CNMV
Comisión Nacional del Mercado de Valores

CNMV BULLETIN
Quarter I
2019

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Abbreviations

AA. PP.	Public Administration Services
ABS	Asset-backed security
ACGR	Annual corporate governance report
AIAF	Asociación de Intermediarios de Activos Financieros (Spanish market in fixed-income securities)
AIF	Alternative investment funds
ANCV	Agencia Nacional de Codificación de Valores (Spain's national numbering agency)
ARDR	Annual report on director remuneration
ASCRI	Asociación Española de Capital, Crecimiento e Inversión (Spanish association of capital, growth and investment entities)
AV	Agencia de valores (broker)
BIS	Bank for International Settlements
BME	Bolsas y Mercados Españoles
BTA	Bono de titulización de activos (asset-backed bond)
BTH	Bono de titulización hipotecaria (mortgage-backed bond)
CADE	Central de Anotaciones de Deuda del Estado (public debt book-entry trading system)
CC. AA.	Autonomous regions
CCP	Central counterparty
CDS	Credit default swap
CDTI	Centre for the Development of Industrial Technology
CFD	Contract for differences
CNA	Competent national authority
CNMV	Comisión Nacional del Mercado de Valores (Spain's National Securities Market Commission)
CO	Customer Ombudsman
CP	Crowdfunding platforms
CSD	Central securities depository
CSDR	Central Securities Depositories Regulation
DGSFP	Dirección General de Seguros y Fondos de Pensiones (Directorate-General for Insurance and Pension Funds)
EAFI	Empresa de asesoramiento financiero (financial advisory firm)
EBA	European Banking Authority
EC	European Commission
ECA	Credit and savings institutions
ECB	European Central Bank
ECR	Entidad de capital riesgo (venture capital firm)
EFAMA	European Fund and Asset Management Association
EICC	Entidad de inversión colectiva de tipo cerrado (closed-ended collective investment entity)
EIOPA	European Insurance and Occupational Pensions Authority
EIP	Public interest entity
EMIR	European Market Infrastructure Regulation
EMU	Economic and Monetary Union (euro area)

ESFS	European System of Financial Supervisors
ESI	Investment firms
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange-traded fund
EU	European Union
EuSEF	European social entrepreneurship fund
EuVECA	European venture capital fund
FCR	Fondo de capital riesgo (venture capital fund)
FCR-pyme	Fondo de capital riesgo pyme (SME venture capital fund)
FI	Fondo de inversión de carácter financiero (mutual fund)
FICC	Fondo de inversión colectiva de tipo cerrado (closed-ended investment fund)
FII	Fondo de inversión inmobiliaria (real estate investment fund)
FIICIL	Fondo de instituciones de inversión colectiva de inversión libre (fund of hedge fund)
FIL	Fondo de inversión libre (hedge fund)
FIN-NET	Financial Dispute Resolution Network
FINTECH	Financial Technology
FOGAIN	Fondo General de Garantía de Inversiones (investment guarantee fund)
FRA	Forward rate agreement
FROB	Fund for Orderly Bank Restructuring
FSB	Financial Stability Board
FTA	Fondo de titulización de activos (asset securitisation trust)
FTH	Fondo de titulización hipotecaria (mortgage securitisation trust)
GLEIF	Global Legal Entity Identifier Foundation
HFT	High frequency trading
IAS	International Accounting Standards
ICO	Initial Coin Offerings
IFRS	International Financial Reporting Standards
IIC	Institución de inversión colectiva (UCITS)
IICIL	Institución de inversión colectiva de inversión libre (hedge fund)
IIMV	Instituto Iberoamericano del Mercado de Valores (Ibero-American Securities Market Institute)
IMF	International Monetary Fund
INFO Network	International Network of Financial Services Ombudsman Schemes
IOSCO	International Organization of Securities Commissions
IRR	Internal rate of return
ISIN	International Securities Identification Number
KIID	Key Investor Information Document
Latibex	Market in Latin American securities, based in Madrid
LEI	Legal Entity Identifier
LMV	Securities Market Act
LRL	Last resort loan
MAB	Mercado Alternativo Bursátil (alternative stock market)
MAD	Market Abuse Directive
MAR	Market Abuse Regulation
MARF	Alternative Fixed-Income Market
MEFF	Spanish Financial Futures and Options Market
MFP	Maximum fee prospectus
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation

MMU	CNMV Market Monitoring Unit
MOU	Memorandum of Understanding
MTS	Market for Treasury Securities
NCA	National competent authority
NPGC	New general chart of accounts
OECD	Organisation for Economic Co-operation and Development
OIS	Overnight indexed swaps
OPS	Public offering (for subscription of securities)
OPV	Public offering (for sale of securities)
OTC	Over the counter
PER	Price to earnings ratio
PPI	Periodic public information
PSR	Pre-emptive subscription right
REIT	Real estate investment trust
RENADE	Registro Nacional de los Derechos de Emisión de Gases de Efecto Invernadero (Spain's national register of greenhouse gas emission allowances)
RFQ	Request for quote
ROC	Regulatory Oversight Committee
ROE	Return on equity
SAC	Customer service
SAMMS	Advanced Secondary Market Tracking System
SAREB	Asset Management Company for Assets Arising from Bank Restructuring
SCLV	Servicio de Compensación y Liquidación de Valores (Spain's securities clearing and settlement system)
SCR	Sociedad de capital riesgo (venture capital company)
SCR-pyme	Sociedad de capital riesgo pyme (SME venture capital company)
SENAF	Sistema Electrónico de Negociación de Activos Financieros (electronic trading platform in Spanish government bonds)
SEND	Sistema Electrónico de Negociación de Deuda (electronic debt trading system)
SEPBLAC	Servicio Ejecutivo de la Comisión de Prevención del Blanqueo de Capitales e infracciones monetarias (Bank of Spain unit to combat money laundering)
SGC	Sociedad gestora de carteras (portfolio management company)
SGECR	Sociedad gestora de entidades de capital riesgo (venture capital firm management company)
SGEIC	Sociedad gestora de entidades de inversión colectiva de tipo cerrado (closed-ended investment scheme management company)
SGFT	Sociedad gestora de fondos de titulización (asset securitisation trust management company)
SGIIC	Sociedad gestora de instituciones de inversión colectiva (UCITS management company)
SIBE	Sistema de Interconexión Bursátil Español (Spain's electronic market in securities)
SICAV	Sociedad de inversión de carácter financiero (open-ended investment company)
SICC	Closed-ended investment undertaking
SII	Sociedad de inversión inmobiliaria (real estate investment company)
SIL	Sociedad de inversión libre (hedge fund in the form of a company)
SMN	Sistema multilateral de negociación (multilateral trading facility)
SNCE	Sistema Nacional de Compensación Electrónica (national electronic clearing system)

SON	Sistema organizado de negociación (organised trading facility)
SRB	Single Resolution Board
SSS	Securities settlement system
STOR	Suspicious transaction and order report
SV	Sociedad de valores (broker-dealer)
TER	Total expense ratio
TRLMV	Texto refundido de la LMV (RDL 4/2015, de 23 de octubre) (recast text of the Securities Market Act)
TVR	Theoretical value of the right
T2S	TARGET2-Securities
UCITS	Undertaking for collective investment in transferable securities

I Securities markets and their agents: situation and outlook

Contents

List of exhibits

1 Executive summary

– Fears of a slowdown in world growth, which intensified at the end of 2018 and led to a period of high stock market volatility, were confirmed in the early months of the year with the publication of various indicators that revealed not only the level of the slowdown in economic growth, but also the loss of synchrony between the most important economies. This slowdown is essentially the result of the restrictions applied to world trade, although other significant sources of uncertainty may also be noted, some of which are political. This change of scenario has been decisive for the Federal Reserve and the ECB. The former has decided to pause, for the time being, its process of rate hikes, while the latter has decided not to initiate the process in view of the slowdown in economic growth. The ECB has also announced a new programme of targeted longer-term refinancing operations (TLTRO-III) aimed at financial institutions in the euro area, each with a maturity of two years, with the aim of preserving favourable bank lending conditions and the smooth transmission of monetary policy.

– In this context, international financial markets tended to stabilise in the first quarter of the year, following the turbulence at the end of 2018. In the case of equity markets,[1] the most important stock market indices recorded gains that offset part of the losses of the previous year (in some cases, all of them). The gains ranged between the 6% of the Japanese Nikkei index and the 16.5% of the US NASDAQ index (or the 16.2% of the Italian Mib 30), in an environment of low volatility and a fall in trading volumes.

– In international debt markets, short-term yields continued to reflect the different specific stances of monetary policy on both sides of the Atlantic. Long-term yields fell across the board as a result of future expectations with regard to monetary policy, resulting from an environment of lower growth and inflation and also the status of some of the benchmark assets as safe havens at times of uncertainty. In the euro area, yields on 10-year sovereign bonds have remained very low, particularly in the case of Germany, which ended the quarter in negative figures (-0.07%). Yields in other European economies, with falls of over 30 basis points (bp) in many cases, were low but positive (0.32% in France, 0.42% in Belgium and 0.56% in Ireland). In the United States, bond yields also fell in the early months of the year (by 28 bp), but remained at a much higher level (2.41%).

1 The closing date of this report is 31 March, except for certain information, such as that resulting from the latest *World Economic Ourlook*, published by the IMF on 9 April.

– In the case of the Spanish economy, the slowdown in growth is much milder than in other European economies, such as Germany or Italy. The latest forecasts published by the IMF place GDP growth in Spain at 2.1% this year (2.6% in 2018), 0.1 percentage points down on the figure forecast back in January and 0.8 percentage points above the expected growth for the euro area. The relatively favourable performance of the economy allowed the unemployment rate to fall once again in 2018, to stand at 14.5% of the active population in the fourth quarter, and employment to rise by 2.5%. The inflation rate, which temporarily exceeded 2% as a result of higher energy prices, stabilised at figures of slightly above 1%, while the public deficit ended 2018 at 2.6% of GDP. This allowed Spain to leave the European Union's Excessive Deficit Procedure, which it had been subject to since 2009.

– Banks managed to improve the results of their businesses in Spain in 2018, with profits of over 12 billion euros. As in the rest of the euro area, that profitability is squeezed by the context of low interest rates, which prevents improvements in the net interest income. However, some business indicators, such as non-performing loans, improved as a result of the buoyancy of the economy. Strengthening solvency levels and addressing the increased competition from new participants in the market are significant challenges for the sector.

– The Spanish economy faces various types of risk. In addition to those relating to the banking sector, significant risks include, on the one hand, the need to continue consolidating the public accounts and, in particular, reduce the level of debt and, on the other hand, the need to maintain efforts to reduce the unemployment rate, particularly for the long-term unemployed. This needs to be done in a context in which an ageing population poses a significant challenge and the continuation of some sources of political uncertainty might hinder economic development over the medium term.

– In Spanish financial markets, the stress index has remained at low levels over the last few months and ended March at 0.17. A significant part of this low level is the result of the absence of correlation between the stress levels of the six sub-indices making up the total index. This compact measure of systemic risk in Spanish markets is therefore compatible with the identification of somewhat higher stress levels in specific segments, such as that of financial intermediaries (banks) and the debt segment.

– Spanish equity markets, which had ended 2018 with significant falls, began the year with notable gains that made it possible to recover part of the losses of the previous year (-15% in 2018). As in other significant markets, although uncertainties relating to Brexit remained, share prices grew thanks to the reduction in trade tension between the United States and China, as well as maintenance of the ECB's accommodative policy. In addition, after the falls of 2018, the share price of many companies was at an attractive level for many investors. As a result, the Ibex 35 recorded gains of 8.2% in the first quarter of the year, which placed it at the low end of the range compared with other European indices in an environment, as mentioned above, of low volatility and falls in trading volumes.

– In Spanish fixed-income markets, the yields on long-term government bonds, which had fallen in the final stretch of 2018, continued with this trend in 2019 as they reflected expectations in relation to maintenance of monetary policy, in a context of lower growth and lower inflation. As a result, the yield curve only shows positive values after the 5-year benchmark, with the average yield on the 10-year government bond standing at 1.14% in March (1.43% in December 2018). The sovereign risk premium did not record any significant changes and ended the quarter at 117 bp (138 bp below the Italian sovereign risk premium).

– Assets managed by Spanish investment funds fell slightly in 2018 (-2.3%) following 5 years of continuous growth, which placed them at 259.1 billion euros at the end of the year (to which the assets managed by collective investment schemes in the form of a company, SICAVs, which stood at 27.84 billion euros, should be added). The fall in the assets managed by these undertakings is due to the negative yield of the assets in their portfolios. In the case of funds, this negative yield was 4.9% and could not be offset by the volume of net subscriptions (7.84 billion euros), which was lower than in previous years. In fact, in the final part of the year, coinciding with the period of stock market turmoil, not only did the value of the funds' portfolio fall, but there were also significant net redemptions. The number of unit-holders (measured by number of accounts) rose by 9% to over 11.2 million.

– The fall in assets managed by CIS management companies in 2018 did not prevent them recording a significant increase in profit before tax, which stood at 1.12 billion euros. This increase, which is the result of the growth in fees received for portfolio management, was not evenly spread amongst the various companies as the number of loss-making management companies rose from 19 in 2017 to 26 in 2018 and the volume of the losses almost doubled.

– With regard to the business of providing investment services, credit institutions continued to be the main providers of such services in Spain in 2018, accounting for the bulk of the fee revenue for the different types of services (over 90% of the total). Non-bank financial intermediaries (mainly broker-dealers and brokers) account for a proportion of some significance in the activities of order transmission and execution, although they offer a wide range of services. These intermediaries, which are undergoing a complex period as a result, *inter alia*, of increased competition in the sector, suffered a 34% fall in aggregate profits before tax in 2018, which amounted to 116.4 million euros. In this context, there was a progressive reorientation of their business towards financial services which in previous years were less important, such as marketing CIS, portfolio management and investment advisory services. Despite the fall in profits, the non-bank financial intermediation sector continued to record relatively very high solvency ratios.

– The report includes three monographic exhibits:

  - The first describes the main new aspects of the monetary policy adopted by the ECB and the delay in its expected normalisation, which was the result of the sharp slowdown in economic growth in the euro area.

  - The second relates to the initiative recently adopted by the CNMV to promote the presence of women on boards of directors and in senior management at listed companies, which consists of publishing in a separate and individualised manner the information reported by these companies in this area in their annual corporate governance reports.

  - The third summarises the origin and the process for creating a macro-prudential authority in Spain, which seeks to improve the coordination of macro-prudential oversight at a national level and to help prevent and mitigate systemic risks. This new authority, in which the three Spanish financial supervisors participate, has already held its first meeting.

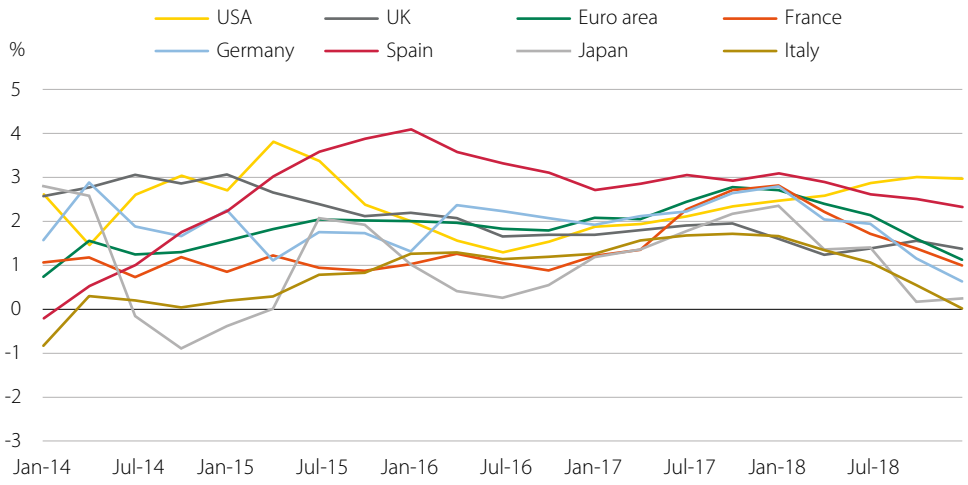
2 Macro-financial background

2.1 International economic and financial developments

World growth remained strong in 2018, although a slowdown was recorded in some economies and there was less synchrony among the different countries. Accordingly, world GDP growth stood at 3.7%.

World growth remained strong in 2018, although a slowdown was recorded in some economies and there was less synchrony among the different countries. World GDP growth stood at 3.7%, 0.1 percentage points below that recorded in 2017. By region, growth was particularly strong in the United States, which was practically the only advanced economy to record an acceleration in growth (from 2.2% in 2017 to 2.9% in 2018). In the euro area, in contrast, political uncertainties together with effective and expected restrictions to global trade led to a marked slowdown in growth, which dropped from 2.5% to 1.8%. There was a particularly noteworthy slowdown in GDP growth in Germany (from 2.5% in 2017 to 1.5% to 2018), in France (from 2.3% to 1.6%) and in Italy (from 1.7% to 0.8%). Growth in Spain was also lower than in the previous year (2.6% compared with 3% in 2017) although the slowdown was less intense than in other European economies. Finally, growth in the United Kingdom slowed to 1.4% (previously, 1.8%). Other non-European advanced economies also recorded a significant slowdown in growth, notably Japan, where growth fell from 1.9% in 2017 to 0.9% in 2018.

Annual % change in GDP FIGURE 1



Source: Thomson Datastream.

At its last meeting, held on 19 and 20 March, the Federal Reserve decided to maintain the benchmark interest rate in a range of 2.25-2.50%, as a consequence of weaker growth forecasts. The expectations of interest rate rises that existed a few months ago have dissipated as the Federal Reserve, whose mandate consists of maximising employment and stabilising inflation around 2%, declared that it would be patient when deciding new rate movements in view of the latest global economic and financial developments. In addition, the Federal Reserve announced that from May it will slow the reduction in its balance sheet[2] with the intention of completing this process in September.

At its last meeting, the Federal Reserve decided to maintain its benchmark rate in the range of 2.25-2.50%…

For its part, the ECB announced in March its decision to maintain the main refinancing rate, the deposit facility rate and the marginal lending rate at 0%, -0.4% and 0.25%, respectively, and its expectation that these rates will remain low at least until the end of 2019 and even beyond, in order to ensure that inflation would rise in line with the ECB's target (levels below, but close to, 2%). With regard to the asset purchase programme, it reiterated its intention to continue reinvesting the maturing debt for a long period of time and, in any case, as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation. The most significant new development was the announcement of a new programme of targeted longer-term refinancing operations (TLTRO-III), each with a maturity of two years. According to the ECB, these operations will make it possible to maintain favourable bank lending conditions and the smooth transmission of monetary policy (see Exhibit 1).

… and the ECB also decided to leave the official interest rate unchanged and confirmed a new programme of targeted longer-term refinancing operations (TLTRO-III).

2 The balance sheet has been reduced by approximately 11% since October 2017, when the Federal Reserve began the normalisation of its monetary policy.

Towards a shift in the ECB's monetary policy?

EXHIBIT 1

The monetary policy of the European Central Bank over the last decade has been marked by a set of actions intended (within the Bank's inflation-focused mandate) to combat the effects of the economic and financial crisis. These have included both conventional and non-conventional measures, in the framework of a clearly expansive monetary policy.

These measures had three stages: an initial stage up to 2009, in which only conventional decisions were taken, such as lowering interest rates to the level of 1%;[1] a second, more proactive, stage, which began in July 2009, when the first programme[2] to purchase assets in financial markets was approved, which was followed by a set of purchase programmes – both for public and private debt – up to 2014; and, finally, a third ultra-expansive stage of its monetary policy as from 2014, when all these measures proved to be insufficient to prevent low inflation levels over a prolonged period, recover the confidence of economic agents, favour the expansion of lending and, consequently, promote growth. The actions in this last stage were focused on three areas:

i) Successive additional reductions in interest rates, until the benchmark rates were at values of 0% or lower. Accordingly, for example, in June 2014 the deposit facility rate stood in negative territory for the first time (-0.10%), with the aim of promoting growth in lending.

ii) Start in October 2014 of two new private debt purchase programmes: the Third Covered Bond Purchase Programme (CBPP3) and the Asset-Backed Securities Purchase Programme (ABSPP). Subsequently, as from March 2015, the asset purchases included bonds issued by euro area governments and European agencies and institutions (Public Sector Purchase Programme – PSPP) and, finally, the programme was extended once again in June 2016 to include purchases of corporate debt (Corporate Sector Purchase Programme – CSPP). All these programs in turn constituted the Expanded Asset Purchase Programmes (APP).[3]

iii) Establishment, as of September 2014, of a financing facility for the banking sector through a set of longer-term refinancing operations (up to four years) in favourable conditions linked to their loan portfolio, referred to as "targeted longer-term refinancing operations" (TLTRO I and II), which were completed in March 2017.

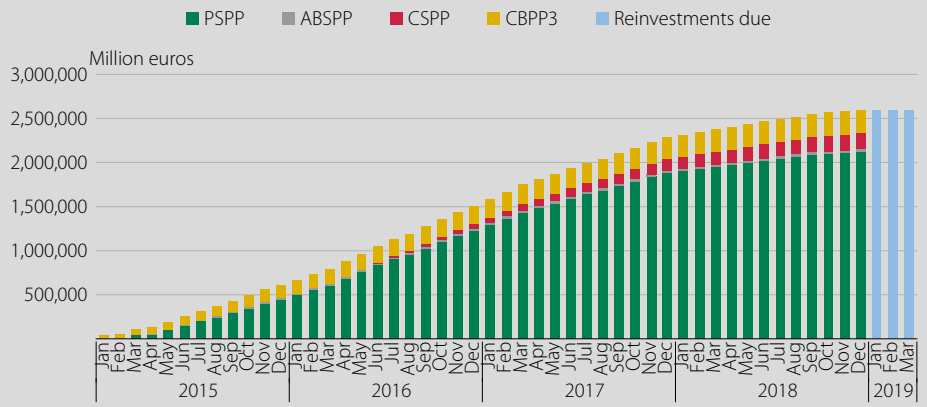
Many of these measures were of an extraordinary nature and the initial objective was to withdraw at least part of them gradually as the economic situation improved, as the Federal Reserve did in the United States at the corresponding time with its monetary expansion programme. Accordingly, over 2017 as the economic recovery in the euro area consolidated (in the context of moderate inflation), the ECB decided to adopt the first measures for partial withdrawal of the stimuli, reducing the amount of its monthly debt purchases, which were once again reduced by half in October of that year, with the aim of phasing them out completely over 2018. Thus, the amount of the purchases and their composition evolved over time depending

on monetary policy needs to end in December of last year, by which point they had accumulated purchases for a value of 2.6 trillion euros (see Figure E1).

During the first half of 2018, the ECB maintained its strategy of gradual withdrawal of the expansive measures, in a context in which economic agents and investors expected a more intense shift in direction in its monetary policy, to make it more restrictive by following the path set by the Federal Reserve, which had already made several rate hikes. Nevertheless, the ECB maintained its rates unchanged and reiterated its commitment to leave them at 0% at least until the summer of 2019.

Accordingly, when the markets assumed that the ECB would initiate a slow exit strategy towards a less accommodative monetary policy, the first signs of weakness in the European economy arrived, which have become more consolidated in the early months of 2019 as new data and economic forecasts for the euro area became known. In this new scenario, in which the ECB itself has shown its concern about the worsening of the economic environment by cutting its growth forecast for the area from 1.7% to 1.1% in 2019, the monetary authority has opted to once again refocus its monetary policy by maintaining its accommodative stance. In fact, at the start of March of this year, its president confirmed the ECB's intention to ensure an "ample degree of monetary accommodation", delaying the first interest rate hike to the end of the year or even longer. Similarly, it has continued with the non-conventional measures as, although the debt purchases ended in December 2018, the ECB will continue to reinvest the assets acquired under this programme when they reach maturity and it has recently announced that in September it will start up a third round of refinancing operations for the banking sector under favourable conditions (TLTRO III).

Cumulative net purchases of the ECB's purchase programmes FIGURE E1



Source: CNMV with ECB data.

1 The interest rate on the main refinancing operations, which had stood at 4.25% since 2000, fell for the first time by 50 bp in October 2008 to 3.75%. Subsequently, there were 6 additional reductions for it to stand at 1% in December 2009.

2 On 9 July 2009, the first Covered Bond Purchase Programme (CBPP1) was launched, which ran until June 2010 and led to purchases for a nominal amount of 60 billion euros. Subsequently, the Securities Market Programme (SMP), which included purchases of public debt issued by euro area governments,

ran from May 2010 to September 2012. The latter programme coincided in time with the second Covered Bond Purchase Programme (CBPP2), which ran from November 2011 to October 2012 and accumulated purchases for a nominal amount of 16.4 billion euros.

3 The programme's debt purchases began in March 2015 with monthly net purchases of 60 billion euros until March 2016, to rise to 80 billion from April 2016 until March 2017. As from April 2017, the monthly net purchases were again reduced to 60 billion euros, and then further reduced in October of that year to 30 billion euros. Finally, as from October 2018, monthly net purchases were reduced again, until they were ended in December of the same year, at 15 billion euros.

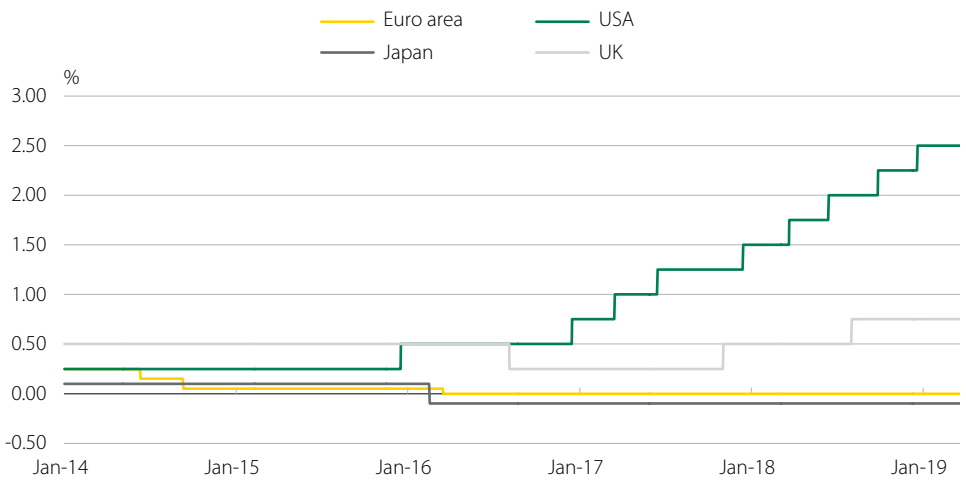
For their part, both the Bank of England and the Bank of Japan decided not to make any changes to official rates or the amounts of their purchase programmes.

Lastly, the Bank of England, in its March meeting, also decided not to change its bank rate, which has remained at 0.75% since August 2008, and the amounts in its asset purchase programme. Similarly, official interest rates in Japan have remained at -0.1% since February 2016. The central bank has expressed its intention to keep them unchanged for a long period of time as a result of the uncertainty relating to economic growth and movements in prices.

Short-term interest rates continued diverging between regions in the first quarter of 2019 due to the different monetary policy stances applied.

Movements in short-term interest rates in the first quarter of the year continue to diverge between regions, as a consequence of the different timing of the monetary policies applied. Thus, 3-month rates in the United States, which had risen by 111 bp in the previous year, recorded a fall of 21 bp in the first quarter of 2019, to stand at 2.6% at the end of March. Similarly, after rising by 39 bp in 2018, 3-month rates in the United Kingdom fell by 6 bp in the early months of the year to stand at 0.85% in March. For their part, short-term interest rates in the euro area, which recorded few changes over 2018, continued along this path in 2019. The 3-month benchmark ended the quarter at -0.31% and the 12-month benchmark ended the quarter at -0.11%.

Central bank interest rates FIGURE 2

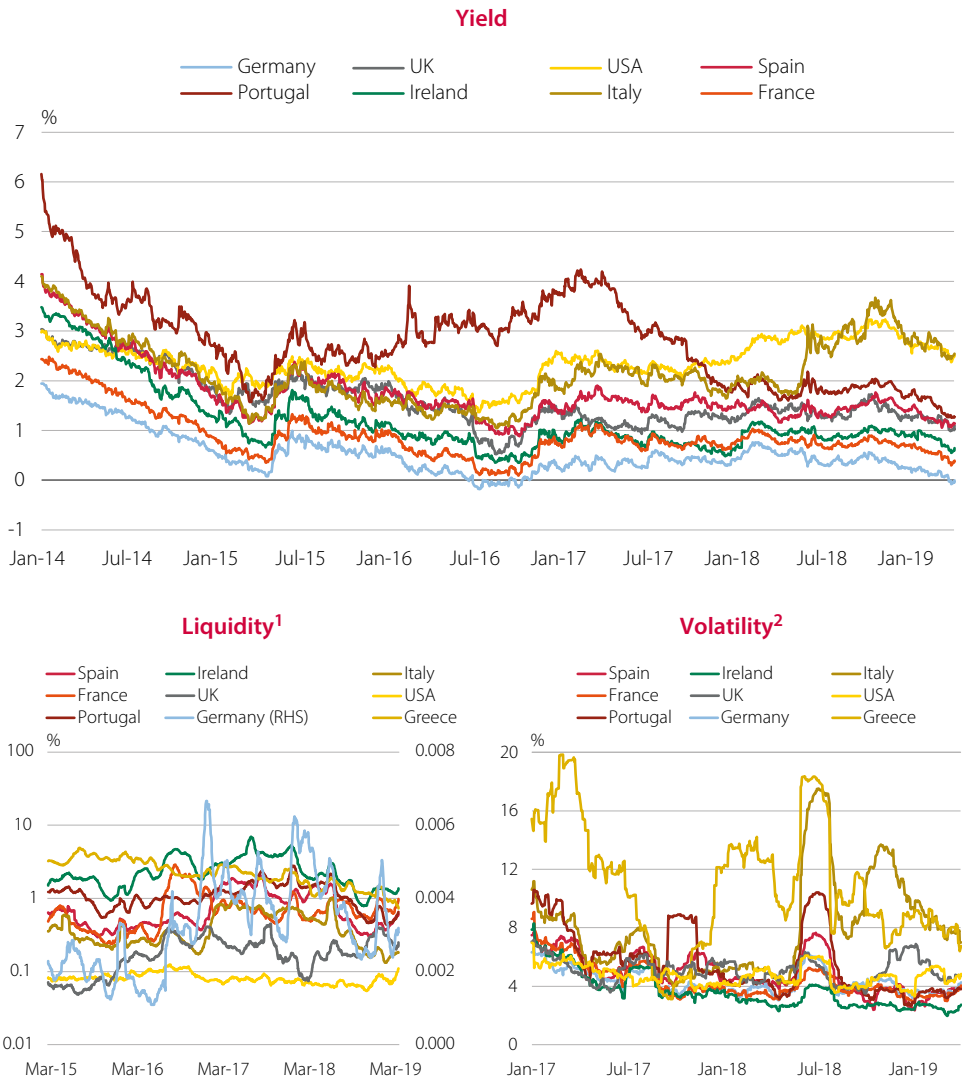


Source: Thomson Datastream. Data to 31 March.

