

Non-bank financial intermediation

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Abstract

Non-bank financial intermediation (NBFi) encompasses the activity of a group of heterogeneous institutions which, under certain circumstances, engage in a business with aspects similar to those of a regular bank business. In recent years this sector has grown both in Spain and abroad in a setting characterised by the contraction of bank credit and prolonged low interest rates which encouraged the development of new investment and funding possibilities falling outside of the banking channel. Concerns about the suitability of the regulation of this sector gave it an unfavourable connotation that was even reflected in the name originally given to it (“shadow banking”) and which has remained in use until recently. In many countries these entities are appropriately regulated and supervised, although their regulation differs from banking regulation and should possibly evolve to adapt to the risks posed by this new financial reality.

In Spain NBFi-related assets [estimated in accordance with the methodology proposed by the Financial Stability Board (FSB)],² amounted to €284 billion in 2018, accounting for 6.3% of the Spanish financial system. This figure has been on a growth trend since 2013, although it declined in 2018 owing to the expansion of investment funds. In comparison with other entities (securitisations, finance companies, broker-dealers, etc.) investment funds are by far the most important institutions in the sector in Spain (89%). The CNMV adequately monitors this sector, also from a financial stability standpoint, and for the moment the risks currently seen are limited, although they warrant constant monitoring (for example, in connection with liquidity and contagion risks). Against this backdrop, the use of tools to mitigate and, if appropriate, reduce NBFi-related risks is crucial both from a microprudential standpoint and in connection with the design of a constantly evolving holistic macroprudential policy.

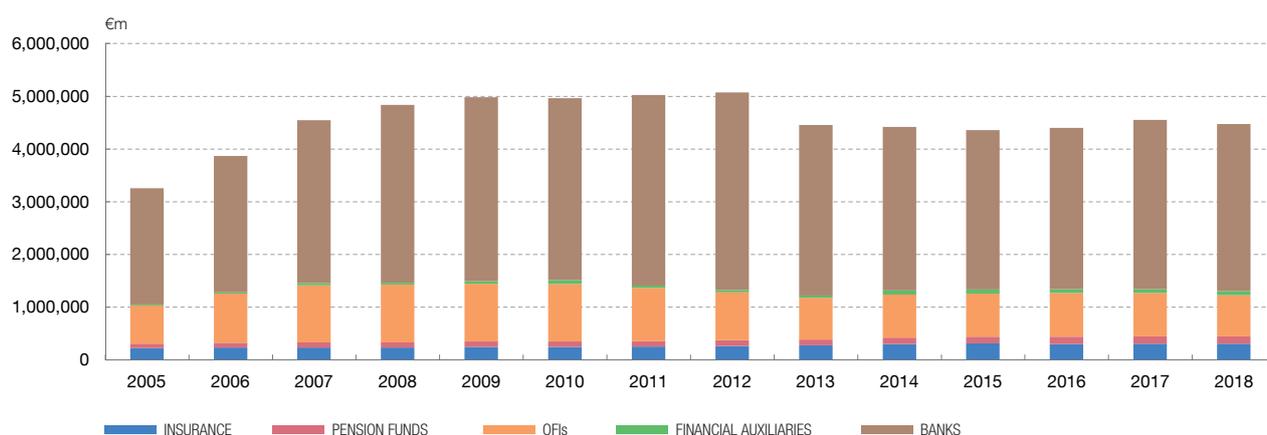
1 Introduction

The Spanish economy has traditionally been characterised by a high degree of banking intermediation in the provision of funds to the private sector. This phenomenon is also present in other benchmark European economies and is

1 This article is based on the information available up to 2018, which is subject to review.

2 See FSB document “Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities” published in 2013.

Chart 1

THE SPANISH FINANCIAL SYSTEM

SOURCES: CNMV and Banco de España.

different from that seen in the United States or in the United Kingdom, where capital markets are more important. In fact, some estimations indicate that in these two economies business financing provided by capital markets accounts for 70% to 80% of total financing received by firms, a proportion which has remained relatively stable over time.³ In Europe, the relative importance of the markets is lower, fluctuating between approximately 50% and 60%, but is on a rising path since the latest financial crisis and the contraction of credit in several European economies.

The composition of Spain's financial system reveals that banks continue to be the most significant institutions by size, with assets of €3.3 trillion in 2018, including the central bank's assets⁴ (see Chart 1), and accounting for 71% of the system's total assets. However, this predominance has decreased in recent years,⁵ owing to different factors. These include, on one hand, the contractionary effects on the outstanding balance of credit deriving from the intense restructuring process undergone by the financial system in 2012, in a recessionary economic setting which fed this decline. On the other, an environment of very low interest rates over an extended period encouraged the development of new investment and financing models different from the banking channel.

3 See the article "The presence of Spanish non-financial companies in capital markets" by Eudald Canadell and María Isabel Cambón published in the CNMV quarterly bulletin for the third quarter of 2018.

4 Including the central bank and public institutions e.g. the Official Credit Institute (ICO, by its Spanish acronym).

5 Between 2012 and 2018 the relative importance of the banking sector (including the central bank and public financial institutions) has declined from 73.9% to 70.9%. However, there has been a slight increase in the past three years, owing to the increase in the central bank's assets, from €449 billion in 2014 to €749 billion in 2018.

Chart 2

FINANCING OF NON-FINANCIAL CORPORATIONS

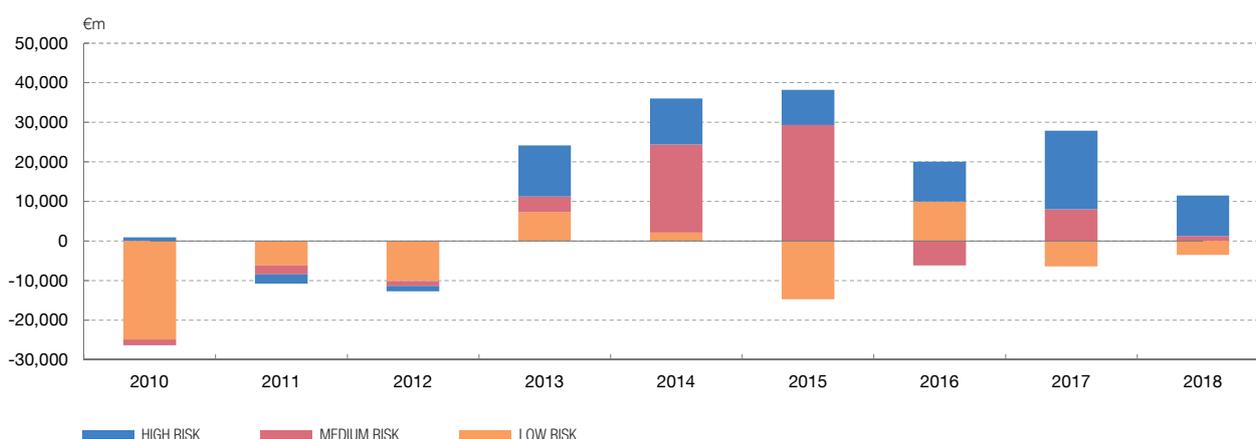
SOURCE: Financial Accounts of the Spanish Economy (Banco de España).

