Non-bank financial intermediation in Spain

June 2019

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The report on non-bank financial intermediation (NBFI) in Spain describes the most recent trends of the entities and activities that form part of the process and assesses their most important risks. This report forms part of the CNMV *Non-Banking Financial Intermediation Monitor* published every six months (https://www.cnmv.es/Portal/Publicaciones/PublicacionesGN.aspx?id=56).

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1 Executive summary

This report describes the performance of the institutions, activities and risks forming part of non-bank financial intermediation (NBFI) in Spain during the first half of 2019. It continues the series of publications on this matter which began in 2019 with the article "Non-bank financial intermediation in Spain", published in the *CNMV Bulletin* for the first quarter of this year with information for 2017[1] and which continued with a specific series of publications called the *Non-Bank Financial Intermediation in Spain,* the first edition of which was published in late 2019 and based on information from 2018.[2] Following that last report, information will be published every six months in the middle and end of each year.

The analysis carried out in this edition shows that there was no major change in the size of NBFI in Spain during the first six months of 2019, remaining slightly below €300 billion. It should be mentioned, however, that there was a change in the composition of NBFI in favour of collective investment schemes (CIS) to the detriment of securitisations. Specifically, this edition highlights the importance of CISs belonging to NBFI, which was 89% of the total at the end of June 2019. From the analysis of these funds, it follows that the proportion of assets with reduced liquidity remains low, and that leverage is well below the regulatory maximum levels. Given the situation caused by the COVID-19 crisis in mid-March 2020, this report includes a table that describes the performance of CISs in Spain and in the European Union within this context and shows that both the increase in redemptions made by unitholders and the difficulties in valuing some portfolio assets during the moments of greatest uncertainty have been manageable at all times, both due to their size and the use of different liquidity management tools available.

Standouts of this edition are:

– The size of the Spanish financial system[3] increased by more than 3% in the first half of 2019, although this increase was not homogeneous among its components. Banking sector assets grew due to foreign business, as did the assets of insurance companies and financial auxiliaries. In contrast, the size of the OFI segment (other financial institutions), which is so metimes used as a first

1 Ispierto, A. (2019). "Non-bank financial intermediation in Spain". *CNMV Bulletin*, Quarter I, pp. 79-122. Available at: https://www.cnmv.es/DocPortal/Publicaciones/Boletin/Boletin_I_2019_WEBen.PDF

2 https://www.cnmv.es/DocPortal/Publicaciones/Informes/IFNB_ENen.PDF

3 The financial system is made up of the central bank, financial entities (banks), insurance companies, pension funds and financial auxiliaries, as well as other financial institutions, which mainly includes investment funds, with the exception of equity funds, special purpose vehicles (SFV) for securitisation, broker-dealers and financial credit institutions. It further includes, although they are not part of NBFI, captive financial institutions and money lenders, real estate investment funds and companies (REITs), central counterparties (CCP), venture capital firms and SAREB (Asset Management Company from the Bank Restructuring).

approximation to NBFI entities, decreased by 5.7%, to stand at €736 billion (15.9% of the Spanish financial system).

– The performance of the OFI components was also uneven during the first half of last year, with increases in the assets of investment funds (non-money market) and in the assets of broker-dealers, which were more than offset by decreases in the assets of the other entities, with captive financial institutions, REITs and securitisations standing out.

– Using the methodology of the Financial Stability Board (FSB) to delimit the NBFI assets from OFI entities,[4] it is estimated that the size of this sector was €507 billion in 2019, representing a slight increase (0.6%) compared to the figure at the end of 2018. This methodology classifies entities into five economic functions based on typical banking activities and risks. In Spain, the most relevant NBFI entities in quantitative terms belong to economic function 1 (certain types of CIS) and economic function 5 (securitisations). Both types of entities have performed differently for several years, whereby the growth observed in CIS assets (except in 2018) has been offset by the decrease in the outstanding balance of securitisations, which has caused the volume of NBFI assets to remain relatively stable at around €500 billion since 2013 and its relevance to the total financial system remains largely unchanged at between 11% and 12%.

– If the assets consolidated in banking groups are excluded, which mainly affects securitisations and financial credit institutions, the volume of assets associated with NBFI (in the strict sense) would be €298 billion in mid-2019 (0.7% more than in December 2018 and 6.5% of the total financial system). Of this amount, the relevance of institutions belonging to economic function 1 (CIS) would be 89%, up on the 2018 figure, which was 85.5%.

– The risk analysis of the institutions that formed part of NBFI in the first half of 2019 shows few changes in relation to the patterns observed in 2018. The indicators that represent the different risks considered (liquidity, maturity transformation, credit risk or leverage) point to a relatively favourable situation in terms of financial stability. The degree of direct interrelation between banks and other financial institutions also decreased slightly, which, in principle, reduces the risk of contagion (although it is true that contagion can occur through other indirect channels such as exposures that are common to certain financial instruments).

– The identification of vulnerabilities in the field of investment funds is especially relevant, since these institutions make up about 90% of the total NBFI (in the strict sense), as mentioned above. Among these, special attention should be paid to liquidity risk and leverage. Several metrics are presented that reflect different dimensions of the liquidity of investment fund portfolios. These show some increase in the weight of assets with reduced liquidity, although they still account for a small percentage of total assets. In relation to leverage, exposure to market risk as a result of investment funds' positions in derivatives is well below the maximum levels permitted by regulations and suggests low risk in this area.

4 See FSB (2013). *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*.

– As a consequence of the flare-up of the COVID-19 crisis in mid-March of this year, this report includes a table that describes the performance of collective investment schemes in Spain and in the European Union within this context and gives an idea of the increase in the redemptions made by unitholders, the difficulties in valuing some assets in the portfolio at times of greatest uncertainty and the use of the different liquidity management tools available. The implementation in Spain of a new macroprudential tool to enable notice periods to be established for redemptions that are not subject to the term, minimum amount and prior evidence requirements in management regulations, which are ordinarily applicable, is also discussed. These deadlines can be established by the manager or by the CNMV itself.

2 Trends in main indicators

The size of the Spanish financial system increased by more than 3% in the first half of 2019 to exceed €4.6 trillion, after having contracted 1.7% the previous year.[5] The increase was not evenly distributed among its different participants and highlights included the growth in the assets of banking entities, which were up 6.2%, to stand at €2.58 trillion. The relevance of this sector went from 54.2% of the financial system to 55.8%. It should be noted that this increase was due to the performance of these entities' businesses abroad, especially with regard to the granting of credit, whereas the assets of businesses in Spain decreased. The high geographic diversification of Spanish deposit institutions placed financial assets abroad at above 50% of total financial assets in June 2019.[6]

Structure of the Spanish financial system TABLE 1

Million euros

	Central bank	Banks	Insurance	Pension funds	Financial auxiliaries	OFIs	Total
Size Jun-2019 (million)	753,000	2,577,918	323,824	140,392	85,618	736,067	**4,616,819**
Size in 2018 (million)	748,807	2,426,298	306,297	138,025	76,486	780,627	**4,476,538**
% of total (Jun-2019)	16.3	55.8	7.0	3.0	1.9	15.9	**100.0**
Growth Jun-2019 (%)[1]	0.6	6.2	5.7	1.7	11.9	-5.7	**3.1**
Growth 2018 (%)	7.5	-3.6	0.6	-1.0	1.5	-5.2	**-1.7**

Source: CNMV and Bank of Spain.

1 Half-yearly growth rate corresponding to the period January-June 2019.

The performance of the other sectors that make up the financial system, such as non-bank financial intermediaries, was uneven. There was an increase in the assets of insurance companies (5.7%), financial auxiliaries (11.9%) and, to a lesser extent, pension funds (1.7%). However, there was a decrease in the size of the assets of OFIs (other financial institutions), which are the entities which in the international context have been considered as a first approximation or broad measure of NBFI, partly because of the similarity of the regulations governing these entities among the different jurisdictions. It should be remembered that most of them are subject to regulation and supervision (which in some cases, such as in Spain, are very strict) and that these functions are carried out mostly by securities regulators and supervisors. The decrease in OFI assets in Spain in the first half of 2019 was 5.7%, standing

5 This level is the highest since 2012, the year in which the restructuring of the banking system reduced the total number of assets from 5.1 trillion to 4.45.

