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Challenges for macro data on non-bank financial intermediaries¹

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

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Abstract

There is an increasing user demand for macro data on non-bank financial intermediation, coming both from a monetary policy angle – for instance to understand its potential impact on the transmission mechanism - and from macroprudential requirements to monitor its financial stability implications, including those stemming from "shadow banking" trends. However, data gaps still exist that might prevent an adequate assessment of all related developments. Thus, part of the euro area financial sector currently remains to be covered by harmonised, complete and high-frequency balance sheet data.

This paper presents the ECB initiatives to address these data gaps. It focuses on the efforts to cover the "OFI residual" which includes institutions such as securities dealers, financial auxiliaries or captive financial institutions. In addition, the paper discusses on the usage of regulatory information newly available at euro area level that might be key to reducing the existing macro data gaps.

Section 1: Introduction.

Since the start of the financial crisis there has been an interest in analysing the differences in financial intermediation patterns across the various classes of intermediaries and in assessing how these differences affect the formation of leverage, the building-up and transfer of risks or the impact on the monetary policy transmission mechanism. In particular, there is an increasing interest in entities that share certain features with traditional banking like the presence of high leverage and maturity and liquidity transformation - but which do not operate under the regulatory and supervisory framework, nor have access to the backstop mechanisms that banks do. These entities have been denominated "shadow banks" and have been identified as major sources of systemic risk, as main contributors to the latest financial crisis and as key to better understanding the overall dynamics of agent balance-sheets.

In the second section of this paper we summarise the various recent initiatives in the European Union aimed at improving the availability of data on the financial sector. It focuses on the so-called "OFI residual", a set of financial institutions currently not covered by reporting schemes designed for statistical purposes. We examine initiatives to enhance primary statistics in a harmonised, methodologically-compliant manner, including micro databases, but also the efforts undertaken in the context of integrated sector accounts or

others to cover the financial sector by making use as well of counterpart statistical information and/or data available from non-statistical sources, notably from regulatory sources. The second section in this paper describes the data gaps, in particular focusing on the FSB and ESRB requirements regarding shadow banks, and presents initiatives taken to address those gaps. The third section examines the impact of the regulatory requirements on data needs and availability, and explores the possible usage of regulatory data, to narrow informational gaps. Section four presents the initiatives taken to enhance financial accounts, worldwide and also in the European Union in developing a ESCB STC medium-term strategy for financial accounts. The fifth section summarises other initiatives to reduce the OFI residuals, and the sixth sections concludes.

Section 2: Data availability for non-bank credit intermediaries (shadow banks) and their gaps¹.

A first challenge to provide with analytical tools for understanding credit intermediation outside the traditional baking channels is establishing a perimeter for the phenomenon and appropriate measures of it. The FSB defines a broad measure of shadow banking as a grouping of institutional sectors within the framework of the national accounts, i.e. .the ESA sectors² S.123 "Money Market Funds (MMFs)", S.124 "Non-MMFS investment funds", S.125 "Non-monetary financial intermediaries other than insurance corporations and pension funds(OFIs)" and S.127 "Captive financial institutions and money lenders", excluding public units in S125 and S.127.

Beside this first metric that provides an assessment at a broad scale, work has been undertaken to narrow down the definition of shadow banking focusing more on activities and risks than on institutional groupings. Thus, equity investment funds are excluded from the definition of shadow banking as they do not primarily engage in credit intermediation, although some of their activities (e.g. the use of securities lending or derivatives) may imply systemic risk of the kind of some shadow banks. Second, retained securitisation – i.e. where the asset-backed securities are held by the bank(s) originating the assets, generally for use as collateral in central bank refinancing operations – is excluded on the basis that there is no transfer of credit risk out of the banking system. Moreover, entities consolidated within banking groups are to be excluded as they enjoy indirectly through their mother banks of a similar regulatory, supervisory regime and of adequate stress backstops³⁴.

³ However, this criterion is still difficult to implement due to the lack of the total list of entities not consolidated (as it will become clear later), the data gaps, and different regulatory frameworks

¹ This section presents the Euro area data availability for non-bank financial intermediaries from monetary and financial account prospective.

² FSB uses SNA sectors. In the EU framework we refer to the ESA classification.

⁴ See "Data needs and Statistics compilation for macroprudential analysis" Statistical work on shadow banking: development of new datasets and indicators for shadow banking December 2017
Anna Maria Agresti. Rok Brence European Central Bank https://www.bis.org/ifc/publ/ifcb46p.pdf

In addition, the ESRB joint ATC-ASC Expert Group on Shadow Banking (JEGS) has also taken a dual approach to the measurement of shadow banking and has further added to the FSB framework risk indicators constructed for the subsector of OFIs On the one hand, an entity-based approach draws on aggregated balance sheet data of financial institutions taken from financial accounts and monetary statistics, based on the ESA 2010 framework. However, this entity-based approach is recognised as incomplete due to the limitations of the available balance sheet data for risk analysis. For example, off-balance sheet exposures and use of financial derivatives, which constitute additional sources of risks or, if used prudently, may provide a valuable tool for risk mitigation, are not well covered by the available data. On the other hand, an activity-based approach aims at complementing the entities-based approach to have all the segments of the shadow banking system monitored: "An entity based mapping approach cannot fully capture shadow banking risks arising from specific markets that cut across entities". While the entity-based approach uses aggregate balance sheet data, the activity-based monitoring approach employs higher frequency transaction-based information to capture risks that cut across different types of entities in financial markets.5

"Constituents of non-bank financial intermediaries and used for the ESRB entities approach are summarised in Table 1.

Table 1: Overview of investment funds and OFIs (based on ESA 2010 classification)

⁵ Also leveraging on new EU-wide datasets that will provide relevant information, like data on derivatives and SFT markets, both from a micro and macro perspective.

Entities: sectors and subsectors			Description
Investment funds	Money Market Funds (S.123)		Part of the monetary financial institutions (MFI) sector
	Non-MMF investment funds (S.124)	Bond funds	Allocated to investment policy according to assets in which they primarily invest
		Equity funds	
		Mixed funds	
		Real estate funds	
		Hedge funds	
		Other funds	
		Exchange-Traded Funds (ETFs)	ETFs and private equity funds included within above types depending on the strategy of the fund
		Private equity funds	
Other Financial Institutions (OFIs)	Other Financial Intermediaries (S.125)	Financial Vehicle Corporations engaged in securitisations (FVCs)	i.e. securitisation special purpose vehicles
		Financial Corporations engaged in Lending (FCLs)	e.g. financial leasing, factoring, hire purchase
		Securities and Derivatives Dealers (SDDs)	i.e. dealers on own account
		Specialised financial corporations (SFCs)	e.g. venture capital, export/import financing, central clearing counterparties (CCPs)
		OFI residual	Calculated as the difference between total OFIs sector and the assets held by all known subsectors and subgroupings; in most cases only entities under S.125 are included in this residual
	Financial auxiliaries (S.126)		e.g. insurance or loan brokers, fund managers, head offices of financial groups, financial guarantors
	Captive financial institutions and money lenders (S.127)		e.g. SPVs not engaged in securitisation, 'brass plate' companies, holding companies

The table above shows the entities considered in the JEGS and the related ESRB "EU Shadow Banking Monitor" which presents recent developments and financial stability risks in the EU shadow banking system applying both an "entity based" and an "activity-based" mapping approach. 6. The ESRB shadow banking monitor contains also a good overview of the various subsectors risks and data availability.

