies to pension schemes for other employers than government. Social security schemes, which can also be considered as defined benefit schemes, are not classified in DB pension funds, as they are managed and administered by government, and they also do not qualify as pension entitlements in the central framework of the national accounts.

93. In both the Eurostat and OECD Guidelines for the compilation of the supplementary table on social insurance pension schemes, hybrid schemes, which combine the characteristics of DC and DB schemes, are treated as DB schemes. In these schemes, the risk of providing an adequate retirement income is shared between the pension manager and the beneficiary of the scheme. The most important forms of such hybrid schemes are

⁴⁴ Eurostat Technical Compilation Guide for Pension data in National Accounts <https://ec.europa.eu/eurostat/documents/3859598/5922461/KS-RA-11-027-EN.PDF/7a18e53d-8ffa-4397-ad03-04450bb35b02>.

⁴⁵ Guidelines for the OECD table on social insurance pension schemes www.oecd.org/statistics/data-collection/Guidelines%20on%20the%20OECD%20table%20on%20social%20insurance%20pension%20schemes.pdf.

⁴⁶ In Table 29 on social insurance pension schemes, DB schemes classified in the pension fund sector are recorded in columns B and E.

notional defined contribution (NDC) schemes, which are similar to DC schemes but, usually, include a guaranteed minimum amount payable. These NDC schemes are typically public schemes, and recorded as part of the government sector. The contributions from both employees and employers are credited to and accumulated on individual accounts. These individual accounts are notional in the sense that no assets are accumulated, and that the contributions to the schemes are used to pay pension benefits of current pensioners (pay as you go).

94. This leads to the following definition:

- **Defined benefit pension funds** are pension funds that mainly administer employment-related defined benefit (DB) or hybrid schemes (e.g. notional defined contribution schemes). In a DB scheme, the benefits payable to a beneficiary on retirement are determined by the use of a formula, either independently or in combination with a guaranteed minimum amount payable.

Defined contribution pension funds (S129B)

95. In a defined contribution (DC) scheme,⁴⁷ the benefits payable to an employee on retirement are defined exclusively in terms of the level of the funds built up from the contributions made over the employee's working life, including the increases in value that result from the investment of these funds by the administrator of the scheme. The entire risk of the scheme to provide an adequate income in retirement is thus borne by the beneficiary (2008 SNA, §17.128). DC schemes are always organised in the form of a pension fund that accumulates assets based on the contributions paid and the income earned on the accumulated assets. Measuring pension obligations of DC schemes is relatively straightforward. The entitlements depend on the performance of the financial assets that are acquired with the pension contributions, as a consequence of which the value of the entitlements is equal to market value of the financial assets held by the pension fund. A defined contribution is therefore fully funded by definition.

96. The subsector S129B should include autonomous pension funds that mainly administer DC schemes recorded in the central framework of the national accounts.

97. This leads to the following definition:

- **Defined contributions pension funds** are pension funds that mainly administer employment-related defined contribution (DC) schemes. In a DC scheme the benefits payable to a beneficiary on retirement are defined exclusively in terms of the level of the funds built up from the contributions made over the employee's working life and the increases in value that result from the investment of these funds by the administrator of the scheme.

3. Additional financial instruments requested in the template

98. The non-bank financial intermediation questionnaire requests specific additional information on the following financial instruments:

⁴⁷ In Table 29, DC schemes classified in the pension fund sector are covered under columns A and D. For detailed information on transactions recorded for a DC pension scheme, please see the 2008 SNA, §17.133-143.

- Repurchase agreements, securities lending with cash collateral, and margin lending;
- Possible exposure with regard to financial derivatives;
- Possible exposure with regard to other contingent liabilities;
- Non-performing loans.