6 See Bank of Spain (2019). *Financial stability report.* Autumn. Available at: https://www.bde.es/f/webbde/INF/MenuHorizontal/Publicaciones/Boletines%20y%20revistas/InformedeEstabilidadFinanciera/IEF_Autumn2019.pdf

at €736 billion. Therefore, the relative importance of this segment in the total financial system dropped from 17.4% at the end of 2018 to 15.9% in June 2019.

As detailed in previous publications of this report, non-bank financing is an alternative to bank financing, with greater benefits for both the companies that access it and for the economy as a whole. It gives companies more access to financing, increasing their transparency, indicating that they have achieved a certain degree of professional management of their business, and may lead to associated improvements in terms of prestige and reputation. It is reasonable to assume that an economy with more balanced financing structure between the banking sector and capital markets can achieve higher long-term growth rates, as well as less abrupt fluctuations in its economic cycle. The stabilising nature of financing provided by financial markets to companies at a time when other alternative sources are significantly reduced or decreased has also been observed.

As shown in Table 2, the performance of the different components of OFIs was constant during the first half of last year, with increases in the assets of investment funds (non-money market) and in the assets of broker-dealers, which were more than offset by decreases in the assets of the other entities, particularly captive financial institutions, REITs and securitisations. The three most important types of OFI entities by size, which are investment funds (42%), securitisations (24%) and captive financial institutions (18%) – associated, above all, with the issuance of preferred shares – have shown divergent behaviour in recent years: investment funds have been expanding since 2013 (except for a slight interruption in 2018), while securitisations and captive financial institutions have been contracting, as the issuance volumes of securitisations and preferred shares observed before the two crisis periods in 2008 and 2012 have not been maintained over time (see right-hand panel of Figure 1). These movements in the opposite direction were largely offset between 2013 and 2017, so the total size of the OFI segment remained relatively stable at €800 billion. However, in 2018 and the first half of 2019, the declining trend was stronger, which led total assets to fall to 736 billion in June 2019.

Structure of other financial institutions TABLE 2

Million euros

	Non-money market investment funds	Money market investment funds	Captive financial institutions	SFV: securitisation	Broker-dealers	Financial credit institutions	REITs	Other	Total
Size Jun-2019 (million)	305,149	5,531	135,576	175,279	8,504	57,197	15,116	33,715	**736,067**
Size in 2018 (million)	290,041	6,810	163,048	184,576	4,563	60,504	28,493	42,592	**780,627**
% of total (Jun-2019)	41.4	0.8	18.4	23.8	1.1	7.8	2.1	4.6	**100.0**
Growth Jun-2019 (%)	5.2	-18.8	-16.8	-5.0	86.4	-5.5	-46.9	-20.8	**-5.7**
Growth 2018	-2.8	-4.4	-2.8	-10.8	23.5	5.7	3.0	-22.0	**-5.2**

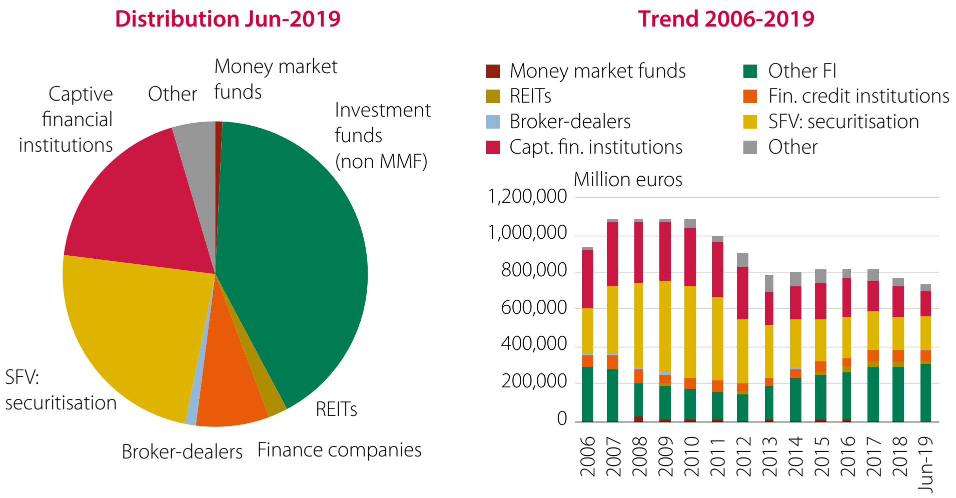
Source: CNMV and Bank of Spain.

Within the scope of OFIs, the entities that form part of NBFI are distinguished from the rest of the entities, which will be described in more detail in the following section. The former include investment funds, although not all of them,[7] special

7 Not all investment funds are part of NBFI, although the majority are. Those that are not are basically equity funds.

purpose vehicles (SFVs) for securitisation, broker-dealers, and financial credit institutions. The OFI subsectors that do not belong within the scope of NBFI are captive financial institutions and money lenders, real estate investment companies and funds (REITs),[8] central counterparties (CCPs), venture capital firms and SAREB (Asset Management Company for Assets arising from Bank Restructuring). Among the latter, the most important by size are captive financial institutions and money lenders, whose assets have been decreasing for several years, as indicated above.

Distribution and trends of the OFI sector in Spain FIGURE 1



Source: CNMV and Bank of Spain.

Interconnectedness between financial system entities

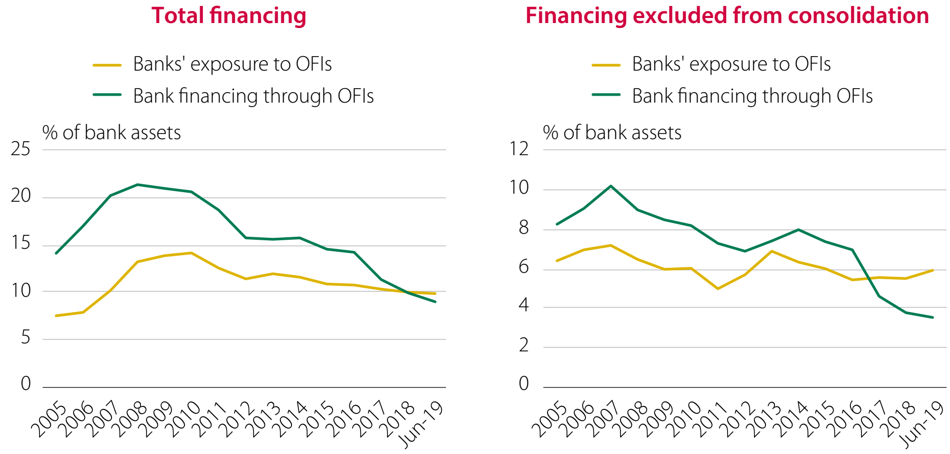
The analysis of the interconnectedness among the entities belonging to the financial system is relevant, insofar as it can indicate how a shock can spread to the entire system and how it can behave in a moment of stress. There are multiple approaches to quantify and evaluate the degree of interconnectedness among institutions. The first and most immediate identifies the bilateral exposures between entities or groups of entities. This would be a measure of direct exposure. There are also indirect exposure measures, which attempt to quantify the number of entities (or sectors) that have exposure to a certain asset, namely, a common exposure. Lastly, there are other series of measures. which through the use of different methodologies and based on market price data, can define the degree of interconnectedness and its variation over time.[9]

8 Real Estate Investment Trusts: includes both real estate investment funds and companies and real estate investment trusts (SOCIMIs).

9 For an example of this type of study see Losada, R. and Laborda, R. (2020). *Non-alternative collective investment schemes, connectedness and systemic risk*. CNMV Working Document, No. 71. Available at: https://www.cnmv.es/DocPortal/Publicaciones/MONOGRAFIAS/71_InterconexionIICyRSistemico_enen.pdf. In this study, the authors analyse the interconnection between non-alternative CISs and their underlying markets based on the returns or volatilities of the assets in a generalised framework of vector autoregression. The authors, who estimate short, medium and long-term interconnections, conclude that: i) during periods of financial difficulty, the interconnection between non-alternative CISs and their underlying markets increases, this interconnection being essentially short-term, and ii) there is no identified long-term relationship between interconnection and systemic risk.