As indicated, the data used for the JEGS report for the assessment of shadow banking mostly come from macro sources within the national accounts framework, namely monetary statistics and financial accounts. For MMFs (sector S.123 in ESA), data reported by these institutions, defined as collective investment undertakings of which the units are close substitutes for bank deposits in terms of liquidity⁷,to the national central banks (NCBs) in accordance with Regulation ECB/2001/13 concerning the consolidated balance sheet of the monetary financial institutions sector (as amended). MMFs are. For Investment funds (other than MMFs, sector S.124), data have been collected from the ECB (and are published) from end-2008 in accordance with Regulation ECB/2007/8 concerning statistics on assets and liabilities of investment funds⁸. Most of the activities that could be labelled as shadow banking are undertaken by institutions covered by the ESA 2010 sector "Other financial intermediaries other than insurance corporations and pension funds (S.125)". However, only selected subgroupings within the sector are available, often covering a limited set of information.

Reporting of financial vehicle corporations (FVC) statistics began in the first quarter of 2010 for the reference period end-December 2009 under the umbrella of Regulation ECB/2013/40. These statistics, complemented by an enhanced reporting by monetary financial institutions (MFIs) involved in securitisation transactions, as laid down in Regulation ECB/2013/33, provide harmonised information on the securitisation market and risk transfer. Annual Balance sheet data for the euro area aggregated of Euro area financial corporations engaged in lending (FCLs)⁹ has recently published by ECB. However, the national breakdowns will not be available since in some jurisdictions the phenomena does not exists, or the data are not collected, or are of insufficient quality. As regard data on securities and derivatives dealers (SDDs), ECB is also working on constructing the euro area aggregate. For these entities data are not available for all countries and might have to be derived from supervisory sources which raise issues with confidentiality of the national data¹⁰. Proposed changes in the EU legislation might affect the classification of these entities and their risk assessment for shadow banking purpose (see next section).

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⁶ http://www.esrb.europa.eu/pub/pdf/reports/20170529_shadow_banking_report.en.pdf

⁷ Furthermore, these funds primarily invest in money market instruments with a residual maturity up to one year, and/or in bank deposits. The reporting population comprises MMFs resident in the euro area, including the MMFs managed from outside the euro area. Conversely, the statistics do not cover MMFs established in offshore locations outside the euro area, even if the management companies of these MMFs are resident in the euro area. The list of individual MMFs forming the reporting population is available on the ECB website, together with the other institutions which are part of the MFI sector.

⁸ Data on investment funds shares/units issued are collected monthly, by investment policy of the fund, with a full balance sheet collected quarterly.. Along with investment funds, MMFs may be regarded as an alternative to bank deposits and some have been a funding source for lending – i.e. credit intermediation – outside the banking sector. However, in the current low interest rate environment there have been contractions in MMF shares/units issued

See https://www.ecb.europa.eu/stats/pdf/money/aggregates/if_explanatorynotes.pdf?a2dd9ca9e2a22c9a156cc8ad689a0bf5

⁹ Financial corporations engaged in lending to households and non-financial corporations (FCLs) resident in the euro area, which is a sub-sector of "Other financial intermediaries, except insurance corporations and pension funds" (OFIs), S.125, in the European System of Accounts 2010 (ESA 2010). The statistics are reported by the national central banks (NCBs) to the ECB in accordance with Part 11 of Annex II of Guideline ECB/2014/15 on monetary, financial institutions and market statistics (recast). ¹⁰ In other cases data quality is insufficient for these data to be reported to the ECB

Moving beyond these identified financial sectors, the larger part of shadow banking assets is still concentrated in the so called OFI residual¹¹, which is around 50% of the broad non-bank financial sector measure that still could not be classified according to the type of entity. The residual is defined as the difference between the total OFIs aggregate (see table 1) as compiled in the financial accounts context (see section 4) and the part known from the various source statistics. In most cases the OFI residual includes entities that belong in the sector "Other financial intermediaries other than insurance corporations and pension funds (S.125)", and as the availability of data on non-bank financial intermediaries varies a lot across country the precise perimeter of the OFI residual also changes from country to country.

A number of initiatives have been undertaken by the Eurosystem and at a national level in recent years to better identify types of entities within the non-bank financial sector that could help to reduce the OFI residual and hence improve the monitoring of shadow banking entities (see ERSB Shadow banking Monitor 2017) ¹². To mention the most recent eurowide development, after the ECB publication of the euro area aggregate for FCLs the OFI residual diminished by around 2% points, due to the relative small size of this subsector in the total OFI assets.

Section 3: Data and regulatory perimeter. Two interrelated issues

As mentioned in the previous section some work still needs to be done on the data side for the so called OFI residuals. At the same time, this additional data work also needs to be undertaken with a better understanding of the regulatory requirements in order to assess the data gaps and the risks of the entities in the OFI residuals. This section focuses on the analysis of the each of the OFI subsectors and how changes in the regulatory framework for the financial sector might affect the measure of shadow banking and also the related risk assessment. In order to better understand the treatment of the OFIs entities (S.125, S126 and S127)¹³ and their data gaps, this section presents the regulatory framework of the OFIs based on the EBA assessment¹⁴ and match them with the data availability at the ECB.

We start our analysis with the on-going work on the SDDs (securities and derivatives dealers), where the proposed new EU regulatory requirements for the SDDs might change the statistical classification of many of these entities as well as the risk of these entities for shadow banking. Here below the new regulatory proposal and the potential statistical reclassifications of these entities.

Investment firms play an important role in facilitating savings and investment flows across the EU. They provide a range of services which give investors access to securities and derivatives markets. Their services concern financial instruments, which unlike deposits are not payable but fluctuate according to market movements. According to the Markets in Financial Instruments Directive (MIFIDII)¹⁵ Article 4 Definitions. 'investment firm' means any

14 https://www.eba.europa.eu/documents/10180/1720738/Report+on+OFIs.pdf

¹¹ https://www.esrb.europa.eu/pub/pdf/reports/20170529_shadow_banking_report.en.pdf

https://www.esrb.europa.eu/news/pr/date/2017/html/esrb.pr170529.en.html

¹³ For entities included in each sub-sectors see table 1

¹⁵Markets in Financial Instruments (MiFID II) - Directive 2014/65/EU https://ec.europa.eu/info/law/markets-financial-instruments-mifid-ii-directive-2014-65-eu_en

legal person whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis 16. Up to now, all investment firms have been subject to the same EU prudential rules as credit institutions¹⁷: The Capital Requirements Regulation and Directive (CRR/CRDIV) lays down the amount of capital, liquidity and other risk management requirements which credit institutions and investment firms have to comply with. The prudential framework for investment firms in the CRR/CRD IV works in conjunction with MiFID. The Markets in Financial Instruments Directive (MiFID) (MiFID II/MiFIR as of January 2018) sets out the conditions for the authorisation of investment firms. It also determines how they should behave on financial markets when providing their services (e.g. in terms of conduct of business). Credit institutions are also subject to some MiFID provisions when providing investment services. Unlike credit institutions, investment firms do not accept deposits, nor do they provide loans on a significant scale. Investment firms are less exposed to credit risk and the liquidity risk of depositors withdrawing their money at short notice, rather the risks they pose are more specifically related to potential undue and unexpected harm for their clients and the markets they operate in.