For some time there has been talk of the need in Spain for firms' sources of finance (those provided by the banking sector and those obtained via the financial markets) to be better balanced. These sources of finance should not necessarily be understood as competitors, but rather as complementary. It is reasonable to think that an economy with a more balanced funding structure between the banking sector and the capital markets can record higher growth rates in the medium and long term and also show less extreme fluctuations in its economic cycle.

The stabilising nature of funding provided by the financial markets to firms when other alternative funding sources are not available or they are substantially reduced has been seen in the last few years, particularly during the worst period of bank credit contraction in 2012, 2013 and 2014. As shown in Chart 2, financing of non-financial corporations was strongly affected during the crisis years, both in terms of volume and of composition. Thus, until 2008 financing related mainly to bank loans and, to a lesser extent, intercompany loans (commercial credit). During the crisis years the importance of bank loans in firms' total liabilities declined (from accounting for 43% to below 30%). By contrast, the item "shares and other holdings" (which also includes earnings retained by banks), showed much strength and stability during the crisis years, being almost the only recurring source of corporate finance and rising in relative importance to figures close to 60% of total liabilities.

From a more general viewpoint, financing of firms through the markets is beneficial for several reasons, namely firms' transparency levels rise, their financing possibilities improve, companies note that they have reached a degree of professional management of their business and there are also improvements in terms of prestige and reputation. However, participating in the markets may entail high costs (not only in economic terms). Hence, this form of financing is in many cases only used by

Chart 3

NET SUBSCRIPTIONS OF INVESTMENT FUNDS BASED ON FUND RISK (a)

SOURCE: Financial Accounts of the Spanish Economy (Banco de España).

a Low-risk funds include fixed-income and collateralised funds; medium-risk funds include mixed funds; and high-risk funds include equity funds, absolute return funds, global funds and passive management funds.

larger firms. Smaller firms (of which there are many in Spain) may access other sources of finance aside from the traditional bank loans, including most notably alternative markets, venture capital financing and crowdfunding.

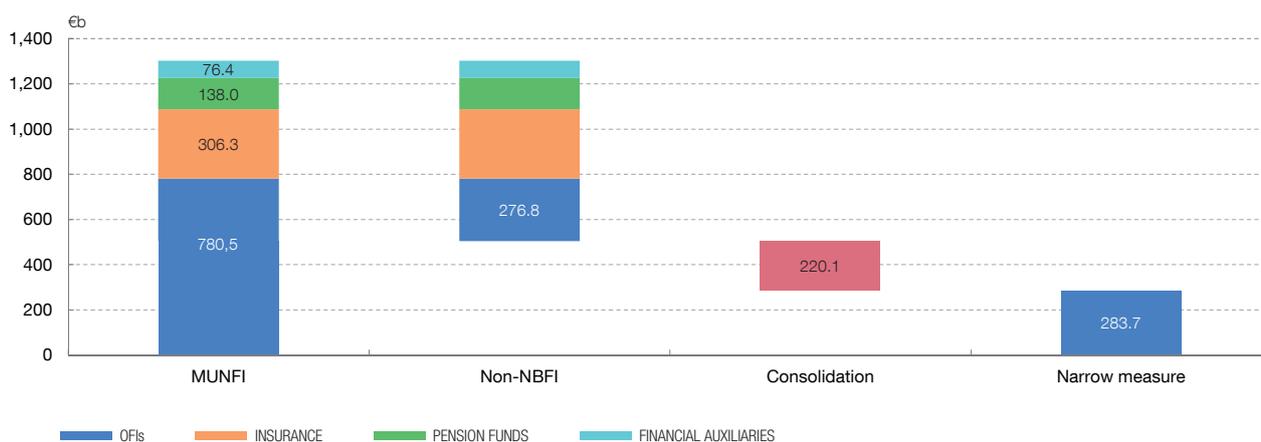
From the standpoint of investment, the rising significance of the non-bank financial sector in recent years has taken place in a setting of very low interest rates that has fostered search-for-yield strategies in a considerable number of investors. These strategies may lead to purchases of riskier and less liquid assets and, consequently, to greater vulnerability for some investors. As an example, Chart 3 shows how the pattern of investment in investment funds in Spain has shifted from more conservative fund categories to riskier ones. The latter changed from recording net redemptions in the period 2010-2012 to annual net subscriptions in excess of €12 billion, on average, from 2013 to 2018.

In parallel to the growth of the non-bank financial sector, some concern arose about the nature of the risks relating to these activities and the suitability of their regulation. Indeed, for several years and until recently, this sector was called “shadow banking” owing to the (often mistaken) perception that these entities carried out activities relatively similar to those carried out by banks and were not regulated. It is true that there are very different types of entities in the non-bank financial sector which, depending on their jurisdiction, may be subject to scantily homogeneous regulations. However, in many countries they are adequately regulated and monitored, although such regulation might be different from banking regulation and should possibly evolve to respond to the challenges of a new financial reality.⁶

⁶ See also the report “Macropprudential policy beyond banking: an ESRB strategy paper”, published in 2016.

Chart 4

FROM MUNFI TO NBFi IN SPAIN



SOURCES: CNMV and Banco de España. 2018 data.

This article tries to describe and determine the main activities and entities related to NBFi in Spain (Section 2) and the most significant risks they can entail in terms of financial stability (Section 3). It also describes the most important tools available to the authorities for the purpose of mitigating such risks against a backdrop of a holistic design of macroprudential policy (Section 4). The conclusions drawn are set out in Section 5.

2 Non-bank financial intermediation⁷

MUNFI⁸ entities are the starting point for specifying NBFi activities. They include all non-bank institutions engaging in financial intermediation (excluding central banks).⁹ The asset volume of these activities in Spain is approximately €1.3 trillion (see Chart 4). Most of these assets relate to other financial institutions (OFIs), followed by insurance companies, pension funds and financial auxiliaries. OFIs include highly diverse entities, as explained later on in this article. Their regulation is not homogeneous among jurisdictions and, in general, it is perceived as being less defined than banking regulation. For this reason, the size of this sector has sometimes been used as a broad and approximate measure of what can be called NBFi.¹⁰

7 Most of the information included under this heading is based on the article “Non-bank financial intermediation in Spain” by Anna Isperto, published in the CNMV’s quarterly bulletin for the first quarter of 2019.

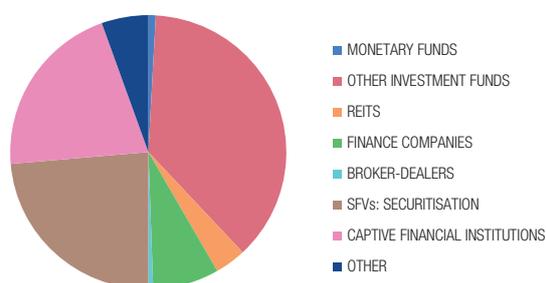
8 Monitoring Universe of Non-bank Financial Intermediation.