For the purposes of this analysis, direct exposure measures between banks and OFIs are presented. In particular, banks' exposure to OFIs and bank financing through OFIs have been calculated. Exposure of banks to OFIs in the first half of 2019, evaluated as the assets held by banks in OFIs, experienced a slight increase in absolute terms, but remained stable in relative terms at around 10% of total assets of banks (see Figure 2). On the other hand, bank financing through OFIs (banks' liabilities to OFIs) was reduced both in absolute and relative terms and remained, in the latter case, below 10% of total bank assets. The changes in these interconnections are relatively similar when the assets that are consolidated in banking groups are excluded[10] (see right-hand panel of Figure 2).

Interconnectedness between banks and OFIs FIGURE 2



Source: CNMV and Bank of Spain.

Interconnectedness between banks and OFIs TABLE 3

Million euros

	Banks' exposure to OFIs		Banks' liabilities to OFIs	
	Total	Consolidated in banking groups	Total	Consolidated in banking groups
2011	406,899	250,245	598,897	370,374
2012	362,028	187,775	493,815	283,068
2013	337,648	149,577	436,948	234,354
2014	316,976	149,456	426,657	215,894
2015	282,351	132,153	373,979	189,633
2016	270,198	138,837	354,353	185,805
2017	265,077	128,099	289,733	176,149
2018	248,333	117,349	246,989	156,837
Jun-19	260,586	110,470	239,353	149,643

Source: CNMV and Bank of Spain.

10 In Spain, interconnectedness data for banks and OFIs that are consolidated in banking groups are only available for the SFV subsector.

3 Non-bank financial intermediation

To identify and evaluate the risks associated with NBFI, as in the previous analysis for 2017 and 2018, the criteria developed by the FSB in 2013, based on five economic functions, were used.[11] Table 4 shows a summary of the five economic functions described by the FSB, and the entities of the Spanish financial system that belong to each one[12] in addition to their size in mid-2019. These entities, as explained in the previous section, are a subset of the OFI and form part of NBFI if they can be included under any of the definitions provided by the FSB, based on some facet of typical banking activity and risks. There is a type of entity that forms part of NBFI which does not derive from the OFI: mutual guarantee companies (EF4), although this segment is very small in size.

As shown in Table 4, the most important NBFI entities in quantitative terms are those that form part of EF1, which are certain types of CIS, and EF5, which is fuelled by securitisations. The assets of the former were close to 265 billion in mid-June 2019, 52% of total NBFI, and those of the latter were 175 billion, almost 35% of NBFI. The performance of both types of entities was not consistent, since CIS assets showed growth of 2.3%, whereas the outstanding balance of securitisations fell by 5%. This divergence between the main NBFI entities in Spain has been observed for several years. The collective investment sector experienced a phase of significant expansion following the sovereign debt crisis that was interrupted only in 2018, coinciding with a period of market uncertainty that negatively impacted the value of its assets and triggered an increase in redemptions. In contrast, the outstanding balance of securitisations has been falling for several years, since the issuance of these assets, which is much lower than their maturities, is carried out almost exclusively to be used by the originating entities as collateral in financing operations within the Eurosystem.

The next most significant group of entities in terms of size are financial credit institutions (EF2), whose assets fell by 5.5% in the first half of 2019 to slightly above €57 billion, representing 11.3% of NBFI. The least relevant entities belong to the EF3 and EF4 categories. The former are those that mediate in the financial markets and depend on short-term financing; in the case of Spain, broker-dealers. The assets of these entities, totalling €8.5 billion in June 2019, barely accounted for 1.7% of total NBFI. In mid-2019, the entities that belong to EF4, which are those that facilitate credit creation but do not grant it (for example, mutual guarantee companies and crowdfunding platforms) had assets of just over €1 billion, 0.2% of NBFI.

11 See FSB (2013) (*op. cit.*).

12 For more detail, see Ispierto (2019) (*op. cit.*).

Among these less relevant entities, it is worth noting the sharp increase in the assets of broker-dealers, which was 86.4% in the first six months of 2019 and which can be largely associated with the transfer of much of one entity's activity as a result of Brexit.

Classification of NBFI according to economic functions TABLE 4

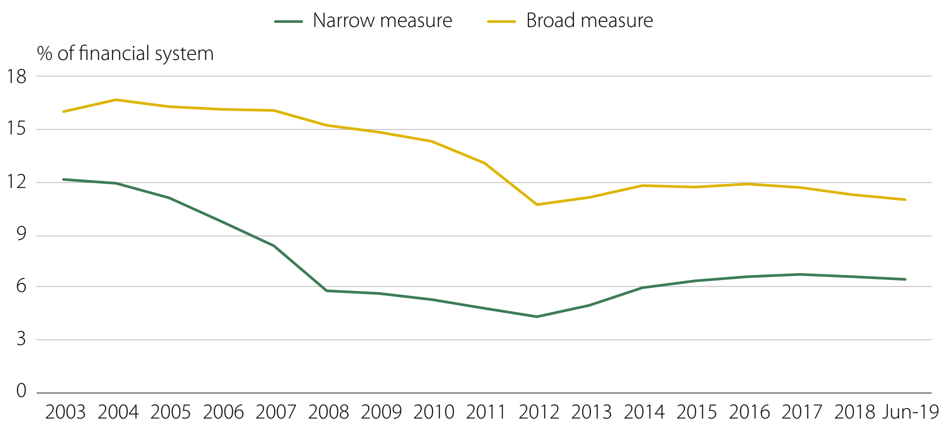
Economic functions	Definition	Member entities	Size in million euros (% of total NBFI), % change 1H19
EF1	Management of collective investment schemes with features that make them susceptible to runs	Money market funds, fixed income funds, mixed funds[1], hedge funds and SICAVs	264,914 (52.3%) 2.3%
EF2	Loan provision that is dependent on short-term funding	Financial credit institutions	57,197 (11.3%) -5.5%
EF3	Intermediation of market activities that is dependent on short-term funding or on secured funding	Broker-dealers	8,504 (1.7%) 86.4%
EF4	Entities that perform the facilitation of credit creation	Mutual guarantee companies	1,079 (0.2%) 4.9%
EF5	Securitisation-based credit intermediation for financing financial institutions	Special Purpose Vehicles (SFV) where the object is the securitisation of assets	175,279 (34.6%) -5.0%

Source: CNMV and Bank of Spain.

1 According to the criteria established by the FSB, only mixed funds with a percentage of equity below 80% of the total portfolio are included in the EF1 category. In Spain, according to current legislation, the exposure of mixed funds to equity cannot exceed 75% of the portfolio, so all of them are considered as NBFI.

The total amount of the assets of entities that belong to NBFI stood at €507 billion in June 2019, which represents a slight increase (0.6%) compared to year-end 2018. This broad NBFI measure has been largely stable since 2013, with values oscillating at close to €500 billion (after reaching a high of over €735 billion in 2008). The variation in the assets of NBFI was less than that of the financial system as a whole. In relative terms, they went from representing 11.3% of the system at the end of 2018 to 11% in June 2019. This percentage is relatively stable and has been below 12% since 2012 (see Figure 3).

Relative weight of NBFI FIGURE 3

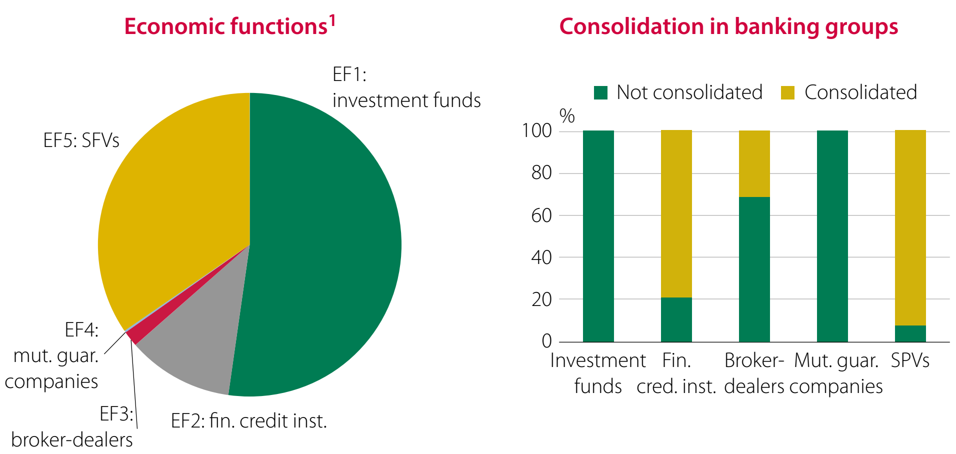


Source: CNMV and Bank of Spain.