3.1. Repurchase agreements, securities lending with cash collateral, and margin lending

99. The non-bank financial intermediation questionnaire requests information on repurchase agreements, securities lending with cash collateral and margin lending. §11.74 of the 2008 SNA defines a securities repurchase agreement as “an arrangement involving the provision of securities in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price either on a specified future date (often one or a few days hence, but also further in the future) or with an “open” maturity”, and notes that this is economically equivalent to securities lending with cash collateral and sale/buy-backs, as all involve the provision of securities as collateral for a loan or a deposit. It further specifies that a repo is a securities repurchase agreement where “securities are provided for cash with a commitment to repurchase the same or similar securities for cash at a fixed price on a specified future date. (It is called a repo from the perspective of the security provider and a reverse repo from the perspective of the security taker.)”. It is important to note that the realisation of the cash purchase is a necessary condition as per the definition.

100. Regarding classification, the 2008 SNA notes that “the supply and receipt of funds under a securities repurchase agreement may be treated as a loan or deposit. It is generally a loan, but is classified as a deposit if it involves liabilities of a deposit-taking corporation and is included in national measures of broad money. If a securities repurchase agreement does not involve the supply of cash (that is, there is an exchange of one security for another, or one party supplies a security without collateral), there is no loan or deposit. However, margin calls in cash under a repo are classified as loans” (2008 SNA, §11.75). It is further noted that the securities provided as collateral under securities lending are to be considered as not having changed economic ownership since the cash receiver is still subject to the risks or benefits of any change in the price of the security (2008 SNA, §11.76).

101. The 2008 SNA does not provide an explicit definition of margin lending. The Securities Financing Transactions Regulation of the European Commission defines margin lending as “a transaction in which a counterparty extends credit in connection with the purchase, sale, carrying or trading of securities, but not other loans that are secured by collateral in the form of securities”. The European Securities and Markets Authority notes that the key difference between margin lending and securities lending is that the former does not require the pledge of any additional collateral beyond the portfolio of securities used to collateralise the loan (ESMA, 2016).

102. This leads to the following definitions:

- **A securities repurchase agreement** is an arrangement whereby securities are provided in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price at a specified future date. Securities lending with cash as collateral and buy-backs are equivalent to this definition.

- **Margin lending** is the provision of credit for the purposes of a purchase, sale, carrying or trading of securities without the requirement of any additional collateral beyond the given portfolio of securities.

3.2. Possible exposure with regard to financial derivatives (options and forwards)

103. The non-bank financial intermediation questionnaire requests information on possible exposures to options and forwards. This memorandum item may be considered as still under development in terms of the actual information to be requested. The OECD Secretariat envisages to develop guidance on what can be reported here in the near future based on consultations with member countries and other international organisations. Starting from the baseline definitions, the 2008 SNA defines options as “contracts that give the purchaser of the option the right, but not the obligation, to buy (a “call” option) or to sell (a “put” option) a particular financial instrument or commodity at a predetermined price (the “strike” price) within a given time span (American option) or on a given date (European option)” (2008 SNA, §11.117). It defines forward contracts as “unconditional financial contract that represents an obligation for settlement on a specified date. Futures and other forward contracts are typically, but not always, settled by the payment of cash or the provision of some other financial instrument rather than the actual delivery of the underlying item and therefore are valued and traded separately from the underlying item” (2008 SNA, §11.120).

104. In assessing exposures (and hedging) created by financial derivative positions, one starting point could be to assess their gross notional exposure. This metric converts a financial derivative position into the market value of an equivalent position in the underlying asset. This provides an indication of the total exposure/hedging from the underlying asset. Regarding options, this can generally be calculated as the number of contracts multiplied by the notional contract size, which is then multiplied by the market price of the underlying asset, times the delta (i.e. the corresponding price change of the given derivative when the price of the underlying asset changes). For forward contracts, the notional value of the contract can be used (CESR, 2010).

105. Regarding over-the-counter derivatives, it could be important to also assess counterparty credit risk, which is the risk that the counterparty could default before the final settlement of the contract. This can be measured by calculating the gross credit exposure, which is equivalent to the gross market value minus amounts netted with the same counterparty across all risk categories under legally enforceable bilateral netting agreements. This measure does not take into account collateral, which reduces counterparty risk although information on this may not always be available (BIS, 2012).