Yields on long-term government bonds performed relatively evenly in the first quarter of 2019, with falls in most advanced economies (in line with expectations about monetary policy). Thus, yields on sovereign bonds fell across the board compared with the previous quarter and the first quarter of 2018, except in the case of Italy, where the yield on the sovereign 10-year bond was 70 bp higher than in March of the previous year.

Sovereign bond yields fell across the board compared with the previous quarter, both in the United States and in the euro area…

Indicators of the 10-year sovereign bond market FIGURE 3



Source: Bloomberg, Thomson Datastream and CNMV. Data to 31 March.

1 One-month average of daily bid-ask spread for yields on 10-year sovereign bonds (logarithmic scale). In the case of the German bond, the one-month average of the bid-ask spread is represented without dividing by the yield average to avoid the distortion introduced by its proximity to zero.

2 Annualised standard deviation of daily changes in 40-day sovereign bond prices.

The most significant falls in the first quarter took place in the euro area due to the maintenance of low interest rates, in the context of a delay in the process of normalising monetary policy. Particularly noteworthy was the fall in the yield of the German 10-year bond (32 bp), which stood in negative figures (-0.07%), as a result of its status as a safe-haven asset. The yield in Portugal fell by 47 bp, to 1.26%; in France

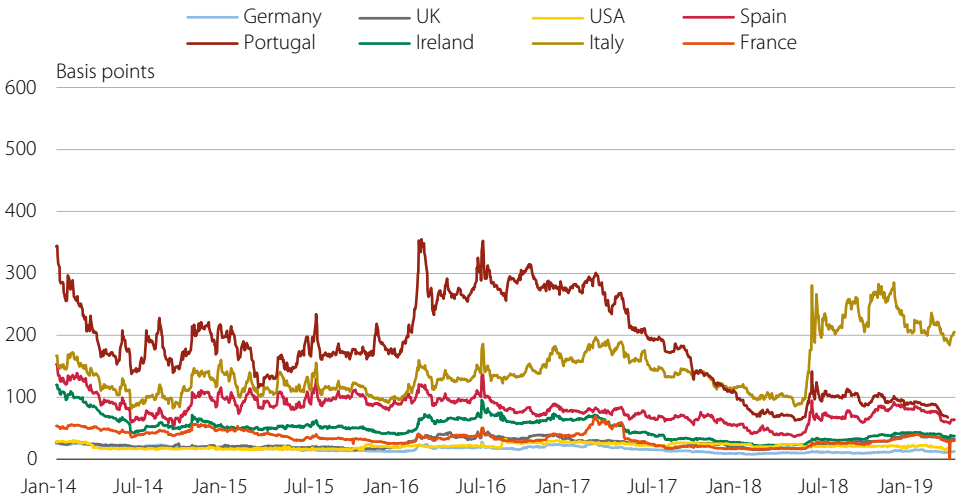
… with the falls being somewhat sharper in the latter region.

by 39 bp, to 0.32%; and in Ireland and Belgium by 35 bp, to 0.56% and 0.42%, respectively. In the United States, sovereign bond yields fell by 28 bp on December 2018, to stand at 2.41%.

Sovereign credit risk premiums fell over the first quarter of 2019.

Sovereign credit risk premiums of advanced economies (as measured by 5-year CDS contracts) fell over the first quarter of 2019, after a year in which, coinciding with downgrades of world growth forecasts, they had generally risen in most economies. There were significant falls in Greece (-96 bp, to 362 bp), Portugal (-16 bp, to 73 bp) and Spain (-17 bp to 64 bp). In Italy, the sovereign risk premium, which had risen by almost 90 bp in 2018 (CDS) due to doubts about the sustainability of Italian public accounts, recorded few changes in the early months of 2019 and remained at levels slightly above 200 bp.

Credit risk premiums on public debt (5-year CDS) FIGURE 4



Source: Thomson Datastream. Data to 31 March.

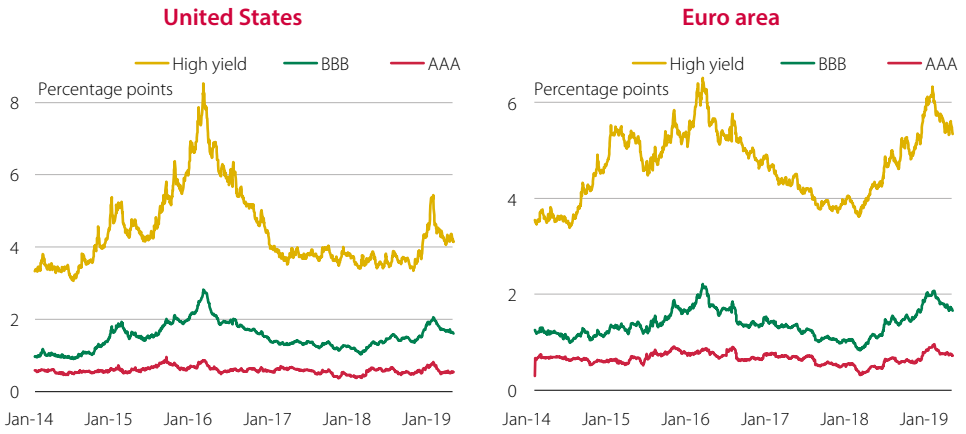
Corporate bond spreads fell in all segments (with greater intensity for high-yield bonds) both in the United States and in the euro area.

Corporate bond spreads in advanced economies fell in all bond segments compared with the values recorded at the end of 2018, a year in which they had risen. These falls were sharper in assets with poorer credit quality both in the United States and in the euro area. In the United States, the credit spread fell by 105 bp in the first quarter of the year, to 427 bp for high-yield bonds; 37 bp for BBB grade, to 164 bp; and 25 bp for AAA grade, to 54 bp. Similarly, in the euro area, corporate bond spreads fell by 64 bp in the high-yield segment, to 553 bp; 27 bp for BBB grade, to 172 bp; and 13 bp for AAA grade, to 76 bp.

Corporate bond spreads

FIGURE 5

Spread vs. the 10-year government bond[1]



Source: Thomson Datastream and CNMV. Data to 31 March.

1 In the euro area versus German public debt.

Global debt issuance in the first quarter of 2019 fell slightly in year-on-year terms due to the fall in net issuance by the financial sector.

Net long-term issuance in global bond markets in the first three months of 2019 (semi-annualised data) fell slightly compared with the first half of 2018 and stood at 1.12 trillion dollars (1.1% down on the same period of the previous year). This fall was mainly the result of the fall in net issuance by the financial sector, which was 22% down on the figure for the same period of the previous year. In contrast, net non-financial sector issuance and net sovereign issuance rose by 12% and 14%, respectively.

In particular, net sovereign debt issuance rose by 54 billion dollars. By region, Europe and the United States recorded an increase, while Japan recorded a substantial fall.

Net sovereign debt issuance rose by 54 billion dollars, to a total amount of 439 billion dollars. In Europe, there was an increase of 158 billion dollars, to a net volume of 221 million dollars, while in the United States, it grew by 145 billion dollars to 200 billion dollars. In contrast, there was a substantial fall in net debt issuance in Japan, which moved into negative figures (-126 billion dollars compared with 37 billion dollars in the first half of 2018).

In contrast, net private sector issuance performed unevenly.

As mentioned above, the trend in private sector issuance was uneven between subsectors, with a fall in issuance by the financial sector and a rise in issuance by the non-financial sector. In the case of the former, total net issuance went from 468 billion in the first half of 2018 to 365 billion in 2019, with the increase coming mostly from Europe, while in the case of the latter, there was an increase of 36 billion dollars, to a volume of 320 billion. The rise in non-financial corporate debt issuance was the result of the upturn in issues in the United States, where they rose by 77% on the first quarter of 2018, to stand at 173 billion dollars.

Net international debt issues

FIGURE 6

Source: Dealogic. Half-yearly data. Data for the first half of 2019 are up to 31 March, but their half-yearly equivalent is shown for comparative purposes.

The leading equity indices, which in 2018 had recorded substantial falls across the board, recorded significant gains in the first three months of 2019.

The leading equity indices, which in 2018 recorded substantial falls, posted gains in the first three months of 2019 and recovered a significant part of the losses recorded in the previous year (in some cases, all of them). These increases took place after investors became aware of the position of the ECB and the Federal Reserve, more inclined to delay, in the case of the former, and to make more gradual, in the case of the latter, the interest rate hikes in the current context of a slowdown in economic growth. Certain progress in the negotiations on trade agreements between China and the United States and the fact that many companies recorded attractive share prices for a good number of investors, following the losses of 2018, also had a positive impact.

By region, both US and European indices recorded significant gains.

US stock indices recorded significant growth in the first quarter of the year: 11.2% in the Dow Jones index, 13.1% in the S&P 500 and 16.5% in the Nasdaq technology index. Similarly, European stock markets recorded significant gains, which ranged between the 8.2% of the Ibex 35 and the 16.2% of the Italian Mib 30 index. The United Kingdom's FTSE 100 index also recorded gains, although it remains conditioned by uncertainty about the development of Brexit negotiations.

Emerging stock markets performed favourably in the first quarter of 2019, with the MSCI equity index recording gains of 9.5%. By region, there were noteworthy gains in Asian indices and, in particular, those linked to the development of the Chinese economy. Accordingly, the Shanghai Composite index gained 23.9% and the Hong Kong Hang Seng index gained 12.4%, which reflects the improvement in trading between China and the United States and the postponement of the increase in tariffs imposed by the US administration on Chinese products. For their part, the Argentinian Merval index and the Brazilian Bovespa gained 10.5% and 8.6%, respectively, while the Mexican stock market grew at a lower rate (3.9%). Among the eastern European economies, there was noteworthy growth in the Russian (RTS) index of over 12%.

Emerging stock markets also performed positively in the first quarter of 2019.

Performance of main stock indices[1] TABLE 1

%

	2015	2016	2017	2018	II 18	III 18	IV 18	I 19
World								
MSCI World	-2.7	5.3	20.1	-10.4	1.1	4.5	-13.7	11.9
Euro area								
Eurostoxx 50	3.8	0.7	6.5	-14.3	1.0	0.1	-11.7	11.7
Euronext 100	8.0	3.0	10.6	-11.2	3.3	1.5	-13.6	13.7
Dax 30	9.6	6.9	12.5	-18.3	1.7	-0.5	-13.8	9.2
Cac 40	8.5	4.9	9.3	-11.0	3.0	3.2	-13.9	13.1
Mib 30	12.7	-10.2	13.6	-16.1	-3.5	-4.2	-11.5	16.2
Ibex 35	-7.2	-2.0	7.4	-15.0	0.2	-2.4	-9.0	8.2
United Kingdom								
FTSE 100	-4.9	14.4	7.6	-12.5	8.2	-1.7	-10.4	8.2
United States								
Dow Jones	-2.2	13.4	25.1	-5.6	0.7	9.0	-11.8	11.2
S&P 500	-0.7	9.5	19.4	-6.2	2.9	7.2	-14.0	13.1
Nasdaq-Composite	5.7	7.5	28.2	-3.9	6.3	7.1	-17.5	16.5
Japan								
Nikkei 225	9.1	0.4	19.1	-12.1	4.0	8.1	-17.0	6.0
Topix	9.9	-1.9	19.7	-17.8	0.9	5.0	-17.8	6.5

Source: Thomson Datastream.

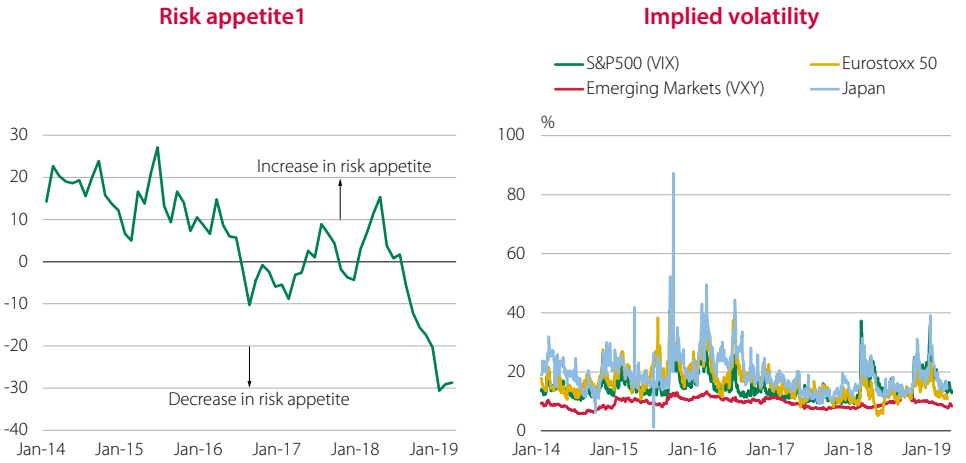
1 In local currency. Data to 31 March.

The implied volatility measures of the most important stock indices, which in some cases rose to values of close to 40% in December, fell over the first quarter of the year to much lower levels. Thus, coinciding with a period of growth in the different indices, implied volatility levels stood at under 15% in most cases (see right-hand panel of Figure 7). The highest levels of implied volatility were recorded in the Nasdaq, the Mib 30 and the Nikkei indices, with figures of slightly under 20%.

Global implied volatility measures fell in the first quarter of the year and stood at low levels.

Financial market indicators

FIGURE 7



Source: Thomson Datastream and CNMV.

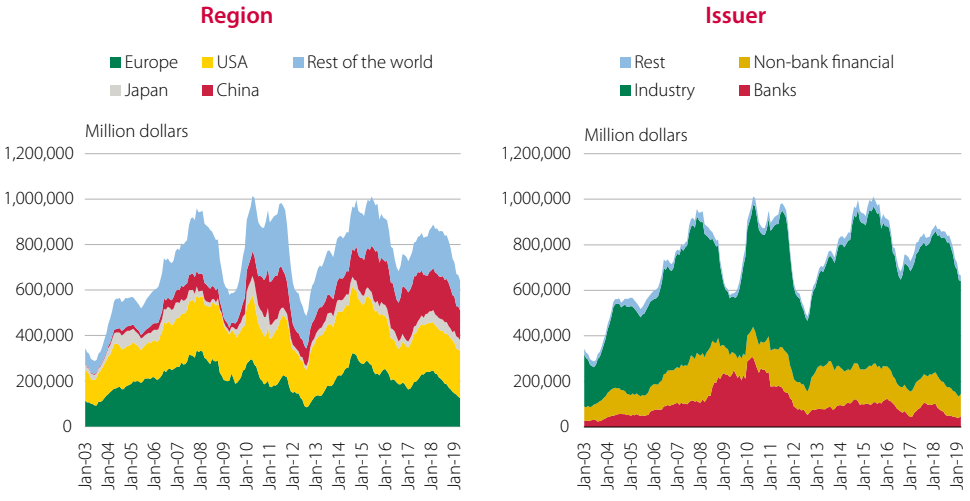
1 State Street indicator.

The volume of equity issuance fell by 37.4% in the first quarter of 2019, with noteworthy falls in utilities and industrial companies.

The volume of equity issuance fell by 37.4% in the first quarter of 2019 to stand at close to 136 billion dollars. There were falls recorded across all the regions studied, particularly in Japan and Europe, where issuance fell by 51.8% and 43.6%, respectively. In China and the United States, the falls were slightly more moderate, at 34.4% and 27.2%, respectively. By sector, equity issuance only grew in the banking sector, with a figure that doubled the amount issued in the same period of the previous year. Falls were recorded in the other sectors, which were sharper in utilities and industrial companies.

Global equity issuance

FIGURE 8



Source: Dealogic. Cumulative 12-month data to 31 March.

2.2 National economic and financial developments

Spain's GDP grew by 2.6% in 2018, 0.8 percentage points more than in the euro area.

Spain's GDP grew by 2.6% in 2018, thus continuing along the expansive path that began in 2014, although at a slightly lower rate than in previous years (3% in 2017 and 3.2% in 2016), in line with the context of slowing economic growth in other economies. However, the slowdown in domestic growth was lower than in the euro area (where growth fell from 2.5% to 1.8%, as a result of the poorer performance of Germany), which raised the difference in growth from 0.5 percentage points (pp) to 0.8 pp.

The contribution of domestic demand to growth remained constant at 2.9 pp in 2018, while the contribution of the external sector ended the year at -0.4 pp (0.1 pp in 2017).

The contribution of domestic demand to GDP growth remained constant at 2.9 pp in 2018, while the contribution of the external sector, which had not ended a year in negative figures since 2015, stood at -0.4 pp (0.5 percentage points lower than in 2017). With regard to the components of domestic demand, growth in public consumption picked up speed between 2017 and 2018 (rising from 1.9% to 2.1%), as did gross fixed capital formation (from 4.8% to 5.3%), while the growth of private consumption recorded a slight slowdown (from 2.5% in 2017 to 2.3% to 2018). With regard to the components of the external sector, both exports and imports recorded a slowdown in growth as a result of the international trade situation. Imports grew by 3.5% (5.6% in 2017) and exports by 2.3% (5.2% in 2017). The sharper slowdown of the latter meant that the contribution of the external sector to growth was negative throughout last year.

On the supply side, growth in value added continued in the construction sector and, to a lesser extent, in the services sector.

On the supply side of the economy, stronger growth was recorded in the construction sector, whose value added grew by 6.8% in 2018 (6.2% in 2017), while slower growth was recorded in the industrial sector, which grew by 1.2% compared with 4.4% in 2017. For its part, the services sector and the primary sector recorded growth in the year as a whole, with a noteworthy increase in the value added of the primary sector, which changed from a fall of 0.9% in 2017 to growth of 1.8% in 2018. In the case of services, value added rose by 2.6% (2.5% in 2017), with a noteworthy increase of 2.3% in financial and insurance activities (0.4% in 2017).

Spain: main macroeconomic variables

TABLE 2

Annual % change

					EC[1]	
	2015	2016	2017	2018	2019	2020
GDP	**3.6**	**3.2**	**3.0**	**2.6**	**2.1**	**1.9**
Private consumption	3.0	2.8	2.5	2.3	2.2	1.4
Government consumption	2.0	1.0	1.9	2.1	1.7	1.5
Gross fixed capital formation, of which:	6.7	2.9	4.8	5.3	3.9	3.3
Construction	3.6	1.1	4.6	6.2	n.a.	n.a.
Capital goods and other	11.8	5.3	6.0	5.4	6.0	4.1
Exports	4.2	5.2	5.2	2.3	3.3	3.4
Imports	5.4	2.9	5.6	3.5	3.5	3.2
Net exports (growth contribution, pp)	-0.3	0.8	0.1	-0.4	0.0	0.1
Employment[2]	**3.3**	**3.1**	**2.8**	**2.5**	**1.7**	**1.5**
Unemployment rate	**22.1**	**19.6**	**17.2**	**15.3**	**14.4**	**13.3**
Consumer price index[3]	**-0.5**	**-0.2**	**2.0**	**1.7**	**1.7**	**1.5**
Current account balance (% GDP)	**1.2**	**2.3**	**1.8**	**0.8**	**1.0**	**1.0**
General government balance (% GDP)[4]	**-5.3**	**-4.5**	**-3.1**	**-2.6**	**-2.1**	**-1.9**
Public debt (% GDP)	**99.3**	**99.0**	**98.1**	**97.2**	**96.2**	**95.4**
Net international investment position (% GDP)	**78.9**	**70.6**	**66.2**	**59.4**	**n.a.**	**n.a.**

Source: Thomson Datastream , European Commission, Bank of Spain and Spanish National Statistics Office (INE).

1 European Commission forecasts from the autumn of 2018, except for 2019 and 2020 GDP and inflation, which were subsequently revised upwards (0.1 percentage points both years, compared with the previous forecast for GDP and 0.5 percentage points less in 2019 for inflation, with the forecast for 2020 remained unchanged).

2 In full-time equivalent jobs.

3 European Commission forecasts refer to the harmonised index of consumer prices.

4 Data for 2015, 2016, 2017 and 2018 include government aid to credit institutions amounting to 0.1%, 0.2%, 0.4% and 0.01% of GDP, respectively.

n.a.: [data] not available.

The inflation rate normalised throughout 2018 as energy inflation decreased. The gap compared with the euro area ended the year at slightly negative figures.

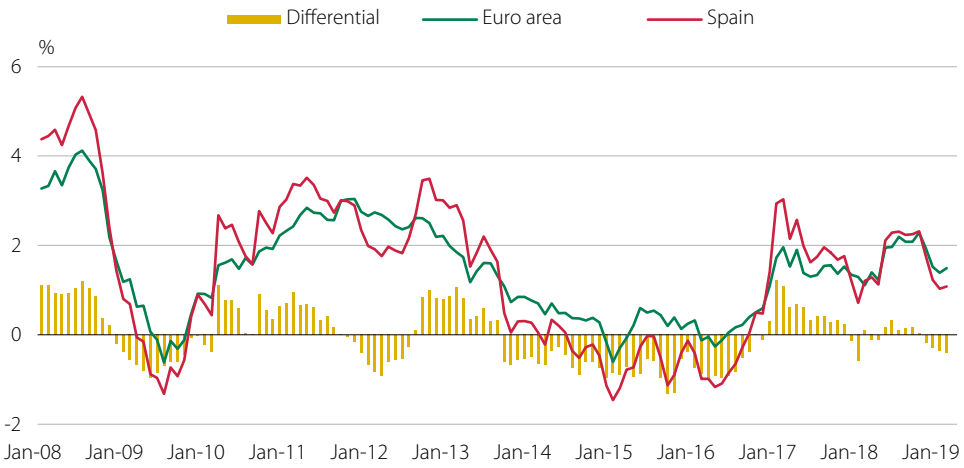
The inflation rate (which exceeded 2% in the middle months of 2018 as a result of higher energy prices) subsequently fell as the energy rate normalised gradually to end the year at 1.2%. It has remained at this rate in the early months of 2019. Core inflation (IPSEBENE), which excludes the more volatile elements in the index, such as energy and unprocessed food, remained in a much narrower range throughout the period (between 0.8% and 1.2%), to end 2018 at 0.9% and record a slight fall in February of this year to 0.7%. The inflation gap with the euro area fluctuated around values close to zero throughout the year and ended December at a slightly negative level (-0.3 pp). The average of this gap over the year was negligible, compared with 0.5 percentage points on average in 2017. In February 2019, this gap fell slightly to -0.4 pp.

Positive job creation data in 2018 (2.5%) helped to reduce the unemployment rate, which remains high.

In the job market, the buoyancy of the economy allowed employment to grow significantly, by 2.5% on average in 2018, but at a slightly lower rate than in previous years (2.8% in 2017 and 3.1% in 2016). Information from the Labour Force Survey

(EPA) indicates that last year the number of employed people rose by 566,200 (2.42 million over the last 5 years) and that the unemployment rate fell to 14.5% in the fourth quarter (16.6% at the end of 2017). Furthermore, year-on-year growth in unit labour costs was positive in 2018, as the increase in remuneration per employee was accompanied by a slight fall in apparent labour productivity.

Harmonised ICP: Spain vs. euro area (annual % change) FIGURE 9



Source: Thomson Datastream. Data to February.

Dynamic growth together with the fall in interest costs allowed the government deficit to fall to 2.6% of GDP in 2018, which allowed Spain to leave the excessive deficit procedure to which it had been subject since 2009.

Public sector finances improved significantly in 2018 as a result of economic growth and lower spending on debt interest. The public deficit ended the year at a rate of close to 2.6% of GDP (3.1% in 2017), which is therefore compatible with Spain leaving the excessive deficit procedure which it has been subject to since 2009. All levels of government that require financing reduced the amount borrowed. Particularly noteworthy was the fall in the deficit of the central government, which dropped from 1.9% in 2017 to 1.6% in 2018; that of the regional governments, which amounted to 0.2% (0.4% in 2017); and, to a lesser extent, that of the social security authorities, which stood at 1.41% (1.44% in 2017). The surplus of the local authorities fell slightly from 0.6% of GDP in 2017 to 0.5% in 2018. Government debt stood at 97.2% of GDP (data from the fourth quarter), and has therefore recorded few changes since the middle of 2014.

The NPL ratio stands at lows not seen since 2011, although low interest rates continue to apply downward pressure on banks' profitability.

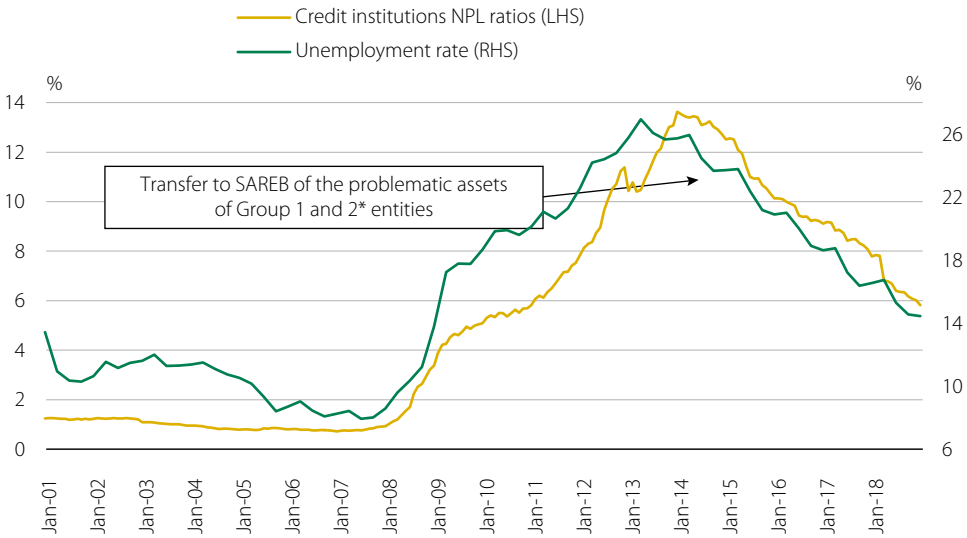
Pending increases in official interest rates (which have been delayed in view of the slowdown in economic growth in the euro area and its effects on inflation), the banking sector continues to operate in an environment of low interest rates which prevents significant improvements in net interest income and faces some structural changes, such as increasing competition from FinTech companies. On a positive note, it is important to stress the fact that the buoyancy of the economy and the favourable performance of the job market continue to allow falls in the NPL ratio, which stood at 5.8% in December (7.8% at the end of 2017), where it stands at lows not seen since March 2011.

The banking sector's aggregate income statement recorded profits of over 12 billion euros in 2018.

Bank income statements show that their activities in Spain led to profits of 12.38 billion euros in 2018 (losses of 3.92 billion euros in 2017, affected by the losses of Banco Popular, which are estimated at 12 billion euros). As mentioned above,

bank profits are still restricted by the context of low interest rates, which prevents improvements in net interest income (23.28 billion euros in 2018 compared with 23.23 billion euros in 2017). The significant reduction in impairment of financial assets and other assets led to the improvement in aggregate profit for the sector (which was the highest recorded since 2009).

Credit institution NPL ratios and the unemployment rate[1] FIGURE 10



Source: Bank of Spain and National Statistics Office (INE). Data to December.

1 Percentage of active population.

* Group 1 transfers took place in December 2012 (36.7 billion euros) and Group 2 transfers in February 2013 (14.09 billion euros).

Bank lending to companies and households grew slightly in January 2019, thus continuing the trend of the previous year.

Bank lending to the non-financial resident sector (companies and households) grew slightly in 2018 (0.7%), exceeding the slight fall in 2017 (-0.1%), and the upward trend continued in the early months of 2019 (1.1% in February). Lending to non-financial companies, which in December 2018 rose by 1% (0.4% in 2017), rose by 1.7% in February. Lending to households, which rose by 0.3% in December, reversing the trend of recent years (-1.3% and -0.6% in 2016 and 2017, respectively), continued to grow in February (0.4%). The expansion of consumer lending (5.0% in February 2019, 5.1% in 2018 and 6.2% in 2017) offset the fall in the outstanding balance of home purchase loan (-1.1% in February 2019, -1.3% in 2018 and -2.7% in 2017).

The size of the banking sector fell in 2018, thus resuming the downward trend that began in 2012.