Lastly, to obtain a figure that is as accurate as possible from the section of the financial system that carries out financial intermediation activities, but does not belong to the banking sector, the entities that are consolidated in banking groups are excluded, even though they belong to one of the described economic functions.[13] Once the fraction that is consolidated in banks has been eliminated, the NBFI figure (in the strict sense) stood at €298 billion at the end of 2019, up 0.7% compared to the end of 2018. This figure represents 6.5% of the Spanish financial system (6.6% in 2018).

Bank consolidation mainly affects securitisations and financial credit institutions (see right-hand panel of Figure 4). Approximately 90% of securitisation assets were consolidated in credit institutions in June 2019, reducing the weight of these institutions from 35% to 5% of total NBFI. Consolidation of financial credit institutions is also high[14] with the relevance of these institutions decreasing to 4% of NBFI (11.3% excluding consolidation). As a consequence of these adjustments, the relevance of EF1 institutions (mainly investment funds) stands at 89% of NBFI in the strict sense (85.5% in 2018).

Distribution of non-bank financial intermediation. June 2019 FIGURE 4



Source: CNMV and Bank of Spain.

1 According to NBFI broad measure.

Risk assessment of non-bank financial intermediation

The ultimate objective of the definition and delimitation of entities that make up NBFI is the identification and monitoring of the potential risks that these may pose to financial stability. This section provides an update on some of the risk indicators presented in previous reports and presents some new metrics in order to progressively improve this analysis. A specific analysis is carried out of credit risk, maturity

13 The bank consolidation occurs for two main reasons: either the entity in question is controlled by a bank or the assets belonging to the entity are on the bank's balance sheet (and therefore subject to banking regulations). The latter case would relate to securitisation vehicles, whose assets must remain on the bank's balance sheet if the associated risks and returns have not been substantially transferred to third parties.

14 The consolidation figure for the first half of 2019 is not available. The 2018 consolidation figure (80%) has been used as an approximation, a value that has remained very stable in recent years.

transformation, liquidity risk and leverage in the area of investment funds,[15] financial credit institutions, broker-dealers and SFVs.[16]

3.1 Economic function 1

As seen in Table 4, economic function 1 (EF1) is defined as the management of collective investment schemes with features that make them susceptible to runs. Taking these considerations into account, due to the differing categories of the existing investment vehicles in Spain it is considered that these belong to this economic function and, consequently, money market funds, fixed income funds, mixed funds,[17] hedge funds[18] and SICAVs form part of NBFI.[19]

As described previously, investment funds belonging to EF1 represented 90% of the total of NBFI in Spain in mid-2019. This percentage has been increasing over the last few years (in 2010 it was 60%) due to the growth experienced in this sector, a trend interrupted only in 2018 as a result of a period of turbulence in the international financial markets.

The volume of assets of EF1 institutions stood at €265 billion in June 2019, 4.7% more than at the end of 2018. As shown in the left-hand panel of Figure 5, mixed funds represented almost 60% of the total CIS included in NBFI (their weight has doubled in the last 10 years) and fixed income funds represented close to 30% (compared to more than 50% in 2011-2012). SICAV assets represented 11% of the total, a percentage similar to that of 2018, although slightly lower than in previous years. Lastly, money market funds and hedge funds remained the smallest institutions, representing just 2.1% and 1.1% respectively of total NBFI assets in mid-June 2019.[20]

15 The risks associated with money market funds, fixed income funds and mixed funds are analysed separately.

16 Mutual guarantee companies are not included in the analysis, since their weight in the sector is less than 0.5%.

17 See footnote 1 to Table 4.

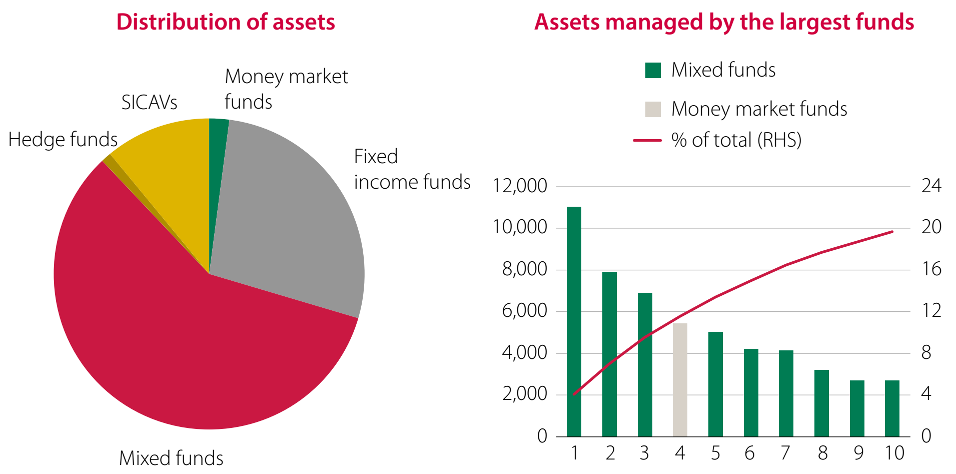
18 These institutions may be subject to runs in their liquidity windows, if they have any. The four types of hedge funds that exist in Spain are included under this name: Hedge funds (funds and companies) and funds of hedge funds (funds and companies).

19 Vehicles known as direct lending funds, which in Spain would correspond to closed-ended collective investment schemes (although not all of them, only those with credit assets with a value of more than 20% of their portfolio), would form part of this economic function if their leverage is high. In Spain, the total equity of these entities (not only those that grant credit) in June 2019 was reduced (€313 million), although no information is currently available to quantify their degree of leverage.

20 During the first quarter of 2019, a new CNMV circular entered into force amending Circular 1/2009 of 4 February, on the categories of collective investment schemes based on their investment criteria, partially amended by Circular 3/2011 of 9 June. This new circular was required to comply with Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June, on money market funds, which establishes common standards in the European Union in relation to the maturity, composition and liquidity of the portfolio of money market funds to avoid disparities in levels of investor protection. In the case of Spain, because of the new legislation, managers of money market investment funds had to establish whether they would remain as such or, given that the new conditions are more restrictive, they would align their criteria with the newly created short-term fixed income category. At the end of the second quarter of 2019, two funds remained as money market funds, while the rest had changed their criteria.

The investment fund sector in Spain shows a high degree of bank penetration, as well as concentration among management companies and institutions.[21] As shown in the right-hand panel of Figure 5, around 20% of the total sector assets in mid-2019 was concentrated in the ten largest investment funds. In fact, the top five had net assets of over €5 billion (4 were mixed funds[22] and 1 was a money market fund).

Distribution of investment funds belonging to NBFI FIGURE 5



Source: CNMV.

As shown in the figures below, the risks associated with Spanish investment funds are not overly high, with the exception of credit risk, considering that due to the nature of these funds, they have a large percentage of credit assets[23] in their portfolios. As seen in the left-hand panel of Figure 6, money market funds continued to hold the highest percentage of credit assets, close to 100%, followed by fixed income funds, with 96% of credit assets in their portfolio. In both types of funds, these percentages have been very stable in recent years. Whereas in mixed funds, this percentage was much lower (below 50%) and, in addition, has decreased in recent years (in 2011-2012 it was around 75%), probably due to the higher proportion of shares and investments in other CISs in the funds' portfolio.

In relation to the maturity transformation risk, i.e., the entity's capacity to meet its short-term obligations, in the case of investment funds, the ratio between long-term assets and assets managed by the fund has been used, rather than the relationship between the short-term liabilities and assets, as in other entities. The reason for this difference is that in investment funds unitholders can redeem their equity stakes with a high frequency, therefore, the short-term liability would not represent all the possible obligations of the fund.