9 Including public institutions.

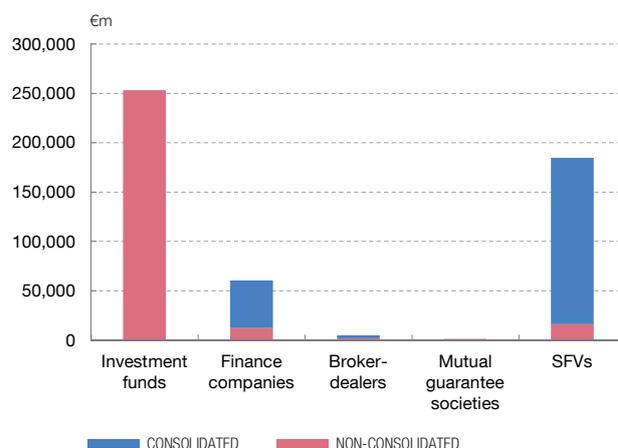
10 This approximation is more in line with that carried out by the European Systemic Risk Board (ESRB). See, for example, the latest ESRB report on the non-bank financial sector “EU Non-Bank Financial Intermediation Risk Monitor”.

Chart 5
FROM OFIs TO NBFi

1 OFIs



2 NBFi



SOURCES: CNMV and Banco de España. 2018 data.

In Spain, OFIs hold assets amounting to €780 billion as a whole, although they peaked at more than €1 trillion between 2007 and 2010. Between 2002 and 2009 OFI assets recorded cumulative growth of 241%, but after the crisis they contracted to levels close to €800 billion in 2013, remaining stable since then. In recent years the sector has expanded somewhat less in Spain than in other European economies. This is because although investment funds have posted significant growth, it has been partially offset by the decline in the outstanding balance of securitisations.

OFIs include different types of entities depending on the activity they engage in. Under the conceptual framework established within the scope of the FSB, to be detailed later on, OFIs include entities that are part of NBFi, such as certain types of investment funds, special purpose vehicles for securitisation, broker-dealers and finance companies.¹¹ Entities that are OFIs but are not part of NBFi include captive financial institutions and money lenders, equity investment funds, Sareb (the Spanish asset management company for assets arising from bank restructuring), REITs,¹² and other smaller entities. In terms of asset volume, the latter group includes most notably captive financial institutions and money lenders which provide investment services and whose assets or liabilities are not, in general, exchanged in open financial markets. These entities concentrated 20.9% of the total assets held by OFIs in 2018 (see Chart 5.1).

¹¹ Some entities that are not OFIs are also part of NBFi, although, in general, these are smaller in size. In Spain, this would be the case of mutual guarantee companies, which are financial auxiliaries.

¹² Real Estate Investment Trust.

The FSB developed a conceptual framework in 2013 based on five economic functions to identify and classify entities engaging in “shadow banking”,¹³ as this activity was called practically up until 2018 and 2019, when, after much debate on the negative connotation of that name, the NBFi term was adopted. The idea was for the different competent authorities to use this framework to classify the entities in this sector, not so much in relation to their legal form, but rather to the characteristics of their activity. International consistency was thus sought in quantifying the sector and identifying associated risks.

Considering the five economic functions mentioned above (see subsequent Charts) and that mainly a part of OFIs are considered¹⁴ (see Chart 4), assets involved in NBFi in Spain at end-2018 amounted to €504 billion, 5.3% less than in 2017. This figure, which relates to the broad NBFi measure,¹⁵ can be fine-tuned somewhat more if the proportion of assets consolidated in banks is eliminated. After discounting these assets, NBFi activity in Spain can be quantified at €284 billion, of which 6.3% relates to Spain’s financial system and 36.4% to the OFI sub-sector (see Chart 5.2).

NBFi in Spain posted high growth between 2002 and 2007, in terms of both the broad measure and the narrow measure. From 2007, at the start of the crisis, assets managed by NBFi entities began to decrease, especially in 2008, and did not begin to recover until 2013. Although NBFi assets grew significantly in absolute terms before the crisis, there was a decline relative to the financial system (from 11.8% in 2002 to 8.4% in 2007), because their expansion was more subdued than that of bank assets. However, the expansion recorded since 2013 was in absolute and relative terms, although the pre-crisis figures have not yet been reached (see Chart 6).

By type of entities comprising NBFi, those classified under economic function 1 (certain types of investment funds) are the most significant ones, followed at a distance by those classified under economic function 5 (securitisations) (see Chart 5.2 and Chart 6.2).

The preliminary analysis of interconnectedness among entities in the financial system (particularly significant in times of market turbulence) reveals that direct exposure between the banking sector and OFIs has decreased slightly in recent years down to around 10% of the banking sector balance sheet.¹⁶ These percentages are in line with the figures for the jurisdictions which submit data to the FSB when

13 Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities.

14 Mutual guarantee companies are the only institutions which are part of NBFi without belonging to OFIs (they are financial auxiliaries).

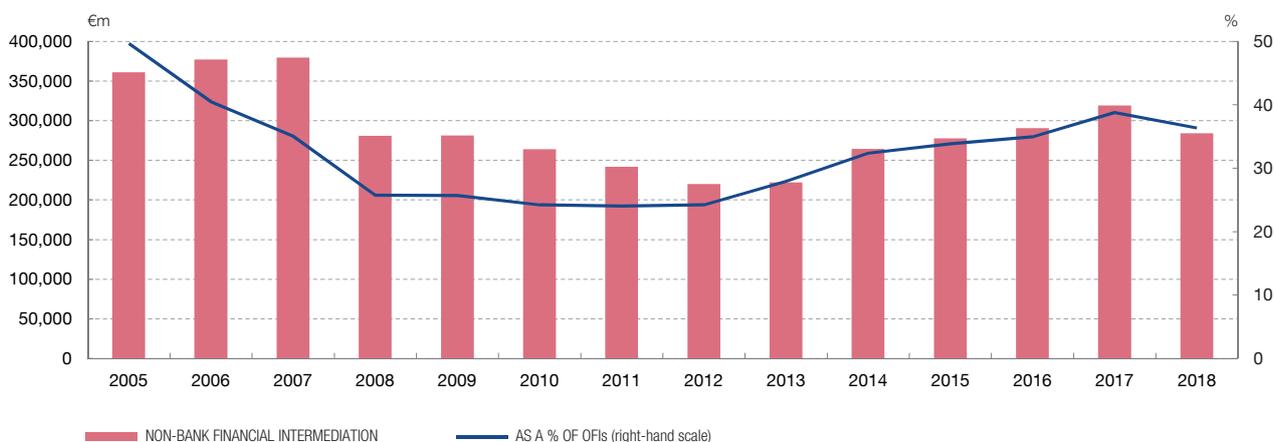
15 This broad measure of NBFi should not be confused with that used by the FSB, which refers to MUNFI institutions.

16 Both the exposure of banks to OFIs and bank financing through OFIs would be slightly above 10% of total banking assets, although much higher peaks were posted.