The proposal for the regulation of the prudential requirements of investment firms in the EU will distinguish three main Categories of investment firms. Class 1: investment firms, with total assets above €30bn and which provide underwriting services and dealing on own account. Systemic investment firms constitute and would remain under the CRR/CRDIV. Class 2 firms are (ART 12 of proposal) assets under management higher than €1.2billion bn: Class 3 firms are those which don't conduct the above activities and which are below all the above thresholds. Class 3 firms are not required to meet a capital requirement. With the EU Commission proposal¹⁸, the definition of "credit institution" in the CRR/CRDIV could be amended to cover also systemic investment firms based on the nature and size of investment services. Specifically, the proposal amends the definition of a credit institution in the CRR by including firms: whose business includes dealing on own account in financial instruments, or underwriting or placing financial instruments on a firm commitment basis; where the total value of the assets of the undertaking exceeds €30 billion 19. The reasoning behind reclassifying systemic investment firms as credit institutions, is because their activities expose them to credit risk, mainly in the form of counterparty credit risk, as well as market risk for positions they take on own account, client related or not. They accordingly

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¹⁶ Based on the Annex I of MIFIDII 'investment services' undertake the following activities(1) Reception and transmission of orders in relation to one or more financial instruments; (2) Execution of orders on behalf of clients; (3) Dealing on own account; (4) Portfolio management; (5) Investment advice; (6) Underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis; (7) Placing of financial instruments without a firm commitment basis. In analysing the investment firms different types of issues need to be addressed: 1) there are different types of investment firms! largest and most interconnected investment firms which have business models and risk profiles that are similar to those of significant credit institutions and small and non-interconnected investment firms with limited risks and 2) risks are different from banks

¹⁷ Past prudential framework for investment firms is thus largely based on the risks faced and posed credit institutions. The requirements are largely calibrated to secure the lending and deposit-taking functions. CRR/CRDIV buffers of capital and liquidity for most of low systemic relevance investment firms may be misplaced and represent disproportionate costs for them. compliance and implementation costs are likely to exceed their prudential benefits, given their low risk to financial stability. Existing rules, only partially achieve their aims in terms of (i) ensuring sufficient capital for the risks of most investment firms; securing a level playing field across the EU. Brexit: large systemic firms may decide to relocate part of their activities to the EU. These firms should remain subject to CRR/CRDIV.

¹⁸ http://europa.eu/rapid/press-release_IP-17-5304_en.htm

¹⁹ Other changes to other pieces of EU legislation which refer to the CRR/CRDIV-definition of 'credit institution', Directive on Deposit Guarantee Schemes and the Bank Recovery and Resolution Directive. Also there will be implications for the SSM Regulation and thereby imply not only that systemic investment firms would remain subject to the CRR/CRDIV, but also that their prudential supervision is ensured by the SSM to the extent that they are established in Member States participating in the Banking Union. Their authorisation and prudential supervision would be carried out by European Central Bank as would be the case for significant credit institutions in the Banking Union

present a higher risk to financial stability, given their size and interconnectedness. The proposals aim to prevent regulatory and supervisory arbitrage.

Based on this proposal of the EU commission, it will imply inconsistency in the Union legislation between the CRR and the definition in the Regulation in the European system of national and regional accounts Regulation (EU) No 549/2013.²⁰ From a statistical point of view, the definition of 'credit institution' in CRR will be replaced²¹ with the inclusion of the systemic investment firms captured by this definition²². The effect will be to reduce the entities in the SDDs subsector of OFI, the residuals will also be reduced and the risk of the SDDs will diminish due to the new regulatory regime

A similar analysis can be done for the other entities contained in the OFI residuals. In undertaking the analysis of the residuals, we will try to map the recent EBA survey on OFIs²³ with the data available at the ECB in order to better assess data gap for the monitoring of risks associated with these entities. This is a very preliminary work and it might require further analysis in order to map data gaps and regulatory regime.

BOX: EBA survey on OFI

OFI survey recently undertaken by the European Banking Authority (EBA) ²⁴.. EBA published an opinion and a report on matters related to the other financial intermediaries (OFIs) and the regulatory perimeter issues under the Capital Requirements Directive/Regulation (CRD IV/CRR). These matters include the use of Articles 2(5) and 9(2) CRD IV (Directive 2013/36/EU) and the interpretation of the terms "financial institution" and "ancillary services undertaking," as defined in the CRR (Regulation (EU) No 575/2013).

The results of this assessment are included in a Report also published the same day. The EBA's findings are relevant to the consideration of the legislative proposals to amend the CRDIV/CRR. This Report aims to present a comprehensive analysis of the prudential treatment of OFIs carrying out credit intermediation activities beyond the perimeter of prudential regulation established by specific EU sectoral legislation²⁵. Based on the

20 Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of

national and regional accounts in the European Union

21 by the following definition (see Art. 60 of the proposed regulation): 'credit institution' means an undertaking the business of which consists of any of the following: (a) to take deposits or other repayable funds from the public and to grant credits for its own account; and also

22 b) to carry out any of the activities referred to in points (3) and (6) of Section A of Annex I of Directive 2014/65/EU, where

b) to carry out any of the activities referred to in points (3) and (6) of Section A of Annex I of Directive 2014/65/EU, where one of the following applies, but the undertaking is not a commodity and emission allowance dealer, a collective investment undertaking or an insurance undertaking:

i) the total value of the assets of the undertaking exceeds EUR 30 billion, or ii) the total value of the assets of the undertaking is below EUR 30 billion, and the undertaking is part of a group in which the combined total value of the assets of all undertakings in the group that carry out any of the activities referred to in points (3) and (6) of Section A of Annex I of Directive 2014/65/EU and have total assets below EUR 30 billion exceeds EUR 30 billion, or iii) the total value of the assets of the undertaking is below EUR 30 billion, and the undertaking is part of a group in which the combined total value of the assets of all undertakings in the group that carry out any of the activities referred to in points (3) and (6) of Section A of Annex I of Directive 2014/65/EU exceed EUR 30 billion, where the consolidating supervisor in consultation with the supervisory college so decides in order to address potential risks of circumvention and potential risks for the financial stability of the Union.