Using the aforementioned ratio, only fixed income funds have a moderate level of risk (see the right-hand panel of Figure 6), with a proportion of long-term assets of

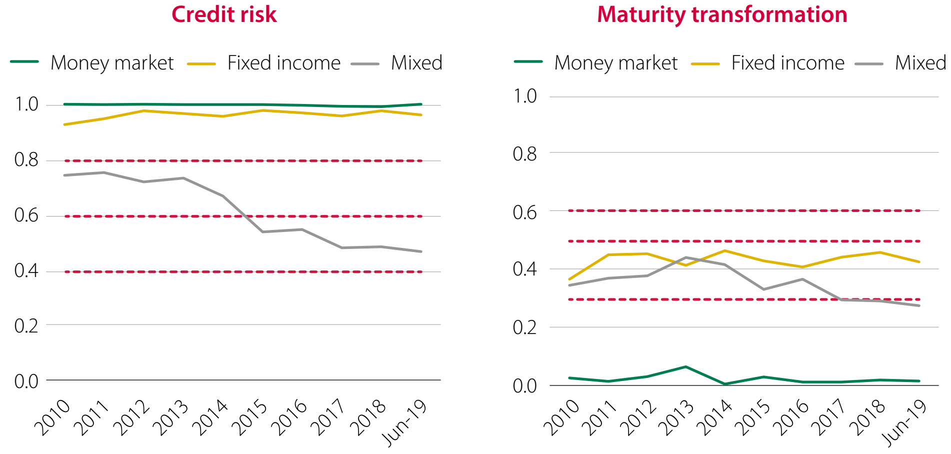
21 By way of example, the three largest CIS management companies, all of which belong to banking groups, represented more than 40% of assets under management (including investment funds that are not part of NBFI).

22 Of these four funds, two of them were global funds. This category is included within mixed funds, according to FSB methodology.

23 Credit assets include credit and fixed income assets.

42%, below the previous year's percentage. The risk is low in the other categories: in the case of mixed funds, the proportion of long-term assets was below 30% and in money market funds, with significant restrictions on long-term investment,[24] the risk of maturity transformation was practically nil.

Trends in credit risk and maturity transformation in investment funds FIGURE 6



Source: CNMV.

The analysis of liquidity risk is highly complex, to the extent that there is no single and unequivocal definition of liquid assets. In general, the liquidity of an asset is related to the possibility of it being bought or sold in a short period of time without incurring significant losses. Therefore, this depends on the nature of the asset and the situation of the financial markets, as well as the present uncertainty. The assets that are usually considered more liquid due to their nature are cash and deposits, followed by repos and generally, public debt instruments. This is followed by equities and, finally, private fixed income assets. However, all of these may see a drop in liquidity during times of stress. Taking these considerations into account, the liquidity risk analysis for investment funds is based on different metrics, all of them complementary, which seek to illustrate different liquidity dimensions of the funds' portfolio. The changes in the indicators that only take into account the nature of the asset are described, along with others that also include the credit rating of the assets and, lastly, the liquidity conditions of the private fixed income assets are described (*a priori* the most illiquid) based on the information available on the trading of these assets or their maturity. All of these metrics suggest that the liquidity of investment fund portfolios is generally satisfactory.

The first metric evaluates the proportion of assets with less liquidity, defining deposits, public debt, secured issuances, repos and 50% of the value of the equity portfolio as liquid assets. This proportion increased between 2013 and 2017 in all categories, although since 2017 it has remained stable for fixed income and mixed funds with values between 50% and 60%[25] (see left-hand panel of Figure 7). The

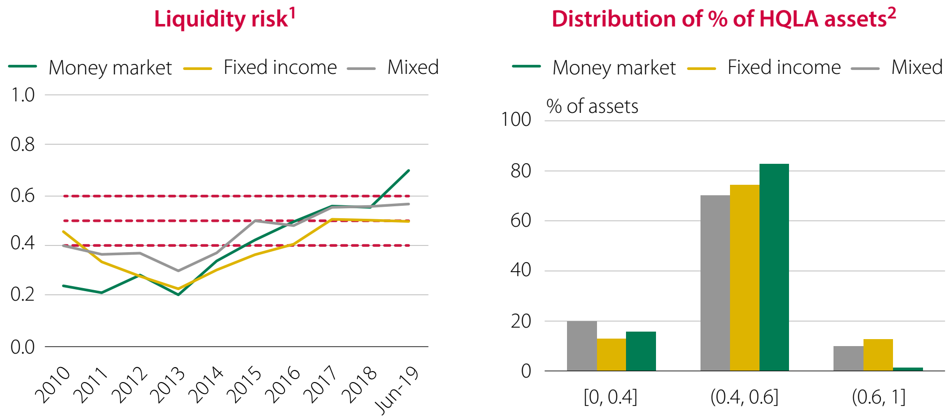
24 In money market funds, the average duration of the portfolio must be less than or equal to 60 days and the average maturity cannot exceed 120 days.

25 The liquidity risk thresholds of investment funds are lower than those of other entities as a result of their particular characteristics. Specifically, the possibility of runs by unitholders creates an additional need for liquidity, which in this case was considered at 20%.

increase in the proportion of less liquid assets in the previous years may have derived both from the increase in investment in corporate debt assets and in other funds of hedge funds. Since the latter can invest in liquid assets, the proportions presented in the figure should be interpreted as a maximum reference for less liquid assets. In the case of money market funds, there was a further increase in the proportion of less liquid assets, but given the low equity of these funds, this is a change of little relevance to the risk analysis.

The second metric incorporates the credit ratings of the different types of assets, so that based on this rating and the type of asset, an assumption is made about the proportion of the portfolio that can be considered to be made up of high quality liquid assets (HQLA). The distribution of this proportion of assets for 2018 is shown in the right-hand panel of Figure 7.[26] This panel shows that at the end of 2018 the bulk of fund assets (between 70% and 83%, depending on the category) showed a relatively high proportion of HQLA, between 40% and 60%. A smaller fraction of fund assets (less than 20% in all categories) showed a smaller proportion of HQLA (below 40%). Lastly, around 10% of said equity had a very high proportion of high-quality liquid assets (more than 60%).

Trends in liquidity risk in investment funds FIGURE 7



Source: CNMV.

1 Measured as the proportion of less liquid assets out of the total assets, defining deposits, public debt, guaranteed issuances, repos and 50% of the value of the equity portfolio as liquid assets.

2 High quality liquid assets (HQLA) are considered to be cash and deposits as a whole, 50% of the value of equity and variable percentages of public debt, private fixed income and securitisations depending on their credit rating. The percentage of public debt that would be considered liquid ranges between 0 and 100%, that of private fixed income is between 0 and 85% and that of securitisations is between 0 and 65%. 2018 data.

In a detailed analysis of the assets that make up the private fixed income portfolio, which in the first of the metrics presented have been considered as illiquid as a whole, their maturity is taken into account (they are considered liquid if their duration is less than 1 year) and the availability of a representative number of intermediaries willing to buy and sell with a normal market spread. This analysis reveals that in 2009 the illiquid assets of investment funds accounted for 30% of the fixed

26 The number of funds included in this analysis is less than the total of funds belonging to EF1, since the funds whose investment in other CISs was over 60% have been excluded, due to the impossibility of evaluating the liquidity of this fraction of their portfolios.

income portfolio, whereas in mid-2019 this proportion was close to 8%, less than the 8.7% registered at the end of 2018.

The liquidity risk of the funds is particularly relevant due to the fact that most institutions allow daily redemptions. Therefore, it is possible that during an episode of high uncertainty, there will be a substantial increase in requests for redemptions by the unitholders. It is of utmost importance that the portfolio assets are valued properly, that the volume of liquid assets is sufficient, and that the liquidity management tools are used appropriately. The COVID-19 crisis has generated a situation of this type, which has been tackled without notable incidents (see Exhibit 1 for more information).

Lastly, in relation to the leverage of CISs, Spanish legislation establishes that transferable CISs (with the exception of hedge funds) can only be temporarily indebted and for a specific reason[27] and the debt can never exceed 10% of their assets. In Spain, no category exceeded 2% in 2019[28] nor had it since 2009.[29] Additionally, at an individual level, no fund exceeded 10% at the close of 2019.

However, these institutions can be leveraged through the use of derivatives, a type of analysis that is under development and in which the indicators recently proposed by the International Organization of Securities Commissions (IOSCO) will be used to monitor the leverage of these institutions on an international scale.[30] The information available on the use of derivatives by Spanish CISs does not suggest the existence of relevant vulnerabilities in any of the possible risks that this operation may generate (counterparty, market or contagion). It is estimated that in mid-2019 exposure to market risk, calculated for CISs that belong to NBFI and subject to the UCITS regulations that perform their calculations using commitment methodology[31] (99% of the total), represented 26.6% of assets, a percentage that is well below the maximum allowed under current legislation (100% of assets).[32, 33] In individual terms, the exposure to market risk was less than 40% in more than 90% of the fixed income funds and 60% of the mixed funds (in terms of assets), while only 1.6% and 6% respectively experienced relatively high levels of exposure to this risk, between 80% and 100% of assets (see Figure 8).