The size of the banking sector, in terms of the aggregate volume of assets from its activity in Spain, fell in 2018 to 2.58 trillion euros (2.65 trillion euros in 2017), thus resuming the downward trend that began in 2012 and was temporarily interrupted in 2017. Some of the most important sources of funding, such as deposits and borrowing from the Eurosystem, recorded falls. Banks' equity recorded a slight fall in 2018, which was sharper in the item including provisions for impairment losses, both of loans and of other assets.

Non-financial listed companies obtained aggregate profit of 22.15 billion euros in 2018, 34% down on 2017, as a result of the heavy losses of a few companies.

Non-financial listed companies obtained aggregate profit of 22.15 billion euros in 2018, 34% down on 2017. This performance was uneven between sectors and

companies as, if the poor performance of 4 companies[3] (out of a total of 119) is discounted, the total aggregate profit would have grown by 4.9%, which would be more in line with the buoyancy of the domestic economy. By sector, the largest increases took place in industrial companies, whose profits grew by 8.4% in the year, to over 5.7 billion euros, and in companies from the retail and services sector (deducting the figures of Abengoa), which recorded 7.8% growth in profit. The consolidated profit for the year of energy sector companies grew by 4.2%.[4] Construction and real estate companies recorded a significant fall in aggregate profit, which was also concentrated in a small number of companies,[5] although the performance of their accounts was more evenly spread (profits fell even after deducting those of the largest companies).

Profit by sector: non-financial listed companies TABLE 3

Million euros

	Operating profit		Profit before tax		(Consolidated) profit for the year	
	2017	**2018**	**2017**	**2018**	**2017**	**2018**
Energy	11,562	9,571	10,043	7,739	9,727	5,773
Industry	7,491	7,560	6,753	7,162	5,269	5,714
Retail and services	15,158	15,959	17,651	12,669	13,588	8,540
Construction and real estate	5,877	5,370	4,958	4,397	5,009	2,124
Aggregate total	**40,088**	**38,460**	**39,405**	**31,967**	**33,593**	**22,150**

Source: CNMV.

The aggregate debt of non-financial listed companies recorded very little change in 2018 (0.7%), and therefore the aggregate leverage ratio remained at levels under 1.

The aggregate debt of non-financial listed companies recorded very little change in 2018, with an increase of 0.7% to a little over 230 billion euros. This increase was the result of the growth in the debts of retail and services companies, which rose from 81.19 billion euros in 2017 to 84.87 billion euros in 2018 and, to a lesser extent, industrial companies (from 19.71 billion euros to 21.13 billion euros). In contrast, the debt level of energy companies and construction and real estate services companies fell over the year a whole. The aggregate leverage ratio, measured as the debt to equity ratio, barely changed in 2018, rising from 0.97 to 0.98. At the end of the year, the lowest ratio corresponded to industrial companies (0.57) and those related to the energy business (0.73). Lastly, the debt coverage ratio, measured using the ratio of debt to operating profit, worsened slightly as a result of the aforementioned fall in margins.

3 Naturgy (energy), Abengoa (retail and services), OHL and Ferrovial (both from the construction and real estate services sector).

4 Excluding Naturgy's losses, which were close to 2.6 billion euros in 2018.

5 OHL, Ferrovial and Colonial.

CNMV initiative to promote the presence of women on boards of directors and in senior management

EXHIBIT 2

In October 2018, the CNMV decided to publish a separate report with information reported by listed companies in their annual corporate governance reports (ACGRs) on the presence of women on boards of directors and in senior management. The aim of publishing this data is to promote a greater presence of women at the highest level of governance in these companies, in line with the various provisions and recommendations established both in the recast text of the Corporate Enterprises Act and in the Good Governance Code of Listed Companies with regard to these listed companies approving policies that ensure diversity on their boards of directors.

The report, published for the first time at the end of October 2018, contains individualised data for each listed company and information grouped into three categories of company: Ibex 35 companies, companies with a level of capitalisation of over 500 million euros and other companies. For each company, it includes the number of women directors by category (executive, proprietary, independent and other external directors) and their percentage with regard to the boards as a whole in each one of the categories, as well as the total number of women directors and their percentage of the board as a whole. In addition, the report contains the same data with regard to senior management, i.e., the number of women in senior management of each listed company and their percentage with regard to the total number of senior managers.

According to the data reported by the listed companies in their ACGRs for year-end 2017, the average percentage of women on the boards of directors was 18.9%, still far from the target of 30% for 2020 established in Recommendation 14 of the Good Governance Code or the "balanced presence" referred to in Article 529.*bis*.2 of the recast text of the Corporate Enterprises Act. This percentage also decreases as the capitalisation of companies decreases (see Table E2.1).

In addition, at year-end 2017, only 15 listed companies (10.8% of the total), had a percentage of women on their board equal to or higher than that established in the aforementioned recommendation. In contrast, there were 19 companies, none of which belong to the Ibex 35, that did not have any woman on their board of directors.

The distribution by director category shows that most of the women directors discharge their office as independent directors, followed by proprietary directors and other external directors, and that only 4.5% of directors with executive functions are women.

Lastly, the percentage of women in the senior management of listed companies is low, standing at 14.8%, which is below the aforementioned percentage of women directors.

Presence of women on the board of directors and in senior management

TABLE E2.1

	2017							
	Total women		Ibex 35		Over 500 million euros[1]		Under 500 million euros[1]	
	Number	% / total	Number	% / total	Number	% / total	Number	% / total
Total women directors	**258**	**18.9**	**103**	**22.8**	**81**	**18.4**	**74**	**15.6**
Proprietary	72	15.7	19	16.5	30	17.7	23	13.2
Executive	10	4.5	3	4.2	2	2.8	5	6.4
Independent	163	28.1	77	33.9	46	27.5	40	21.4
Other external	13	12.2	4	10.3	3	9.4	6	16.7
Women in senior management (excl. senior management board members)	**156**	**14.8**	**62**	**14.3**	**60**	**16.9**	**34**	**12.9**

Source: CNMV.

1 Information is presented on the companies whose capitalisation meets this criterion.

The financial position of households (debt and wealth) continues to improve although the savings rate fell sharply to stand at 4.9% of disposable income in the fourth quarter of 2018.

The latest data on the financial position of households reveal that both their savings rates and their debt-to-income and debt burden ratios continued to fall in 2018. The fall in the savings rate, which dropped from 5.5% of gross disposable income (GDI) at the end of 2017 to 4.9% in 2018, is a result of buoyant aggregate consumption in a context of a slight increase in remuneration per employee. The debt-to-income ratio fell from 100.2% of GDI at year-end 2017 to 98.3% in September 2018 as a result of both a reduction in the level of debt and an increase in the level of aggregate disposable income. The debt burden ratio fell slightly (from 11.5% of GDI to 11.4%) given the stability of the average cost of debt, which is at low levels in the context of growing income. Net household wealth rose in 2018 (from 542.6% of GDP to 553.1%) mainly due to the increase in the value of real estate assets. Financial wealth fell slightly to 182% of GDP.

Household's financial investment decisions continue to prioritise more liquid assets and mutual funds…

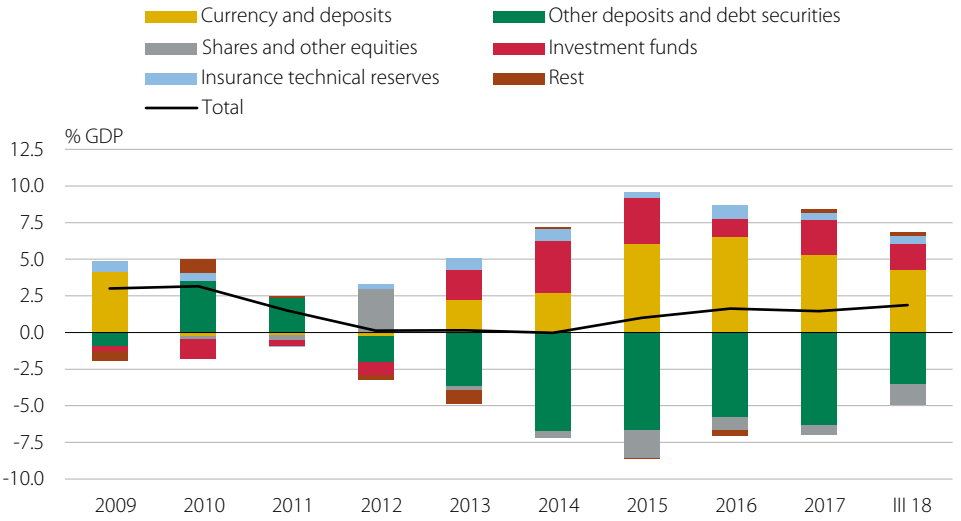
Households' net financial investments rose to 1.9% of GDP in 2018 (1.5% in 2017), thus maintaining the trends of previous years but generally with lower amounts. Households continued investing in payment instruments (4.2% of GDP) and reducing their investments in term deposits and bonds (3.6% of GDP) and in shares (1.4% of GDP). Households once again purchased units in mutual funds, although for a slightly lower amount than in previous years, probably as a result of market turmoil at the end of the year. In total, they invested in these products a volume of resources equivalent to 1.8% of GDP (2.4% in 2017).

… and within the latter, investors continued to prefer higher-risk categories, although the turbulence at the end of the year modified this pattern in the final months.

Unit-holders in mutual funds continued to prefer higher-risk categories, thus following the trend of recent years, although volumes were lower as the investor profile changed in the final part of the year, coinciding with the periods of sharp stock market falls, which led to higher risk aversion and greater preference for more conservative categories. In 2018 as a whole, the most conservative categories recorded

net redemptions of close to 6.8 billion euros, while higher-risk categories received a significant inflow of investment (close to 17.6 billion euros in total). Among the latter category, there was significant investment in global funds (over 9.4 billion euros). Net subscriptions in equity funds (mixed, euro and international) ranged between 1.79 billion euros and 3.86 billion euros depending on the category.

Households: net financial asset acquisitions FIGURE 11



Source: Bank of Spain, *Financial Accounts*. Cumulative data from four quarters.

2.3 Outlook

The latest IMF forecasts confirm the slowdown in world growth, which is expected to stand at 3.3% this year (3.6% in 2018) and 3.6% in 2020…

According to the latest IMF forecasts published in April, global GDP growth will continue to slow this year and will stand at 3.3% (3.6% in 2018), before rising slightly to 3.6% in 2020. These forecasts imply a downward revision of 0.2 percentage points for this year compared with the forecasts published in the January report. A large part of the slowdown in economic growth is due to trade restrictions, the loss of the impact of factors that had a positive effect in the past and the presence of various sources of political and financial uncertainty. In the advanced economies, GDP growth will stand at 1.9% this year (2.2% in 2018), with euro area growth standing at 1.3% (1.8% in 2018), with growth in the United States of 2.3% (2.9% in 2018). In Europe, there were noteworthy downward revisions in growth forecasts for Germany and Italy, of 1 percentage point in only a few months (between the downgrade of January and that of April), to expected growth rates of 0.8% and 0.1%, respectively, for this year. Emerging and developing economies are forecast to grow by 4.4% this year and by 4.8% next year (0.1 percentage points down in both cases compared with the previous forecast).

… in a scenario where several risks of various types persist.

The most significant risks looming over this scenario are downside risks and result from the negative effects of the restrictions on world trade and the effect of the normalisation of monetary policy in the United States, the presence of other sources of uncertainty, including the possibility that the United Kingdom will leave the European union without a deal (hard Brexit), and an intensification of doubts about debt sustainability in some European economies. In the euro area, the delay in the

process of raising interest rates as a result of the sharp slowdown in economic growth prolongs an environment in which banks are finding it difficult to increase their profitability and in which some market participants are more willing to invest in higher-risk assets (search for yield) or to raise their level of debt.

Gross Domestic Product TABLE 4

Annual % change

					IMF[1]	
	2015	2016	2017	2018	2019	2020
World	3.5	3.3	3.7	3.6	3.3 (-0.2)	3.6 (0.0)
United States	2.9	1.6	2.2	2.9	2.3 (-0.2)	1.9 (0.1)
Euro area	2.1	1.9	2.4	1.8	1.3 (-0.3)	1.5 (-0.2)
Germany	1.5	2.2	2.5	1.5	0.8 (-0.5)	1.4 (-0.2)
France	1.0	1.1	2.3	1.5	1.3 (-0.2)	1.4 (-0.2)
Italy	1.0	0.9	1.5	0.9	0.1 (-0.5)	0.9 (0.0)
Spain	3.6	3.2	3.0	2.5	2.1 (-0.1)	1.9 (0.0)
United Kingdom	2.3	1.8	1.7	1.4	1.2 (-0.3)	1.4 (-0.2)
Japan	1.4	1.0	1.7	0.8	1.0 (-0.1)	0.5 (0.0)
Emerging economies	4.3	4.4	4.7	4.5	4.4 (-0.1)	4.8 (-0.1)

Source: IMF.

1 In brackets, change compared with the previous published forecast (IMF, forecasts published in April 2019 compared with January 2019).

In Spain, economic growth is also slowing down, but less intensely than in the euro area.

According to the latest IMF forecasts published in April 2019, the GDP of the Spanish economy will grow by 2.1% this year and by 1.9% in 2020. These forecasts are a downward revision by 0.1 percentage points for this year compared with the January estimate, while they remain the same for 2020. These forecasts confirm the slowdown in growth in Spain, but also the difference compared with the significant downward revisions that the IMF has made across the board with regard to other important economies. With these figures, the growth gap between Spain and the euro area would stand at 0.8 percentage points this year and 0.4 points next year (0.8 pp on average between 2016 and 2018).

Despite this relative strength, significant sources of vulnerability can also be seen.

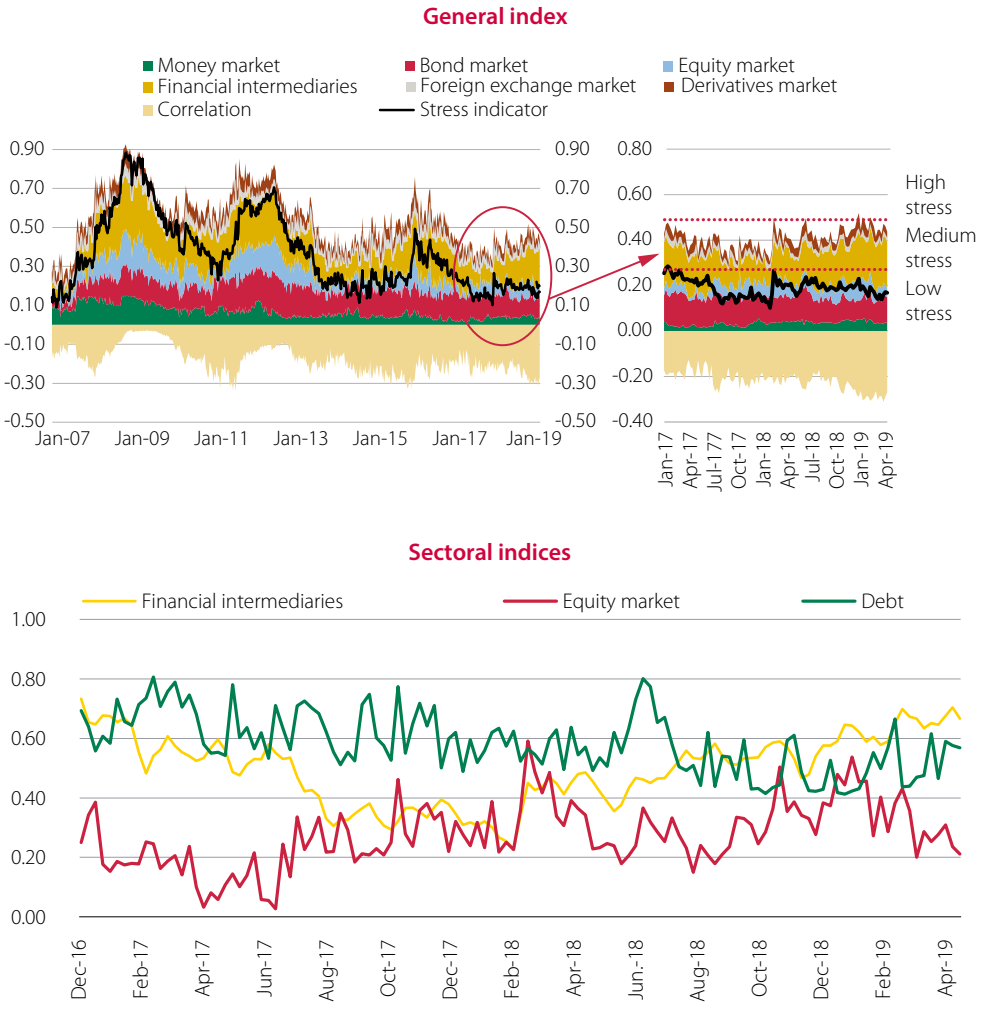
The most significant risks to the domestic economic outlook, some of which are common to other European economies, are related to: i) the challenges faced by the banking sector in raising its profitability and strengthening its solvency; ii) the need to further consolidate public accounts and, in particular, reduce the level of public debt; iii) the high, although falling, unemployment rate together with the challenges resulting from an ageing population; iv) the negative impact for the business of Spanish exporters exposed to markets with more trade restrictions; and v) the prolongation of some sources of domestic political uncertainty.

3 Spanish markets

The Spanish financial market aggregate stress index remains at low levels (0.17 at the end of the first quarter), although there is a significant level of stress in some individual segments, such as the financial intermediary segment and the debt settlement.

The Spanish financial markets stress index[6] has remained at levels considered compatible with low stress over recent months (below 0.27), only recording slight upturns at some times of uncertainty related to Italy. At the end of March, this index stood at 0.17. Much of the low level of the stress index is the result of the low correlation between the six segments considered, since, as it is a systemic risk measure,

Spanish financial market stress index FIGURE 12



Source: CNMV.

6 The stress index developed by the CNMV provides a real-time measurement of systemic risk in the Spanish financial system in the range of zero to one. To do so, it assesses stress in six segments of the financial system and aggregates them into a single figure bearing in mind the correlation between said segments. Econometric estimates consider that market stress is low when the indicator stands below 0.27, intermediate in the interval of 0.27 to 0.49, and high when readings exceed 0.49. For more detailed information on the recent progress of this indicator and its components, see the CNMV's quarterly Financial Stability Note and statistical series (market stress indicators) available at www.cnmv.es/portal/Menu/Publicaciones-Estadisticas-Investigacion.aspx. For further information on the indicator's methodology, see Cambón, M.I. and Estévez, L. (2016). "A Spanish Financial Market Stress Index (FMSI)", Spanish Review of Financial Economics, Vol. 14, No. 1, pp. 23-41, or as CNMV Working Paper No. 60 (http://www.cnmv.es/DocPortal/Publicaciones/MONOGRAFIAS/Monografia_60_en.pdf).

the general index only records significant increases if the level of stress rises in every segment at the same time for a prolonged period, which is not the case at the moment. However, there is a considerable level of stress in some of the individual segments analysed. As shown in the bottom panel of Figure 12, this is the case in the financial intermediary segment (mostly banks) and the debt segment, whose stress levels stood at 0.66 and 0.57, respectively, at the end of the first quarter. In the case of the former, the high stress level is mainly the result of the fall in prices in the sector, while in the case of the latter, it is the result of the worsening liquidity of the sovereign debt bond.

3.1 Equity markets

Equity markets recorded significant gains in the first quarter, which allowed them to recover part of the losses of 2018.

Spanish stock markets, which had ended 2018 with significant falls, began the year with notable gains that allowed part of the previous year's losses to be recovered. Although the uncertainties relating to Brexit remain present, stock prices rose thanks to the boost of the trade negotiations between the United States and China, which resulted in a postponement of the rise in tariffs and a relaxing of trade tensions between the two countries, as well as the expectation that the ECB will maintain its accommodative monetary policy over time[7] as a result of the notable slowdown in growth in the euro area. In addition, European indices were favoured by the recovery of indices in the United States, where the Federal Reserve[8] maintained its interest rates unchanged and also indicated the possibility that there may be no more rate hikes at all in 2019.

The largest gains in share prices were concentrated in large companies in the electricity, construction, technology and consumer goods sectors, as well as in small-cap companies.

The Ibex 35 began the year with rises that became more moderate as the quarter progressed, as a result of doubts about the future development of the euro area economy, in which the slowdown in growth[9] is increasingly evident. The price gains were not spread evenly across all sectors and securities in the Spanish market, but were concentrated in large companies, particularly companies in the electricity sector, as well as companies in the construction, technology and capital goods and consumer goods sectors. Small-cap companies also performed well as they were favoured by their lower international exposure and their greater dependence on the domestic market, which continues to perform well, in the context of a slowdown in economic growth. The smallest gains corresponded to medium-cap companies and banks. The former suffered from worsening expectations and a slowdown in the European economy as a result of their greater exposure to these markets, while the latter were adversely affected by the continuing scenario of low interest rates, which applies downward pressure on their margins.

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7 The ECB's president confirmed his intention of maintaining "an ample degree of monetary accommodation", delaying until the end of 2019 or longer the first interest-rate hike, which will be accompanied as from September by a new round of injections of liquidity for banks (TLTRO III). The ECB also expressed its concern about the worsening economic environment and cut the growth forecast for the euro area for 2019 from 1.7% to 1.1%.

8 See Section 2.1.

9 Italy is currently in recession (its GDP fell by 0.1% and 0.2% in the third and fourth quarters of 2018 respectively), while Germany has managed to avoid recession but its economy has suffered significantly due to the relative importance of its export sector (its GDP fell by 0.2% in the third quarter and it recorded growth of 0.02% in the fourth quarter).

Performance of Spanish stock market indices and sectors

TABLE 5

Indices	2016	2017	2018	I 18[1]	II 18[1]	III 18[1]	IV 18[1]	I 19[1]
Ibex 35	-2.0	7.4	-15.0	-4.4	0.2	-2.4	-9.0	8.2
Madrid	-2.2	7.6	-15.0	-3.9	-0.1	-2.5	-9.3	8.0
Ibex Medium Cap	-6.6	4.0	-13.7	-1.4	1.9	0.8	-14.8	4.7
Ibex Small Cap	8.9	31.4	-7.5	11.1	5.6	-5.6	-16.4	9.4
FTSE Latibex All-Share	71.0	9.0	10.3	11.1	-12.4	11.4	1.8	14.0
FTSE Latibex Top	67.8	7.3	14.8	7.5	-9.4	12.9	4.5	11.7
Sectors[2]								
Financial and real estate services	**-1.6**	**10.5**	**-27.1**	**-3.7**	**-8.7**	**-5.1**	**-12.6**	**2.7**
Banks	-1.8	10.6	-29.0	-4.5	-9.9	-5.3	-12.9	2.7
Insurance	15.5	0.1	-12.8	-0.9	-0.2	2.3	-13.8	2.9
Real estate and others	-2.3	17.6	-26.1	-5.6	3.3	-10.9	-15.0	-2.9
Oil and energy	0.8	3.9	6.1	-4.8	12.0	-1.4	0.9	9.6
Oil	32.6	9.9	-4.5	-2.2	16.3	2.4	-18.0	8.4
Electricity and gas	-4.3	2.0	8.9	-6.1	10.6	-2.5	7.6	9.9
Basic materials, industry and construction	**2.0**	**2.6**	**-8.6**	**-1.8**	**2.4**	**2.7**	**-11.5**	**18.2**
Construction	-7.9	9.9	-3.4	-7.3	6.7	4.5	-6.5	18.7
Manufacture and assembly of capital goods	7.8	-19.3	-10.4	8.1	-6.2	-5.2	-6.8	19.9
Minerals, metals and metal processing	48.8	14.2	-25.3	1.8	-6.2	7.5	-27.2	7.5
Engineering and others	9.9	-9.9	-21.3	-2.0	7.2	-1.4	-23.9	14.4
Technology and telecommunications	**-9.0**	**7.5**	**-5.5**	**-0.2**	**-0.9**	**4.8**	**-8.8**	**9.0**
Telecommunications and others	-14.2	-5.1	-8.2	-0.1	-8.5	-5.3	6.1	3.7
Electronics and software	7.9	36.6	-0.1	-0.3	11.9	17.4	-23.7	17.3
Consumer goods	**0.2**	**-2.1**	**-16.7**	**-8.4**	**12.4**	**-6.5**	**-13.5**	**14.3**
Textile, clothing and footwear	2.6	-10.4	-23.1	-12.4	15.0	-10.8	-14.4	17.2
Food and drink	-5.4	5.2	-8.4	3.7	1.7	1.4	-14.4	12.2
Pharmaceuticals and biotechnology	-6.4	14.6	-6.4	-5.6	11.5	-0.8	-10.3	11.6
Consumer services	**-8.0**	**23.3**	**-19.7**	**-4.0**	**-1.1**	**-4.9**	**-11.1**	**2.0**
Motorways and car parks	-3.1	39.5	-34.7	-1.8	-0.1	-9.9	-27.2	2.7
Transport and distribution	-15.7	32.3	-11.5	-3.4	1.7	-2.7	-7.5	0.3

Source: BME and Thomson Datastream.

1 Change on the previous quarter.

2 IGBM sectors. Under each sector, data are provided for the most representative sub-sectors.

The Ibex 35 gained 8.2% in the first quarter of the year…

The Ibex 35, which had recorded falls of 2.4% and 9%, respectively in the last two quarters, to accumulate losses of 15% in 2018, recovered part of these losses and closed the first quarter of the year with a gain of 8.2%. It therefore stands at similar levels to those of October of last year. This upward movement followed the trend of the leading benchmark European indices,[10] although the gains in the Spanish market, together with those of the German market, were more moderate. Similarly, the price rises in European markets took place in an environment of low volatility and falls in trading volume. The gain of the leading Spanish market index stood at

10 The main European indices also recorded positive figures: Eurostoxx 50 (11.7%), Dax 30 (9.2%), Cac 40 (13.2%), with particularly strong gains in the Mib 30, which rose by 16.2%.

halfway between the gain recorded by the shares of small-cap companies (9.4%) and those of medium-cap companies (4.7%), whose performance was more discreet. The indices representing Latin American shares that are listed in euros, FTSE Latibex All-Share and FTSE Latibex Top, recorded gains of 14% and 11.7%, respectively, in the first quarter thanks to the positive performance of Latin American markets[11] (especially Brazil, with a noteworthy improvement in its economy,[12] as well as the appreciation of their currencies with regard to the euro.[13]

… with gains in most market sectors, which were sharper in the construction, capital goods, textile, technology and energy and oil sectors.

With the exception of real estate companies, every sector ended the quarter with gains, although they were very unevenly spread among sectors and companies, as indicated above. A more detailed analysis reveals that the most significant rises corresponded to companies from the construction and the capital goods sectors, as well as from the consumer goods sector. Within consumer goods companies, there was a noteworthy recovery in the leading company in the textile sector (Inditex), which, despite strong competition from e-commerce, managed to improve its sales and increase its profits. Also noteworthy was the performance of companies from the oil and energy sector, as well as those from the technology and software sector. On the one hand, electricity companies benefited from the expected maintenance of low interest rates, which reflects their defensive nature, and expectations of stability in their profits thanks to low and stable finance costs. On the other hand, the leading oil company benefited from the recovery in oil prices.[14] In addition, technology and Internet companies once again rose significantly, supported by the recovery in share prices in the technology sector in the United States and investor confidence in their business models.

The increase in share prices in the quarter, together with the slowdown in growth of corporate profits, led to an increase in the price-earnings (P/E) ratio to 11.5, from the lowest level since 2012 that it had recorded in December (10.8).

Significant gains in share prices in the quarter, together with the slowdown in the expected growth in corporate profits over the coming months, allowed the price-earnings (P/E) ratio of the Ibex 35 to rise from 10.8 in the middle of December — its lowest level since the first half of 2012 — to 11.5 in March. As shown in Figure 13, the P/E ratios of the most significant stock market indices worldwide recorded a similar performance over the quarter, incorporating the recovery in their share prices. Despite the improvement in prices, with the exception of the US S&P 500 index, every ratio stands below its average value over the period between 2010 and 2019.

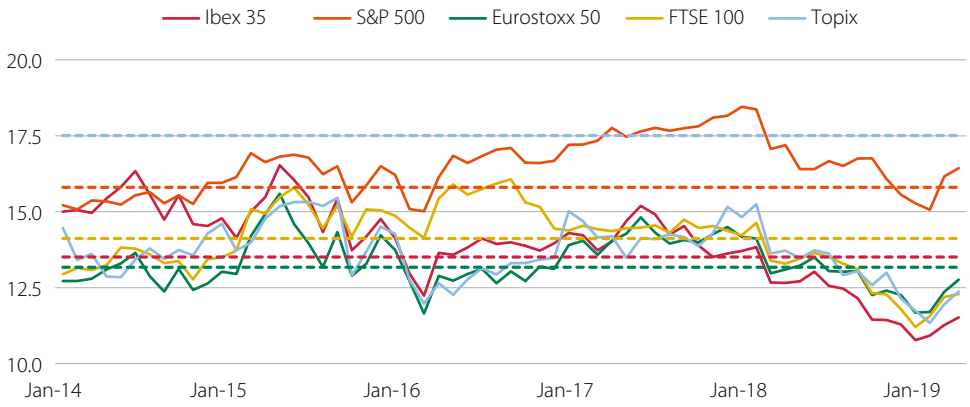
11 The main stock market indices of the Brazilian and Mexican markets recorded gains of 8.5% and 3.9%, respectively, in the local currency.

12 Brazil's GDP grew by 1.1% and 1% in 2018 and 2017, respectively, after falls of 3.3% and 3.5% in 2016 and 2015, respectively.