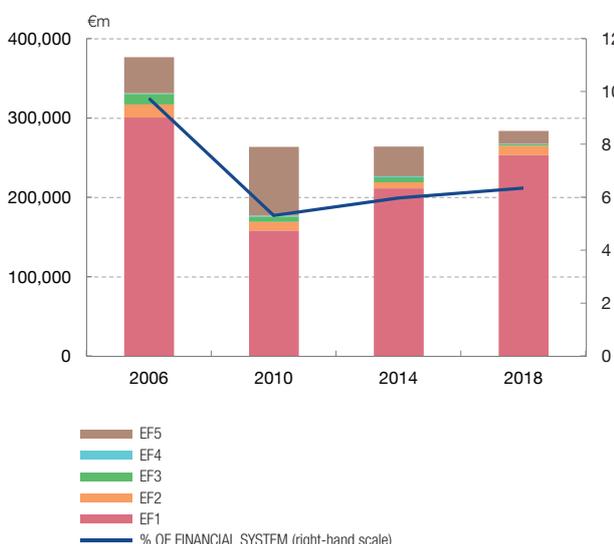
Chart 6

NBFI ASSETS IN SPAIN

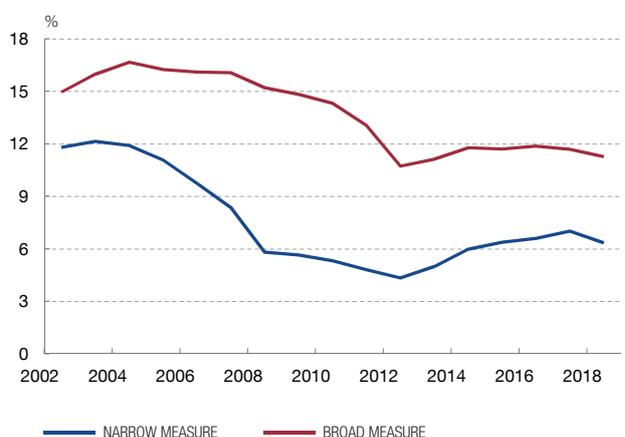
1 TOTAL ASSETS AND RELATIVE PERCENTAGE



2 BY ECONOMIC FUNCTION



3 AS A PERCENTAGE OF THE FINANCIAL SYSTEM



SOURCES: CNMV and Banco de España.

calculated on the basis of the size of the banking balance sheet.¹⁷ As regards the size of OFI assets, the percentages for Spain (over 15% for both rights and obligations) are among the highest, particularly owing to the smaller size of OFIs in Spain.

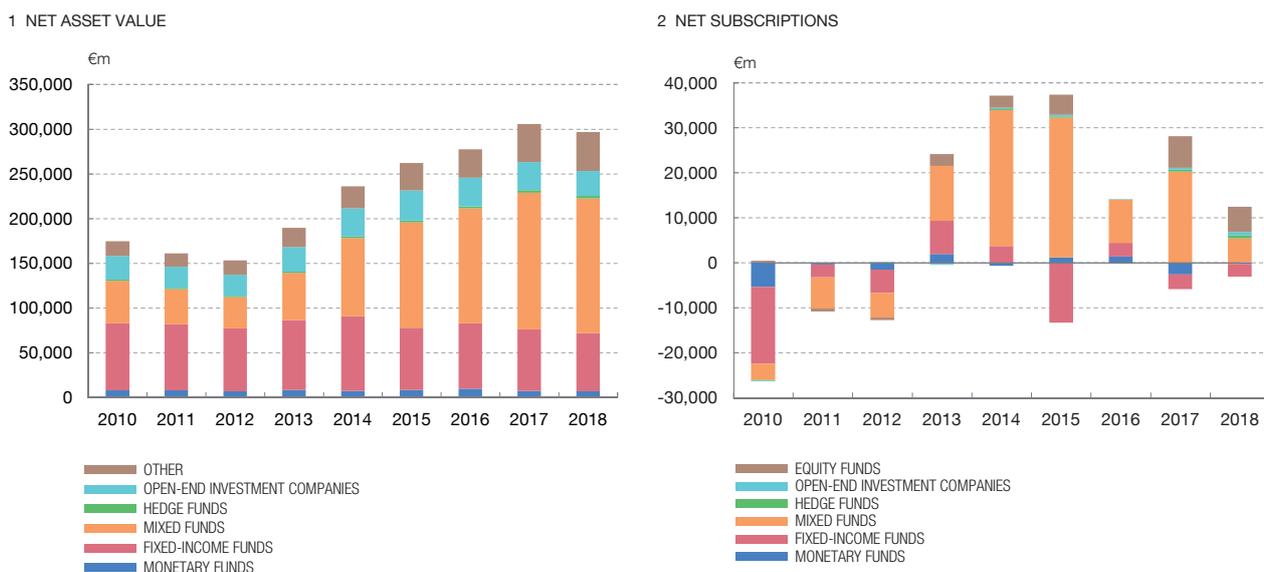
2.1 Economic function 1

Economic function 1 is defined as the management of collective investment vehicles (CIVs) with features that make them susceptible to runs. In certain circumstances collective investment schemes may be subject to significant runs by unit-holders in

¹⁷ See the FSB report “Global monitoring report on non-bank financial intermediation 2018”.

Chart 7

NET ASSET VALUE AND NET SUBSCRIPTIONS AT EF1 INSTITUTIONS



SOURCE: CNMV.

a short period of time, particularly in times of market turbulence. Against this background, CIS management companies must address investors’ requests for assets that offer the possibility of daily redemption in most cases. The obligation to sell in a short period of time a considerable portion of the portfolio may ultimately affect less liquid assets, with the risk of forcing asset sales that will push prices downwards (fire sales) and end up having adverse effects on other entities and on markets. The impact on unit-holders and on markets may depend on diverse matters, including most notably the strategy followed by the manager when selling the assets, unit-holders’ loss-absorption tolerance, fund portfolio liquidity, leverage, concentration of investments in assets affected by turbulence, etc.

There are two distinct strategies: the waterfall strategy, under which the fund’s most liquid assets are sold first, and the slicing strategy, under which assets are sold in a manner proportional to the CIS portfolio. In the first case, the estimated impact on the markets would be lower (more liquid assets are sold primarily) albeit to the detriment of an equal treatment for the unit-holders, since those remaining in the CIS would be exposed to a less liquid asset portfolio. Under the second approach, an equal treatment to unit-holders is preserved, but the consequences on the financial markets would be immediately more adverse (less liquid assets are sold from the start). To mitigate these risks there are several tools which are normally available to securities supervisors (to be discussed in a subsequent section). These tools are mainly related to the management of redemptions (possibility of suspending or creating special purpose compartments, i.e. side pockets), management of liquidity (possibility of requiring entities to increase additional liquidity buffers) and leverage

limits. Some of these measures, such as the imposition of reaching certain liquidity ratios, have been created recently.¹⁸

Against this backdrop, the types of investment vehicles considered in Spain to be part of economic function 1¹⁹ are monetary funds, fixed-income funds, mixed funds,²⁰ hedge funds²¹ and open-end investment companies. These vehicles represent the most important part of NBFi in most of the economies belonging to the FSB sample countries. In Spain they accounted for 89.2% in 2018 (amounting to €253 billion, see Chart 5), as compared with 71.7% for the FSB sample countries in 2017. This proportion has increased over the last few years in line with the expansion of the collective investment sector since 2013.