https://www.eba.europa.eu/documents/10180/1720738/Report+on+OFIs.pdf

EBA Survey: Entities carrying out credit intermediation activities and not subject, on an individual basis, to a prudential framework under EU law

https://www.eba.europa.eu/documents/10180/1720738/Report+on+OFIs.pdf

It is important to observe that outside the EBA analysis and scope are several entities, which subject to other regulatory treatment. According to the EBA, competent authorities were requested to describe the prudential regime applicable to the reported entities pursuant to national law, choosing between the following: (i) subject to a CRDIV/CRR-like regime (with or without modifications) under national law; (ii) subject to a bespoke prudential regime under national law; (iii) subject to no prudential regime. Competent authorities were further required to detail the prudential requirements, if any, in place under national law.

information on the OFIs provided by the competent authorities the EBA observes that the prudential treatment varies significantly between the Member States. The EBA concludes that at this stage no regulatory intervention is required at the EU level. However, should credit intermediation activity by OFIs continue to grow, the state of regulation of these risks will require further monitoring and analysis. There is a wide range of OFIs in the Member States carrying out credit intermediation activities which are not subject, on an individual basis, to a prudential framework under EU law. National prudential regimes differ substantially (both within and across the clusters identified).

It is important to observe that the scope of EBA action is only related with the credit intermediation activities²⁶. As matter of fact, this survey only covers part of the OFIs activities and entities, consequently, in order to have a complete coverage of the prudential treatment the OFI entities according to statistical classification, this might require additional investigation.

In order to run its assessment, EBA grouped the entities into the following clusters based on the activities undertaken (following, wherever possible, the activities classifications listed in Annex I to the CRDIV): Cluster 1: consumer and corporate lenders, including factoring, leasing, consumer credit/retail credit/microcredit, guarantee providers, mortgage lenders, saving institutions and other types of lenders; this forms the largest cluster in terms of the frequency of reporting of entities by the competent authorities; Cluster 2: securitisation vehicles; Cluster 3: crowdfunding; Cluster 4: credit unions. While details of the survey can be found in EBA survey²⁷, the main result of the survey is that not all the OFIs entities are regulated. Furthermore, the analysis does not cover other OFIs which might undertake other shadow banking activities and risks beside the credit intermediation. These entities might be part of the remaining S.125, S.126 and S.127 for which the EBA survey does not collect information on the regulatory regime: this might require additional investigation.

EBA results can be mapped with the availability of the statistical data at the ECB. Linking the supervisory provisions with statistical data availability at the ECB, will make clear if additional data and regulatory information are needed to be collected in order to assess the OFI sector Starting with Cluster 1, which includes consumer and corporate lenders, including factoring, leasing, consumer credit/retail credit/microcredit, guarantee providers, mortgage lenders, saving institutions and other types of lenders; this forms the largest cluster in terms of the frequency of reporting of entities by the competent authorities. In this cluster entities are not regulated/not subject to individual prudential requirements²⁸. Cluster 1 may be mapped with the entities grouped in the SNA FCLs financial corporations engaged in lending to households and non-financial corporations (FCLs) resident in the euro area, which is a sub-sector of "Other financial intermediaries, except insurance corporations and pension funds" (OFIs), S.125²⁹, newly published by the ECB.

²⁶ Competent authorities were asked to identify entities carrying out credit intermediation activities, including unregulated entities (which were asked to be reported by the authorities on a best efforts basis), in their jurisdictions that are not subject, on an individual basis, to a prudential framework under EU law https://www.eba.europa.eu/documents/10180/1720738/Report+on+OFIs.pdf

²⁸ EBA ...

²⁹ Annual data are now available at the ECB as data on FCLs have been recently published by the ECB. However, no complete breakdown by entities is available. (i.e. factoring, leasing, consumer credit). The statistics are reported by the national central banks (NCBs) to the ECB in accordance with Part 11 of Annex II of Guideline ECB/2014/15 on monetary, financial institutions and market statistics (recast). The statistics on FCLs are at annual frequency and are available dating back to the end of 2010. The asset side typically represents the loan portfolio of FCLs and other assets

The second EBA cluster 2, includes the following entities: securitisation vehicles. As for the 2014 EBA Report³⁰, some Member States have referred to special purpose vehicles (SPVs) used to set up securitisations (SPVs-Sec) as possibly carrying credit intermediation activities. This can be mapped with the securitisation vehicles otherwise known as Financial Vehicle Corporations (FVCs). According to the ECB Regulation ³¹, this requires the collection of data on securitisation vehicles otherwise known as Financial Vehicle Corporations (FVCs)³².). According to EBA, special purpose vehicles (SPVs) used to set up securitisations (SPVs-Sec) as possibly carrying credit intermediation activities and in some jurisdictions were specified as unregulated on an individual basis

The third cluster considered by EBA is crowdfunding, an activity that is not in the scope of the ECB data collection framework (and not mentioned as such in ESA 2010).

As regard the cluster 4 (credit unions), have a simplified prudential regime for credit unions given their limited scale and size compared with credit institutions generally. While according to the ECB these entities Credit unions are credit institutions subject to Eurosystem minimum reserves, even if exempted under Article 2 CRD. These entities are covered within the balance sheets of monetary financial institutions (MFIs) Data are covered under the legal basis for collecting harmonised balance sheet statistics is laid down in Regulation ECB/2013/33³³.

In conclusion, as the EBA analysis is focused to identify entities carrying out credit intermediation activities, this analysis leaves out those OFIs entities which might engage in shadow banking risks other than those emerging directly from credit intermediation. These entities not covered might be part of the remaining S.125 (as Venture and development capital companies, Financial intermediaries which acquire deposits and/or close substitutes for deposits, or incur loans vis-à-vis monetary financial institutions only; these financial intermediaries cover also central counterparty clearing houses (CCPs) carrying out inter-MFI repurchase agreement transactions)³⁴ and S.126 (financial auxiliaries i.e corporations which arrange derivative and hedging instruments, such as swaps, options and futures), for which data are anyway not available from harmonised and regulated European collection frameworks. Finally also entities in S.127(captive institutions), are out of the scope of the EBA analysis; data are not available at euro area level and an effort to close this gap would be desirable. Additional analysis is then required on the consolidation, regulatory treatment and data of these entities that might be part of the remaining S.125 S.126 and S.127 and this will be analysed section 4.

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https://www.eba.europa.eu/-/eba-publishes-an-opinion-on-the-perimeter-of-credit-institutions

³⁰ EBA publishes an Opinion on the perimeter of credit institutions

³¹These statistics, as laid down in Regulation ECB/2013/33, provide harmonised information on the securitisation market and risk transfer

³² The FVC data refer to assets and liabilities, covering end-of-quarter outstanding amounts and financial transactions provided on a quarterly basis. Outstanding amounts, or stock data, refer to the value of the assets and liabilities at the end of the reference period. Transactions, or flows data, refer to the net acquisition of a given type of asset during the period, or the net incurrence of a given type of liability. The MFI data also include relevant information on securitisation activities. Firstly, this includes data on the net transfers of securitised loans to FVCs (with or without derecognition from the MFI balance sheet). Data on these loan transfers are used for example in adjusting loans to euro area residents for loan sales and securitisations. Data are also available on MFIs' holdings of debt securities issued by euro area FVCs, and MFI loans to and deposits from euro area FVCs. See table 1 at the end

FVCs. See table 1 at the end.