13 In the first quarter of the year, the Brazilian real gained 1% with regard to the euro, while the Mexican peso gained 3.4%.

14 Oil prices rose by 27.1% in the first quarter of 2019, to stand at 68 dollars per barrel.

Price-earnings ratio[1] (P/E ratio) FIGURE 13



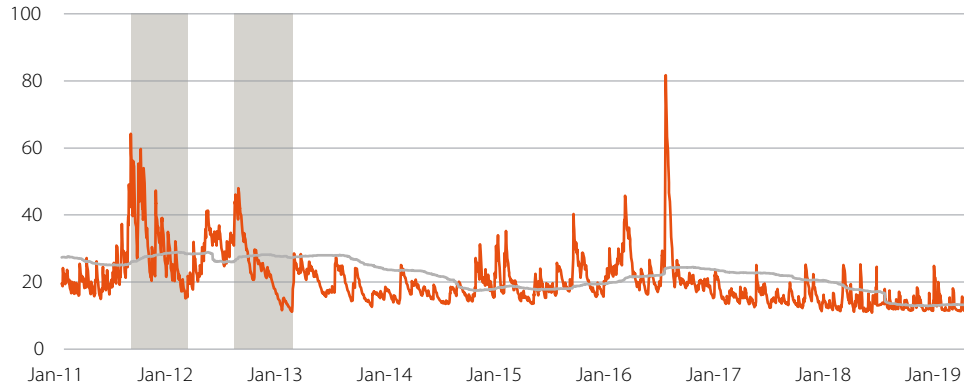
Source: Thomson Datastream. Data to 15 March.

1 Twelve-month forward earnings.

Volatility, which remained at low levels for most of 2018, continued to fall in the early months of 2019, as it did in the leading international stock markets.

Ibex 35 volatility, which had remained at low levels for most of 2018, recording temporary upturns associated with the different episodes of uncertainty affecting markets in the United States and in Italy, once again fell in the first quarter of this year, as it did in the leading international markets. Thus, at the end of the quarter, Ibex 35 volatility fell to levels of close to 12%, slightly below the average of this period (13.0%) and the average of the previous quarter (14.5%), as well as the figures recorded in 2018 (close: 18.6% and average: 15.1%). The movements in volatility in the Spanish market were similar to those of other European indices, such as the Eurostoxx 50 (11.4% at the end of the quarter), but its changes were less pronounced than those seen in US indices[15] (the volatility of the Dow Jones moved within a range of over 20 percentage points over the quarter).

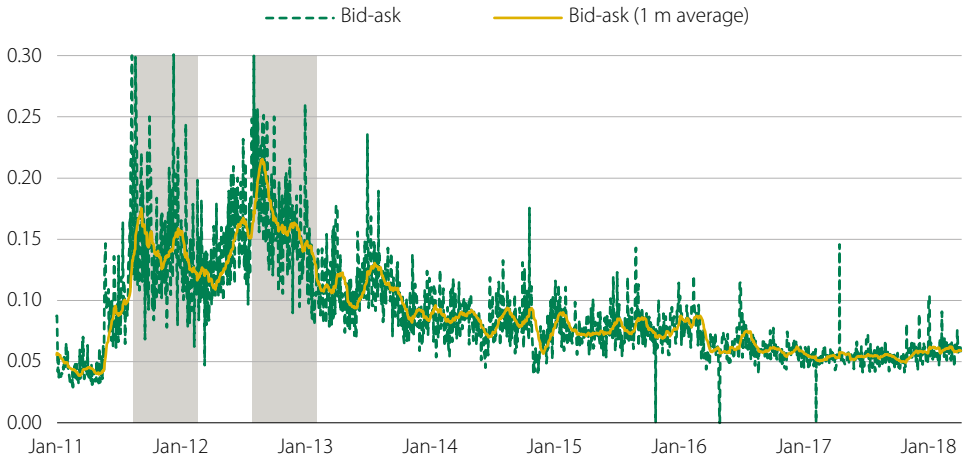
Historical volatility of the Ibex 35 FIGURE 14



Source: Thomson Datastream and CNMV. The blue line tracks conditional volatility and the red line unconditional volatility. The grey shaded areas refer to the introduction and lifting of the short selling ban running from 11 August 2011 to 16 February 2012, and the later ban starting on 23 July 2012 and ending on 1 February 2013. The first ban affected financial institutions and the second ban applied to all companies.

15 At the end of March, the volatility of the Dow Jones and VIX indices stood at values of close to 10.4% and 13.7%, respectively, while at year-end 2018, it had reached values of over 29% and 22%, respectively.

Ibex 35 liquidity. Bid-ask spread FIGURE 15



Source: Thomson Datastream and CNMV. The curve represents the bid-ask spread of the Ibex 35 along with the average of the last month. The grey shaded areas refer to the introduction and lifting of the short selling ban running from 11 August 2011 to 16 February 2012, and the later ban starting on 23 July 2012 and ending on 1 February 2013. The first ban affected financial institutions and the second ban applied to all companies.

Liquidity remained at satisfactory levels, although there was a slight widening of the bid-ask spread.

Ibex 35 liquidity, as measured by the bid-ask spread, remained stable in the first quarter of the year, with a slight widening in the spread, despite the fall in market volatility. This spread stood at 0.057% in the first quarter of the year, at levels similar to those of the previous quarter, but below the historic average of this indicator (0.092%).

Despite the rise in share prices, trading of Spanish equity fell by 17.4% in year-on-year terms.

Despite the recovery in stock market prices, trading in Spanish equity fell once again in the first quarter of the year, as the environment of low volatility discourages some types of trading, such as algorithmic trading and HFT.[16] Consequently, trading of Spanish equity securities fell by 17.4% in year-on-year terms, to under 194 billion euros.[17] This was in line with the trend of most European stock markets, in which there was also a significant fall in trading.[18] Average daily trading volumes on the electronic market stood at 1.7 billion euros in the first quarter, 25.9% down on the same period of 2018 and below the average for that year (2.29 billion euros). In fact, average daily trading on the electronic market reached its lowest level in recent years, which also reflects the fall in trading of international stock markets, the fragmentation of the Spanish market and the fall in BME's market share in favour of other competing trading venues and markets.

16 High Frequency Trading

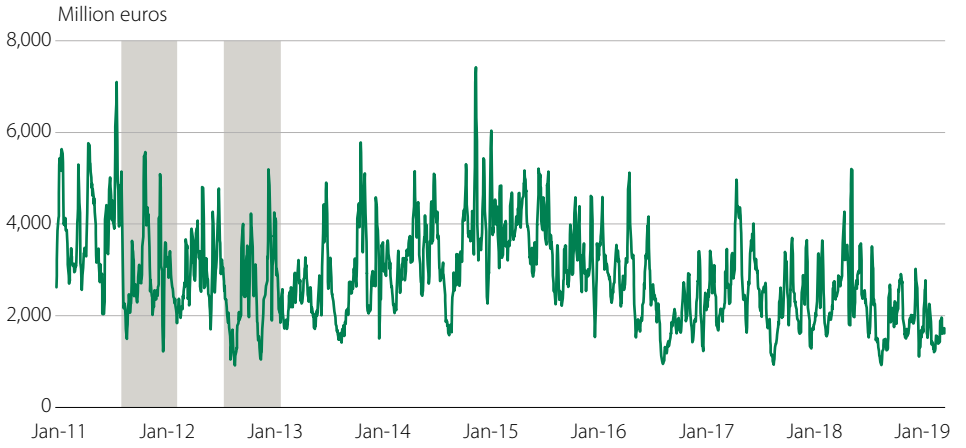
17 Of this amount, it is estimated that around 58% corresponds to lit trading and the rest to dark trading. Both types of trading are subject to market rules, but they fall under different transparency regimes. It should be noted that the competing trading venues and markets of BME account for approximately 60% of dark trading and that their market share, only taking into account lit trading, stood at 35.9% in the first quarter of the year.

18 According to data from the World Federation of Exchanges, trading up to February fell sharply year-on-year in the leading European stock markets: by 16.7% in Euronext, 26.3% in London Stock Exchange Group (London and Italy), 22.6% in Deutsche Borse and 13.9% in Cboe Europe.

The trading of Spanish securities on competing trading venues and markets other than the home market accounted for 45% of total trading in the first quarter.

With regard to the distribution of the trading of Spanish securities, a total of 106 billion euros corresponded to the Spanish regulated market (25.9% down in year-on-year terms), while 87.5 billion euros (4.2% down year-on year) were traded on competing trading venues and markets. Despite a slight fall in trading on competing training venues and markets, their market share continued to grow to stand at almost 45% of total trading, a record high (almost 5 percentage points up on year-end 2018). With regard to trading abroad, the regulated market Cboe Global Markets (Cboe), which operates through two different order books, BATS and Chi-X, remains particularly important. It recorded trading of almost 68 billion euros in the first quarter (7.7% down year-on-year), which amounted to almost 80% of the total amount traded abroad and almost two thirds of the total amount of Spanish securities traded in the home market (see Table 17). Similarly, as was the case in previous quarters, the distribution of trading between the two order books continues to shift in favour of BATS. For its part, the operator Turquoise continued to lose market share, to stand at around 11% compared with 12% in the previous quarter, while the other operators maintained their relative importance (close to 11.5%).

Daily trading on the Spanish stock market[1] FIGURE 16



Source: CNMV. The grey shaded areas refer to the introduction and lifting of the short selling ban running from 11 August 2011 to 16 February 2012, and the later ban starting on 23 July 2012 and ending on 1 February 2013.

1 Moving average of five trading days.

Trading in Spanish shares listed on Spanish exchanges[1]

TABLE 6

Million euros

	2015	2016	2017	2018	III 18	IV 18	I 19
Total	**1,161,482.8**	**877,413.3**	**932,771.9**	**930,616.1**	**193,976.4**	**220,784.3**	**193,634.8**
Listed on SIBE	1,161,222.9	877,402.7	932,763.1	930,607.1	193,974.0	220,782.2	193,633.8
BME	925,978.7	631,107.2	633,385.7	579,810.4	116,051.4	131,345.2	106,068.5
Chi-X	150,139.9	117,419.4	117,899.2	106,869.7	25,272.1	26,217.5	22,921.2
Turquoise	35,680.5	51,051.8	44,720.1	42,833.4	10,543.9	10,423.7	9,520.5
BATS	35,857.6	44,839.8	75,411.6	171,491.3	37,214.3	42,639.2	45,011.1
Other	13,566.2	32,984.5	61,346.5	29,552.2	4,892.3	10,156.5	10,112.5
Open outcry	246.1	7.5	8.1	8.2	2.0	2.1	0.9
Madrid	19.4	3.2	1.8	0.8	0.1	0.7	0.0
Bilbao	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Barcelona	219.1	4.1	6.3	7.4	1.9	1.4	0.9
Valencia	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Second market	13.8	3.2	0.7	0.8	0.4	0.0	0.1
Pro memoria							
Foreign shares traded on BME	12,417.7	6,033.0	6,908.0	3,517.1	841.5	717.0	901.5
Alternative stock market (MAB)	6,441.7	5,066.2	4,987.9	4,216.3	762.0	1,152.9	932.6
Latibex	258.7	156.7	130.8	151.6	31.6	43.0	38.8
ETFs	12,633.8	6,045.2	4,464.1	3,027.6	456.6	623.7	467.1
Total BME trading	957,990.5	648,418.9	649,885.3	590,732.0	118,145.5	133,772.4	108,409.4
% Spanish shares on BME vs. total Spanish shares	80.1	71.9	68.3	62.6	60.1	59.8	55.1

Source: Bloomberg and CNMV.

1 Includes trading of Spanish shares subject to market or MTF rules (lit plus dark). Spanish shares on Spanish stock exchanges are those with a Spanish ISIN that are admitted to trading on the regulated market of Bolsas y Mercados Españoles (BME), i.e., not including the Alternative Stock Market (MAB). Foreign shares are those which are admitted to trading on the regulated market of BME whose ISIN is not Spanish.

The issuance of new shares in the first quarter was concentrated in capital increases with pre-emptive subscription rights and, to a lesser extent, in scrip dividends. Similarly, no IPO took place during the quarter.

In the first quarter of the year, equity issues made on Spanish markets amounted to 1.9 billion euros (see Table 7), 42% down on the amount issued in the same quarter of 2018, although in that period there was the capital increase with non-monetary consideration corresponding to the issue of Bankia shares for the takeover of Banco Mare Nostrum (BMN). In the first few months of 2019, most of the capital increases that took place were capital increases raising funds with pre-emptive subscription rights, including that of Cellnex Telecom for close to 1.2 billion euros. The other capital increases consisted primarily of scrip dividends, which amounted to less than one quarter of the amount recorded in the same period of 2018.[19] Despite the positive performance of share prices, there was no IPO in the quarter, although various companies are preparing to go public in the coming months.

19 It is common in the first few days of January each year for several large companies, mainly from the electricity and energy sector, to distribute scrip dividends.

Capital increases and public offerings

TABLE 7

	2016	2017	2018	II 18	III 18	IV 18	I 19
NUMBER OF ISSUERS[1]							
Total	**45**	**47**	**46**	**12**	**19**	**24**	**14**
Capital increases	45	45	45	12	19	24	14
Public offers for subscription	3	3	2	0	0	2	1
Public offering of shares	2	4	1	0	0	0	0
NUMBER OF ISSUES[1]							
Total	**81**	**91**	**81**	**14**	**19**	**26**	**15**
Capital increases	79	84	80	14	19	26	15
Public offers for subscription	4	4	2	0	0	2	1
Public offering of shares[2]	2	7	1	0	0	0	0
CASH AMOUNT[1] (million euros)							
Capital increases raising funds	**13,846.7**	**25,787.7**	**7,389.9**	**426.1**	**1,776.7**	**3,288.2**	**1,586.0**
With pre-emptive subscription right	6,513.3	7,831.4	888.4	63.0	109.2	141.5	1,552.5
Without pre-emptive subscription right	807.6	956.2	200.1	0.0	0.0	200.1	10.0
Accelerated book builds	0.0	821.8	1,999.1	0.0	89.0	1,910.1	0.0
Increases with non-monetary consideration[3]	1,791.7	8,469.3	2,999.7	0.0	1,263.4	557.3	0.0
Capital increases by debt conversion	2,343.9	1,648.8	388.7	223.9	153.3	9.9	13.0
Other	2,390.2	6,060.2	913.9	139.2	161.7	469.4	10.5
Bonus issues[4]	**5,898.3**	**3,807.3**	**3,939.7**	**133.1**	**2,120.3**	**323.5**	**311.0**
Of which, scrip dividend	5,898.3	3,807.3	3,915.2	133.1	2,120.3	299.0	311.0
Total capital increases	**19,745.1**	**29,595.0**	**11,329.6**	**559.2**	**3,787.8**	**3,586.7**	**1,897.0**
Secondary offerings	**506.6**	**2,944.5**	**733.7**	**0.0**	**0.0**	**0.0**	**0.0**
***Pro memoria*: MAB transactions**[5]							
Number of issuers	15	13	8	3	3	2	4
Number of issues	21	15	12	3	4	2	4
Cash amount (million euros)	219.7	129.9	164.5	95.7	52.3	3.4	17.3
Capital increases	219.7	129.9	164.5	95.7	52.3	3.4	17.3
Of which, public offer for subscription	9.7	17.1	0.0	0.0	0.0	0.0	0.0
Public offering of shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: BME and CNMV.

1 Transactions registered with the CNMV. Not including figures for MAB, ETFs or Latibex.

2 Transactions linked to the exercise of green shoe options are separately accounted for.

3 Capital increases for non-monetary consideration have been stated at market value.

4 In scrip dividends, the issuer gives existing shareholders the option of receiving their dividend in cash or converting it into shares in a bonus issue.

5 Transactions not registered with the CNMV.

3.2 Fixed-income markets

The agreement between the Italian government and the European Union and confirmation by the ECB that changes in its monetary policy would be slow and progressive led to new falls in the yield on both public and private…

Both Spanish and European bond markets, in which asset yields had relaxed in the final months of the previous year, continued this trend in the first quarter of 2019 following confirmation of the agreement between the Italian government and the European authorities and the announcement by the European Central Bank[20] that economic growth will be weaker than expected (in the context of contained

20 In its statement at the end of January, the ECB reported weaker than expected economic growth and that inflation was contained. Subsequently, at the start of March, it postponed the first interest rate rise until the end of 2019 or later. In addition, it announced that in September it would implement a new round of liquidity injections into the banking sector (TLTRO III).

inflation), which results in postponement of decisions to tighten monetary policy and leaves the door open to new expansive measures.

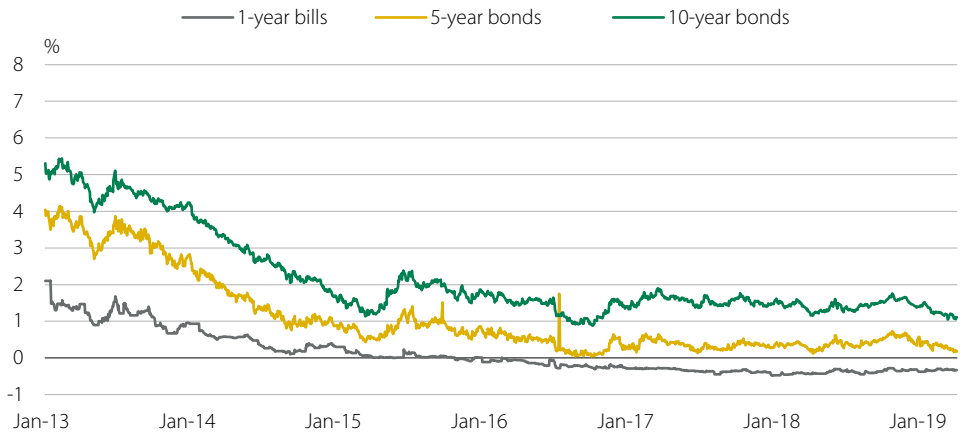
… debt assets, which were larger at the longer maturities, in line with the main European economies.

Yields on Spanish medium and long-term government bonds, like those of the other main European economies, recorded slight falls, which were sharper at the longer maturities as they incorporated market expectations that the accommodative monetary policy would be maintained for some time. Despite the end of the ECB's corporate sector purchase programme[21], long-term corporate bond yields also fell. The credit risk premium on Spanish public debt remained unchanged at 117 bp, as the size of the fall in Spanish yields was similar to that of German yields.

Fixed-income issuance by Spanish issuers remained stable in the first quarter, with noteworthy growth in issues of bonds, both registered with the CNMV and abroad.

In a context of interest rates with a downward bias and market stability, debt issuance by Spanish issuers remained stable in the first quarter of the year in year-on-year terms, although the movements were not evenly spread across the different types of assets. There was noteworthy year-on-year growth in issues of bonds (both those registered with the CNMV and those registered abroad), while issues of other assets fell, particularly of asset-backed securities. Following a second half of the year marked by uncertainties and market instability, non-financial issuers took advantage of the buoyant moment in the market to obtain medium and long-term financing. In addition, banks may have delayed their financing decisions as they wait for the ECB to implement its announced third round of liquidity injections for the sector in September.[22]

Spanish government debt yields FIGURE 17



Source: Thomson Datastream.

The yield on short-term public debt continued in negative figures in the first quarter of the year (and for the fourth year running), while the yield on commercial paper rose slightly.

Yields on short-term debt rose slightly in the first quarter, taking them away from the area of historic lows at which they stood at year-end 2018. However, these movements were uneven in the different maturities and between government debt and private fixed income, as the rises in the case of the latter were more significant.

21 The corporate sector purchase programme ended on 19 December 2018, but it maintains the reinvestment of principal payments from maturing securities. At 29 March 2019, The ECB held a corporate bond portfolio of 177.7 billion euros acquired under this programme.

22 The ECB will carry out a new programme of targeted longer-term refinancing operations (TLTRO III), which will begin in September and end in March 2021, with a duration of two years.

Yields on government bonds remained in negative figures for the short-term stretch of the curve for the fourth consecutive year, due to confirmation and continuation over time of the ECB's ultra-expansive monetary policy. Accordingly, at the end of March, the secondary market yields on 3-month, 6-month and 12-month Spanish Treasury Bills stood at -0.40%, -0.36% and -0.32%, respectively. These levels are slightly higher than those of the previous quarter, but close to the minimum annual yield of -0.40% established by the ECB[23] in its debt purchase programmes (the deposit facility rate). All auctions of Spanish Treasury Bills on the primary market were again settled at negative rates, with the latest auctions, in March, settled at a similar rate to those in previous auctions. The yields on short-term corporate debt show greater dispersion, with yields on 6-month and 12-month commercial paper standing at similar values to those recorded at year-end 2015. Yields when issued ranged between the 0.25% for the 3-month benchmark and the 0.65% for commercial paper at 12 months (see Table 8).

Short-term interest rates[1] TABLE 8

%

	Dec-16	Dec-17	Dec-18	Jun-18	Sep-18	Dec-18	Mar-19
Spanish Treasury Bills							
3 months	-0.47	-0.62	-0.50	-0.52	-0.46	-0.50	-0.40
6 months	-0.34	-0.45	-0.41	-0.43	-0.41	-0.41	-0.36
12 months	-0.25	-0.42	-0.33	-0.34	-0.37	-0.33	-0.32
Commercial paper[2]							
3 months	0.18	0.39	0.24	0.25	0.31	0.24	0.25
6 months	0.20	0.26	0.19	0.12	0.26	0.19	0.41
12 months	0.15	0.19	0.07	0.18	0.36	0.07	0.65

Source: Thomson Datastream and CNMV.

1 Monthly average of daily data.

2 Interest rates at issue.

The yield on long-term government bonds fell thanks to confirmation of the ECB's accommodative monetary policy.

Yields on medium-term and long-term government bonds began the quarter with falls, which became more intense following confirmation that the ECB would maintain its accommodative monetary policy, in an environment that is showing a slowdown in economic growth in the euro area and that is not without both economic and political uncertainties. The 3-year and 5-year yields fell by around 20 bp to their lowest level since the first half of 2017, while the yield on the benchmark 10-year bond fell by almost 30 bp to its lowest level since the third quarter of 2016. Following these movements, the average yield on 3-year, 5-year and 10-year government bonds in March stood at -0.14%, 0.24% and 1.14%, respectively (see Table 9). Over the quarter, the yield curve changed from recording negative figures up to the 3-year term to showing negative figures up to the 4-year term, with slightly positive values only recorded as from the 5-year benchmark.

23 The ECB has maintained this yield limit for the reinvestment of assets acquired under its purchase programmes.

Yields on corporate debt followed a relatively similar path to that of government debt, but with greater dispersion, as the 5-year benchmark hardly changed. Yields generally returned to levels similar to those at the start of the second half of 2018, when the ECB's corporate sector purchase programme remained active (the central bank currently maintains the reinvestment of maturing securities). At the end of the first quarter, yields on 3-, 5- and 10-year corporate bonds stood at 0.44%, 0.56% and 1.32%, respectively, with falls of close to 20 bp for 3- and 10-year bonds and stability for 5-year bonds. The risk premium for 10-year corporate bonds, which over much of 2018 had recorded negative values, followed the trend that began at the end of the year, when it rose into positive figures, and grew to 18 bp.

Corporate bond yields also fell to levels similar to when the ECB's corporate sector purchase programme was active, although falls were uneven across maturities.

Medium and long-term bond yields[1]

TABLE 9

%

	Dec-16	Dec-17	Dec-18	Jun-18	Sep-18	Dec-18	Mar-19
Government bonds							
3 year	0.04	-0.09	-0.04	-0.06	0.00	-0.04	-0.14
5 year	0.35	0.31	0.44	0.41	0.49	0.44	0.24
10 year	1.44	1.46	1.43	1.38	1.51	1.43	1.14
Corporate bonds							
3 year	0.69	0.44	0.67	0.44	0.47	0.67	0.44
5 year	1.43	0.41	0.55	0.36	0.59	0.55	0.56
10 year	2.14	1.16	1.52	1.23	1.41	1.52	1.32

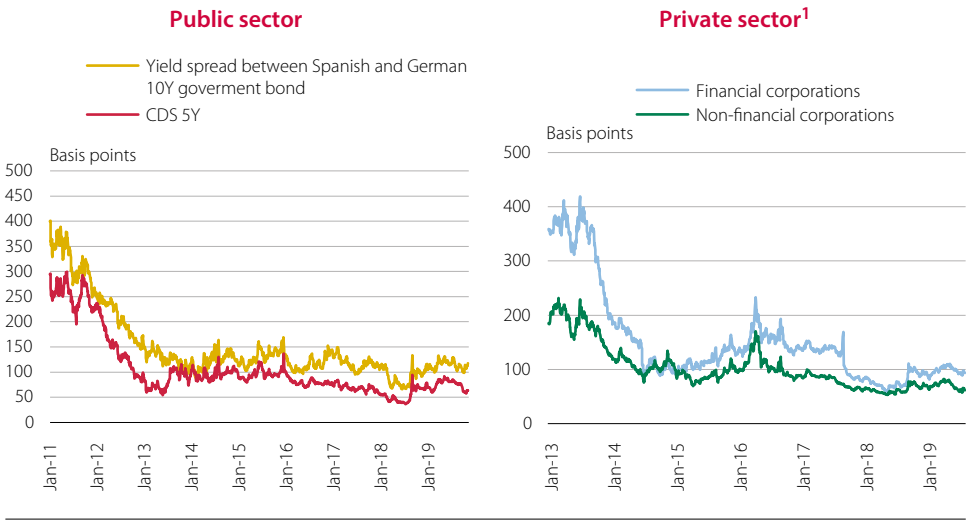
Source: Thomson Datastream, Reuters and CNMV.

1 Monthly average of daily data.

The sovereign risk premium began the quarter with slight rises, which gradually disappeared following confirmation of the expansive policy of the European Central Bank and the reduction in political uncertainties relating to Italian public finances. In this context, the risk premium, measured as the spread between the Spanish sovereign bond and the 10-year German bond, stood at 117 bp at the end of March, similar to the figure recorded at the end of 2018, after fluctuating between 98 bp and 129 bp. In contrast, the risk premium assessed through the CDS of the Spanish sovereign bond, whose market is less liquid than that of the German bond, fell slightly, by 16 bp, and closed the quarter at 64 bp (see left-hand panel of Figure 18).

The sovereign risk premium remained unchanged in the first quarter and ended March at 117 bp.

Risk premium paid by Spanish issuers FIGURE 18



Source: Thomson Datastream and CNMV.

1 Simple average of the 5-year CDS of a sample of issuers.

The risk premiums of the private sectors of the economy fell slightly, which might be due to the positive impact of maintenance of the ECB's accommodative monetary policy on their finance costs and the availability of greater liquidity.

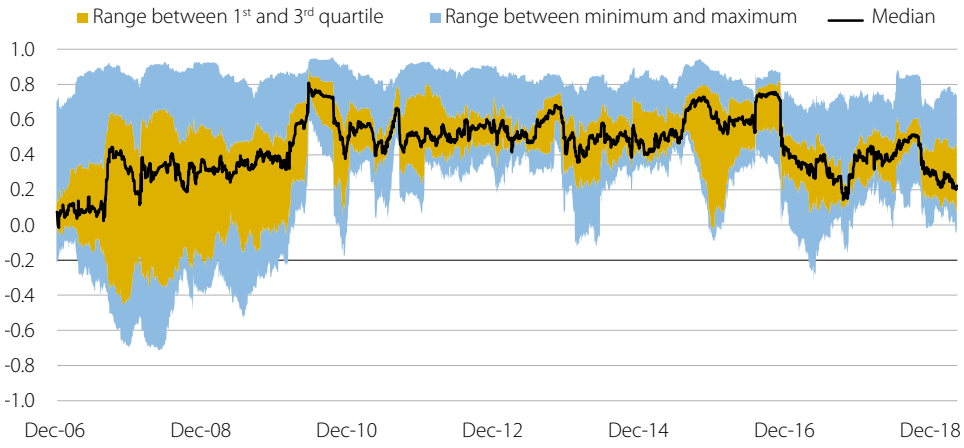
The risk premiums of the private sub-sectors of the economy performed slightly differently from that of sovereign debt and fell slightly. This may be the result of expectations that the ECB's monetary policy will be maintained and its positive impact on companies' finance costs, particularly for the most indebted companies. In the case of banks, although, *a priori*, a scenario of rising interest rates favours the widening of their interest margin, the new scenario described by the ECB, with no interest rate hikes in the short-term and with a third round of targeted longer-term refinancing operations (TLTRO III), may have benefits for the banking sector, as it facilitates their access to long-term low-cost financing and might prevent an increase in non-performing assets in an environment of economic slowdown and rising risks. In addition, both in the case of non-financial companies and in the case of banks, despite the end of the ECB's debt purchase programmes,[24] markets continue to benefit from the reinvestment of maturing securities acquired under these programmes. As shown in the right-hand panel of Figure 18, the average of the CDS of financial institutions stood at 94 bp at the end of March, below the 108 bp at which it started the year. In the case of non-financial companies, the average risk premium was 64 bp, compared with 78 bp at the end of the previous quarter.

The correlation between asset prices, which had decreased in the second half of 2018, has remained stable in the first three months of 2019 at low levels.

The level of correlation between the prices of the different financial asset classes, which fell significantly in the second half of 2018 at the time of the falls in stock prices, has remained stable at low levels and stands at its lowest point since the end of 2017. This value is lower than the average recorded over the last decade and is compatible with investors discriminating between the different types of asset available.

24 It should be remembered that these included the Corporate Sector Purchase Programme (CSPP), the Covered Bond Purchase Programme (CBPP3) and the Asset-Backed Securities Purchase Programme (ABSPP).