It should be noted that the composition of CIS on the basis of the different types of funds is not homogeneous among jurisdictions. In Spain, mixed funds account for a majority (60%) of CIS included in NBFi, of which more than one quarter relate to mixed fixed income. Additionally, their importance has grown over time almost uninterruptedly since 2013, with large inputs of funds mainly responsive to unit-holders' search for yield in view of the setting of very low interest rates. This has given rise to a substantial change in the composition of the investment funds industry in Spain, which has traditionally been dominated by conservative or low-risk products such as collateralised, fixed-income or monetary funds, towards products with a greater proportion of equity investments. Consequently, the significance of fixed-income funds has been declining, from 50% in 2011, to close to 25% in 2018. The net asset value of open-end investment companies represented 11% of the total, while that of monetary funds and hedge funds represented 2.7% and 1.1%, respectively.

2.2 Economic function 2

Economic function 2 is defined as loan provision that is dependent on short-term funding. This category encompasses a large variety of entities which may be subject to very different legal systems depending on their jurisdiction. In Spain, the largest entities belonging to this function are finance companies. There are, however, smaller and more recent types of funds (direct lending funds),²² which also provide funds to

18 See royal Decree-Law 22/2018 of 14 December 2018 establishing macroprudential tools.

19 Closed-end institutions are not considered part of economic function 1 because their features do not make them susceptible to runs.

20 The definition of mixed funds used by NBFi encompasses all funds that cannot be categorised as fixed-income or equity funds. Accordingly, these include mixed equity funds, mixed fixed-income funds, passive management funds, global funds, absolute return funds and guaranteed equity funds.

21 These institutions are susceptible to runs in their liquidity windows, if they have them.

22 These funds, which grant loans or credit to generally medium or small firms, are usually either large international funds or structures created by Spanish managers which are normally located in other jurisdictions, such as Luxembourg. These entities are not registered in Spain but Spanish legislation (Law 22/2014, of 12 November 2014, regulating venture capital undertakings and other closed-end collective

firms, either competing with banks or offering services in niche markets where banks are not active players. The assignment of some of these entities to economic function 1 or 2 is currently being debated, owing to their CIS nature.

Several kinds of measures can be adopted to mitigate the risks associated with these activities. According to the work performed in the FSB, some of these measures might be related to the imposition of prudential regimes equivalent to banking, capital requirement and liquidity buffer regimes.

The quantification of assets relating to this function represents a share lower than the real one since lending is an activity not requiring license and, consequently, information is not available about all the entities that might engage in it. Also, in the case of recently created entities, some are not registered with the CNMV (information is not available) and the information that is available for the rest is incipient.²³ The calculations (only considering data on finance companies) reveal that in Spain assets relating to this economic function account for approximately 12% of total NBF1 (using a broad definition), amounting to somewhat more than €60 billion. Net of the amount consolidated into banking groups (around 80%), the assets of these entities would decline to €12 billion, i.e. 4.2% of NBF1 according to the narrow measure (see Chart 5).

2.3 Economic function 3

Economic function 3 is defined as intermediation of market activities that is dependent on short-term or secured funding. In Spain this function would involve broker-dealers, which can be exposed to significant liquidity risk based on their funding model. In the case of entities using customer assets to obtain funds (generally through repos), a significant withdrawal of funds may give rise to a mismatch between the maturity of assets and liabilities. Some of the instruments available to the authorities to mitigate the risks associated with this activity are related to the imposition of prudential regimes equivalent to banking regimes, liquidity requirements or restrictions to the use of customer assets.

In Spain, 39 broker-dealers were registered at end-2018, with assets amounting to €4.56 billion. This sector is small in comparison with other European

investment institutions) addresses a type of vehicle (closed-end collective investment vehicles) which can also engage in this activity, as can open-end mutual funds, which are regulated by Art. 73 of the collective investment institutions regulations.

23 Some estimates reveal that direct lending funds operating in Spain may have assets of nearly €1.5 billion. The activity of closed-end collective investment vehicles (which are required to register with the CNMV), of which there is limited information, is estimated to amount to €550 million. Crowdfunding platforms account for approximately €60 million and according to the data available, debt investing hedge funds amount to €30 million.

jurisdictions, since investment services in Spain are primarily provided by banks, many of which took over their broker-dealers over the last few years, thereby increasing their significance in this business niche. Broker-dealers are subject to the Basel III Accord requirements, as they must comply with European legislation²⁴ on prudential requirements for credit institutions and investment firms.

2.4 Economic function 4

Economic function 4 encompasses entities that facilitate the creation of credit. In Spain, they relate to mutual guarantee companies. The main aim of these entities is to facilitate the access of credit to SMEs and to improve, overall, their financing conditions by providing guarantees to banking institutions, public administrations, customers and providers. The provision of credit improvements contributes to the creation of credit and, consequently, to the build-up of agent leverage and the appearance of risks that might be a threat to financial stability.

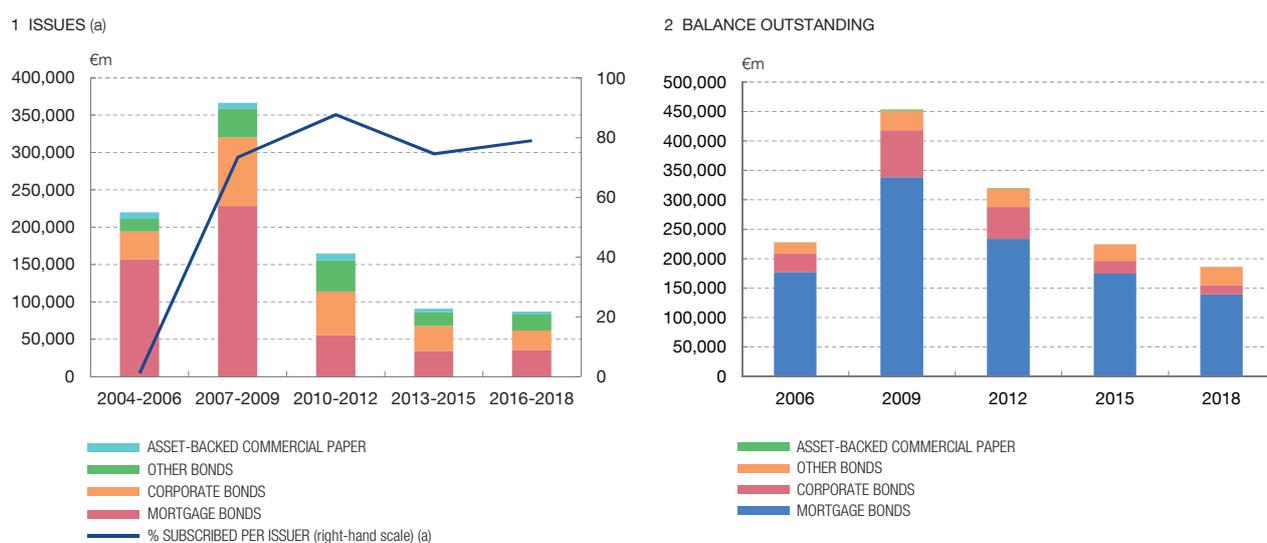
There are also tools for mitigating certain risks that might derive from the activity of these entities (capital requirements, business restrictions, liquidity buffers, etc.), although their small size in comparison with the activities encompassed by NBFIs as a whole should be taken into consideration. At end-2018 their assets hardly accounted for 0.2% of the total activities.