33 This Regulation is complemented by Guideline ECB/2014/15, which sets out the procedures to be followed by NCBs when reporting money and banking statistics information to the ECB.

³⁴ MFIs may act as CCPs. If a CCP is not a credit institution it is in S.125 (which is most on the ESMA list of authorised institutions).

Section 4: Financial account initiatives in the area of non-bank financial intermediation.

Financial accounts provide an integrated framework for the analysis of financial balancesheets, their changes, their interlinkages across the economy and their relation with developments in income and expenditure. Users of financial accounts, as of the other macro statistics, have been demanding a richer detail on financial institutions within the framework, in particular as regards non-bank credit intermediation, or shadow banking.

As mentioned above, shadow banking activities are mainly undertaken by entities in the sector "Other financial intermediaries other than insurance corporations and pension funds (S.125)" (see table 1). However, that sector is not identified separately in the so-called MUFA Guideline³⁵, the ECB's legal instrument for the compilation and exchange of quarterly financial accounts data within the Eurosystem (data for all non-euro area EU countries are exchanged on a voluntary basis). This was due to the lack of developed, complete primary sources for this and other financial subsectors at the time of the preparation of the last version of the Guideline in 2013. Thus sector S.125 is included within the largely residuallydefined grouping "other financial institution (OFI)" grouping that covers miscellaneous financial institutions of very different nature. OFI comprises three ESA subsectors (S.125, S.126 and S.127) and includes as diverse units as factoring corporations, holding companies or securities brokers and dealers (table 1). From a compilation point of view, OFI are often estimated from secondary statistical and non-statistical sources - such as business registries and other administrative sources- ad-hoc surveys, and/or counterpart sector data. However, these sources might not allow for complete adherence to the applicable statistical standards or may lack adequate frequency and/or timeliness, and do not generally permit a sufficient subsector granularity.

To address this drawback and others, the European financial accountant community has embarked in 2018, within the framework of the ESCB Statistics Committee (STC), on a medium-term strategy for quarterly financial accounts. The general intention of the endeavour is to address the increasing demand for richer information and to take advantage of the availability of new data sources, institutional frameworks and technologies for the compilation of financial accounts. The strategy is being designed consistently and in cooperation with the developments in primary statistics and covers areas like the integration of sector accounts and balance of payments, the use of micro data or the development of compilation schemes on a who-to-whom basis, but also the extension of the detail provided to better serve analysis in the areas of globalisation, interconnectedness or the households sector.

Enhancing the detail of the financial sector is one of the areas considered for the medium-term strategy. In particular, it is recognised that the use of financial accounts for shadow banking analysis requires at least the separate identification of sector S.125. Preliminary investigations carried out by the Working Group Financial accounts (WG FA, reporting to the STC) since 2016 reveals that has been more than 90% of the OFI sectors' assets in the EU are available with a subsector breakdown, and that in particular a sector split following the ESA classification (S.125, S.126 and S.127) might be feasible in 23 member states, albeit with problems for estimating backdata and requiring further clarification for the delineation of

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³⁵ ECB/2013/24

sectors S126, S127. This breakdown, in principle feasible, would allow narrowing down the monitoring of shadow banking to S.125, and exclude from the target universe institutions like holding companies and financing conduits (covered by S.127 and not engaging in bank-like kind of intermediation).

At the same time, a proper monitoring of shadow banking probably requires an even more granular sector split as some of the institutions in S.125 might be argued not to really engage in bank-like activities, or to pose financial risks that are very different in nature from each other. Similarly, institutions not included in S.125, like certain investment funds, might be seen as to be included within the shadow banking perimeter.

This need for subsector splits that goes beyond the ESA standard sector detail is not only circumscribed to shadow banking related issues. For instance, as mentioned above, holding companies and other special purpose entities (SPEs) included within the subsector S.127 might need to be separated from other institutions in that sector given the specific characteristics of their activities that hardly qualify as financial intermediation, while they can be of high interest in the context of globalisation. Similarly, the transfer of risks associated to defined contribution pension funds is very different to that of defined benefit pension funds, while both are included within the same ESA subsector "Pension funds (S.129)". The preliminary investigations by the WG FA on such additional sector breakdowns indicate that data availability for the compilation of financial accounts would be very different from country to country, but at the same time that such availability would be highly correlated with the importance of the various groupings in the corresponding economies (e.g. information on SPEs being available in countries where this industry is relevant). That would suggest the possibility of establishing differentiated commitments in terms of publication and dissemination across European Union countries in this respect.

To enhance the financial accounts ability to capture the subtleness of the various financial activities and associated risks, a greater sector detail has to be complemented by additional financial instrument breakdowns designed to capture specific risks. An obvious candidate is the introduction of remaining maturity splits, as opposed to the standard original maturity splits, to cover maturity mismatches and associated liquidity risks. Similarly, breakdowns by currency of denomination would help monitor the corresponding risks. Moreover, very specific markets and asset classes might have to be targeted, like repurchase agreements - currently indistinguishable from loans and deposits in financial accounts- which have been involved in much of the liquidity and maturity transformation undertaken by shadow banks, in particular when the institutions depend on wholesale financing. At the same time, many of these additional details are of more relevance for the euro area than for the individual countries, in particular those more related to monetary policy analysis, and also entail a high development cost if implemented at country level. A possible outcome of the strategy might be that such enhancements are only implemented at euro area level levering on the new euro area wide micro-level data sources: CSDB, SHS, AnaCredit, EMIR data...

Before the work on the medium-term strategy for financial accounts in the EU started, a number of initiatives worldwide had already promoted the use of financial account data to understand shadow banking. Since 2013 a regular FSB annual monitoring exercise has included a specific template for macro-mapping to be filled in with financial accounts data (complemented by monetary statistics data). Financial accounts data can also serve to fill in

some of the other templates for the monitoring exercise (notably the specific one on interconnectedness). Moreover, since 2015 a specific recommendation under the G-20 Data Gap Initiative II (DGI-2), Recommendation #5, calls "the G-20 economies to enhance data collection on the shadow banking system by contributing to the FSB monitoring process, including through the provision of sectoral accounts data. (...)"... This makes the development of "shadow-banking-enhanced" financial accounts, as envisaged by the ongoing ESCB medium-term strategy for financial accounts, a prominent need.