Indicator of correlation between asset classes[1, 2] FIGURE 19



Source: Thomson Datastream and CNMV.

1 The indicator of correlation between asset classes is based on pairs of correlations calculated using daily data in 3-month windows. The asset classes are sovereign debt, corporate fixed income of financial and non-financial firms and Ibex 35 stocks of financial companies, utilities and the other sectors. A high correlation between Spanish asset classes points to gregarious investor behaviour, possibly due to the heightened volatility typical at times of stress. Also, diversification would hold out fewer advantages since it would be harder to avoid exposure to sources of systemic risk.

2 As from 7 June 2017, the calculation of the return on the asset class corresponding to financial fixed income excludes the CDS on the 5-year senior debt of Banco Popular.

The volume of fixed-income issues registered with the CNMV rose slightly in the first quarter, although it remains at low levels.

The CNMV registered 20.53 billion euros of gross bond issues in the first quarter of 2019, almost 2% up on the same period of 2018. The issue volume, which remains at low levels, is the result of the existence of other attractive sources of alternative financing, including: i) issues abroad, which continue to rise; ii) traditional bank lending, which is more easily accessible than in previous periods and therefore many companies are taking advantage at this time to refinance under improved conditions;[25] and iii) the third round of financing for financial institutions announced by the ECB, which reduced their need to borrow on capital markets.

Bond issues grew, particularly as a result of the issues by the SAREB, while issues of asset-backed securities and mortgage covered bonds fell.

The largest falls in issues (both in absolute and in relative terms) were seen in issues of asset-backed securities (-77%) and mortgage covered bonds (-46%). In the case of the former, financial institutions might have delayed their financing in the quarter pending publication by the ECB of its specific long-term financing programme for banks, while the latter remained limited by the balance of outstanding mortgage loans, which continues to fall,[26] with activity therefore limited to renewal of the maturing issues. In addition to these factors, there is the regulatory uncertainty relating to the fact that Spain has not yet transposed to national law the new Securitisation Regulation, which entered into force on 1 January 2019. The growth in issues was concentrated in uncovered bonds, which increased threefold, thanks to three issues by the SAREB (Management Company for Assets Arising from the Banking Sector Reorganisation) for an aggregate amount of over 10.2 billion euros. Also

25 According to Bank of Spain data, the balance of lending to non-financial companies rose to February by 1.7% year-on-year, to stand at 886.97 billion euros.

26 Up to February, according to Bank of Spain data, the outstanding balance of mortgage loans to households fell by 1.1% year-on-year to 518.84 billion euros.

noteworthy was an issue by BBVA of contingent convertible perpetual preferred securities aimed at institutional investors for an amount of 1 billion euros.

Gross fixed-income issues registered with the CNMV

TABLE 10

					2018		2019
Registradas en la CNMV	**2015**	**2016**	**2017**	**2018**	**III**	**IV**	**I[1]**
NOMINAL AMOUNT (million euros)	**136,607**	**139,028**	**109,487**	**101,296**	**11,793**	**58,433**	**20,531**
Mortgage covered bonds	31,375	31,643	29,824	26,575	5,050	14,700	2,745
Territorial covered bonds	10,400	7,250	350	2,800	0	2,800	0
Non-convertible bonds and debentures	39,100	40,170	30,006	35,836	1,431	28,246	13,620
Convertible/exchangeable bonds and debentures	53	0	0	0	0	0	0
Asset-backed securities	28,370	35,505	29,415	18,145	1,048	7,913	1,270
Commercial paper[2]	27,310	22,960	17,911	15,089	3,264	4,525	1,896
Securitised	2,420	1,880	1,800	240	0	0	0
Other commercial paper	24,890	21,080	16,111	14,849	3,264	4,525	1,896
Other fixed-income issues	0	1,500	981	0	0	0	0
Preferred shares	0	0	1,000	2,850	1,000	250	1,000
Pro memoria:							
Subordinated issues	5,452	4,279	6,505	4,923	933	1,301	350
Underwritten issues	0	421	0	0	0	0	0

					2018		2019
Abroad by Spanish issuers	**2014**	**2015**	**2016**	**2017**	**III**	**IV**	**I[3]**
NOMINAL AMOUNT (million euros)	**66,347**	**58,587**	**84,760**	**89,358**	**20,423**	**19,491**	**17,684**
Long term	33,362	31,655	61,095	38,425	7,662	6,337	7,845
Preferred shares	2,250	1,200	5,844	2,000	500	0	1,051
Subordinated debt	2,918	2,333	5,399	2,250	0	0	1,000
Bonds and debentures	28,194	28,122	49,852	34,175	7,162	6,337	5,794
Asset-backed securities	0	0	0	0	0	0	0
Short term	32,984	26,932	23,665	50,933	12,762	13,153	9,839
Commercial paper	32,984	26,932	23,665	50,933	12,762	13,153	9,839
Securitised	0	0	0	0	0	0	0

***Pro memoria:* Gross issues of subsidiaries of Spanish companies resident abroad**

					2018		2019
	2014	**2015**	**2016**	**2017**	**III**	**IV**	**I[3]**
NOMINAL AMOUNT (million euros)	**55,286**	**56,674**	**66,790**	**91,446**	**22,001**	**25,533**	**13,241**
Financial institutions	14,875	11,427	19,742	43,234	9,284	15,564	7,990
Non-financial companies	40,411	45,247	47,585	48,212	12,717	9,969	5,252

Source: CNMV and Bank of Spain.

1 Data to 31 December.

2 The figures for commercial paper issues correspond to the amounts placed.

3 Data to 28 February.

Fixed-income issuance abroad by Spanish issuers in the first few months of the year (data to February) continued to grow, with an amount of close to 17.7 billion euros, 19% up on the same period of 2018. The largest increase corresponded to long-term debt issues, which grew by almost 56%, while short-term commercial paper issues remained virtually unchanged. Companies seem to be taking advantage of low rates to obtain long-term financing, as long-term issues accounted for 44% of the total, compared with 34% in the same period of 2018. In relative terms, issues abroad accounted for 47%[27] of the total amount issued by Spanish companies in 2018 and the preliminary data for 2019 indicate that its relative importance will tend to remain constant or even increase. Finally, issues by subsidiaries of Spanish companies in the rest of the world rose once again, to stand at 13.24 billion euros, 23% more than in 2018. Almost 60% of this amount corresponded to banks, while the rest corresponded to non-financial companies. Spanish companies have continued to issue debt through their subsidiaries as part of their process of internationalisation and growth in other regions.

Debt issues abroad also increased, which were once again largely concentrated in long-term debt.

Creation of a macro-prudential authority in Spain (AMCESFI)

EXHIBIT 3

The aim of macro-prudential policy is to preserve the stability of the financial system as a whole by strengthening its resilience and mitigating systemic risks. Policies related to financial stability have traditionally been focused on the banking system, placing special emphasis on the size of banks. However, the last financial crisis revealed that other agents and activities performed outside the banking business might be a source or a channel for transmitting systemic risk in certain circumstances. Since then, and following the recommendations of the G20, national authorities and international institutions have been working on improving the resilience of activities and entities related to non-bank financial intermediation (previously known as shadow banking) and on building an institutional and regulatory framework for detecting and analysing systemic risks that will include all segments of the financial system. At a European level, this work resulted in the European Systemic Risk Board (ESRB) being created in 2011 to be responsible for macro-prudential oversight of the European Union's financial system and for preventing and mitigating systemic risk.

In 2011, the ESRB issued a recommendation[1] that called on EU countries to designate an authority responsible for macro-prudential oversight. This recommendation was justified as a result of the improvement in the effectiveness of macro-prudential policy as responsibility for taking measures to maintain financial stability was placed at a national level. In addition, in its latest review of the Spanish financial system,[2] the IMF also indicated, among other aspects, that Spain should establish a Systemic Risk Council for inter-agency coordination on systemic risk factors, surveillance, and system-wide financial sector policies. Following the recommendation by the ESRB, most Member

27 In 2017, issues abroad accounted for 46% of the total amount issued.

States of the European Union (with the exception of Italy) have established their macro-prudential authorities in recent years. They have done this by creating a new authority with the participation of the pre-existing supervisory authorities or, in many cases, by designating the central bank as the authority, or by setting up an inter-agency cooperation structure with a leading role for the central bank or the pre-existing integrated supervisory authority.

Although the formal creation of an actual macro-prudential authority in Spain began in the final months of last year, it is true that over many years there was a committee with similar functions to those planned for the macro-prudential authority. This precursor committee, which was called CESFI (Spanish acronym: Financial Stability Committee), was set up in 2006 and was made up of members representing the Bank of Spain, the CNMV, the Directorate-General for Insurance and Pension Funds, and the Ministry of Economy. It was established with the aim of facilitating the sharing of information between these institutions in matters relating to financial stability, improving risk prevention mechanisms and performing crisis simulation exercises and stress testing in order to coordinate the management of a financial crisis with a potentially systemic impact. The CESFI met frequently during the most complicated years of the sovereign debt crisis in Europe, and was then inactive for several years, before resuming its meetings in 2018. During this more recent stage, the CESFI decided to start up a project to create a macro-prudential authority in Spain that would meet the recommendations of both the ESRB and the IMF.

As a result of this decision, a draft Royal Decree creating the Macro-prudential Authority Financial Stability Board (Spanish acronym: AMCESFI) was published at the end of 2018. This draft Royal Decree was submitted to public consultation until 26 December and finally approved on 1 March.[3] According to the content of this Royal Decree, the AMCESFI, which held its first meeting in April, replaces the CESFI and seeks to improve the coordination of macro-prudential oversight at a national level and help to prevent or mitigate systemic risks, which should aid the financial system to support rather than hamper economic growth. The Authority is made up of a Board, a Technical Committee as support body and the subcommittees that the Board decides to create. These bodies are made up of representatives from the Ministry of Economy and Business, the Bank of Spain and the CNMV, with the possibility of inviting other public authorities, such as the Fund for Orderly Bank Restructuring (Spanish acronym: FROB) or the Independent Authority for Fiscal Responsibility. The Minister of Economy and Business chairs the Board and the Governor of the Bank of Spain is the vice-chairperson. In the Technical Committee, the Deputy Governor of the Bank of Spain acts as chairperson and the Secretary General of the Treasury and International Financing is the vice-chairperson.

AMCESFI's mission is, firstly, to monitor and analyse those factors that might affect systemic risk and, secondly, to issue the opinions, warnings and recommendations that it deems appropriate in view of its prior analyses. It may also make macro-prudential policy recommendations to supervisors for them to

take specific measures. The recipients of the Authority's recommendations must explain how they will comply with them or provide appropriate justification, as the case may be, of the reasons why they deem it unnecessary or inappropriate to follow them. Supervisory powers are maintained by the competent national authorities that have exercised them to date, which have more information and experience in monitoring the supervised entities. Their independence is therefore respected.

In addition, sector supervisors must inform the AMCESFI in advance about their intention to activate, recalibrate or deactivate any of their macro-prudential tools. In particular, they must report on measures relating, for example, to capital buffer requirements, the establishment of limits to sectoral concentration, the setting of conditions for the granting of loans and other operations, or the application of higher risk weightings for real estate exposures. The measures falling under the remit of the CNMV include the suspension of redemptions of collective investment scheme units, decisions aimed at strengthening the level of liquidity of collective investment schemes and the banning or restriction of short selling. Before this, Royal Decree-Law 22/2018, of 14 December, establishing macro-prudential tools granted additional powers to the Bank of Spain, the CNMV and the Directorate General for Insurance and Pension Funds to address possible risks to the Spanish financial system from a macro-prudential perspective. In the case of investment funds, the CNMV is granted the power to set, in certain circumstances, liquidity requirements for collective investment schemes and undertakings.[4]

Finally, in order to contribute towards maintaining financial stability within the European Union, the requirement to cooperate with the macro-prudential authorities of other Member States as well as with the competent European institutions is regulated. The AMCESFI will be accountable through the preparation of an annual report and the appearance of the Authority's chairperson before the corresponding committee of the Lower House of Parliament.

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1 Recommendation of the European Systemic Risk Board of 22 December 2011 on the macro-prudential mandate of national authorities (ESRB/2011/3). https://www.esrb.europa.eu/pub/pdf/recommendations/ESRB_2011_3.en.pdf?da108dbb14efccdf98f4544534e2ef4e

2 Spain Financial System Stability Assessment. IMF Country Report No. 17/321. This assessment is part of bilateral supervision under Article IV of the IMF's Articles of Agreement.

3 Royal Decree 102/2019, of 1 March, creating the Macro-prudential Authority Financial Stability Board, establishing its legal regime and implementing certain aspects relating to macro-prudential tools.

4 Royal Decree-Law 22/2018, of 14 December, establishing macro-prudential tools.

4 Market agents

4.1 Investment vehicles

Financial CIS

Mutual funds

Assets managed by mutual funds fell by 2.3% in 2018 due to the negative yield of their assets, in a year of lower net subscriptions by unit-holders.

Assets managed by mutual funds fell slightly in 2018 (-2.3%) following 5 years of continuous rises and stood at 259.1 billion euros at the end of the year. The fall in assets managed by the funds is the result of the negative return of the assets in their portfolios, which could not be offset by the volume of net subscriptions, which is lower than in previous years. The average weighted return of the funds stood at -4.89% in 2018, which is mainly the result of the sharp falls in prices on equity markets worldwide and, particularly, during the last part of the year. Net subscriptions were positive in the first three quarters of 2018 and negative in the last quarter (-3.94 billion euros) coinciding with the period of greatest stock market falls.[28] In the year as a whole, net subscriptions stood at 7.84 billion euros, one third of the figure recorded in 2017.

Higher-risk fund categories continued to attract the largest subscriptions, at least until the third quarter of the year.

As in previous years and in a context of low interest rates, unit-holders continued to demonstrate a greater preference for fund categories with a higher risk and, at the same time, higher expected returns. This performance was relatively stable until the period of stock market turmoil in the final part of the year, which led to an increase in investors' risk aversion and, consequently, put a stop to investments in higher-risk funds. However, in the year as a whole, the category that attracted the highest volume of net subscriptions was that of global funds (meaning funds allowed to follow a flexible investment policy regarding the percentage invested in equity and fixed income), with a total of 9.45 billion euros, followed by international equity categories (3.86 billion euros) and, at some distance, mixed equity funds (2.49 billion euros) and euro equity funds (1.79 billion euros). In contrast, lower-risk fund categories – guaranteed fixed-income and equity funds, fixed-income funds and mixed fixed-income funds – recorded net redemptions in 2018 (see Table 11).

The yield on funds' portfolio was negative in every category except that of guaranteed fixed income funds, in which it was close to zero.

The returns on the funds in 2018 were negative in all categories except in that of guaranteed fixed-income funds, with a return of close to zero (0.09%). The worst performing categories were pure equity categories, as a result of the falls in stock market prices in the year: -13% in the case of euro equity funds and -12.34% in the international equity category. The categories with a mixed component recorded a somewhat less negative performance: -6.45% for the mixed equity category and -5.69% for the global fund category.

28 In fact, there was a rise in the volume of sight deposits of households in the last quarter of close to 25 billion euros, which may be partly due to the fact that they are considered a safe-haven asset.

Net mutual fund subscriptions

TABLE 11

Million euros

				2018			
	2016	2017	2018	I	II	III	IV
Total mutual funds	**13,823.2**	**21,325.0**	**7,841.8**	**8,913.3**	**2,014.0**	**856.1**	**-3,941.6**
Fixed-income[1]	8,243.5	-3,638.0	-2,766.0	-1,145.9	30.0	-887.2	-762.9
Mixed fixed-income[2]	-4,750.8	2,890.5	-1,063.7	731.3	448.9	-295.7	-1,948.2
Mixed equity[3]	-5,194.5	5,498.6	2,485.9	1,878.4	40.4	634.5	-67.4
Euro equity[4]	-538.0	2,549.7	1,790.0	1,768.8	257.4	-124.6	-111.6
International equity[5]	-32.5	4,514.0	3,864.1	1,638.4	813.6	961.8	450.3
Guaranteed fixed-income	-3,699.6	-3,262.6	-575.8	-198.5	-262.9	-168.1	53.7
Guaranteed equity[6]	5,465.9	-309.5	-667.2	-268.5	-368.1	-245.6	215.0
Global funds	7,801.3	13,405.9	9,448.9	5,055.6	2,695.5	1,836.9	-139.1
Passively managed[7]	5,603.4	-4,585.0	-2,790.4	-1,275.4	-1,447.8	-77.2	10.0
Absolute return[7]	943.5	4,287.3	-1,899.6	729.0	-193.1	-794.1	-1,641.4

Source: CNMV. Estimated data.

1 Includes: Euro fixed-income, International fixed-income and Money market funds (from III-11, Money market funds compass those engaging in Money markets and Short-term money market investments, Circular 3/2011).

2 Includes: Euro mixed fixed-income and International mixed fixed-income.

3 Includes: Euro mixed equity and International mixed equity.

4 Includes: Euro equity.

5 Includes: International equity.

6 Includes: Guaranteed equity and Partial guarantee.

7 New categories since II-09. All Absolute return funds were previously classified under Global Funds.

The number of funds continued to fall in 2018, especially those with target returns, which were not renewed at maturity.

The reduction in the supply of funds that began in 2013 due to the streamlining undertaken by management companies continued in 2018, although at a more moderate rate than in previous years. The number of funds at the end of the year stood at 1,725, 16 down on year-end 2017. The largest fall, in line with the negative trend of recent years, was recorded in passively managed funds, with 30 fewer funds. The passively managed category covers both non-guaranteed funds with a target return and funds whose investment policy consists of tracking a certain stock market index. All the de-registrations of passively managed funds except one corresponded to non-guaranteed funds with a target return (29 de-registrations), followed in importance by the de-registrations of guaranteed equity funds with a target return (25 de-registrations) and guaranteed fixed-income funds with a target return (12 de-registrations). In many of the funds, the return target expired in 2018 and their managers decided not to set a new target.

The number of unit-holders exceeded 11 million at the end of the year, with particular growth in higher-risk categories, which attracted the greatest number of subscriptions.

Unlike the changes in assets managed and the number of funds, the number of unit-holders rose by 9% during 2018, and closed the year with a total of 11.2 million, compared with 10.3 million unit-holders at the end of the previous year. For these purposes, it should be taken into account that one single unit-holder is calculated as many times as the number of contracts that the unit-holder has in different funds. Therefore, the recorded increase might partially be the result of diversification among a higher number of funds. In the passively managed fund categories (with non-guaranteed target turn), as well as in guaranteed equity and fixed income funds with a target return, the number of unit-holders fell, in line with the fall in the number of funds. In contrast, the global fund and international equity fund categories recorded significant increases in the number of unit-holders (414,000 and 360,000 unit-holders, respectively).

Main mutual fund variables*

TABLE 12

Number of funds

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV
Total mutual funds	**1,805**	**1,741**	**1,725**	**1,748**	**1,724**	**1,719**	**1,725**
Fixed-income[1]	306	290	279	284	281	280	279
Mixed fixed-income[2]	148	155	168	154	161	166	168
Mixed equity[3]	168	176	184	177	176	179	184
Euro equity[4]	112	111	113	106	108	111	113
International equity[5]	201	211	236	224	229	229	236
Guaranteed fixed-income	122	79	67	76	69	67	67
Guaranteed equity[6]	198	188	163	186	175	167	163
Global funds	203	225	242	241	236	238	242
Passively managed[7]	220	202	172	201	187	181	172
Absolute return[7]	106	104	99	99	102	99	99
Assets (million euros)							
Total mutual funds	**237,862**	**265,195**	**259,095**	**271,264**	**273,774**	**274,645**	**259,095**
Fixed-income[1]	74,226	70,564	66,889	69,325	68,881	67,936	66,889
Mixed fixed-income[2]	40,066	43,407	40,471	43,766	43,979	43,641	40,471
Mixed equity[3]	16,311	22,387	23,256	23,860	24,040	24,783	23,256
Euro equity[4]	8,666	12,203	12,178	13,714	14,282	13,985	12,178
International equity[5]	17,679	24,065	24,405	24,808	26,484	27,648	24,405
Guaranteed fixed-income	8,680	5,457	4,887	5,311	4,983	4,780	4,887
Guaranteed equity[6]	15,476	15,418	14,556	15,204	14,664	14,294	14,556
Global funds	20,917	35,512	42,137	39,909	42,634	44,676	42,137
Passively managed[7]	23,602	19,478	16,139	18,098	16,687	16,580	16,139
Absolute return[7]	12,215	16,706	14,173	17,269	17,140	16,307	14,173
Unit-holders							
Total mutual funds	**8,253,611**	**10,287,454**	**11,217,569**	**11,019,934**	**11,435,155**	**11,332,911**	**11,217,569**
Fixed-income[1]	2,347,984	2,627,547	2,709,547	2,711,617	2,840,000	2,726,028	2,709,547
Mixed fixed-income[2]	1,043,798	1,197,523	1,188,157	1,239,848	1,252,577	1,245,007	1,188,157
Mixed equity[3]	448,491	584,408	624,290	618,234	615,754	623,901	624,290
Euro equity[4]	395,697	710,928	831,115	877,146	929,169	833,260	831,115
International equity[5]	1,172,287	1,865,367	2,225,366	2,071,665	2,186,454	2,237,176	2,225,366
Guaranteed fixed-income	307,771	190,075	165,913	184,036	175,776	166,125	165,913
Guaranteed equity[6]	552,445	527,533	494,660	519,396	505,574	499,529	494,660
Global funds	658,722	1,086,937	1,501,730	1,236,975	1,366,657	1,444,064	1,501,730
Passively managed[7]	746,233	638,966	543,192	601,927	554,981	552,612	543,192
Absolute return[7]	565,325	858,170	930,641	959,090	1,008,213	1,002,252	930,641
Return[8] (%)							
Total mutual funds	**0.98**	**2.42**	**-4.89**	**-1.04**	**0.23**	**0.02**	**-4.13**
Fixed-income[1]	0.52	-0.13	-1.44	-0.26	-0.68	-0.09	-0.42
Mixed fixed-income[2]	0.27	1.10	-4.27	-0.84	-0.53	-0.10	-2.85
Mixed equity[3]	1.19	3.23	-6.45	-1.69	0.62	0.43	-5.83
Euro equity[4]	2.61	11.16	-13.01	-1.77	1.88	-1.29	-11.94
International equity[5]	4.15	8.75	-12.34	-3.51	3.59	0.88	-13.06
Guaranteed fixed-income	-0.03	0.72	0.09	1.02	-1.30	-0.75	1.14
Guaranteed equity[6]	0.19	1.61	-1.33	0.35	-1.16	-0.86	0.34
Global funds	1.99	4.46	-5.69	-1.58	0.66	0.49	-5.27
Passively managed[7]	1.16	2.13	-3.16	-0.51	0.23	-0.15	-2.74
Absolute return[7]	0.38	1.44	-4.81	-0.93	-0.57	-0.23	-3.14

Source: CNMV. * Data for funds that have filed financial statements (i.e., not including those in the process of winding-up or liquidation).

1 Includes: Euro fixed-income, International fixed-income and Money market funds (from III-11, Money market funds compass those engaging in Money markets and Short-term money market investments, Circular 3/2011).

2 Includes: Euro mixed fixed income and International mixed fixed income.

3 Includes: Euro mixed equity and International mixed equity.

4 Includes: Euro equity.

5 Includes: International equity.

6 Includes: Guaranteed equity and Partial guarantee.

7 New categories since II-09. All Absolute return funds were previously classified under Global Funds.

8 Annual return for 2016, 2017 and 2018. Quarterly data comprise non-annualised quarterly returns.

According to the provisional data for February this year, the assets managed by funds recovered during the first two months of 2019 all of the loss recorded in 2018. The assets under management of mutual funds grew by 2.8% to over 266 billion euros at the end of February, while the number of funds and unit-holders fell slightly, to stand at 1,714 funds and 11.17 million unit-holders. The increase in assets under management over these first two months of the year is largely the result of the positive returns of the equity portfolios given the rises in stock market prices.

During the first two months of 2019, funds recovered all the assets under management lost during 2018 due to the price rises of their equity assets.

The liquidity conditions of the fixed-income portfolio improved substantially between 2010 and 2014. Since then, the proportion of less-liquid assets has remained at moderate levels, fluctuating between 7% and 9% of the funds' private fixed-income portfolios. During 2018, the proportion of these assets fell by 1 pp, from 8.4% at year-end 2017 to 7.4% at year-end 2018. At 31 December 2018, the total volume of less-liquid assets amounted to 3.49 billion euros, accounting for 1.35% of funds' total assets under management.

The percentage of less-liquid assets in funds' private fixed-income portfolios fell by 1% in 2018 and stood at the lowest levels recorded over recent years…

The proportion of less-liquid assets fell slightly in all the different categories of fixed-income assets over 2018 (see Table 13). Fixed-income assets with a rating below AA are the category in which less-liquid assets fell most in absolute terms, by 393 million euros from June until December 2018, as a result of funds selling these assets. Securitisations remained the category in which less-liquid assets accounted for a higher percentage, standing at 90.5%. However, these assets account for a very small portion of funds' portfolios.

… with falls in all categories of fixed-income assets.

Estimated liquidity of mutual fund assets

TABLE 13

	Less-liquid investments[1]					
	Million euros			% of total volume of asset type		
Asset type	**Jun-18**	**Sep-18**	**Dec-18**	**Jun-18**	**Sep-18**	**Dec-18**
Financial fixed income rated AAA/AA	163	177	169	18.3	15.5	14.4
Financial fixed income rated below AAA/AA	1,972	1,891	1,579	7.2	6.8	6.1
Non-financial fixed income	974	880	790	4.9	4.4	4.2
Securitisations	969	943	955	94.7	94.8	90.5
AAA-rated securitisations	108	90	101	100.0	100.0	100.0
Other securitisations	861	853	853	94.1	94.3	89.5
Total	**4,079**	**3,890**	**3,493**	**8.3**	**7.8**	**7.4**
% of mutual fund assets	**1.49**	**1.42**	**1.35**			

Source: CNMV.

1 Less-liquid assets are those private fixed-income assets with a maturity longer than one year and for which there is not a representative number of intermediaries willing to buy and sell them with a normal market spread.

Open-ended investment companies (SICAVs)

The number of SICAVs registered with the CNMV continued to fall in 2018, with 114 de-registrations and only 6 new registrations, to stand at 2,833…

As in 2017, the number of SICAVs registered with the CNMV fell notably, as there were 114 de-registrations and only 6 new registrations, although the total quantity of these undertakings remains at a similar level to that of recent years. At the end of the year, there was a total of 2,713 registered SICAVs, compared with 2,833 at the end of December 2017. Most of the de-registrations (67) were the result of liquidation processes, 32 were absorbed in merger processes and 15 were transformed into another type of entity (9 into limited liability companies, 5 into public limited companies and 1 into a hedge fund). The fall in the number of entities was also reflected in the number of shareholders, which fell by 1.2% to 416,029. Almost all SICAVs (over 99%) were listed on the Alternative Stock Market.

… which, together with the fall in their yield, led to an 11.4% drop in assets managed.

The assets managed by these CIS fell by 11.4% from 31.43 billion euros at the end of 2017 to 27.84 billion euros at the end of 2018. Of this change, 7.1 pp was the result of redemptions as well as by the SICAVs that were de-registered, while the remaining 4.35 pp was the result of their negative returns, in line with that of mutual funds (-4.89%). The average assets managed by SICAVs fell from 11.1 million euros in 2017 to 10.3 million in 2018.

In the first two months of 2019, the assets managed by SICAVs grew, but the number of entities continued to fall.

In the first two months of 2019, the assets under management of SICAVs grew by 4.9% to end February at 29.28 billion euros. This increase was mainly the result of the increase in the prices of equity assets held. A total of 2,694 SICAVs were registered with the CNMV at the end of February, 17 fewer than at year-end 2018.

Hedge funds

Hedge funds, which continue to have a very low share of collective investment in Spain,…

Hedge funds continue to have a very low share of collective investment in Spain as they account for less than 1% of total assets. This collective investment segment is made up of two types of vehicle: those that invest directly in assets (hedge funds) and those that invest through other hedge funds (funds of hedge funds). In both cases, the vehicle may be set up as a fund or a company.

… recorded a slight increase in assets managed in 2018 (1.6%), which was concentrated, above all, in pure hedge funds.

Aggregate hedge fund assets grew slightly by 1.6% in 2018, to end November at 2.81 billion euros. In the case of hedge funds, assets managed rose by 45.7 million euros to 2.34 billion euros, while assets managed by funds of hedge funds hardly recorded any change, falling by 1 million euros, to 467.8 million.

The yield on the portfolio in this segment was negative, in line with the falls in prices of equity assets.

The yield on the portfolio was in line with market performance, particularly that of equity markets, and was negative for all categories: while hedge funds recorded a yield of -5.15% on the portfolio to November, funds of hedge funds recorded a yield of -1.16%. As with mutual funds, the lower yield took place in the last quarter of the year.

The number of these vehicles registered with the CNMV at year-end 2018 amounted to 56, 1 more than at the end of the previous year. As shown in Table 13, the number of hedge funds rose from 47 to 49, following 4 new registrations and 2 de-registrations, while the number of funds of hedge funds fell from 8 to 7, as a result of 1 de-registration. In the case of the latter, 6 of the 7 have the form of a fund (3 of which are in the process of liquidation) and 1 is in the form of a company. In

December 2018, this company managed assets of 254.7 million euros, a higher amount than that of all the 6 set up in the form of a fund.