27 Royal Decree 1082/2012 of 13 July approving the implementing regulations of Law 35/2003 of 4 November on Collective Investment Schemes.

28 The information on leverage is prepared annually.

29 The ratio between the liabilities of these vehicles and their assets has been estimated in the calculation of the level of leverage of the investment funds.

30 IOSCO (2019). *Final Report on Recommendations for a Framework Assessing Leverage in Investment Funds*.

31 The European commitment method, the technical specificities of which are set out in the ESMA *Guidelines on Risk measurement and the calculation of global exposure and counterparty risk for UCITS* (CESR/10-788), allows exposure to be calculated based on the conversion of all derivative contracts in the equivalent investment in its underlying asset. The methodology is based on considering the market value of the underlying asset (or its notional value if it is more conservative) adjusting it for the delta in the case of options and incorporating rules to offset long positions with short positions of the same underlying asset (netting) as well as between different underlyings (hedging).

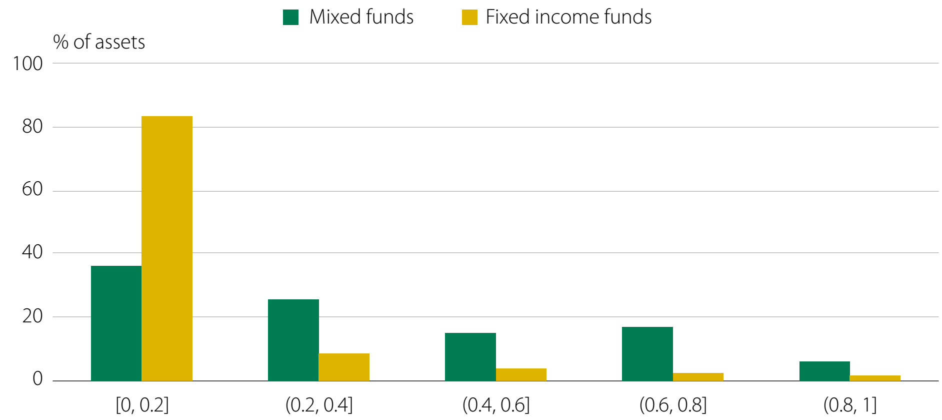
32 The remaining 1% of assets corresponds to investment funds where the exposure to market risk is calculated according to VaR methodology.

33 It also imposes additional requirements on transactions with derivatives not traded on organised markets: such as limiting the risk assumed with a single counterparty to 10% of its assets.

In the case of funds known as quasi-UCITS,[34] the exposure level was below 70%. Lastly, regarding hedge funds (included in the category of alternative CISs, which have more flexible regulations), the empirical evidence also supports that the level of leverage is, in general, moderate and only some isolated funds make a more intensive use of it.

Counterparty risk, in other words, the risk of that the financial difficulties experienced by an entity may be transmitted to its counterparties or lenders and which is amplified with a high use of leverage, has not materialised in Spanish investment funds. Subsequently, exposure to this risk, which in the case of these vehicles originates from derivatives transactions in OTC markets through transactions pending settlement, is at very low levels and a long way from the levels that could be considered potentially systemic. By way of example, at the end of 2018, the debit balances of CISs subject to the UCITS regulations for transactions involving OTC derivatives represented 0.27% of total equity. Conversely, the counterparties of OTC transactions carried out by investment funds were exposed to counterparty risk equivalent to 0.13% of the total assets of said funds. In the case of hedge funds, these figures were 1.09% and 0.82%, respectively.

Indirect leverage measure of investment funds[1] (distribution of funds based on their exposure to market risk through the use of derivatives). June 2019 FIGURE 8



Source: CNMV.

1 UCITS investment funds that use the commitment method and which belong to NBFI (except for money market funds).

34 These are funds subject to UCITS regulations which can benefit from greater flexibility in certain aspects of their derivative transactions, and may exceed the 100% threshold for exposure to market risk.

The use of risk management tools in the area of collective investment during the COVID-19 crisis

EXHIBIT 1

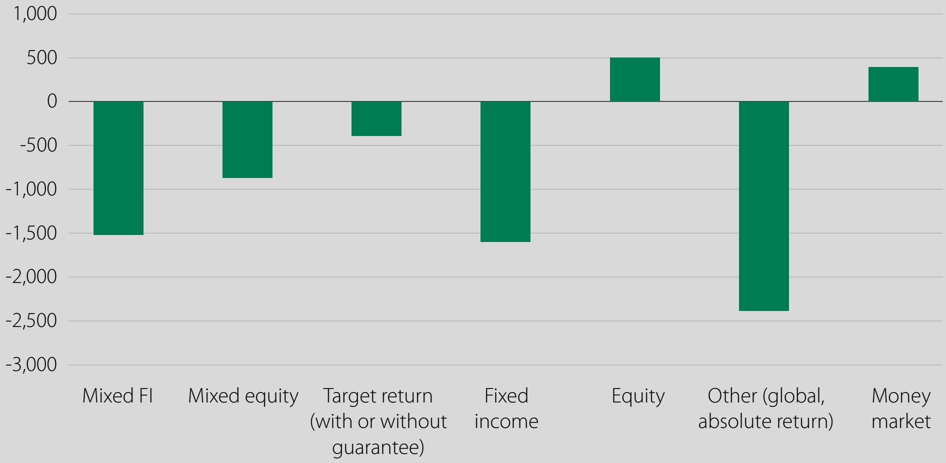
Although this report aims to detail the performance of the main figures of NBFI in Spain for the first half of 2019, the relevance of the COVID-19 crisis makes it appropriate to refer to the performance of investment funds during this period (as these entities make up the bulk of NBFI), as well as the use of the macroprudential tools available. The onset of the crisis in mid-March 2020 caused the CNMV to redouble its efforts in the area of supervising entities and, in particular, investment funds. The main tasks were related to the liquidity conditions of the assets on the funds' portfolios and the redemptions by entity, while remaining in constant contact with management companies to monitor the situation and remind them of both their obligations and the liquidity management tools available. In this regard, the CNMV has issued indications on the advisability in certain cases of valuing assets at the bid price or applying swing pricing schemes.

The liquidity conditions of the funds have been assessed based on various indicators such as trading volumes, time taken to unwind a position and the availability of prices to be able to trade. Attention has also been paid to the credit ratings of the debt assets held by these institutions and in particular to assets with a BBB rating, as this is the lowest rating that still qualifies as investment grade and could be affected if issuers' creditworthiness is perceived as deteriorating. Based on these analyses, the CNMV carried out a special monitoring exercise on a number of management companies that manage one or more funds that are particularly exposed to assets considered to be relatively illiquid or to debt with a relatively poor credit rating.

In relation to the monitoring of redemptions, it is estimated that their accumulated net volume from the beginning of March to the end of May 2020 was slightly above €6 billion (just over 2% of the assets of investment funds), a figure that fund managers handled without incident. In a small number of funds, redemptions exceeded 20% of assets, a percentage that should be reported in a price-sensitive information (for this purpose, the percentage is applied to redemptions made in a single act; however, when limits are reached through successive redemptions requested by the same unitholder or by several unitholders belonging to the same group in a period of two months, this is also considered a price-sensitive information). The only notable incident that has occurred up to the time of writing this report (July 2020) involved a fund of funds that had units of a Luxembourg open-ended collective investment scheme on its portfolio that had suspended the calculation of net asset value. Consequently, the fund carries out subscriptions and partial redemptions as normal without taking into account this investment, which accounted for 7.1% of its portfolio.

In the European Union, investment funds also saw an increase in redemptions in March, which was somewhat greater than in Spain, with fixed income funds being the most affected and a volume of redemptions accounting for 3% of their assets. The liquidity management tools of these institutions were also very important due to problems in valuing some assets. As a consequence of these valuation difficulties within the context of larger redemption requests, which particularly affected corporate debt assets, OTC derivatives and real estate assets, about 200 institutions (of which approximately 90% were real estate funds) had to suspend redemptions (in Spain there were no suspensions). Other available tools, such as swing pricing schemes, were also launched, although it should be noted that the tools available in the different jurisdictions of the European Union are diverse.