Furthermore, the ongoing work in the framework of yet another of the DGI-2 recommendations, Recommendation #8 on sector accounts led by the OECD, is contemplating the inclusion of additional sector and instrument detail to pinpoint shadow banking activities. A specific "more advanced ambition" template will cover stock data for sub groupings of S125 and S127 in line with the discussion above, together with splits of investment funds by investment policy and/or share liquidity and of insurance corporations and pension funds by kind of insurance and risk pass-through profile respectively. Similarly, a template on financial instruments includes detail on remaining maturity, non-performing loans, nominal value for debt securities liabilities, currency denomination and exposures on derivatives and contingent liabilities.

Even though these shadow banking requirements are labelled as "more advanced ambitions" and are not part of the target requirements for 2021, their inclusion within the set of templates indicates the relevance that is given to shadow banking within the financial accounts framework and encourages advanced countries to work on them. The templates were approved by the DGI-2 Global Conference in June 2018. Final discussion on a final template is in progress on the thematic Workshop on Institutional Sector Accounts.

Section 5: Other initiatives to reduce the OFI residual.

In section 3 we saw that, from the regulatory point of view, the EBA focuses only on those entities carrying out credit intermediation activities that are not subject, on an individual basis, to a prudential framework under EU law, while other entities in S.215, such as venture and development capital companies, and entities in S.126 and S.217 are not considered at all. However, these entities might not be engaging in credit intermediation, but still knowing more about them is useful for monetary and financial analysis and macroprudential monitoring, all the more when they might undertake certain shadow banking related activities, even if not as their main activity.

More specifically, for the entities in S.125, S.126 and S.127 that are not part of banking groups there is an absence of data and knowledge of their regulatory requirements³⁶. In order to address these issues, the ECB is currently undertaking a survey questionnaire on these OFIs groupings to investigate the regulatory requirements, the prudential consolidation within banking groups and the data availability. The current work is taking a broader approach combining supervisory and statistical sources, including financial accounts³⁷.

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³⁶ However, there might be activities included in part of Annex 1 of CRDIV.

³⁷ It takes into consideration 1) the list of activities and entities of the ANNEX I of the CRD IV (Directive 2013/36/EU of the European Parliament (see also the appendix); and 2) the list of the entities/activities according to the new breakdown of the

Also at national level there are initiatives being taken by EU NCBs to analyse and reduce the OFI residual, which also contribute to enhancing financial accounts data availability (see section 4). For example, Luxembourg in a recent work concluded that its OFI residuals are concentrated in captive financial companies within S.127 as institutions in S.126 and S.125 are not so relevant in that particular case³⁸.

Similarly, De Nederlandsche Bank collects data on special purpose entities (SPEs) involved in financial activities other than securitisation, called "Special Financial Institutions" (SFIs)³⁹. Data on resident SFIs imply that assets of these institutions by an amount of approximately €300 billion would have a relevant bearing from a shadow banking perspective.

Moreover, the Central Bank of Ireland collects data on "non-securitisation SPVs" which cover entities undertaking a wide range of activities, often related to intra-group financing; around €280 billion would correspond to credit instruments. In general most of these country initiatives refer to SPEs that are "Vehicles linked to banks or engaging in loan origination [which] appear as the main areas of focus from a shadow banking perspective, due to the interconnectedness to the banking sector and their involvement in credit intermediation, respectively"40.

Section 6: Summary and conclusions

With the recent financial crisis, there has been an increasing demand for macro data on nonbank financial intermediation for economic, financial and monetary policy analysis and for macroprudential and financial stability monitoring, including that of "shadow banking" trends. However, and in spite of the efforts made recently to reduce the so-called OFI residual, data gaps still exist and a significant part of the euro area financial sector remains yet to be covered by harmonised, complete and high-frequency balance sheet data.

Further work needs to be done to combine the statistical data available for non-bank financial intermediaries with data stemming from the corresponding regulatory regimes, which in many cases needs to be better understood by statisticians.

Work in this direction has been recently undertaken by the ESCB with a questionnaire addressing data availability and regulatory aspects. The questionnaire was also aimed at facilitating the development of further sector and instrument detail within financial accounts, and in the framework of a medium-term strategy for those statistics in the European Union. Following this example, combined, coordinated efforts from all these angles - primary statistics, regulatory data and integrated sector accounts - would need to be pursued in order to improve our understanding of non-bank intermediation in the future.

ESA 2010 which can capture by the entities breakdown of shadow banking. The proposed analysis consists in combining data availability, the scope of consolidation and the involvement in activities within the shadow banking perimeter.

38 Based on ESP recommendations and the involvement in activities within the shadow banking perimeter.

Based on FSB recommendations and methodology, a step-wise approach is adopted to exclude non-relevant entities from the shadow banking perimeter, which reduces by 50% the residual for the year 2014. See Duclos, C. and Mohrs, R., "Analysis of the shadow banking content of captive financial companies in Luxembourg", working document.

⁹ These entities often engage in transactions on behalf of their parent companies, or are set up as part of multinational groups with the purpose of facilitating intra-group financing. For some SPEs, the business model is similar to FVCs in terms of transforming illiquid assets into more liquid debt securities.

40 EU Shadow Banking Monitor No 2 / May 2017 https://www.esrb.europa.eu/news/pr/date/2017/html/esrb.pr170529.en.html

Ninth IFC Conference on "Are post-crisis statistical initiatives completed?"

Basel, 30-31 August 2018

Challenges for macro data on non-bank financial intermediaries¹

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



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"Challenges for macro data on non-bank financial intermediaries"

Irving Fisher Committee
9th biennial IFC Conference on "Are postcrisis statistical initiatives completed?" at
the BIS 30-31 August 2018

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Overview of presentation

- 1 Introduction
- 2 Shadow banking: ESRB and FSB approaches
- 3 Data availability: data used
- 4 Data availability and EU regulatory framework
- 5 Use of Macro data and current work
- 6 Conclusions

Introduction

- European Systemic Risk Board (ESRB) broadly endorsed the Macro-mapping" exercise recommended by the Financial Stability Board as methodological framework and use of aggregated data
- Dual approach: activity and entities approach to overcome data gaps
- New data and on-going initiatives by ECB:
 - e.g. new statistics published on *financial corporations involved in lending* (FCLs) and in the future, on *Securities and derivatives dealers* (SDDs)
- Still data gaps in so called **OFI residuals**.
- New survey to collect information on the data sets and regulatory frameworks in different jurisdiction for the OFI residuals

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Macro measurement: FSB and ESRB approach

Practical two-step approach by FSB for **monitoring Shadow Banking System (SBS) -** implementation (so far) mainly entities-based:

1. Broad measure:

- "System of credit intermediation that involves entities and activities outside the regular banking system"
- Approximated by financial assets of Other Financial Intermediaries (OFIs, S.125) sector plus Money Market Funds (MMFs, S.123)
- **2. Narrowing down** the broad measure in the *Global Shadow Banking Monitoring Report 2015*:

Two-Step approach of ESRB

• ESRB framework distinguishes between *risks stemming from* financial institutions or "entity-based approach" or their activities or "activity-based approach"