The total number of unit-holders and shareholders in the segment recorded few changes in 2018, with only 15 fewer than at year-end 2017, to stand at a total of 7,237 at the end of December 2018. However, an analysis by category reveals that there was an increase, in the case of hedge funds, of 21.4% during the first 11 months of the year, to 4,437, while the number for funds of hedge funds fell by 22.1% to end November, to stand at 2,800 unit-holders. These changes are the result of the 2 new registrations (in net terms) of hedge funds and the de-registration of the fund of hedge funds.

… and the number of unit-holders and shareholders recorded few changes as the increase for hedge funds was offset by the fall for funds of hedge funds.

In the first two months of the year, the number of hedge funds rose by 1, to stand at 50, while the number of funds of hedge funds remained at 7.

Main hedge fund and fund of hedge fund variables

TABLE 14

				2018			
	2016	2017	2018[1]	I	II	III	IV[1]
FUNDS OF HEDGE FUNDS							
Number	7	8	7	8	7	7	7
Unit-holders	1,237	3,596	2,800	3,605	2,797	2,802	2,800
Assets (million euros)	293.7	468.7	467.8	470.0	469.0	472.2	467.8
Return (%)	0.90	-1.66	-1.16	-0.37	-0.27	0.42	-0.94
HEDGE FUNDS							
Number	41	47	49	47	46	49	49
Unit-holders	2,930	3,656	4,437	3,973	4,077	4,350	4,437
Assets (million euros)	1,889.2	2,298.2	2,343.9	2,329.7	2,335.3	2,397.7	2,343.9
Return (%)	4.32	7.84	-5.15	-0.91	1.35	-0.75	-4.84

Source: CNMV.

1 Data to November, except number of vehicles, which are shown to December.

Real estate CIS

Despite the improvement in the construction and real estate sector since 2015, the key variables of real estate CIS continued to fall in 2018. This is due to the fact that real estate investment in Spain has been mainly channelled over recent years through SOCIMIs (Spanish REIT companies). SOCIMIs are public limited companies whose corporate purpose consists, in a similar way to funds and real estate investment companies, either of investing in real estate for lease or in indirect investment through the purchase of shares or holdings in the share capital of other SOCIMI or similar foreign entities (known as REITs). SOCIMIs are listed in a specific segment of the MAB, which was particularly buoyant over 2018, with 20 new companies joining, resulting in a total of 64 companies at the end of the year.

Despite the improvement in the construction and real estate sector, the key variables of real estate CIS continued to fall as a result of the shift of the business towards SOCIMIs.

Real estate funds record poorer performance, as only two remain, which are both in the process of liquidation.

In contrast, over recent years, real estate funds have suffered significant redemptions, which has led them to initiate liquidation processes, with the consequent de-registration of most of them at the end of said process. Thus, from a maximum of 9 real estate funds with total assets under management of 8.59 billion euros in the middle of 2008, there were 2 funds (both in the process of liquidation) at the end of 2018, with total assets under management of 309 million euros. Over 2018, a third fund existing at the end of 2017 ended its liquidation process and was removed from the CNMV's register.

In contrast, real estate investment companies recorded a significant increase in assets under management (18%), although this amount was insignificant within the total amount of collective investment.

Unlike real estate funds, real estate investment companies recorded an 18% increase in assets under management in 2018, although the total volume of investments raised by this type of vehicle was insignificant as a proportion of Spanish collective investment as a whole, since it amounted to 752.7 million euros at the end of 2018. Net subscriptions were slightly positive, which contributed towards a moderate increase in assets under management of 1.8 pp, while the rest of the change in assets, a little over 16 pp, was the result of the positive yields obtained in the period. The number of real estate investment companies remained constant at 4 throughout 2018, with one of them in the process of liquidation.

Foreign UCITS marketed in Spain

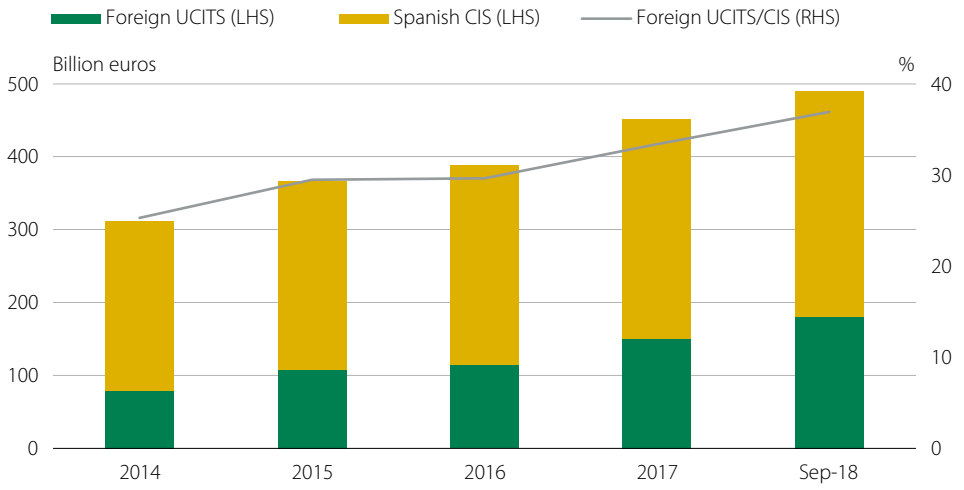
The assets managed by foreign UCITS continued to grow in 2018, exceeding 180 billion euros at the end of the third quarter (37% of total assets under management of the CIS marketed in Spain)…

The volume of foreign UCITS marketed in Spain has continued to grow over recent years. It has risen tenfold since 2008 and grown from 18 billion euros at the end of 2008 to 180.92 billion euros in September 2018. The increase recorded in just the first three quarters of 2018 stood at 30.5 billion euros, an increase in the year of 20.3% compared with year-end 2017. As shown in Figure 20, this strong rate of growth has led to the proportion of foreign UCITS in relation to total CIS growing significantly over the last five years to stand at 37% in September 2018.

… although it should be noted that the entry into force of Circular 2/2017, which requires entities to submit a greater volume of information, might mean that the data are not fully comparable with those existing up to the end of 2017.

It is important to note that the entry into force of CNMV Circular 2/2017, of 25 October, amending Circular 2/2011, of 9 June, on information on foreign collective investment schemes registered with the CNMV, implies the obligation for all distributors of foreign CIS to submit to the CNMV a greater number of data with regard to the product distributed in Spain. This new circular allows the CNMV to have broader and better quality information as it unambiguously clarifies the party required to submit the information in each case. This legislative change might mean that the information collected prior to 31 December 2017 is not fully comparable with that received as from said date.

Assets of foreign UCITS marketed in Spain[1] FIGURE 20



Source: CNMV.

1 As from the first quarter of 2018, the data on unit-holders and investment volume are estimated with the data received to date: 99.2% of the reporting entities in the first quarter, 95.5% in the second and 93.9% in the third.

In line with the trend of recent years, the number of foreign UCITS registered with the CNMV grew in 2018 by 11 entities, thus ending the year with a total of 1,024 vehicles of this type (429 funds and 595 companies). This increase was exclusively due to the high number of registrations of investment companies, as the number of funds fell by 26. As in previous years, most of the new registrations corresponded to vehicles from Luxembourg and Ireland, with 18 and 16 more, respectively. In contrast, the number of French vehicles with investors in Spain fell by 29.

The number of Foreign UCITS registered with the CNMV rose by 11 in 2018, to a total of 1,024 vehicles (429 funds and 595 companies).

Outlook

The changes in the collective investment industry in 2018 seem to indicate that the rate of expansion that began in 2013 tended to become more moderate as the volume of net subscriptions by unit-holders (a little under 8 billion euros) was almost three times lower than the figure recorded in 2017, partly as a result of stock market turmoil at the end of the year. At the same time, foreign funds continue to attract a substantial investment volume that was higher than that received by Spanish funds. In principle, the environment of growing household income in the context of such low interest rates continues to favour investment in the investment fund industry and, in particular, higher-risk categories. However, the slowdown in economic growth, which might have an impact on household income, together with a savings rate at historic lows, may limit the volume of resources that are eventually allocated to these products, bearing in mind, furthermore, the high level of sensitivity that unit-holders show at times of market turbulence. The possibility that any of the sources of uncertainty present in markets might end up triggering temporary upturns in volatility may well increase investors' risk aversion and lead to significant redemptions.

The outlook for collective investment is moderately positive, although factors such as the low household savings rate or the possibility of new market turmoil might limit the volume of resources eventually allocated to these products.

4.2 Provision of investment services

Different types of entities may provide investment services in Spain including credit institutions, the main providers of these services, and broker-dealers and brokers.

Different types of entities may provide investment services in Spain including, firstly, credit institutions and, secondly, broker-dealers and brokers. The former are by far the main providers of these services in Spain and account for the bulk of fee revenue in the different types of services (over 90% of the total). The latter continue to account for a relative proportion of some importance, particularly in order transmission and execution, although they also offer a wide range of services (see Table 15). In addition to these entities, specific investment services are also provided by financial advisory firms and portfolio management companies.

Fees received for investment services. 2018 TABLE 15

Million euros

	Broker-dealers and brokers[1]	Credit institutions (CI)	Total	% (CI) /total
Total investment services	**385**	**3,649**	**4,033**	**90.5**
Placement and underwriting	12	187	199	94.0
Securities trading	180	367	547	67.1
Asset management	29	459	488	94.1
Administration and custody	44	562	606	92.7
Mutual fund distribution	119	2,074	2,193	94.6

Source: CNMV and Bank of Spain.

1 Includes portfolio management companies.

The CNMV performs supervisory tasks relating to compliance with conduct of business rules with regard to all of them and, in addition, in the case of brokers and broker-dealers, portfolio management companies and financial advisory firms, it performs prudential oversight.

This heading presents a detail of the evolution of the economic/financial activity and position of entities whose supervision, both prudential and relating to compliance with conduct of business rules, corresponds to the CNMV, which are broker-dealers and brokers, portfolio management companies[29] and financial advisory firms. Information is also offered on the provision of investment services by credit institutions that are authorised to do so and over which the CNMV conducts supervisory work with regard to compliance with conduct of business rules in the market and with regard to clients.

Credit institutions

At the end of 2018, a total of 114 Spanish credit institutions were registered with the CNMV to provide investment services, 8 fewer than in 2017.

At the end of 2018, a total of 114 Spanish credit institutions (banks, savings banks and credit cooperatives) were registered with the CNMV to provide investment services, 8 fewer than in 2017. This fall is linked to consolidation of the reorganisation process of the banking sector as a result of the financial crisis. A total of 467 foreign credit institutions were authorised to provide investment services in Spain at the end of the year, one fewer than in the previous year. 412 of the registered foreign credit institutions operated under the freedom to provide services and 56 through

29 With regard to the latter, at the close of 2018 one single entity was registered with the CNMV, the same as at the end of 2017. There is no specific sub-heading on this type of entity due to its lesser relative importance compared with the others.

branches. Almost all these credit institutions were from Member States of the European Union.

Table 16 shows the revenue of credit institutions from the provision of securities services and marketing of mutual funds and non-bank financial products.[30] In 2018, the revenue from security services and marketing mutual funds stood at close to 3.65 billion euros (2.1% down in 2017), which accounts for 25% of total fees of credit institutions. This percentage has fluctuated over recent years between 25% and 28%, which shows the importance of this revenue for said institutions.

In 2018, these institutions received almost 3.65 billion euros from providing securities services and marketing mutual funds, which accounts for almost a quarter of their total fee revenue.

Credit institution revenue from providing securities services and marketing non-bank financial products

TABLE 16

Million euros

	2015	2016	2017	2018	% of credit institutions' total fees
From securities services	**1,476**	**1,334**	**1,436**	**1,575**	**10.6**
Placement and underwriting	218	190	231	187	1.3
Securities trading	488	410	457	367	2.5
Administration and custody	632	596	551	562	3.8
Asset management	138	138	197	459	3.1
Marketing of non-bank financial products	**4,211**	**4,389**	**4,380**	**4,268**	**28.6**
Mutual funds[1]	2,296	2,187	2,290	2,074	13.9
Pension funds[1]	458	520	498	492	3.3
Insurance	1,224	1,446	1,330	1,507	10.1
Other	236	236	262	195	1.3
Pro memoria:					
From securities services and marketing of mutual funds	3,772	3,521	3,726	3,649	24.5
Total revenue from fees	**13,617**	**13,486**	**14,295**	**14,924**	**100.0**

Source: Bank of Spain.

1 2018 estimated data.

Broker-dealers and brokers

In 2018, the activity of broker-dealers and brokers remained negatively affected by growing competition from credit institutions in the provision of financial services and the shift of part of the trading of Spanish stock markets towards other trading platforms established outside Spanish territory. Accordingly, aggregate profit before tax shrank by 34% on the figure for 2017, to stand at 116.4 million euros. In this context, investment firms are gradually reorienting their business model, in which their main and traditional source of income (for order processing and execution)

Competition from credit institutions and the increase in equity trading outside Spanish stock markets have had a negative effect on the profit of broker-dealers and brokers (-34% in 2018).

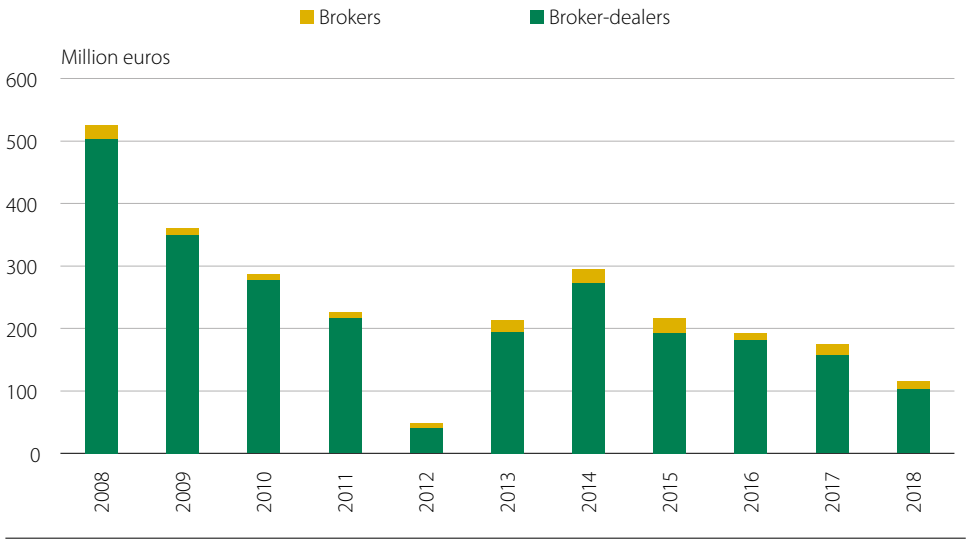
30 It is important to indicate that in 2017 there was an accounting modification that affected the confidential statements that credit institutions submit to the Bank of Spain. This means that the data for 2017 and 2018 are not fully comparable with those from previous years.

has been losing relative importance, while other lines of business, such as marketing CIS, portfolio management and investment advice, have been gaining importance.

The number of registered firms grew once again (2 more, to 91), following years of adjustments in the sector.

At the end of 2018, the CNMV's register contained a total of 91 broker-dealers and brokers, 2 more than at the end of 2017 (7 new registrations and 5 de-registrations). This increase, which began in 2017, breaks the downward trend of recent years, which was related to the adjustments undertaken in the sector. As usual, over half of the entities provided services in the European Union under the free provision of services, specifically 48 (2 more than at year-end 2017) and only 5 entities maintained branches in other countries. For their part, the number of foreign entities that provide investment services in Spain continued to grow in 2018, both under the free provision of services (rising from 2,816 to 2,941) and by means of a branch (from 53 to 61).

Aggregate pre-tax profit of investment firms[1] FIGURE 21



Source: CNMV.

1 Except financial advisory firms and portfolio management companies.

The profit of broker-dealers fell by 34.5% in 2018 to 104 million euros as a result of the decrease in most of the fee income…

Aggregate pre-tax profits of broker-dealers fell by 34.5% in 2018 to 104 million euros. As shown in Table 14, the gross margin of these firms fell by 16.6%, mainly as a result of the significant reduction in net fee income, which dropped from 402 million euros in 2017 to 296 million in 2018. As mentioned above, there was a gradual change in the importance of different types of financial services within fee income. Fees for order processing and execution, which remains the most important, fell by 26.3% in 2018, to stand at 160.3 million euros (just before the crisis, these fees amounted to 700 million euros). The fees associated with portfolio management and CIS marketing, which had grown significantly in 2017, also fell sharply. In contrast, fees from investment advisory services, although they remain very low, grew by 72.1% to stand at 9.6 million euros (see Table 17). In addition, the amount of the fee income classified under "Other" (29% of total fees received), which are associated with the ancillary services provided by broker-dealers, fell by 10.8%.

Aggregate income statement (December 2018)

TABLE 17

Thousand euros

	Broker-dealers			Brokers		
	Dec-17	Dec-18	% change	Dec-17	Dec-18	% change
1. Net interest income	21,377	73,969	246.0	3,127	1,583	-49.4
2. Net fee income	402,154	296,037	-26.4	120,194	135,782	13.0
2.1. Fee income	549,298	414,595	-24.5	142,323	156,624	10.0
2.1.1. Order processing and execution	217,601	160,320	-26.3	20,459	20,018	-2.2
2.1.2. Initial placement and underwriting	17,553	11,090	-36.8	3,427	1,120	-67.3
2.1.3. Securities administration and custody	38,200	42,958	12.5	924	824	-10.8
2.1.4. Portfolio management	49,720	13,505	-72.8	12,492	15,412	23.4
2.1.5. Investment advisory services	5,555	9,562	72.1	11,572	25,725	122.3
2.1.6. Search and placement	1,500	543	-63.8	0	0	-
2.1.7. Market trading	0	0	-	0	0	-
2.1.8. Marketing CIS	83,354	55,483	-33.4	59,398	63,821	7.4
2.1.9. Other	135,815	121,134	-10.8	34,052	29,704	-12.8
2.2. Fee expense	147,144	118,558	-19.4	22,129	20,842	-5.8
3. Profit from financial investments	43,725	27,088	-38.0	1,139	-51	-
4. Net exchange differences	4,353	283	-93.5	-578	85	-
5. Other operating income and expense	24,154	16,331	-32.4	-1,128	-364	67.7
GROSS PROFIT MARGIN	**495,763**	**413,708**	**-16.6**	**122,754**	**137,035**	**11.6**
6. Operating expenses	342,176	315,951	-7.7	103,052	121,611	18.0
7. Depreciation, amortisation and other charges	7,369	11,267	52.9	2,782	3,381	21.5
8. Impairment losses on financial assets	854	653	-23.5	-10	12	-
OPERATING PROFIT (LOSS)	**145,364**	**85,837**	**-41.0**	**16,929**	**12,031**	**-28.9**
9. Other profit (loss)	13,197	18,016	36.5	-163	501	-
PROFIT (LOSS) BEFORE TAX	**158,561**	**103,853**	**-34.5**	**16,766**	**12,532**	**-25.3**
10. Corporate income tax	37,878	12,082	-68.1	4,876	5,073	4.0
PROFIT (LOSS) FROM CONTINUING OPERATIONS	**120,683**	**91,771**	**-24.0**	**11,890**	**7,459**	**-37.3**
11. Profit (loss) from discontinued operations	36,382	0	-100.0	0	0	-
Net profit (loss) for the year	**157,065**	**91,771**	**-41.6**	**11,890**	**7,459**	**-37.3**

Source: CNMV.

The rise in net interest income, which tripled in 2018, and the reduction in operating expenses (7.7%) were unable to offset the aforementioned reduction in fee income, and therefore operating profit fell by 41.0% to 85.8 million euros.

… and despite the increase in net interest income and the fall in operating expenses.

In line with the pattern observed over recent years, a small number of broker-dealers generated most of the profits in this sub-sector. In particular, 3 broker-dealers accounted for 82% of total profit, which indicates that the sub-sector is becoming increasingly concentrated. This polarisation was also reflected in the number of loss-making firms, which stood at 18 compared with 7 in the previous year. The volume of those losses was also higher than the figure recorded in 2017 as they amounted to 28.8 million euros, twice the figure of the previous year. In general, the

The distribution of profits was uneven amongst entities as only 3 of them concentrated over 82% of total profit and the number of loss-making entities grew to 18.

figures lead to the conclusion that the larger firms are increasingly profitable, while the smaller firms are suffering greater difficulties.

Brokers are more specialised than broker-dealers and include a much higher proportion of independent entities.

Brokers by definition may not invest on their own account and, therefore, their revenue almost exclusively comes from providing services to third parties. While some, although increasingly fewer, brokers obtain the bulk of their revenue from processing and executing orders, most tend to specialise in certain services, such as marketing CIS or portfolio management. In addition, independent entities are much more important in this sub-sector than in the case of broker-dealers, as they account for practically 60% of the total number of brokers (30 out of 52), while in the case of broker-dealers, this proportion stands at around 20%.

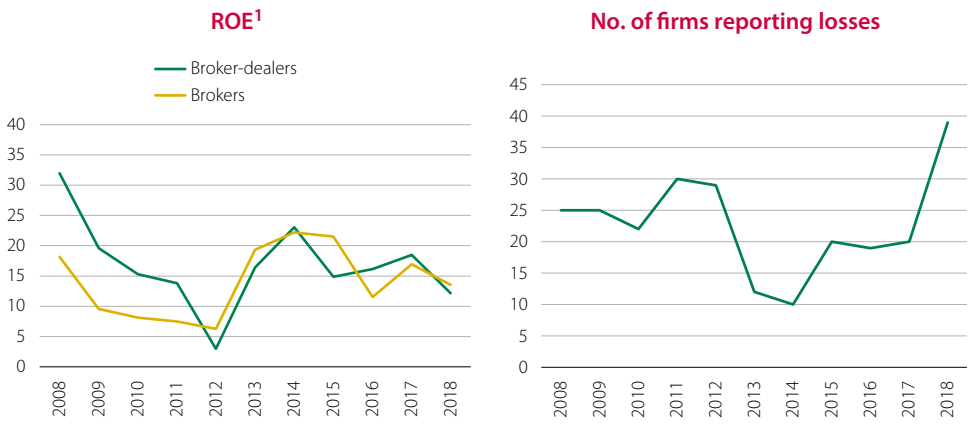
Their aggregate pre-tax profit fell by 25% in 2018 to 12.5 million euros as a result of the greater increase in operating expenses compared with fee income.

Brokers' pre-tax profit fell by 25.2% in 2018 to 12.5 million euros, as the increase in operating expenses, particularly staff costs, was higher than the growth in fee income. The most significant increases in fee income, which rose by 10.0% in absolute terms, were recorded under investment advisory services (122.3%, to 25.7 million euros) and in marketing CIS (7.4%, to 63.8 million euros). Fees for order processing and execution, in contrast, fell by 2.2%, to stand at 20 million euros. These changes in fees, together with the aforementioned 18.0% increase in operating expenses, led to a 28.9% reduction in operating profit, to stand at close to 12 million euros.

The fall in profits of investment firms led to a significant fall in their ROE.

The sector's pre-tax return on equity (ROE) fell during the year from 18.4% to 12.3%, as a result of the poorer profit performance. This reduction was recorded both in broker-dealers and brokers, although it was greater in the former, whose ROE fell by over 6 percentage points to stand at 12.1%. In the case of brokers, the ratio fell from 16.9% to 13.5% (see left-hand panel of Figure 22).

Pre-tax ROE of investment firms and number of loss-making firms FIGURE 22



Source: CNMV.

1 ROE based on profit before tax.

The number of loss-making brokers rose from 13 to 21, and the aggregate volume of said losses also grew.

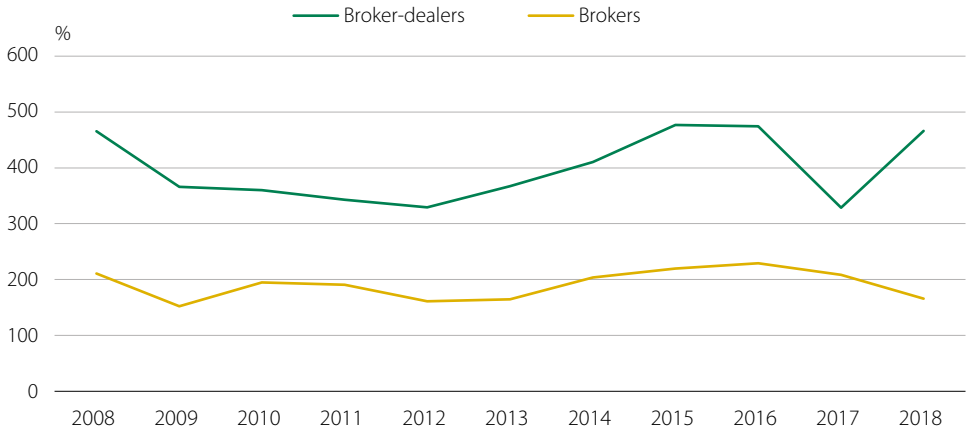
An analysis by entity reveals that the fall in pre-tax profit affected brokers unevenly, as 57% of those registered both at the end of 2017 and the end of 2018 recorded an improvement in their results. The number of loss-making brokers rose from 13 in 2017 to 21 in 2018, with a total volume of 10.9 million euros, 3 million euros up on the figure recorded in the previous year.

The solvency levels of the sector remained high during 2018, also leading to an increase in the values on the previous year. Accordingly, at the end of 2018, surplus capital was 4.3 times higher than the capital required compared with 3.2 times higher at the end of 2017. As usual, this margin was generally greater for broker-dealers than for brokers. In addition, in the case of the former, the ratio increased from 3.3 to 4.7, while for the latter it fell from 2.1 to 1.7 (see Figure 23). With regard to the distribution of this ratio, most broker-dealers continued to have surplus capital greater than 200%, while brokers recorded a wider range of figures. It should also be mentioned that two brokers closed the year with a capital deficit, although of a small amount. It is important to indicate that the surplus capital ratios which are high in relative terms represent low absolute figures, which might turn out to be insufficient in the event of significant impacts.

The sector's solvency levels remained high in 2018, although they rose in broker-dealers and fell in brokers.

Investment firm capital adequacy
(Surplus of eligible capital over minimum capital requirements)

FIGURE 23



Source: CNMV.

Financial advisory firms

The number of financial advisory firms, which had grown sharply since their creation, fell for the first time in 2018, from 171 to 158. Assets under advice, in contrast, rose by 2.8% on the figures for year-end 2017 and stood at 31.7 billion euros, more than double the figure recorded in 2012. As shown in Table 18, the distribution of assets amongst the different types of clients shifted in favour of retail and professional clients, as occurred in 2017. The former grew from accounting for 29.5% of assets under management to 32.5%, while the latter rose from accounting for 21.1% to 22.3%. In contrast, the importance relating to eligible counterparties[31] (under the heading of "Others") fell by 4 percentage points to 45.2%.

The volume of assets under advice by financial advisory firms rose by 2.8% in 2018 to 31.7 billion euros, despite the reduction in the number of firms.

Despite managing a greater volume of assets, fee income fell by 6% in 2018, to 61 million euros. Both fees received directly from clients and those corresponding to

Fee income fell by 6%, as a result of the reduction in fees received both from their clients and from other entities.

31 Eligible counterpart is the classification that MiFID typically gives banks, other financial institutions and governments, and is a category that requires a lower level of protection.

other entities fell in 2018, especially the latter (-21.3% to 10.8 million euros), as a result of the fall in retrocession fees.

Main financial advisory firm variables

TABLE 18

Thousand euros

	2016	2017	2018	% change 18/17
NUMBER OF FIRMS	**160**	**171**	**158**	**-7.6**
ASSETS UNDER ADVICE[1]	**30,174,877**	**30,790,535**	**31,658,460**	**2.8**
Retail clients	7,588,143	9,096,071	10,281,573	13.0
Professional clients	5,654,358	6,482,283	7,052,031	8.8
Others	16,932,376	15,212,181	14,324,856	-5.8
NUMBER OF CLIENTS[1]	**5,923**	**6,775**	**6,542**	**-3.4**
Retail clients	5,510	6,321	6,020	-4.8
Professional clients	327	359	431	20.1
Others	86	95	91	-4.2
FEE INCOME[2]	**52,534**	**65,802**	**61,852**	**-6.0**
Fee income	**51,687**	**65,191**	**61,021**	**-6.4**
From clients	40,717	51,475	50,220	-2.4
From other firms	10,970	13,716	10,800	-21.3
Other income	**847**	**611**	**831**	**36.0**
EQUITY	**24,119**	**32,803**	**33,798**	**3.0**
Share capital	6,834	8,039	6,894	-14.2
Reserves and retained earnings	12,123	13,317	15,469	16.2
Profit (loss) for the year[2]	7,511	11,361	10,746	-5.4
Other own funds	-2,349	86	688	700.0

1 Period-end data at market value.
2 Cumulative data for the period.

Outlook

The medium-term outlook for financial intermediaries is uncertain, due to the competitive environment that they face and the need to promote other lines of business.