2.5 Economic function 5

Economic function 5 is defined as securitisation-based credit intermediation for funding financial institutions. It encompasses special purpose vehicles whose purpose is asset securitisation. The provision of funding to financial institutions (with real transfers of assets or risks) may be part of the credit intermediation process and may, consequently, be significant in terms of maturity transformation and excessive leverage. In Spain securitisation issuance is generally structured so that payments are made based on groups of assets that are amortised over time. Therefore, the risk relating to maturity transformation is much lower. Notably, securitisation in Spain has largely been used as a source of funding and not as a risk transfer mechanism (as occurred in other jurisdictions, giving rise to one of the most significant problems in the latest financial crisis). The tools that aim to minimise the risks relating to these activities include most notably restrictions on the transformation of maturities, the possibility of obliging the originator to withhold part of the securitised asset, restrictions on eligible collateral and restrictions on exposures to banks or other financial institutions.

²⁴ Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms.

Chart 8

SECURITISATION FUND ISSUANCE AND BALANCE OUTSTANDING

SOURCE: CNMV.

a Amounts accumulated in the period.

In Spain, securitisation is the second most important economic function in NBFi as a whole. The assets of these vehicles amounted to €185 billion in 2018, accounting for approximately 37% of NBFi (under the broad definition). This sector was much larger a few years ago (nearly €500 billion in 2010), but it decreased against the backdrop of the financial crisis. That said, the decrease recorded in issuance (see Chart 8.1) was more moderate than could have been expected, since financial institutions decided to continue issuing securitisations and to subscribe them themselves in order to use these assets as collateral in the Eurosystem's lending operations. The outstanding balance of securitisations declined from 450 billion in 2009 to 186 billion in 2018 (see Chart 8.2). In the Spanish market most of the asset-backed bonds and commercial paper related to mortgage bonds, which accounted for three quarters of the total. In addition to the decrease in the outstanding balance of securitisations, the deterioration of the credit quality of these assets, which arose in 2011 and 2012 and which was due both to the increase in country-risk in those years and to the increase in the intrinsic risk for these products, was notable. Thus, AAA-rated assets, which concentrated more than 90% of the total in 2008, were non-existent between 2012 and 2017, while the percentage of assets rated BBB or lower rose from 3% to 37% in 2018.

Spanish legislation does not envisage specific restrictions relating to eligible collateral or to maximum volumes of loans that can be securitised. However, the CNMV promotes the transparency of entities engaging in securitisation to mitigate the risks deriving from the complexity of these products. This

Chart 9

OUTSTANDING BALANCE OF ASSET-BACKED BONDS AND COMMERCIAL PAPER BY CREDIT RATING (a) (b)

SOURCE: CNMV.

- a Does not include the alternative fixed-income market (MARF, by its Spanish abbreviation).
 b Based on Standard and Poor's ratings.
 c Includes unrated issues.

transparency is reflected in the obligation of asset management companies to send, on a half-yearly basis, standardised and detailed information on the amount and situation of the securitised assets and the bonds issued.²⁵ Additionally, although there is no national legislation, Regulation (EU) No. 201/2402 of the European Parliament and of the Council of 12 December 2017, setting out a general framework for securitisation and a specific framework for simple, transparent and standardised (STS) securitisation, entered into force in 2019. One of the most significant developments introduced by this regulation is the distinction between STS and other securitisation, since the former has a favourable treatment in terms of capital requirements and the withholding requirement for the originator.

Lastly, it is important to note that in Spain most securitisations are consolidated into banking groups and, consequently, they are excluded from the narrow measure of NBFIs. The reason for this is that the assigning entity retains control in compliance with the existing regulations and is exposed to the variable yields of the funds and of the securitised assets, either because the entity has made a credit improvement or because there has been a swap where it collects the returns on the securitised portfolio and pays the bond coupons.

²⁵ This information is published on the CNMV website.

3 Risks associated with NBFIs

In addition to identifying the entities involved in financial intermediation and quantifying their assets, it is necessary to analyse the risks to financial stability that they can generate as a result of their activity, size or linkage with other entities. In this connection, identifying and monitoring potential risks is particularly important. This section briefly analyses the major risks of the largest entities engaging in NBFIs in Spain, i.e. investment funds (monetary, fixed-income and mixed investment funds are analysed independently), finance companies, broker-dealers and structured finance vehicles (SFVs).

Table 1 illustrates the intensity of the risks analysed, which is the result of calculating an indicator²⁶ by type of entity representing some kind of vulnerability and of the position of such indicator relative to a previously established threshold. These thresholds have been defined by taking into account the debate that is being held about them in international fora and they have been adapted to the characteristics of each type of entity. However, they have been set through purely qualitative criteria which may be revised in the future if it is considered necessary.²⁷ The intensity of credit intermediation, liquidity and maturity transformation, and leverage should be assessed in a setting that takes into account the size of the sector analysed and the degree of interconnectedness among entities. As regards sector size, the importance for certain entities of asset consolidation in banking groups should be noted. For example, the weight of securitisation, which is high (37%) in the broad measure of NBFIs, drops to 5.6% once the vehicles consolidated in the banking group are excluded, while the relative importance of investment funds, which are highly affected by consolidation, increases from 50% to nearly 90% of NBFIs. In connection with the degree of interconnectedness among entities, a preliminary analysis of exposures across sectors²⁸ reveals that the most significant interconnectedness relates to that between securitisation funds and the banking sector, although such significance has declined in recent years.²⁹

26 The indicators presented were calculated for all the entities, including those consolidated into banking groups.

27 In the case of liquidity risk reference thresholds for investment funds, it has been determined that they are lower than for the rest of entities owing to their specific features. Specifically, the possibility of runs by unit-holders generates an additional need for liquidity, which has been considered to be 20%. This figure is consistent with the percentage drop in equity driven by the publication of a significant event by a management company and, from an empirical viewpoint, with the redemptions carried out in Spanish investment funds during the stress period between May and July 2012. In the latter case, the studies performed determine that the fund which related to percentile 90 in connection with redemptions in that period experienced fund outflows representing 22% of total net assets in fixed-income funds and 13% of those in equity funds.