Net subscriptions/redemptions in investment funds in March-May 2020 FIGURE E.1



Source: CNMV.

Lastly, the implementation in Spain of a new macroprudential tool in the context of the crisis to enable notice periods to be established for redemptions without these being subject to the term, minimum amount and prior evidence requirements in management regulations, which are ordinarily applicable, also stands out. These deadlines can be established by the manager or by the CNMV itself.[1] This tool comes in addition to another approved a little over a year ago, which gives the CNMV the power to require a single entity, or a group, to increase its percentage of investment in particularly liquid assets, a requirement that would be temporary and due to reasons of financial stability.[2]

1 Royal Decree-Law 11/2020 of 31 March, adopting urgent complementary measures in the social and economic sphere to deal with COVID-19.

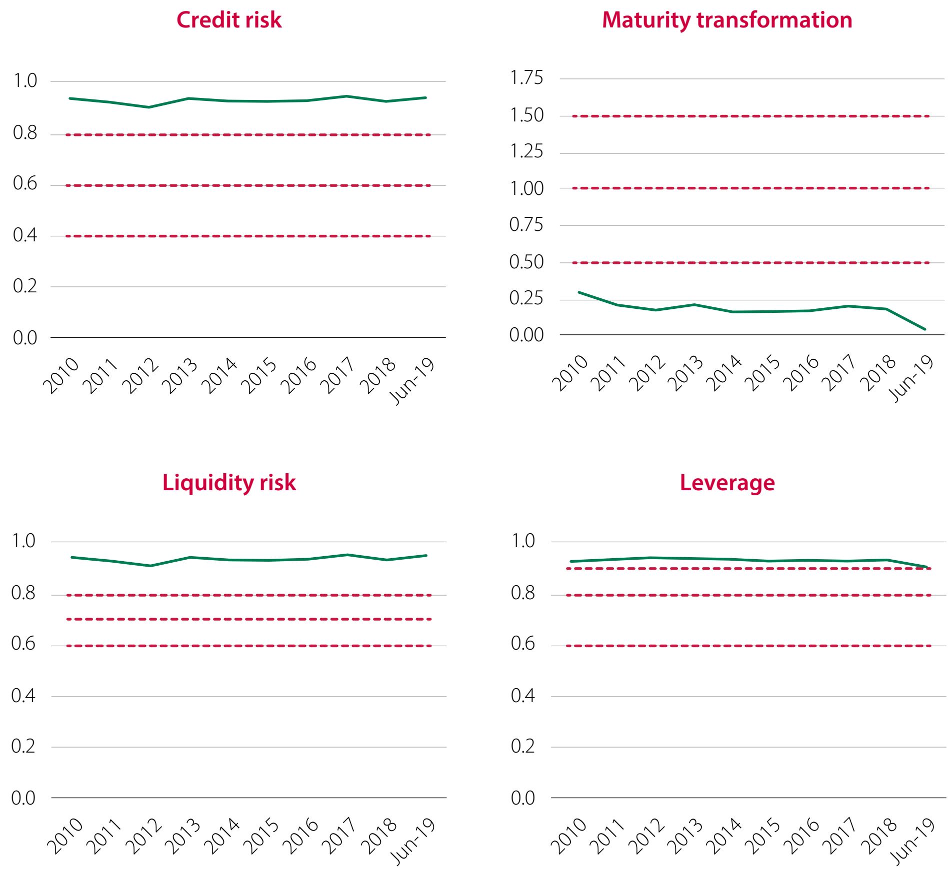
2 Royal Decree-Law 22/2018, of 14 December, establishing macroprudential tools. This legislation also contemplates, in a more generalised manner, the National Securities Market Commission being able to impose limits and conditions on the activities of its supervised institutions in order to prevent excessive private sector indebtedness which might affect financial stability.

3.2 Economic function 2

Economic function 2, defined as the granting of loans dependent on short-term financing, can comprise a wide variety of entities and, depending on the jurisdiction, with very different legal frameworks. In the case of Spain, this includes financial credit institutions. The financial assets of these institutions stood at €57.2 billion in mid-2019, 6% less than at the end of 2018 and 11.3% of NBFI (in the broad sense). If the amount consolidated in banking groups, which is around 80%,[35] is discounted, the financial assets of these entities would fall to €11.6 billion, representing 4.2% of NBFI in its strict sense. Therefore, the risk analysis of these entities is relevant but, given their low weight in NBFI, their impact in terms of financial stability would not, in principle, be significant.

35 The consolidation data for the first half of 2019 is not available, so the latest available data (2018) are provided.

Trends in the risks of financial credit institutions FIGURE 9



Source: CNMV.

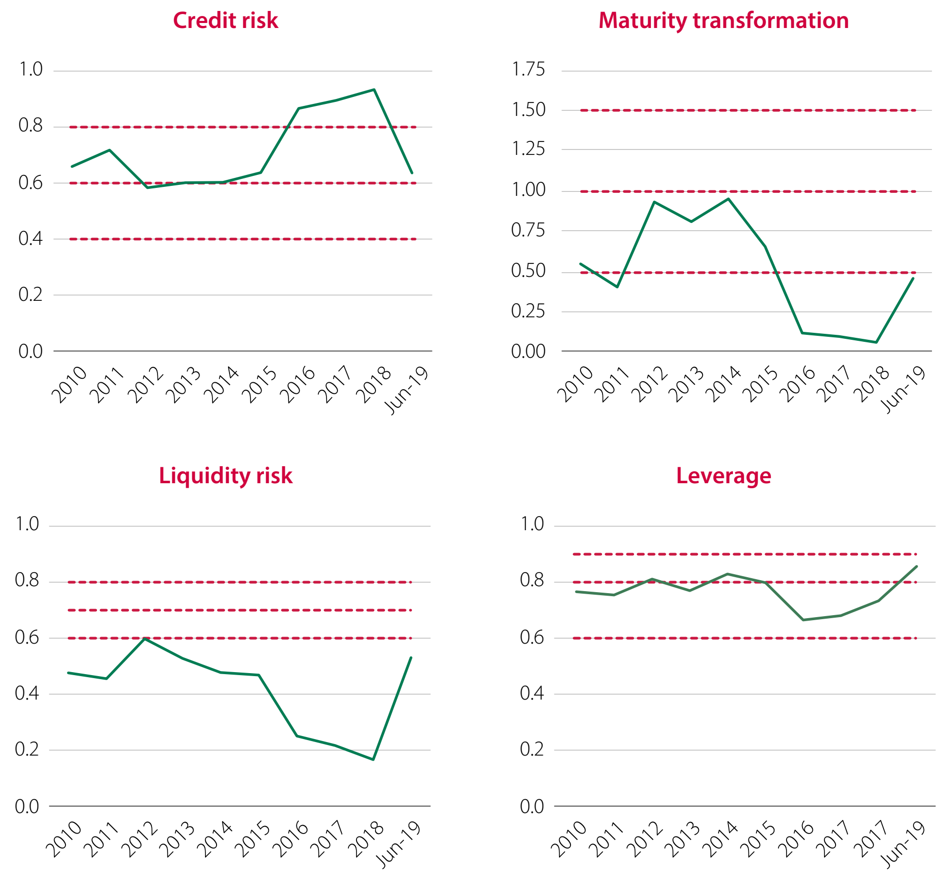
As shown in Figure 9, financial credit institutions show higher credit and liquidity risk ratios, related in part to the nature of their business. These entities are mainly dedicated to granting credit, so the proportion of credit assets on their balance sheets has not dropped from its average of 90% for several years. As a consequence of this business model, the proportion of less liquid assets is very high (see lower left-hand panel of Figure 9). However, these are entities with low levels of own funds, so the leverage indicator is high. The maturity transformation indicator shows a more significant variation with respect to the previous data. This indicator improved significantly during the first half of 2019 due to the decrease in the volume of short-term liabilities. On average, entities could easily cover these short-term liabilities with the volume of short-term assets available.

3.3 Economic function 3

EF3 is defined as the intermediation in market activities dependent on short-term financing or secured financing. In Spain, broker-dealers belong to this category. The size of this sector is small compared to that of other jurisdictions, since in Spain investment services are provided mostly by credit institutions. However, in the first half of 2019 there was an increase in the assets of these entities as a consequence of the sharp increase in activity in Spain of a broker-dealer belonging to a foreign credit institution in the context of Brexit. In particular, the size of this sector practically doubled, from €4.56 billion to €8.5 billion. However, its importance for NBFI remained small, despite the increase (from 0.9% of the total to 1.7%).