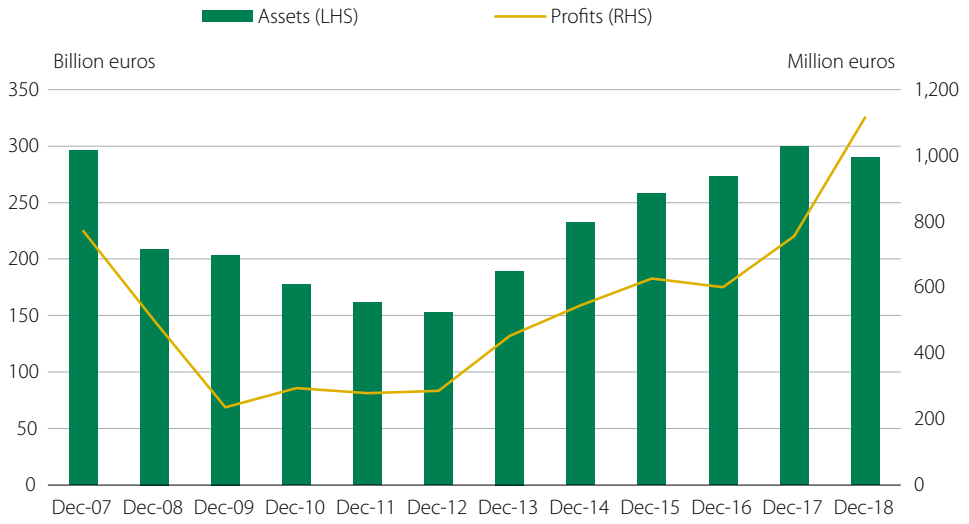
The outlook for non-bank financial intermediaries is somewhat uncertain as a result, on the one hand, of competition from credit institutions in providing investment services and, on the other hand, the shift in trading of Spanish securities towards other markets and MTFs other than the traditional markets. These trends have led to a certain change in the business model of broker-dealers and brokers, which in recent years have started to promote other lines of business that were previously relatively unimportant, to the detriment of the service relating to order processing and execution. It would also be relevant to verify whether the polarisation of the sector is maintained, i.e., the fact that entities recording a positive performance may continue to do so, while those with poorer results face greater difficulties in overcoming their situation.

4.3 CIS management companies

The assets managed by CIS management companies fell by 3.2% in 2018, to 290 billion euros, which interrupted the expansion that began in 2013…

A total of 119 CIS management companies were registered with the CNMV at year-end 2018, 10 more than at year end 2017, following 11 new registrations and 1 de-registration. This trend prolongs the expansion that began in 2014 and moves away from the restructuring process that the sector undertook in previous years. Assets managed by CIS management companies fell by 3.2% over 2018 to slightly above 290 billion euros, thus interrupting the expansive trend that began in 2013 (see Figure 24). Nearly two thirds of the fall took place in the mutual funds segment, whose assets under management were affected by stock market falls, and the rest was due to SICAVs. The level of concentration in the sector remained high in 2018, as the three largest management companies had a joint share of 42% of total assets managed (a similar figure to 2016 and 2017).

CIS management companies: assets under management and pre-tax profits FIGURE 24



Source: CNMV.

… but this did not prevent a sharp increase in the profits of these companies, which was the result of the growth in portfolio management fees (CIS management fees remained stable).

Despite the fall in the assets managed by management companies, their aggregate profits before tax rose by 47.8% on 2017, to 1.12 billion euros. This growth was the result of the increase in net fees, and within these, those relating to portfolio management, which doubled in amount. CIS management fees – which are by far the largest, with around 83% of total fees received by management companies (almost 90% in 2017) – remained practically stable (1.5 million euros more, to 2.65 billion euros). These fees amounted to a total amount equivalent to 0.91% of the assets under management, above the figure of 0.88% recorded at year end 2017. This is possibly the result of the rearrangement of the assets managed by mutual funds to higher-risk categories, which are generally associated with higher fees. The growth in profits led to a substantial increase in return on equity (ROE), although it should be indicated that the improvement was not evenly spread across entities, as the number of loss-making companies rose from 19 to 26 between 2017 and 2018, and the volume of said losses almost doubled, rising from 6.6 million to 12.3 million.

CIS management companies: assets under management and CIS management fees and fee ratio

TABLE 19

Million euros

	Assets under management	CIS management fee income	Average CIS management fee (%)	Fee ratio (%)[1]
2010	177,055	1,639	0.93	67.24
2011	161,481	1,503	0.93	65.60
2012	152,959	1,416	0.93	64.62
2013	189,433	1,594	0.84	61.94
2014	232,232	2,004	0.85	61.80
2015	258,201	2,442	0.95	63.68
2016	272,906	2,347	0.86	61.67
2017	299,974	2,647	0.88	58.68
2018	290,438	2,649	0.91	56.13

Source: CNMV.

1 Ratio of fee expenses for fund marketing to fee income from CIS management.

4.4 Other intermediaries: venture capital and crowdfunding platforms

Venture capital

The venture capital sector continued to expand in 2018, with an increase of 48 entities in the CNMV's register.

In line with the upward trend being recorded by the venture capital sector, over 2018 the number of entities belonging to this category registered with the CNMV rose by 48 (43 investment vehicles and 5 management companies), following 67 new registrations in 19 de-registrations.

Expansion was generalised across the different types of entity, affecting both traditional venture capital entities and other relatively recent categories…

With regard to traditional venture capital entities,[32] there was a total of 37 new registrations and 13 de-registrations, leading to a total of 181 venture capital funds and 121 venture capital companies at the end of the year. In the case of SME venture capital entities, there were 2 new registrations in 2018, leading to a total of 27 vehicles (10 funds and 17 companies) at 31 December 2018. In addition, 3 European venture capital funds (EuVECA) registered, leading to a total of 8, and 1 European social entrepreneurship fund (EuSEF) registered, the first to exist in Spain.[33]

… which include closed-ended collective investment undertakings, which have a high degree of flexibility in their investment policy.

Closed-ended collective investment undertakings also recorded significant growth, as there was a total of 31 at year-end 2018 compared with 15 in the previous year (12 funds and 19 companies). This investment category enjoys a great deal of flexibility

32 Traditional entities are deemed to be those categories existing prior to entry into force of Law 22/2014, of 12 November.

33 EuVECA and EuSEF are categories provided for in Regulation (EU) No. 345/2013 of the European Parliament and of the Council, of 17 April 2013, on European venture capital funds and Regulation (EU) No. 346/2013 of the European Parliament and of the Council, of 17 April 2013, on European social entrepreneurship funds.

with regard to its investment policy and compliance with investment ratios, which are more restrictive in the case of venture capital entities. This is demonstrated by the fact that 6 of the 10 new closed-ended collective investment undertakings in the form of funds registered in 2018 were former venture capital funds.

Movements in the venture capital entity register in 2018 TABLE 20

	Situation at 31/12/2017	New registrations	De-registrations	Situation at 31/12/2018
Companies				
Venture capital funds	173	21	13	181
SME venture capital funds	12	1	3	10
European venture capital funds	5	3	0	8
European Social Entrepreneurship Funds	0	1	0	1
Venture capital companies	105	16	0	121
SME venture capital companies	16	1	0	17
Total venture capital entities	**311**	**43**	**16**	**338**
Closed-ended collective investment funds	2	10	0	12
Closed-ended collective investment companies	13	6	0	19
Total closed-ended collective investment entities	**15**	**16**	**0**	**31**
Closed-ended investment scheme management companies	**89**	**8**	**3**	**94**

Source: CNMV.

According to the preliminary data from ASCRI, the investment of the venture capital sector grew by 17.9% in 2018 to stand at 5.84 billion euros. Particularly noteworthy was the intense activity of international funds, which usually perform larger-sized deals.

The preliminary data for 2018 provided by the Spanish Capital, Growth and Investment Association (Spanish acronym: ASCRI) indicate, as mentioned above, that the sector continued growing at a good rate, with an investment volume of 5.84 billion euros, 17.9% up on 2017. In this period, it is important to note the intense activity of international funds, which accounted for 77% of the total investment volume, with a figure of almost 4.5 billion euros spread over 118 deals, and which played a particularly significant role in megadeals (those of greater than 100 million euros). These megadeals, of which there was a total of 8 (11 in 2017), accounted for, in terms of volume, 63% of the sector's investment. Middle market deals (between 10 million and 100 million euros) continued in similar figures to those of 2017, the year in which they reached historic highs, with a volume of 1.47 billion euros in 56 investments.

Investment in venture capital (seed and start-up) remained high, although with a slightly lower volume than in 2017, and continued to be carried out mostly by national funds.

From the point of view of the project development stage, venture capital investment (seed and start-up) remained high, although the figures were lower than in 2017, with an investment volume of 417 million euros (538 million in the previous year) spread over 510 deals (560 in 2017). As in previous years, these investments were mainly made by private national funds. Fundraising by private national operators maintained the buoyancy of previous years, with investment of 2.15 billion euros, 15.3% up on 2017.

The initiative through the FOND-ICO Global venture capital fund continued to be extremely important in raising funds in the sector.

The initiative of the ICO, through the FOND-ICO Global venture capital fund, continued to be extremely important in raising funds from the private sector through co-investment. In this regard, there was an increase of around 500 million euros in 2018.

Crowdfunding platforms

Following some initial years of intense activity, the number of crowdfunding platforms registered fell to 5 in 2018…

In 2018, the number of crowdfunding platforms registered over the year continued to fall, after some initial years of intense activity in which, following publication of Law 5/2015, the bulk of the applications concerned platforms that were already operating as such and which, as a consequence of the new regulation, had to adapt to the legislative requirements in order to be able to continue their business.

… leading to a total of 26 platforms in the Register at the end of the year…

A total of 5 new platforms registered in 2018 (8 in 2017), leading to a total of 26 in the CNMV's Register at the end of the year. A total of 12 applications were received in the year (9 in 2017), 1 project (4 in the previous year) was rejected and another 13, 9 more than in 2017, were withdrawn or deemed withdrawn in 2017.

… of which 11 were equity platforms, 10 were lending platforms and 5 were mixed.

Of the 26 platforms registered at the end of December, 11 were equity vehicles, 10 were lending platforms and 5 were mixed. With regard to the sector subject to the investment, it should be pointed out that 4 were real estate platforms (2 equity, 1 lending and 1 mixed). In addition, 2 platforms were controlled by foreign companies.

Number of registered crowdfunding platforms

TABLE 21

Platform Type	2017			2018			Cumulative total since 2015		
		of which			of which[1]			of which[1]	
	Total	Madrid	Barcelona	Total	Madrid	Barcelona	Total	Madrid	Barcelona
Equity	**3**	0	2	**3**	1	1	**11**	5	4
Loans	**1**	1	0	**1**	1	0	**10**	6	2
Mixed	**4**	3	0	**1**	0	1	**5**	3	1
TOTAL	**8**	**4**	**2**	**5**	**2**	**2**	**26**	**14**	**7**

Source: CNMV.

1 In addition, one crowdfunding platform with registered address in Soria and another in Valencia were registered in 2016, while one crowdfunding platform with registered address in Santa Cruz de Tenerife and another in Valencia were registered in 2017.

II Reports and analysis

Non-bank financial intermediation in Spain

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1 Introduction

Non-bank financing is a valuable alternative to bank financing as it increases the available sources of resources for businesses and households, while at the same time promoting healthy competition with traditional banks. The experience gained as a result of the financial crisis that began in 2007 shows, however, the capacity of some of the entities that provide non-bank financing to generate risks for financial stability that are similar to those generated by banks. These may become a source of systemic risk, both directly and through their interconnectedness with the regular banking system. In turn, they might create opportunities for arbitrage due to the different regulatory and supervisory requirements between banks and these entities, which might intensify the generation of risks in the financial system.

These differences in the regulation and supervision of these entities and activities compared with banks meant that the original term to describe this sector was "shadow banking". It was precisely in 2007 that economist Paul McCulley coined the term "shadow banking" in a speech at the annual financial symposium hosted by the Kansas City Federal Reserve Bank. By this term, McCulley was referring, in the US context, to non-bank financial entities engaged in maturity transformation in the same manner as "traditional" banks, with the difference that the former are not subject to banking regulation and oversight. As a consequence, in the event of mass withdrawals of deposits, for example, they would not be able to request funds from the corresponding authority to meet the withdrawals. In addition, their lenders do not have any insurance that partially covers them, as depositors in Spain have through the Deposit Guarantee Fund (FOGADE).

Since then, many bodies, institutions and academics have attempted to define shadow banking more precisely and to decide what type of entities should or should not be included under the term. These include the Financial Stability Board (FSB), which developed a broader definition that is currently the most widely used, according to which shadow banking may be described as credit intermediation involving entities and activities (fully or partly) outside of the regular banking system. In addition, as will be described in more detail below, in order to identify the entities in the financial system that should be included under shadow banking, it developed a perspective based on a series of economic functions.

The term "shadow banking" was questioned a few years ago as a result of its negative connotations as, although these entities are not affected by banking regulation, many of them are subject to regulation and oversight – sometimes strict – mainly by securities regulators. Following an intense debate, a certain consensus was reached in the FSB regarding a new term: "Non-Bank Financial Intermediation" (NBFI), which avoids the negative connotation of shadow banking while it adequately describes the activity performed by these entities.

This is the term that will be used in this article, which aims to present the main results in terms of size and associated risks for financial stability of the entities that carry out non-bank financial intermediation in Spain. The article is organised as follows: Section 2 presents the main features of the financial system and the different sectors that it comprises. Section 3 analyses in greater detail the sectors

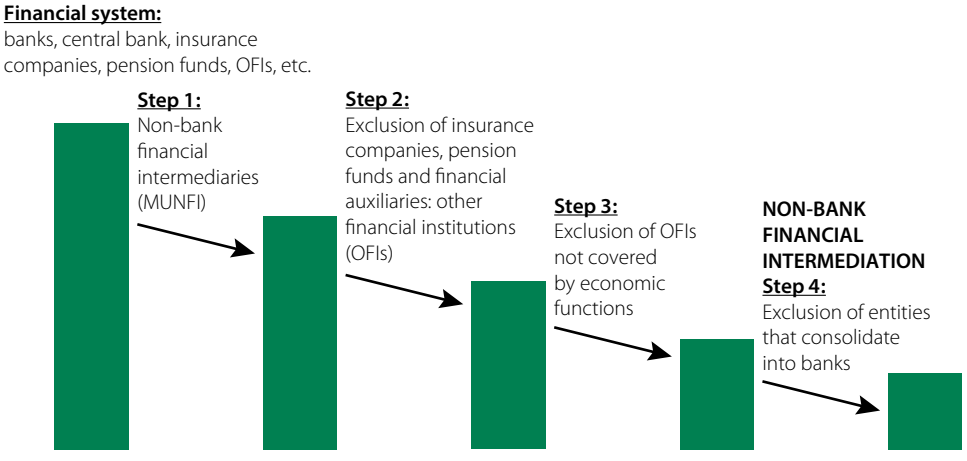
belonging to NBFI, while Section 4 measures the different risks faced by the sectors. Finally, Section 5 presents the article's main conclusions.

2 Spanish financial system

The financial system of a country or jurisdiction can be defined as the set of institutions, markets and infrastructures whose objective and main purpose is to channel the savings generated by savers towards investors. This system therefore includes the country's central bank, credit institutions, insurance companies, pension funds, financial auxiliaries and "other financial institutions" (OFI). On the one hand, we can speak about bank intermediation entities (central bank and credit institutions) and, on the other hand, about MUNFI,[1] which include the other entities (see Figure 1). If pension funds, credit institutions and financial auxiliaries are excluded from MUNFI, we obtain the aforementioned OFIs, which are entities of a very diverse nature. Regulation and oversight of this last group is not uniform across different jurisdictions and is generally not perceived to be as well delimited and defined as for the rest of the financial system. That is why on many occasions OFIs have been used as a broad measure of non-bank financial intermediation.

Once the five economic functions that lead an entity to belong to NBFI have been defined, the OFIs that do not meet any of them may be excluded so as to eventually arrive at a narrow measure of NBFI. In reality, NBFI may include some entities that do not belong to the group of OFIs, although, in general, they are quite small. In Spain, for example, this is the case of mutual guarantee companies, which do not form part of OFIs, but do form part of NBFI as they fulfil one of the aforementioned economic functions (which are analysed in detail in Section 3 of this article).

From the financial system to non-bank financial intermediation FIGURE 1

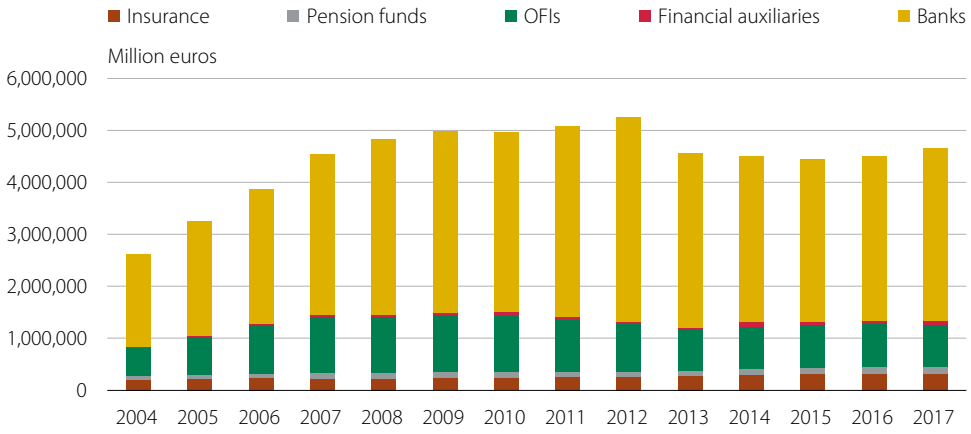


Source: CNMV.

1 Monitoring Universe of Non-bank Financial Intermediation.

In Spain, the total assets of the financial system at the end of 2017 amounted to a little under 4.7 trillion euros, approximately 4 times the national GDP. However, in 2012 they exceeded 5.2 trillion euros following several years of high and sustained growth (see Figure 2), especially over the period between 2002 and 2009, with cumulative growth of 157.2% (see Table 1). Taking as reference the aggregate data obtained by the FSB in its *Global Monitoring Report on Non-bank Financial Intermediation 2018*, the financial system in Spain is not especially large and is well below the global average, which exceeds 500%.[2]

Assets of the Spanish financial system FIGURE 2



Source: CNMV and Bank of Spain.

If this figure is broken down by type of entity, it can be seen that the relative weight of banks[3] in Spain is higher than the global average, standing at around 60% over recent years,[4] compared with a figure of approximately 45%[5] for the global average. In contrast, pension funds, insurance companies and, above all, OFIs are smaller. This last group – which, as mentioned above, has been used in some studies as a broad measure of NBFI – accounted for 17.3% of the financial system as a whole in Spain at the end of 2017, while this figure stood at an average of 30.7% in the sample of countries in the study performed by the FSB.

2 It is important to note, however, that this last figure is biased upwards by some jurisdictions that are major financial centres, such as Luxembourg and Ireland.

3 This heading includes public financial institutions.

4 This percentage was 56.4% at the end of 2017, having gradually fallen from 65.7% in 2009.

5 The 2017 FSB sample includes 22 jurisdictions: 21 individual jurisdictions plus another that comprises the group of countries belonging to the euro area. The 21 individual jurisdictions are Argentina, Australia, Brazil, Canada, the Cayman Islands, Chile, China, Hong Kong, Indonesia, India, Japan, Korea, Mexico, Russia, Saudi Arabia, Singapore, South Africa, Switzerland, Turkey, the United Kingdom and the United States. If the jurisdictions of the euro area are quantified one by one, the number of jurisdictions totals 29.

Structure of the Spanish financial system

TABLE 1

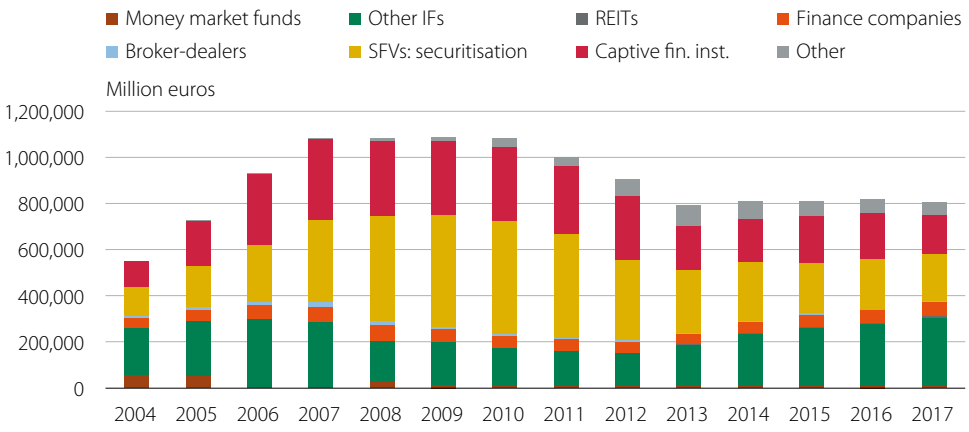
Million euros

	Central bank	Banks	Insurance	Pension funds	Financial auxiliaries	OFIs	Total
Size in 2017 (million)	695,146	2,630,889	313,287	139,396	75,306	805,717	4,659,742
Size in 2016 (million)	580,345	2,581,932	312,532	136,826	74,657	820,099	4,506,391
% of total (2017)	14.9	56.5	6.7	3.0	1.6	17.3	100.0
Growth 2017 (%)	19.8	1.9	0.2	1.9	0.9	-1.8	3.4
Cumulative growth 2002-2009	125.8	154.1	54.7	73.6	261.3	241.4	157.2
Cumulative growth 2009-2016	164.4	-21.1	27.2	32.2	59.6	-24.7	-9.4

Source: CNMV and Bank of Spain.

Assets of other financial institutions (OFIs)

FIGURE 3



Source: CNMV and Bank of Spain.

As shown in Figure 3, the assets of OFIs reached their highest level in the years between 2007 and 2010, exceeding 1 trillion euros in this period. During the years prior to 2007, this financial subsector enjoyed very high and sustained growth, which translated into a cumulative increase in its financial assets of 241.4% between 2002 and 2009. As from 2010, with the effects of the crisis already very evident in Spain, OFIs shrank gradually until 2013, from which point on they have remained practically stable in terms of volume of financial assets (see Table 1). Between 2010 and 2013, their assets shrank by 25% to below 800 billion euros, and from then until December 2017, they grew by 2% to 806 billion euros to then fall slightly in the last year of the study (-1.7%). The sector's expansion in Spain has been smaller than that of other economies worldwide: in the euro area, for example, OFIs grew by 10% between 2011 and 2015 and by 2% in 2017.

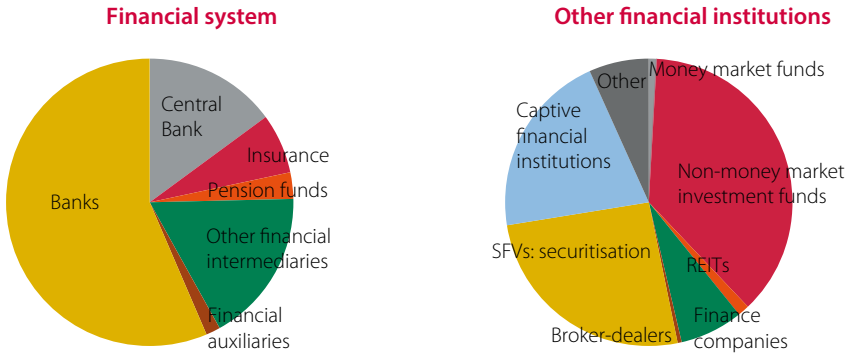
There are various types of entities under the umbrella of OFIs according to the activity that they perform. On the one hand, there are entities which, as will be described in more detail in Section 3 of this article, form part of what is referred to as

NBFI – investment funds,[6] structured finance vehicles for securitisation, broker-dealers and finance companies – and, on the other hand, captive financial institutions and moneylenders, REITs[7] and other relatively small-sized entities.[8]

Of the latter (those that are not part of NBFI), captive financial institutions and moneylenders – defined as institutions that provide investment services where most of their assets or liabilities are not transacted on open financial markets[9] – are the most significant in terms of size. Their financial assets amounted to 168 billion euros in 2017, approximately one fifth of the total for OFIs (see right-hand panel of Figure 4) and 3.6% of the Spanish financial system as a whole, despite having shrunk by 17.2% on the previous year. In the analysis performed by the FSB, these institutions represented a percentage of the total for OFIs similar to the case of Spain, specifically 21.9% (see right-hand panel of Figure 5). It is important to bear in mind, however, that this figure is heavily influenced by the data from Canada, the Netherlands and Luxembourg, which have financial systems where captive financial institutions and moneylenders are extremely important and account for 81% of the total for these institutions in the available sample of the FSB.

With regard to the performance of these entities over the last 15 years, the left-hand panel of Figure 6 shows that they underwent almost exponential growth up to 2007, coinciding with the years of the largest issues of preferred shares by many companies, mainly banks and saving banks. Consequently, between 2002 and 2007, the financial assets increased more than tenfold to over 350 billion euros. They gradually decreased from then on.

Distribution of the Spanish financial system. 2017 FIGURE 4



Source: CNMV and Bank of Spain.

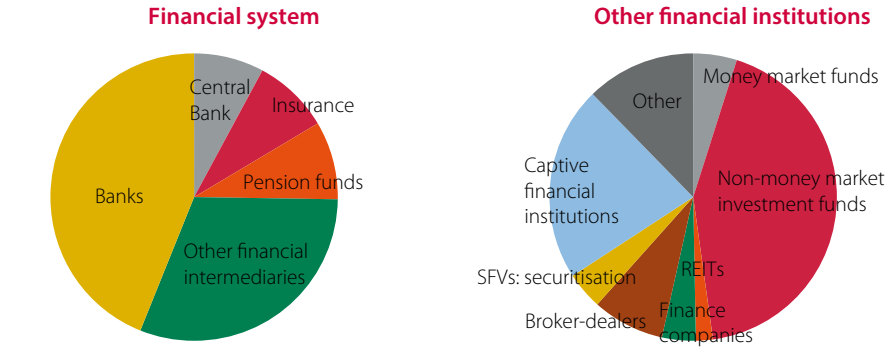
6 In fact, as explained below, although most investment firms form part of NBFI, not all of them do. Those that do not form part of NBFI are, basically, equity funds, which account for around 11% of total assets.

7 Real Estate Investment Trusts.

8 The heading of "Others" includes central counterparties (CCPs), the SAREB (Management Company for Assets Arising from the Banking Sector Reorganisation) and venture capital entities. Although, *a priori*, these last entities fall outside the definition of NBFI due to the nature of their investments, those that are made in loans could be included under Economic Function 2, which is explained below.

9 This subsector basically includes the subsidiaries of a group of companies or entities that provide loans from own funds provided by only one sponsor. In Spain, a significant part of these institutions corresponds to companies created specially to issue preferred shares and other negotiable securities.

Distribution of the global financial system.[1] 2017 FIGURE 5

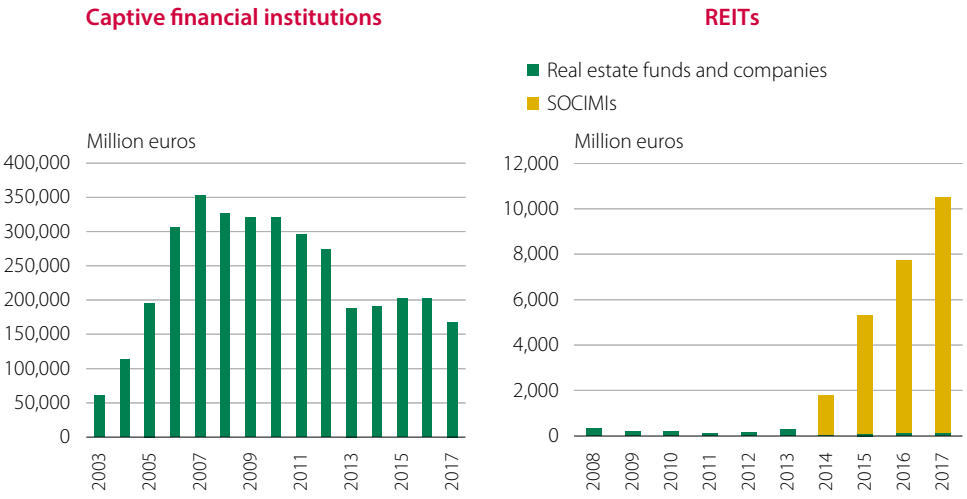


Source: CNMV and Bank of Spain.

1 The data correspond to the 29 jurisdictions included in the sample of the FSB in its latest published report.

For their part, REITs include both real estate investment trusts and real estate funds and in Spain SOCIMIs (*Sociedad Cotizada Anónima de Inversión en el Mercado Inmobiliario*). The latter account for a higher percentage within the financial assets of the sector since the creation of the first SOCIMI at the end of 2013 (see right-hand panel of Figure 5), with over 95% of the total. In Spain, these entities accounted for 1.3% of OFIs at the end of 2017, while the average for this figure was a little higher among the countries of the sample available for the FSB.

Assets of captive financial institutions and REITs FIGURE 6



Source: CNMV and Bank of Spain.