FSB and ESRB approach: narrowing down

- FSB narrowing down approach excludes equity investment funds from the broad definition as they do not primarily engaged in credit intermediation
- Retained securitisations i.e. securitisations where the asset-backed securities are held by the originating banks
 - are excluded as no transfer of credit risk from the banking system.
 - Non-securitisation special purpose entities might be excluded if they are not part of a credit intermediation chain
- The FSB excludes entities prudentially-consolidated within banking groups from the narrow perimeter of the shadow banking
- The main reason why ESRB measures do not exclude consolidated entities is the lack of reliable data identifying consolidated entities at euro area and EU level

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Data availability: Data used (1/2)

- ✓ Monetary statistics:
 - collected under ECB Regulations:
 - MMFs (S123) (from BSI data)
 - Non-MMF investment funds (\$124)
 - Financial vehicle corporations –FVCs (part of \$125)
 - collected under ECB Guideline (incomplete coverage)
 - Securities and derivatives dealers -SDDs (part of \$125)
 - Financial corporations engaged in lending- FCLs (part of \$125)
- ✓ Financial accounts: S124, S125+S126+S127 (OFIs) (see Annex)
- ➤ Sizeable "OFI residual": difference between the financial accounts aggregate OFIs and the parts covered by monetary statistics

Data availability: Data used (2/2)

- ➤ OFI residual is large, includes sub-sectors not included within the Other Financial Intermediaries (S.125) Sector, e.g. Special Purpose Vehicles (SPVs), as part of Captive financial Institutions and money lenders (S.127)
 - Despite some advances, over 50% of the broad non-bank financial sector measure still cannot be classified according to the type of entity,

- Risk assessment of financial intermediation (in particular of shadow banking) would also benefit from the availability of data on both a consolidated and non-consolidated basis.
 - For some types of entities, statistical and supervisory information on the level of consolidation are not readily available, and for others it is not systematically collected

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Data availability and regulatory framework (1/3)

- ➤ Changes in the regulatory framework might affect the measure of shadow banking and also the related risk assessment.
- > SSDs (securities dealers), proposed new EU regulatory requirements SDDs might change the statistical classification and risks

➤ With the EU Commission proposal, the definition of "credit institution" for capital requirements (CRR/CRDIV) could be amended to cover also systemic investment firms based on nature/size of investment services.

- From statistical point of view, the definition of 'credit institution' in CRR might be extended with the inclusion of the systemic investment firms captured by this definition.
 - ➤ The effect will be to reduce the number of entities in SDDs subsector of OFI, the residuals will also be reduced and the risk of the SDDs will diminish due to the new regulatory regime

Data availability and regulatory framework (2/3)

European Banking Authority (EBA) Opinion on prudential treatment of OFIs carrying out credit intermediation beyond perimeter of prudential regulation

- > EBA results can be mapped with the availability of data at ECB.
 - ➤ Additional data and regulatory information are needed to be collected in order to assess the OFI sector.
- Cluster 1 includes consumer and corporate lenders, Mapped FCLs (FCLs) resident in the euro area,
- **EBA cluster 2**, securitisation vehicles: mapped to Financial Vehicle Corporations (FVCs) ECB Regulation data.
- > Cluster 3 considered by EBA is crowdfunding, no data.
- Cluster 4 (credit unions), according to the ECB these entities are covered within monetary data of the ECB.

Data availability and regulatory framework (3/3)

Some other OFIs entities are not covered by the EBA survey.

These entities might be part of the remaining S.125 (as i.e. Venture and development capital companies)

- **S.126 financial auxiliaries** (i.e corporations which arrange derivative and hedging instruments) for which data are anyway not available from harmonised and regulated European collection frameworks.
- **S.127 Captive financial institutions**, are out of the scope of the EBA analysis; data are not available at euro area level and an effort to bridge this gap would be desirable.

Additional analysis is then required on the consolidation, regulatory treatment and perimeter and data availability of these

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G 20 Data Gap Initiatives- DGI-2 and the financial sector

- ✓ Recommendation # 8 includes specific templates for shadow banking and beyond ... but not as part of core templates required by 2021
- ✓ Additional detail on instruments (compared with core templates) in the specific templates for shadow banking:
 - Remaining maturity split for debt securities and loans
 - Non-performing loans
 - Nominal value for debt securities, liabilities
 - Domestic-currency denominated instruments, first-digit sector level
 - Exposures for:
 - Derivatives, with split by options, forwards
 - Contingent liabilities: guarantees, credit insurance

G 20 Data Gap Initiatives- DGI-2 and the financial sector

Additional detail for sectors in the specific shadow banking templates (in blue, yellow cells) compared with core templates(grey)

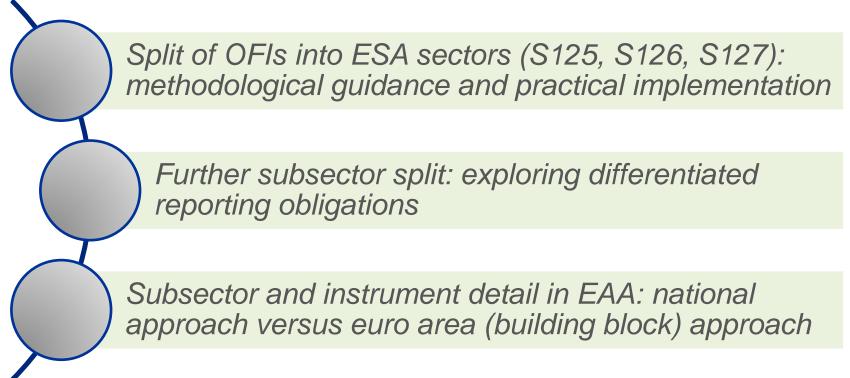
S12 - Financial corporations				
S121+S122+S123 - Monetary financial institutions				
S121 - Central bank				
S122 - Other deposit-taking corporations				
S123 - Money-market funds				
S123A - Stable NAV MMFs				
S123B - Floating NAV MMFs				
S124+S125+S126+S127 - Other financial corporations				
S124 - Non-MMF investment funds				
S124A - Open end funds				
S124A1 - Bond funds				
S124A2 - Equity funds				
S124A3 - Mixed or balanced funds				
S124A4 - Real estate funds				
S124A5 - Hedge funds				
S124A6 - Other funds				
S124B - Closed end funds				
S124B1 - Bond funds				
S124B2 - Equity funds				
S124B3 - Mixed or balanced funds				
S124B4 - Real estate funds				
S124B5 - Hedge funds				
S124B6 - Other funds				

S125 - Other financial Intermediaries, except Ins.corp. and pen. funds			
S125A - Financial vehicle corporations engaged in securitisation			
S125B - Financial corporations engaged in lending			
S125C - Security and derivative dealers			
S125D - Specialised financial corporations			
S125D1 - Of which: Clearing houses			
S125E - Other OFIs			
S126 - Financial Auxiliaries			
S127 - Captive financial institutions and money lenders			
S127A - Trusts, estate and agency accounts			
S127B - Brass place companies			
S127C - Special Purpose Entities or conduits			
S127D - Other captive finance companies and money lenders			
S128+S129 - Insurance corp. and pension funds			
S128 - Insurance corporations			
S1281 - Non-life insurance corporations			
S1282 - Life insurance corporations			
S129 - Pension funds			
S129A - Defined benefit funds			
S129B - Defined contribution funds			