The incorporation of the aforementioned entity had a significant impact on the risk indicators calculated for the sector in the first half of 2019. As seen in Figure 10, the credit risk indicator decreased considerably, while the others increased. A notable increase was observed in liquidity risk and maturity transformation, although indicators did not exceed the threshold that separates low risk from moderate risk. However, the leverage indicator went from moderate risk to medium risk.

Risk trends for broker-dealers FIGURE 10



Source: CNMV.

3.4 Economic function 4

This category includes the entities that carry out a facilitation activity for credit creation. In Spain, this class includes the mutual guarantee companies. These companies, which were created in 1978, are defined as financial entities whose main purpose is to facilitate access to credit for SMEs and improve, in general terms, their financing conditions through the provision of guarantees to banks, public authorities or to customers and suppliers. Crowdfunding platforms, which could become part of NBFI in the future since they are vehicles that facilitate contact between the investor and the entity that needs financing, are currently considered as innovations. Therefore, they are monitored but are not included in NBFI.[36]

36 The most recent estimated information for these platforms represents an insignificant amount (in 2019 they raised financing in the region of €139 million). In addition, it should be noted that not all crowdfunding platforms would be part of NBFI, as only crowdlending platforms would. Of the 28 crowdfunding platforms registered at the end of 2019, only 9 were crowdlending platforms.

In Spain, mutual guarantee companies represent a very small fraction of NBFI, since their financial assets (€1.08 billion) accounted for just 0.2% of the total in June 2019, a percentage that has remained fairly stable in recent years. The low weight of these entities suggests that the risks implied in their activity in regard to financial stability are, for the moment, of little relevance. For this reason, the risk analysis presented for the rest of the entities belonging to NBFI has not been carried out.

3.5 Economic function 5

EF5 is defined as securitisation-based credit intermediation for financing financial institutions. Special purpose vehicles (SFV) belong to this category, whose purpose is the securitisation of assets. These vehicles provide resources to banks or other financial institutions, therefore, due to their forming an integral part of the credit intermediation chains, the risks associated with NBFI must be taken into account, especially when considering maturity transformation. However, as mentioned in previous reports, securitisation issuances in Spain are structured, in general terms, so that payments are made with the asset pools that are being redeemed, so this problem is not as relevant as in other jurisdictions.

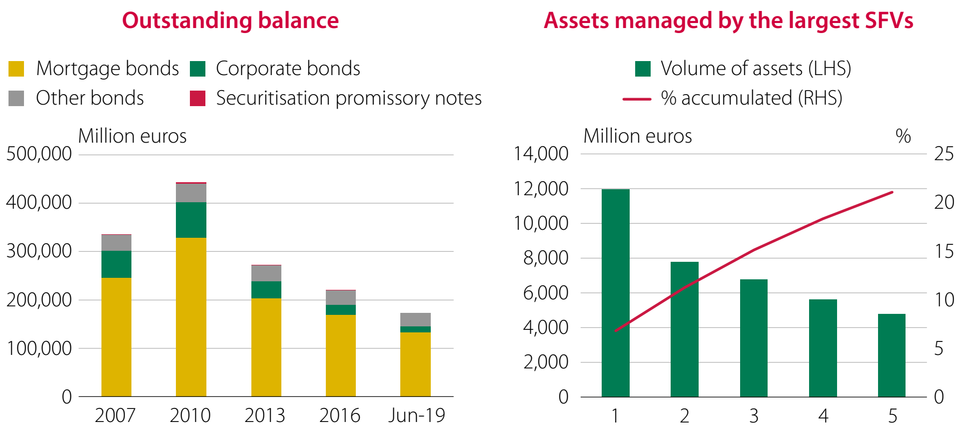
As previously mentioned, in Spain, securitisation is the second most important sector within NBFI, with 34.6% of the total (broad measure) and total financial assets of €175 billion at the end of June 2019. In the same way as for financial credit institutions (FCIs) a very high percentage of securitisation vehicles are consolidated in banking groups,[37] therefore, although they have a large weight within NBFI in the broad sense, once the assets included in the balance sheets of banking entities are deducted, the figure falls to 5%.

As shown in the left-hand panel of Figure 11, the outstanding balance of securitisation bonds and promissory notes has been decreasing progressively for several years (in 2010 it reached €489 billion), given that the volume of issuances of these assets in recent years has been much lower than the maturities, especially for funds created in the most dynamic years of the sector.[38] In the first 6 months of last year alone, the outstanding balance of securitised assets contracted by 6.9%. In relation to the structure of the sector, which totalled 254 funds at the end of the second quarter of 2019 (12 less than 6 months earlier), a high degree of concentration is observed in regard to the balance sheets of entities: the 5 vehicles with a greater volume of financial assets accounted for around 21% of the total (see righ-thand panel of Figure 11), while 28 vehicles account for 50% of the size of the sector as a whole.

37 The reason why this happens in Spain is that the transferor in most situations retains control, according to Bank of Spain Circular 4/2017 and IFRS 10: Consolidated Financial Statements, due to, among other reasons, continued exposure to the variable returns of the funds and the securitised assets, either through credit enhancements, or through swaps in which they collect the returns of the securitised portfolio and pay the bond coupons. In these cases, according to the existing accounting standards, the vehicle must remain on the balance sheet of the issuing banks and therefore falls within the scope of traditional banking regulations.

38 By way of example, the half-life of the mortgage bonds (representing around 75% of the total for the sector) that were registered in 2012 stood at 8.4 years, so many of the maturities are currently taking place.

Trends of securitisation bonds and promissory notes by asset type FIGURE 11

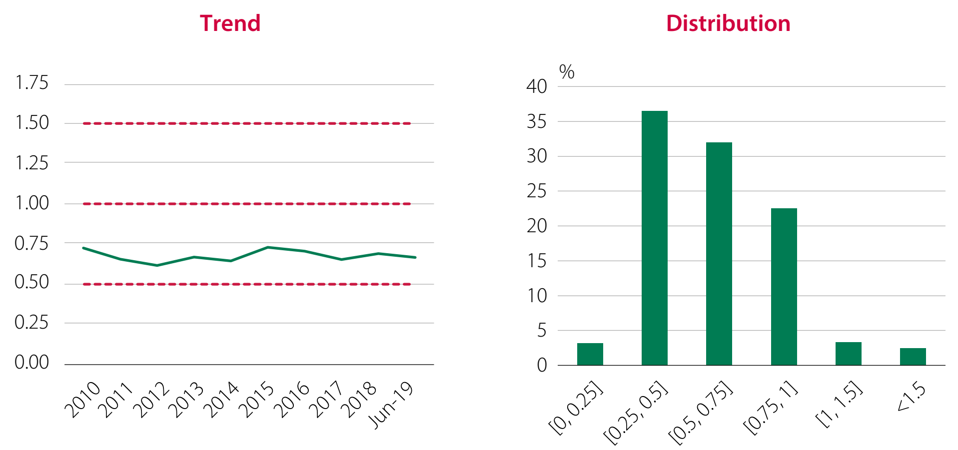


Source: CNMV.

In the evaluation of the risks of these entities, as already mentioned, the risk of maturity transformation is the most relevant, standing at moderate for Spanish SFVs at the end of the second quarter of 2019. Credit, liquidity and leverage risks were high on the same date, although some of the values obtained must be qualified. Credit risk was practically 100%, as all the assets of the SFVs are credits transferred by the originating or assigning entity, which also results in the leverage taking a value of 1, since securitisations do not have their own funds. Liquidity risk stood at 93%, a figure that has not changed excessively in recent years.

The value of the risk indicator associated with maturity transformation stood at 67%, with a moderate asymmetry in the maturities of liabilities in relation to assets (see left-hand panel of Figure 12); this percentage has remained relatively stable in recent years. In most of the vehicles, specifically 94.2% in asset terms, the value of the short-term assets on their balance sheets was sufficient to cover the maturities (liabilities) falling due in the following 12 months, i.e., the ratio was below 100% (see right-hand panel of Figure 12).

Maturity transformation risk in securitisation funds FIGURE 12



Source: CNMV.