3.3. Possible exposure with regard to other contingent liabilities (financial guarantees, credit risk insurance)

106. The Non-bank Financial Intermediation questionnaire also requests information regarding possible exposure with regard to financial guarantees and credit risk insurance. Similar to options and forwards, this item is under development. Contingent liabilities refer to those liabilities where a legal contract specifies that one party is obliged to provide a payment or series of payments to the counterparty only if certain specified conditions are realised (2008 SNA, §3.40). As such, there is an uncertainty as to whether a payment will be required by the relevant party. Additionally, the size of the given payment or payments may not be known with a certainty at the outset of the contract (2008 SNA, §11.23). Since

no unconditional obligations are present, contingent liabilities do not meet the definition of a liability as defined in the SNA. It is further noted that country practices vary in determining which instruments are considered as contingent and therefore it is recognised that there is some flexibility in the application of the international recommendations (2008 SNA, §11.25).

107. The Non-bank Financial Intermediation questionnaire requests information for two types of contingent liabilities: financial guarantees and credit risk insurance. The 2008 SNA does not provide a definition for either type.

108. Financial guarantees refer to contractual financial arrangements whereby a third party agrees to pay a specified amount to a creditor in the case that the borrower defaults. In general, in order for this to be considered as contingent would require that the guarantee be ad-hoc in nature (due to the particular nature of the loan or security making it impossible to accurately calculate the associated risk) (Handbook of National Accounting, Financial Production, Flows and Stocks in the System of National Accounts, page 238). This would differ from guarantees that meet the definition of financial derivatives as well as standardised guarantees. Along the same lines, credit risk insurance refers to a legal contract that covers the risk of non-payment by the borrower for a given credit. This transfers the risk from the creditor to a third party. When the contract is structured in such a way that it leads to an existence of a financial liability then this would not be considered as a contingent liability but as credit insurance (i.e. a non-life insurance, standardised guarantees or possibly credit derivatives).

3.4. Non-performing loans

109. In order to provide more insight into credit risk for loans, the Non-bank Financial Intermediation questionnaire requests information for non-performing loans as an ‘of-which’ item under loans. The 2008 SNA defines a loan as non-performing when “payments of interest or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons (such as a debtor filing for bankruptcy) to doubt that payments will be made in full” (2008 SNA, §13.66). A loan should remain classified as non-performing until payments are made or if the principal is written off. It notes that there is some degree of flexibility in the application of this definition in order to take into account national conventions on lending regulations.

110. The 2008 SNA recommends recording both the nominal value of non-performing loans (including any accrued interest and service charges) and the fair value of such loans. This is “the value that approximates the value that would arise from a market transaction between two parties” and can be established by using transactions in comparable loans or by using the discounted present value of the cash flows (2008 SNA, §13.67). For the purposes of the non-bank financial intermediation questionnaire, it is requested to use the nominal value.