28 Exposure through loans and fixed-income and equity securities.

29 This preliminary analysis does not exclude the part of interconnectedness generated by vehicles consolidated into banking groups.

Table 1

RISKS ASSOCIATED WITH NBF1 (a)

	Investment funds			Specialized lending institutions	Broker-dealers	SFVs: securitisation
	Monetary	Fixed-income	Mixed			
Credit intermediation	●	●	●	●	●	●
Maturity transformation	○	●	○	○	○	●
Liquidity transformation	●	●	●	●	○	●
Leverage	○	○	○	●	●	●
Interconnectedness with the banking system	○	○	○	○	○	●
Relative importance (b) (c) (%)	1.3	13.0	28.7	10.8	0.7	38.9

SOURCE: CNMV. 2017 data.

- a Absence of colour denotes low risk, while light, medium and dark purple denote moderate, medium and high risk, respectively.
b The weights of each of the entities in the table do not add up to 100%, since neither mutual guarantee companies nor some other types of funds also belonging to NBF1 are represented.
c These percentages are calculated based on the sector's total size, without discounting entities consolidated into banking groups.

As Table 1 shows, the highest risk currently identified for investment funds, which is the group with the highest weight in NBF1, relates to credit intermediation, particularly in monetary and fixed-income funds. This is the most obvious risk (stable in the last few years) and it illustrates the nature of the activity of this group of entities, which is primarily investing in credit assets.³⁰ Next is the risk relating to liquidity transformation (at a medium level for the three types addressed), which has increased slightly in recent years. This source of risk is one of the most significant ones in the field of investment funds and as such it has been analysed and addressed in the most important international fora over the last few years. The underlying concern is that managers may have difficulty finding debt assets with attractive yields and may be including assets with higher expected yields (and also riskier and less liquid) in the portfolios. In our analysis the measure relating to liquidity risk considers any assets readily convertible into cash as liquid assets. Therefore, the ratio that measures liquidity risk (calculated as a proportion of the total portfolio, as are all assets not considered liquid) could be including assets which a priori appear to be scantily liquid but are liquid in practice. In any event, liquidity risk for investment funds is not considered excessive, but it is advisable to monitor its performance over time to see if it continues on an upward trend³¹ and, above all, its distribution at fund level.³²

30 Against this background, investment in credit assets would be comprised of cash, deposits and domestic and foreign fixed-income securities.

31 In the three types of funds analysed (mixed, fixed-income and monetary) the estimated proportion of liquid assets to total assets was between 50% and 60% in 2018, having followed a rising trend since 2015.

32 In this connection, the CNMV periodically evaluates the liquidity conditions of investment funds' fixed-income portfolio and has not detected at individual level any significant problems in terms of liquidity. Nonetheless, it should be noted that these analyses are conducted in times of absence of market stress. During times of shocks debt security liquidity conditions may change significantly in a short period time.

As regards the other two most important groups of entities in NBFIs (although far behind investment funds), i.e. securitisations and finance companies, most of the indicators calculated point to the existence of medium or high risk, especially for securitisations. In most cases, the high level of indicators is responsive to the nature of the activity carried out by these entities. In securitisations, for example, where the asset side of the balance sheet is almost entirely comprised of credit assets (the basis for securitisation) and liabilities almost exclusively reflect the different kinds of asset-backed commercial paper and bonds issued, it is natural for conventional indicators relating to credit intermediation, liquidity transformation and leverage to be valued highly. Therefore, although analysing these traditional indicators is relevant and a good starting point for comparing entities using homogeneous criteria, it should be complemented by developing other additional analyses adapted to both the business models and heterogeneity within each sector.

4 Non-bank financial intermediation and macroprudential policy³³

Macroprudential policy, which aims to preserve the stability of the financial system as a whole and has traditionally had a banking focus, has been adopting for several years a more global view of the financial system, with emphasis on work relating to the non-bank area. This change arose from the latest global financial crisis, which revealed how other actors and activities outside the banking sphere can be sources of systemic risk under certain circumstances. The new macroprudential policy stance takes into account other matters aside from size (related to the “too big to fail” theory), such as interconnectedness between agents and their behaviour, lack of transparency, and issues related to asymmetrical information and moral hazard.

Designing an appropriate macroprudential policy requires setting intermediate objectives linked to the policy’s ultimate aim (financial stability) and having adequate tools for achieving such objectives. These intermediate objectives are assessed by means of multiple and diverse indicators. This framework is clearer in the banking area, where the intermediate objectives include most notably credit growth and indebtedness or the transformation of maturities and illiquidity.³⁴ Other important tools within the European Union are countercyclical capital buffers, capital conservation buffers and those aimed at systemically important institutions.

Macroprudential policy design is currently in progress in the non-bank sphere, particularly as regards tools which in many cases are given a macroprudential use

³³ See “The participation of the CNMV in macro-prudential policy” published by the CNMV in July 2019.

³⁴ For further details see the article “Macroprudential policy: objectives, instruments and indicators” by Javier Mencía and Jesús Saurina.

despite having a microprudential origin. As regards the definition of intermediate objectives, many of those taken into account for banks are also important in the non-bank area. This would be the case for objectives relating to increased leverage, maturity transformation and, above all, illiquidity. There has been much progress over the last few years in analysing and designing indicators relating to risk identification, but there is still room for improvement, especially as regards the tools available.³⁵

This caption describes the most significant macroprudential tools relating to CIS (the most important entities in quantitative terms from an NBFIs standpoint). There are other noteworthy macroprudential measures in the non-bank sphere affecting other sectors or entities, which are not detailed in this article. These include, for example, restrictions to short sales in the market infrastructure area. The tools available to the CNMV have increased recently,³⁶ in parallel with the creation of a new macroprudential authority in Spain (AMCESFI, by its Spanish acronym),³⁷ which has commenced to function this year. AMCESFI aims to improve the coordination of macroprudential supervision at national level and to help prevent or mitigate systemic risks. It is comprised of members of the Ministry of the Economy and Business Affairs, the Banco de España, CNMV and the Directorate General for Insurance and Pension Funds. In addition to monitoring and analysing the factors which may affect systemic risk, it may issue opinions, alerts and recommendations as it may deem appropriate. Supervisors should also inform AMCESFI in advance when they decide to activate, recalibrate or deactivate any of their macroprudential tools.

Table 2 contains a list (non-exhaustive) of the main macroprudential tools in the CIS area, with a detail of those available under Spanish legislation, those which may be adopted by the institutions supervised and those which may be initiated or require authorisation by the CNMV. Most of the instruments address problems relating to maturity mismatch and illiquidity, notably including redemption restrictions and suspensions, redemption fees, in-kind redemptions, side-pockets (special purpose vehicles) and liquidity ratios. Some of these measures must be authorised by the CNMV before they are initiated by CIS management companies. In recent years, the CNMV has authorised the temporary suspension of redemptions in certain funds (several of them real estate funds) at the request of their management company. As regards liquidity management, the table addresses both compliance with specific ratios (which derive from existing regulation and have a microprudential origin) and reinforcement of liquidity. This latter aspect is one of the newest tools

35 One of the first documents which addressed the tasks of securities supervisors in connection with systemic risk was published by IOSCO in 2011 (Mitigating systemic risk: a role for securities regulators).