= Tier 1 = Tier 2

The financial sector in the financial accounts medium-term strategy

- ✓ Medium-term strategy for financial accounts to address compilation challenges and new user demands
- ✓ Mainly leveraging on development of new primary statistical sources
- ✓ Plan to be presented at the STC in March 2019
- > Main areas of work identified for theme 3 (financial sector):



Current initiatives: Follow up of Previous work

- ➤ In 2015, the ECB WGMFS and ESRB JEGS undertook a questionnaire on entities consolidated in the banking sector, focusing on the on sectors S.123, S.124 and part of S.215.
- In 2016, the **WG FA** ran a **questionnaire** on availability of subsector data for the **OFIs** aggregate:
 - ✓ outcome suggested that at least a three sector split into S125, S126 and S127 might be feasible in the medium term (corroborated by the joint ECB/ EUROSTAT questionnaire on voluntary data transmissions in 2017)

To complete this assessment *ECB* is currently undertaking a survey with objective to clarify which entities and activities are classifed to new breakdowns of the financial sector introduced with ESA 2010. In particular a new sub-sector is created for Captive Financial Institutions (S.127).

Current work

The main focus of survey questionnaire:

- Make a more comprehensive assessment of the data availability and quality (for potential development and future dissemination/ publication, at least in the form of experimental statistics).
- ➤ It is targeted subdivisions of **S.125** not covered by 2014 WG MFS/ JEGS survey, and the other subsectors financial auxiliaries (**S.126**) and captive financial institutions and money lenders (**S.127**).

- Supplementary information requested on the definitions and consolidation of the different entities
- > Try to determine how the prudential consolidation of non-bank financial entities within regulatory banks' balance sheets should be handled so as to better define and measure shadow banking

Conclusions and way forward

- To better follow developments in EU shadow banking sector it is recognized the increasing need for more statistical data: OFI residuals.
- New initiatives at Eurosystem are ongoing with aim to close existing data gaps in primary statistics and better understand the regulatory framework: new WG MFS/ WG FA questionnaire
- Entities consolidated in the banking groups is also addressed by the new survey
- Financial accounts to be enhanced and better serve analysis of shadow banking and other financial sector phenomena in an integrated framework: STC medium term-strategy, also designed taking into account DGI-2 requirements

ANNEX: Subcategories of non-bank financial corporations

Category	Scope (entities)		
MM Funds (S.123)	Money market funds		
	Funds total		
	of which	Open-ended bond funds	
Funds (S.124)		Open-ended real estate funds	
1 dild5 (0.124)		Private Equity Funds	
		Hedge funds	
		Synthetic ETFs	
	Financial Vehicle Corporations		
	Securities and Derivatives Dealers		
OFIs (other than IFs) S.125	Financial Corporations involved in Lending Total	Financial Corporations involved in Lending Total	
		(of which) financial companies	
		(Of which) leasing and factoring	
	Other OFIs (Specialised financial corporations are financial intermediaries Total	Other OFIs (Specialised financial corporations are financial intermediaries Total	
		Of which a) Venture and development capital companies	
Other OFIs (Specialised financial corporations are		Of which b) Export/import financing companies	
financial intermediaries, (remaining S125)		Of which c) Financial intermediaries which acquire deposits and/or close	
(remaining 3 125)		substitutes for deposits, or incur loans	
		vis-à-vis monetary financial institutions	
		only; these financial intermediaries cover	
		also central counterparty clearing houses (CCPs) carrying out inter-MFI repurchase agreement transactions.	

ANNEX: Subcategories of non-bank financial corporations

Category	Scope (entities)		
Financial auxiliaries (S.126)	Financial auxiliaries (S.126) <mark>Total</mark>	Financial auxiliaries (S.126) Total	
		(a) insurance brokers, salvage and average administrators, insurance and pension consultants, etc.;	
		(b) loan brokers, securities brokers, investment advisers, etc.;	
		(c) flotation corporations that manage the issue of securities;	
		(d) corporations whose principal function is to guarantee, by endorsement, bills and similar instruments;	
		(e) corporations which arrange derivative and hedging instruments, such as swaps, options and futures (without issuing them);	
		(f) corporations providing infrastructure for financial markets; (g) central supervisory authorities of financial intermediaries and financial markets when they are separate institutional units;	
		(h) managers of pension funds, mutual funds, etc.; (i) corporations providing stock exchange and insurance exchange;	
		(j) non-profit institutions recognised as independent legal entities serving financial corporations, but not engaged in financial intermediation (see point (d) of paragraph 2.46);	
		(k) payment institutions (facilitating payments between buyer and seller).	
		Subsector S.126 also includes head offices whose subsidiaries are all or mostly financial corporations.	
		Captive financial institutions and money lenders (S.127) total	
	Captive financial institutions and money lenders (S.127) Total	(a) units as legal entities such as trusts, estates, agencies accounts or 'brass plate' companies;	
Captive financial institutions and money lenders (S.127)		(b) holding companies that hold controlling-levels of equity of a group of subsidiary corporations and whose principal activity is owning the group without providing any other service to the businesses in which the equity is held, that is, they do not administer or manage other units;	
		(c) SPEs that qualify as institutional units and raise funds in open markets to be used by their parent corporation;	
		(d) 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. Examples are money lenders, corporations engaged in lending to students or for foreign trade from funds received from a sponsor such as a government unit or a non-profit institution, and pawnshops that predominantly engage in lending;	
		(e) special purpose government funds, usually called sovereign wealth funds, if classified as financial corporations.	

AppendiX; Proposal: Investment groups classification

 Summary of Proposal for EU regulation on the prudential requirements of investment firms

WHAT WILL CHANGE IN THE FUTURE?				
		REGULATION	SUPERVISION	
Class 1	TODAY	CRR/CRD	National arrangements	
	NEW REGIME	CRR/CRD	Banking supervisor (SSM for Banking Union)	
Class 2&3	TODAY	CRR/CRD	National arrangements	
	NEW REGIME	New prudential regime for investment firms	National arrangements	

ESRB approach: Macro measurement

- "Broad measure" includes all entities in the financial sector except banks, insurance corporations and pension funds
- The entity-based approach focuses on aggregated balance sheet data of financial institutions based on ESA 2010 framework
 - Limitations of ESA-based balance sheet statistics for risk analysis
 - Off-balance sheet exposures and data on trade in financial derivatives provide additional information on sources of risks
 - Data used and available for this approach come from SNA framework: Monetary and financial accounts data
- The activity-based approach aims to capture activities contributing to interconnectedness between shadow and regular banking system
 - e.g. through secured financing transactions (SFTs), derivatives and credit hedging or enhancements
 - Initial use of microdata