References

- Bank for International Settlements (2012), “The BIS framework for monitoring financial derivatives”, *IFC Bulletin*, No. 35, www.bis.org/ifc/publ/ifcb35e.pdf.
- Committee of European Securities Regulators (2010), “CESR’s guidelines on risk measurement and the calculation of global exposure and counterparty risk for UCITS”, *Consultation Paper, CESR/10-108*, www.esma.europa.eu/sites/default/files/library/2015/11/10_108.pdf.
- European Central Bank (2017), *Manual on Investment Fund Statistics*, ECB/2014/15, www.ecb.europa.eu/pub/pdf/other/manualinvestmentfundstatistics201712.en.pdf?38b23639b6bacaf9c1b564adb16617fa.
- European Central Bank (2017), “Explanatory notes on financial corporations engaged in lending”, www.ecb.europa.eu/stats/financial_corporations/fcl/shared/pdf/FCLs_explanatory_note.pdf.
- European Central Bank (2014), “Regulation on statistical reporting requirements for insurance corporations”, www.ecb.europa.eu/ecb/legal/pdf/en_reg_2014_50_sign.pdf.
- European Central Bank (2014), “Guideline on monetary and financial statistics”, *Official Journal of the European Union*, ECB/2014/15, www.ecb.europa.eu/ecb/legal/pdf/oj_jol_2014_340_r_0001_en_txt.pdf.
- European Central Bank (2013), “Regulation concerning assets and liabilities of financial vehicle corporations engaged in securitisation transactions”, ECB/2013/40, www.ecb.europa.eu/ecb/legal/pdf/en_02013r1075-20131127-en.pdf.
- European Central Bank (2009), *Manual on Investment Fund Statistics Based on Regulation*, ECB/2007/8 and guideline ECB/2008/9, www.ecb.europa.eu/pub/pdf/other/manualinvestmentfundstatistics200905en.pdf.
- European Central Bank (2007), “Guideline of 1 August 2007 on monetary, financial institutions and market statistics (recast)”, *Official Journal of the European Union*, 27/12/2007, ECB/2007/09.
- European Central Bank (2001), Regulation (EC), No 2423/2001 of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/2001/13), www.ecb.europa.eu/ecb/legal/pdf/l_33320011217en00010046.pdf.
- European Securities and Markets Authority (ESMA) (2016), *Report on Securities Financing Transactions and Leverage in the EU*, ESMA/2016/1415. 4, www.esma.europa.eu/sites/default/files/library/2016-1415_-_report_on_sfts_procyclicality_and_leverage.pdf.
- European Systemic Risk Board (2018), *EU Shadow Banking Monitor*, www.esrb.europa.eu/pub/pdf/reports/esrb.report180910_shadow_banking.en.pdf.
- Eurostat (2011), *Technical Compilation Guide for Pension data in National Accounts*, <https://ec.europa.eu/eurostat/documents/3859598/5922461/KS-RA-11-027-EN.PDF/7a18e53d-8ffa-4397-ad03-04450bb35b02>.
- Eurostat (2010), *ESA 2010 Manual*, <https://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17dfoc69334>.
- Financial Stability Board Policy Framework (2013), www.fsb.org/wp-content/uploads/r_130829c.pdf.
- Handbook of National Accounting, Financial Production, Flows and Stocks in the System of National Accounts (Chapter 2), UNSD and ECB Directorate General Statistics, <https://unstats.un.org/unsd/nationalaccount/docs/FinancialHB-Unedited.pdf>.
- IMF (2018), *Monetary and Financial Statistics Manual and Compilation Guide*, www.imf.org/en/Publications/Manuals-Guides/Issues/2018/09/21/Monetary-and-Financial-Statistics-Manual-and-Compilation-Guide-43001.
- IMF (2018), *Final Report of the Task Force on Special Purpose Entities*,

www.imf.org/external/pubs/ft/bop/2018/pdf/18-03.pdf.

IMF (2015), *Handbook on Securities Statistics*, Chapter 6,
www.imf.org/external/np/sta/wgsd/pdf/hss.pdf.

IMF (2009), *Balance of Payment, Sixth Edition*,
www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf.

Lemke T., G. Lins , K. Hoenig and P. Rube (2014), *Hedge Funds and Other Private Funds: Regulation and Compliance*, Thomson Reuters Westlaw.

OECD (2018), “Guidelines for the table on social insurance pension schemes”,
www.oecd.org/statistics/data-collection/Guidelines%20on%20the%20OECD%20table%20on%20social%20insurance%20pension%20schemes.pdf.

OECD (2017), “Study on capturing trends in financial world within SNA”,
<https://community.oecd.org/docs/DOC-157792>.

OECD/Eurostat/ECB (2013), “Final report by the Task Force on head offices, holding companies and special purpose”,
https://ec.europa.eu/eurostat/documents/737960/738007/Final_Report_Task_Force_SPEs.pdf/9390b392-62d3-45b4-a4ee-fd9ed7a78da2.

SNA 2008 Manual, <https://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf>.

Trade Global Finance website, <https://www.tradefinanceglobal.com/>.