36 See Footnote 18.

37 Royal Decree 102/2019 of 1 March 2019 creating the Macroprudential Authority Financial Stability Board, establishing its legal regime and implementing certain aspects on macroprudential tools.

Table 2

MACROPRUDENTIAL TOOLS IN THE CIS SECTOR

Instrument	Intermediate objective	Availability under current legislation			Remarks
		Available under Spanish legislation	CNMV authorisation required	Possibility of adoption by the CNMV (a)	
Redemption fee	Maturity and liquidity mismatches	Yes	No	No	Its implementation gives unit-holders the right to leave
Redemption gate	Maturity and liquidity mismatches	Yes	No	No	For alternative and real estate funds
In-kind redemption	Maturity and liquidity mismatches	Yes	Yes	No	Cannot be used under normal circumstances
Side pockets	Maturity and liquidity mismatches	Yes	Yes	Yes	Cannot be used under normal circumstances. Not available for real estate funds
Suspension of redemptions	Maturity and liquidity mismatches	Yes	Yes	Yes	Cannot be used under normal circumstances. Real estate funds may suspend funds up to two years. There are no limits for the rest
Anti-dilution levy	Maturity and liquidity mismatches	No			
Swing pricing	Maturity and liquidity mismatches	No	Yes	No	Not expressly included in the regulations but the CNMV allows management companies to adopt this tool if it is so established in their procedures
Restrictions to redemptions	Maturity and liquidity mismatches	Yes	No	No	
Limits to asset concentration	Excessive concentration of risks in certain assets or sectors	Yes			Regulatory requirement
Limits to the use of derivatives	Excessive leverage	Yes			Regulatory requirement
Limits to leverage	Excessive leverage	Yes		Partial	Regulatory requirement for UCITS. The CNMV may establish specific limits for alternative funds (hedge funds and venture capital funds)
Liquidity ratio	Maturity and liquidity mismatches	Yes			Regulatory requirement
Reinforcement of liquidity	Maturity and liquidity mismatches	Yes		Yes	For reasons of financial stability and on a temporary basis, the CNMV may require one entity or a group of entities to increase the percentage of investment in especially liquid assets (this tool may be applied to open- and closed-end CIS and to venture capital entities)
Limits to and conditions on these entities' activities to avoid excessive indebtedness in the private sector	Excessive leverage	Yes		Yes	This measure is applicable to all CNMV-supervised institutions

SOURCE: CNMV.

a Where there are measures that the CNMV cannot adopt, management companies are generally responsible for making such decisions.

provided by legislation. The CNMV may use it, for reasons of financial stability and on a temporary basis, to require one entity or a set of entities to increase their percentage of investment in particularly liquid assets. Finally, it is important to note the existence of measures which try to limit the exposure of funds to derivatives,

and to contain their leverage and degree of concentration in the exposure to certain assets or sectors.

5 Conclusions

Conceptually, NBFi encompasses a group of activities performed by very diverse entities, such as investment funds, finance companies or securitisation vehicles, which share some features with those of the traditional banking activity. These entities provide, therefore, a type of financing that may in some cases involve similar risks to those of credit institutions (maturity mismatch, liquidity risk, excessive leverage, etc.). In general, non-bank financing should not be considered as a source of competition as regards bank lending, but as a possibility for firms to diversify their sources of finance and to achieve a stable base for obtaining funds. In fact, one of the most significant advantages offered by non-bank finance and, in particular, by that provided by capital markets, is that it acts as a buffer, stabilising the financing flows of entities in times of bank credit contraction. Some years ago, coinciding with bank credit contraction, financing through the markets was, together with firms' retained earnings, the most stable and recurrent source of funding. From a macroeconomic standpoint, it also seems clear that economies with more diversified sources of funding end up recording higher growth rates at medium and long term.

NBFi-related activity has grown in recent years³⁸ against a backdrop of credit contraction in many economies in the wake of the global financial crisis and as a result of a prolonged environment of very low interest rates. These factors, together with others, such as the impact of regulatory changes on certain banking activities, led to the emergence of a group of entities which operated outside the banking channel. In some cases these entities entered market niches which banks avoided because they considered them too risky.

The growth of these activities in recent years has generated some concern because it was considered, sometimes erroneously, that these entities remained outside the scope of regulation and supervision. These concerns were even reflected in the term used for this sector, which until recently was "shadow banking". The truth is that regulation and supervision are very heterogeneous among jurisdictions but, overall, it can be said that these entities are indeed subject to a regulatory and supervisory regime, albeit different from that applicable to banks. Therefore, the question to be posed is whether this regime is appropriate from the standpoint of financial stability and containment of systemic risk or whether it should change in any way.

³⁸ In Spain this expansion commenced in 2013 and was interrupted in 2018.

NBFI-related assets in Spain amounted to €284 billion at end-2018, which accounts for 6.3% of the Spanish financial system. Nearly 90% of this amount relates to the net assets of some investment fund categories, a proportion that is higher than that seen in other European economies. The next entities in terms of importance (securitisation vehicles and finance companies) are at a much greater distance and are affected, especially in the case of securitisation vehicles, by the large proportion of their assets which are consolidated in banks' balance sheets (and are therefore excluded from the final NBFI figure). In addition to being relatively small in size, perceived risks in connection with these entities are low, although some of them, such as liquidity risk, have grown somewhat and this evidences the need to analyse these studies in greater depth. It is also necessary to persevere in identifying risks relating to interconnectedness among entities.

Insofar as the activities developed by entities engaging in NBFI may entail a risk to financial stability, the question arises of whether the authorities have the tools required to deal with this. In this connection, the CNMV has a broad set of tools, many of which are microprudential in origin but, if necessary, may be applied for macroprudential purposes. In the investment funds area, one of the best known tools, which has been used on some occasions in the last few years, is the suspension of redemptions. Also very important are those related to adequate portfolio liquidity risk management at these institutions. Of note is the recent approval of a new measure which allows the CNMV to temporarily require a group of entities to strengthen their liquidity in the proportion considered necessary. The implementation of any of the tools available should be reported in advance to the new macroprudential authority (AMCESFI), to the Banco de España and to the Directorate General for Insurance and Pension Funds.

As a challenge for the future, the CNMV will continue to prioritise work relating to NBFI, focusing in particular on the need to evaluate on an ongoing basis the actors which may form part of these activities (lending funds are a recent example of the numerous cases which may arise), to quantify NBFI activity and to correctly assess the risks deriving from it. Ultimately, it will be possible to determine if the availability of macroprudential tools is adequate or needs to be revised. Also noteworthy is the effort in transparency made by the institution of which I am Vice-Chairperson and which has started publishing this year a half-yearly monitoring report including the most significant and updated information on NBFI in Spain.

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