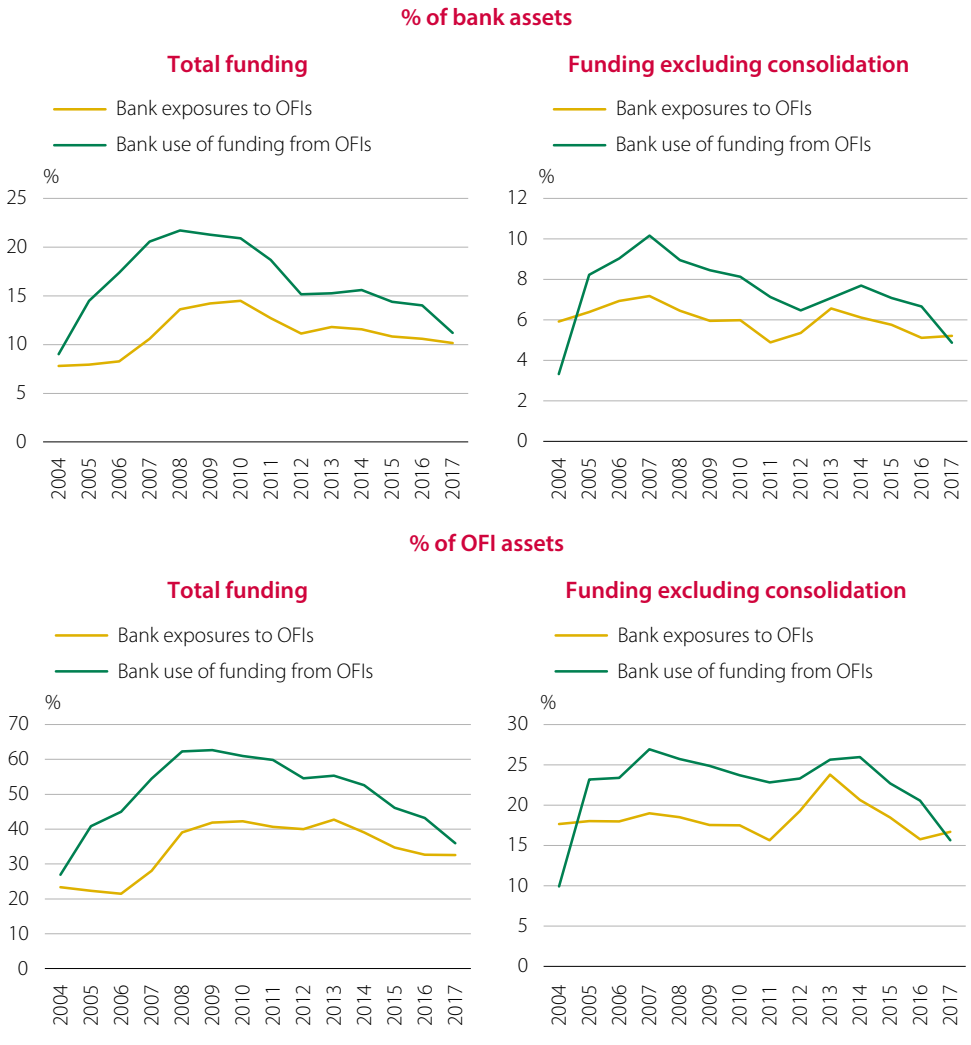
Interconnectedness between entities belonging to the financial system

During periods of stress or financial difficulties, not only is the size of the different financial subsectors important, but also the interconnectedness between them, as these are channels that may promote risk contagion. These linkages can be direct (through credit financing, for example) or indirect, which happens when two entities hold common assets or when the market value of their equity or debt securities move together concurrently.

In order to determine direct linkage, data have been obtained on the bilateral exposures between financial sectors. For example, the calculation of the exposure of banks to OFIs takes into consideration the assets that banks have in OFIs in relation to total assets, both of banks and of OFIs (see Figure 7).

As can be seen in the left-hand panels of the two figures, in 2017 banks' claims on OFIs ("Banks' exposure to OFIs") amounted to around 10% of bank assets and 33% of the assets of OFIs, a similar figure to that recorded in 2016. For their part, bank liabilities to OFIs ("Banks' use of OFI funding") was slightly higher, specifically 11% of bank assets and 36% of the assets of OFIs, after having fallen in one year by 3 (7) percentage points and by around 10 (27) since 2008. In absolute terms, these figures stood at around 263 billion and 290 billion euros (see Table 2). If the claims and liabilities of OFIs that are consolidated into the banking groups themselves are excluded,[10] the aforementioned percentages fall: in the case of banks' claims on OFIs, to 5.2% and 16.7% of the assets of banks and of OFIs, respectively, while banks' liabilities to OFIs stand at 4.9% and 15.6%, respectively.

Interconnectedness between banks and OFIs FIGURE 7



Source: CNMV and Bank of Spain.

10 In the case of Spain, this consolidation takes place for one financial subsector, which is solely that of SFVs.

If we compare these figures with the data obtained by the FSB for different jurisdictions worldwide, we can see that the percentages in Spain are approximately at an intermediate position, both for banks' claims and liabilities, if a calculation is performed from the point of view of the bank balance sheet. In contrast, in terms of the assets of OFIs, due to the fact that their size in Spain is comparatively small, the values are amongst the highest (Spain is the only country that has two percentages, claims and liabilities, above 15%).

With regard to the changes over recent years, the highest interconnectedness (in net terms) between the two aforementioned subsectors was recorded in 2007, when the banks' claims on OFIs exceeded 7% of total bank assets and banks' liabilities to OFIs, 10%. This last figure was the result of a very significant increase between 2004 and 2007 after said liabilities rose from a little over 50 billion euros to almost 290 billion euros. In the case of banks' claims, although there was also an increase over the same period, the rise was much less sharp, growing from 73 billion euros to a little over 150 billion euros.

Interconnectedness between banks and OFIs TABLE 2

Million euros

	Banks' exposure to OFIs		Banks' liabilities to OIFs	
	Total	Consolidated into banking groups	Total	Consolidated into banking groups
2010	457,816	268,473	660,106	403,366
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	316,838	149,456	426,657	215,894
2015	281,947	132,153	373,979	189,633
2016	268,089	138,837	354,353	185,805
2017	262,722	128,099	289,593	163,648

Source: CNMV and Bank of Spain.

An analysis of banks' linkages with financial subsectors other than OFIs reveals that the greatest interconnectedness is seen among banks themselves (see Table 3), with a figure of 275 billion euros of liabilities among them in 2017, around 11% of total assets. In contrast, the linkages with insurance companies and pension funds are of a much smaller magnitude, with figures of banks' use of funding from these entities standing at a little under 40 billion and 20 billion euros, respectively, at year-end 2017, which in relative terms account for 1.5% and 0.8% of banks' assets.

Furthermore, if we break down the data presented by subsector within OFIs, the greatest interconnectedness obviously occurs with SFVs, although practically all of this figure is consolidated into banking groups and, therefore, this exposure does not generate a real contagion risk. Banks' liabilities to investment funds, in contrast, might well be a significant source of contagion between the two sectors as they exceeded 46 billion euros in 2017, 1.8% of bank assets. This figure represents,

however, a significant fall in comparison with 2016, when it stood at 53.6 billion euros, 2.1% of bank assets.

Interconnectedness with the banking system. 2017 TABLE 3

Million euros

				OFIs					
	Banks	Insurance companies	Pension funds	Money market funds	Other investment funds	Finance companies	Broker-dealers	CCPs	SFVs
Banks' exposure to	275,183	8,394	-	31	500	36,759	-	15,142	141,260
Banks' liabilities to	275,183	39,856	19,655	1,961	44,502	1,366	1,038	15,826	184,485

Source: CNMV and Bank of Spain.

3 Non-bank financial intermediation in Spain

As mentioned in the introduction of this article, in 2013 the FSB developed a framework based on five economic functions in order to identify and classify shadow banking entities.[11] The aim was for the competent authorities of the different jurisdictions to categorise non-bank financial institutions not only based on their legal form, but also on the basis of this classification, and therefore achieve international consistency when identifying the risks associated with non-bank financial intermediation.

Based on this definition, over recent years it has been possible to make an estimate of the size of non-bank financial intermediation in different economies worldwide and, therefore, make a comparison between them.

In Spain, at the end of 2017, the assets of non-bank financial intermediation, in its broader definition – i.e., without eliminating those that are consolidated into banking groups – amounted to 531.92 billion euros, 1.9% up on 2016. After eliminating the portion that is consolidated into banks,[12] the figure for NBFI stands at 319.08 billion euros, accounting for 6.8% of the Spanish financial system and 39.6% of the OFI subsector.

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

12 As will be described in each of the parts of this section, bank consolidation takes place for various reasons, although there are basically two: either the entity in question is (practically) 100% owned by a bank or the assets belonging to the entity are, in turn, on the back's balance sheet (therefore, subject to banking regulation).

Structure of non-bank financial intermediation

TABLE 4

Million euros

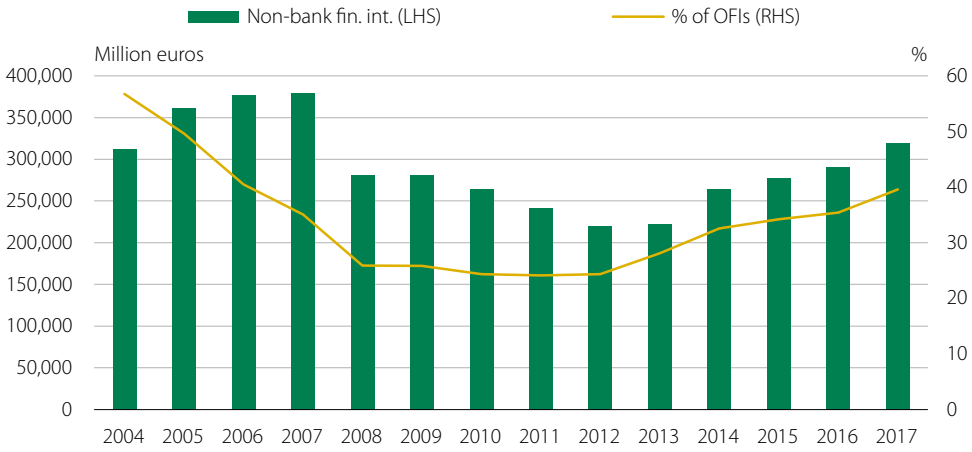
	EF1	EF2	EF3	EF4	EF5	Non-bank financial intermediation (broad)	Non-bank financial intermediation (narrow)
Size in 2017 (million)	263,118	57,265	3,695	1,028	206,816	531,922	319,077
Size in 2016 (million)	245,766	52,574	3,831	1,115	218,708	521,994	290,206
% of total (2017)	49.5	10.8	0.7	0.2	38.9	100	–
Growth 2017 (%)	7.1	8.9	-3.5	-7.8	-5.4	1.9	9.9
Cumulative growth 2002-2007	48.7	79.1	78.4	115.6	647.0	151.9	66.3
Cumulative growth 2007-2016	-14.7	-19.5	-81.4	55.8	-38.3	-28.4	-23.5

Source: CNMV and Bank of Spain.

Non-bank financial intermediation underwent high and sustained growth up to 2007, as reflected by the fact that between 2002 and 2007, cumulative growth stood at 66.3%, in terms of the narrow definition, and at 151.9% under the broad definition (see Table 4). As from 2007, with the start of the crisis, the assets managed by entities belonging to non-bank financial intermediation started to fall, particularly in 2008, to then recover slightly (at least compared with the growth of the first few years analysed) as from 2013.

Assets of non-bank financial intermediation

FIGURE 8



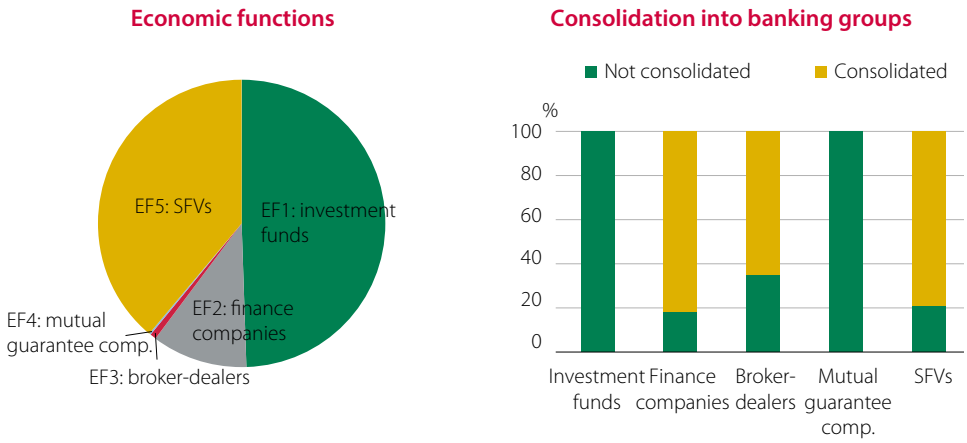
Source: CNMV and Bank of Spain.

Despite the growth in the assets of non-bank financial intermediation in the years prior to the crisis, in relative terms, as a fraction of OFIs, these activities lost a significant amount of relative weight as they dropped from 71.5% to 35.1% between 2002 and 2007 (see Figure 8). The same is true if they are compared with the financial system as a whole, as these same percentages were 11.8% and 8.4%. It may therefore be concluded that during the years prior to the crisis, although the size of non-bank financial intermediation rose, this growth was much smaller than the expansion of the financial system as a whole, particularly that of banks.

With regard to the different types of entities that make up non-bank financial intermediation (each one of which will be addressed in detail in the following points of this section), those belonging to economic function 1 (EF1, certain types of investment funds) and 5 (EF5, vehicles for securitisation) are those that account for a higher percentage of the total, with 49.5% and 38.9%, respectively (see left-hand panel of Figure 9). In the middle years of the crisis, when the collective investment industry shrank significantly, the weight of EF1 fell below 30%, while, in contrast, the relative importance of EF5 rose to over 60%. Behind these are finance companies, which make up economic function 2 (EF2), with 10.8% of the total, and far behind these are economic functions 3 and 4 (broker-dealers and mutual guarantee companies).

The above figures refer to non-bank financial intermediation in its broad sense. If the entities that are consolidated into banks are deducted, these values change significantly. On the one hand, investment funds – in which there is no consolidation – gain relative importance, up to 82.5% of total non-bank financial intermediation. In contrast, the relative weight of securitisation vehicles and finance companies, with a very high fraction of the total of the sector that is consolidated into banks (see right-hand panel in Figure 9), fell to 13.5% and 3.3%, respectively, of NBFI.

Distribution of non-bank financial intermediation. 2017 FIGURE 9



Source: CNMV and Bank of Spain.

The aforementioned five economic functions, the entities belonging to each of them and the main risks associated with their activities are defined and described below.

Economic function 1 (EF1)

EF1 is defined as the management of collective investment schemes with features that make them susceptible to runs. It is true that, in many circumstances, CIS can act as shock absorbers in the financial system as losses from an entity's distress or insolvency or from adverse financial market conditions are shared among a disparate group of investors. However, there may be situations in which a CIS can face large-scale redemption requests within a short time period and therefore be forced to sell part of its assets, starting with the highest quality, most liquid assets. A run

can lead affected vehicles to engage in fire sales, which can spread the adverse effects of the run to other CIS and the broader markets. Whether these effects on the rest of the financial system take place or are truly significant depends on factors such as the tolerance of unit-holders to absorb losses, the liquidity of the fund's portfolio, its leverage, the concentration of the investments in a single segment or entity and the correlation between assets affected by the run and the portfolio of other CIS or investors.

Bearing in mind these considerations, from among the different categories of investment vehicles existing in Spain, it has been considered that the following belong to this economic function and, consequently, form part of non-bank financial intermediation: money market funds, fixed-income funds, mixed funds,[13] hedge funds[14] and SICAVs (open-ended investment companies).

There are various tools that may be used by the corresponding regulators or supervisors in order to mitigate the aforementioned effects:

– In order to prevent excessive pressure from redemptions, there are various possibilities that are more or less appropriate depending on the nature of the fund and the causes of said redemptions. It is possible to establish liquidity windows, directly suspend redemptions, impose extraordinary redemption fees or create temporary side pockets.

– As mentioned above, the level of liquidity of the assets of a CIS's portfolio is key when dealing with runs. Some tools that may be used in this regard include establishing limits on investment in illiquid assets and imposing higher liquidity buffers for portfolios. In addition, in order to avoid excessive exposure to a single market or industry, limits may be established on asset concentration, limiting the proportion of the portfolio that may be invested in a single issuer or sector.

– Limits on leverage, as this increases the fund's exposure and, therefore, may be a negative factor in terms of financial stability, particularly in the case of large CIS.

– Restrictions on the maturity of portfolio assets.

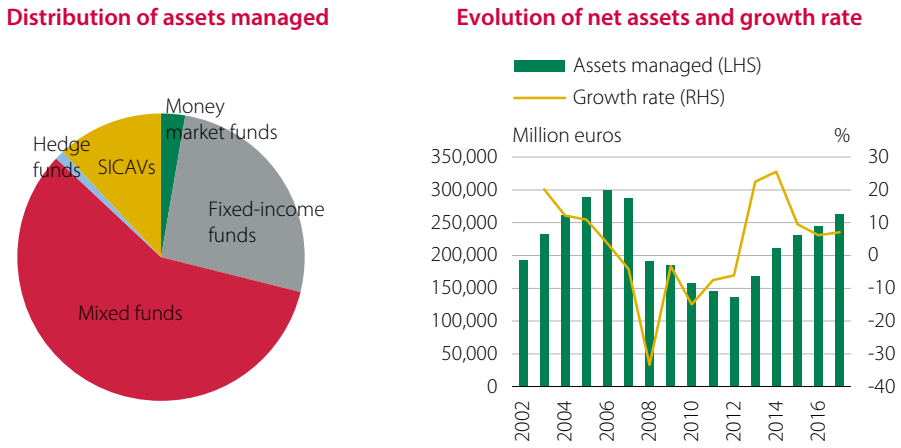
The vehicles belonging to EF1, as in most of the economies analysed in the FSB report, make up the largest group within non-bank financial intermediation. As described above, in Spain they accounted for 82.5% of the total at the end of 2017, while this figure averaged 71.7% for the countries in the FSB's sample. This percentage has been growing over recent years (in 2010 it was 60%) as a result of the expansion of this industry. As shown in the right-hand panel of Figure 10, the net assets of investment funds belonging to EF1 plunged in the period between 2008 and

13 According to the criterion established by the FSB, only mixed funds with a percentage of equity below 80% of the total portfolio are included in EF1. In Spain, according to current legislation, the exposure to equity of mixed funds may not exceed 75% of the portfolio, and they are therefore all considered to fall within non-bank financial intermediation.

14 These funds may be susceptible to runs in their liquidity windows, where applicable.

2012, and then recovered sharply as from 2013 and have recorded annual growth rates of over 10% since then.

Distribution of investment funds belonging to NBFI FIGURE 10



Source: CNMV.

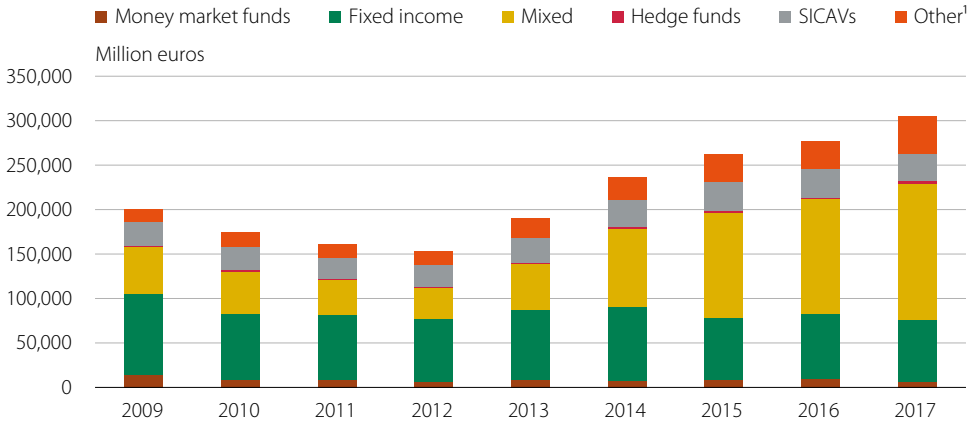
On the other hand, the composition of these vehicles according to the type of funds is significantly different from that of other jurisdictions. As shown in the left-hand panel of Figure 10, mixed funds accounted for almost 60% of total CISs included in NBFI at the end of 2017 in Spain; almost two thirds of these funds correspond to mixed fixed-income funds. Their relative weight has been growing significantly and uninterruptedly since 2013 as there have been high inflows of resources, particularly in 2014 and 2015 (see Figures 11 and 12). Unlike mixed funds, fixed-income funds, which are second in importance and account for approximately 25% of the total, have seen falls in their assets, both in absolute and relative terms, from highs of around 50% in 2011. The net assets of SICAVs accounted for 12% of the total, i.e., slightly down on previous years. Lastly, money market funds and hedge funds at the end of 2017 accounted for 2.7% – a percentage that has been gradually falling – and 1%, respectively.[15]

At an international level, the distribution between the different profiles is substantially different from that in Spain. With figures for the 29 jurisdictions that provide data to the FSB about 2016, fixed-income funds were the most important, with around 30% of the total, followed by mixed funds, with a little under 20%, 3 times lower than in

15 In the first quarter of 2019, a new CNMV circular will enter into force amending CNMV Circular 1/2009, of 4 February, on categories of collective investment schemes according to their investment profile, partially amending Circular 3/2011, of 9 June. This new circular is necessary in order to comply with Regulation (EU) 2017/1131 of the European Parliament and of the Council, of 14 June 2017, on money market funds, which aims to establish common rules in the European Union relating to the maturity, composition and liquidity of the portfolio of money market funds in order to avoid different levels of investor protection. In the case of Spain, managers of investment funds that are currently classified as money market funds must establish whether under the new legislation they may remain as such or, given the new conditions that are more restrictive, they must modify their profile to that of the newly created category of short-term fixed income funds. It is likely that when this process has been completed, the number of money market funds in Spain will be much lower.

Spain. The relative importance of money market funds and hedge funds, which are fairly insignificant in Spain, accounted for 15% and 14%, respectively.

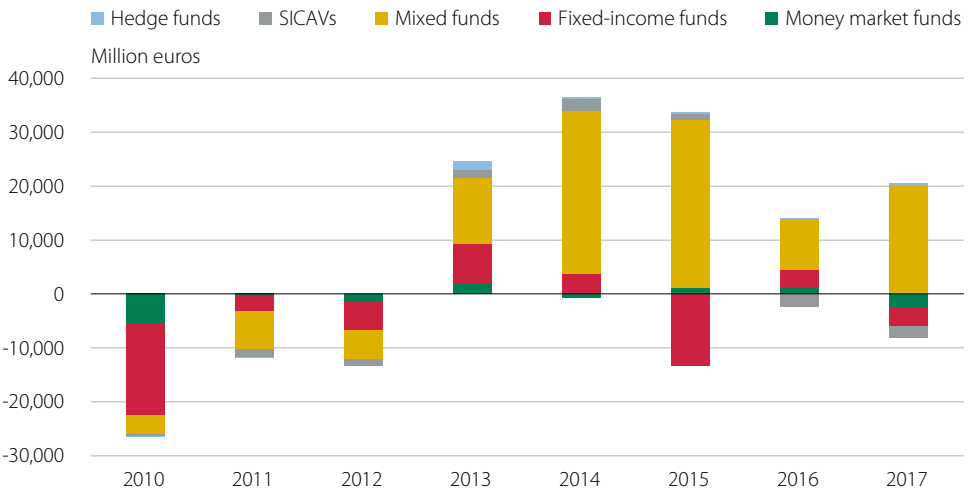
Investment fund net assets FIGURE 11



Source: CNMV.

1 The heading "Other" contains investment funds that are not considered part of NBFI. In Spain, only equity funds belong to this category.

Net acquisition of investment funds by category FIGURE 12



Source: CNMV.

In Spain, there are several tools set up as regulatory requirements that are designed to control the liquidity of funds, limit their leverage and prevent excessive concentration of risks. Application of these microprudential tools would be relevant from a macroprudential point of view. There are also other tools that may only be adopted in exceptional circumstances but which are used less in practice. This would be the case of suspensions of redemptions or the establishment of side pockets. The most significant tools established by current Spanish legislation[16] are as follows:

16 Law 35/2003, of 4 November, on Collective Investment Schemes, implemented by Royal Decree 1082/2012, of 13 July.

– Liquidity management: in addition to certain restrictions on suitable assets for investment, CIS must maintain a minimum liquidity ratio of 1% and their managers must have a liquidity management system. In addition, since December 2018, with the entry into force of Royal Decree-Law 22/2018, of 14 December, establishing macroprudential tools, the CNMV has the capacity to set liquidity requirements in addition to those which already exist. It may only apply these on a temporary basis and it must give a reasoned explanation for why they are necessary.

– Leverage: investment funds may only borrow up to a maximum of 10% of their assets and only on a temporary basis and not for investment purposes. Moreover, the total exposure to market risk associated with the use of derivatives may not exceed the net assets of the CIS.

– Redemption management: side pockets may be used and redemptions may even be suspended, but only in extraordinary circumstances in both cases. Liquidity windows are possible for alternative funds (not UCITS) and real estate funds. In addition, although it is not expressly set out in the legislation, the CNMV allows managers to adopt the tool known as swing pricing,[17] if it is established in their procedures. It also allows for the possibility of applying redemption fees in favour of the fund (rather than of the management company) if this possibility is provided for in the prospectus.[18]

Economic function 2 (EF2)

EF2 is defined as loan provision that is dependent on short-term funding. A wide variety of entities may belong to this category depending on the jurisdiction, with very different legal frameworks. In the case of Spain, this category covers finance companies, crowdfunding platforms and vehicles which in recent years have been performing the activity known as direct lending.[19] These entities may compete with banks in performing certain activities or, alternatively, offer services in "niche" markets, where banks are not active agents. Normally, finance companies concentrate lending in certain sectors due to their specific experience and knowledge. It is

17 Swing pricing makes it possible to value portfolio assets at bid prices (the low part of the range) instead of at mid-price (which is normally used) when the volume of redemptions exceeds a certain threshold. This threshold must be established objectively in the managers' procedures. Accordingly, investors that carry out mass redemptions in one day (for example, in a scenario of high volatility) would bear the higher transaction costs that the fund would have to pay in order to undo the investments in an environment of volatility which would likely widen the price spread. In short, it would be the unit-holders requesting redemptions that would pay this cost and not those who remain, which would therefore prevent a "first mover advantage".

18 This option makes it possible to achieve an effect similar to that of swing pricing.

19 Direct lending is performed by entities known as "debt funds", which grant loans or credit generally to small and medium-sized companies. These funds are usually either large international funds or structures created by Spanish managers, but normally in other jurisdictions, such as Luxembourg. None of these entities are registered in Spain. There is also activity of this type by entities registered in Spain. Specifically, this activity could be performed by closed-ended collective investment vehicles, which are provided for in Law 22/2014, of 12 November, regulating venture capital undertakings and other closed-ended collective investment undertakings. These types of investments may also be performed by hedge funds, which are regulated in Article 73 of the Collective Investment Scheme Regulation, approved by Royal Decree 1082/2012, of 13 July.

precisely this feature that makes them susceptible to create potential systemic risks if the sectors in which they are concentrated are cyclical by nature (construction, real estate market, car market, etc.).

Various measures may be taken in order to reduce the risks associated with these entities. According to the FSB's work on the sector's regulatory measures, some of these might be:

– Imposing prudential regimes equivalent to those for banks.

– Capital requirements. A minimum level of capital is crucial for entities that provide loans so that they can absorb the losses to be expected from their activities.

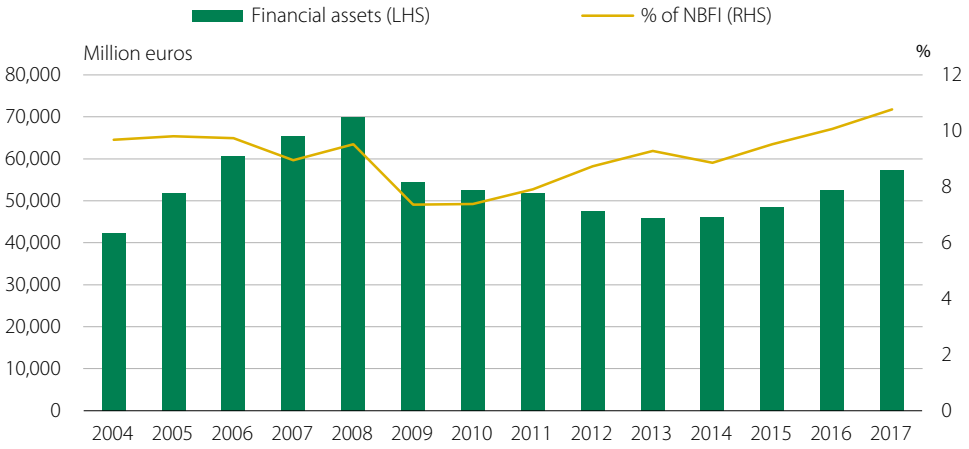
– Liquidity buffers. Liquidity buffers may be considered to counteract risks from short-term liabilities, and to address the risks arising from maturity transformation. However, they must always be tailored to the characteristics of the entities, and may differ significantly from liquidity buffers applied to banks, especially where the entities are not funded by deposits.

It should be pointed out that the data for this sector represent at best a lower level than would be the case if information from all the entities engaged in this type of activity was available. Only the data relating to finance companies have been used for these calculations because, among other reasons, reliable information about these entities is available. Although the CNMV has started to collect data on crowdfunding platforms, this process is still at a very early stage and, therefore, for the time being, their data are not included.[20] With regard to entities that perform direct lending, it is necessary to differentiate between those that are not registered with the CNMV – for which approximate private estimates put their activity at around 1.5 billion euros – from entities that are registered in Spain. With regard to the latter, many closed-ended investment vehicles are required to register with the CNMV, although their reporting obligations are limited and therefore no accurate figures are available on the assets that they manage. From the information available, their activity is estimated to amount to around 550 million euros. The data available on hedge funds investing in debt account for only 30 million euros.

In Spain, the financial assets of finance companies account for approximately 10.8% of the total of non-bank financial intermediation (in its broad definition), with a little over 57 billion euros at the end of 2017, after having reached 70 billion euros in 2008 (see Figure 13). If the amount consolidated into banking groups, which is over 80%, is deducted, the financial assets of these entities falls to a little over 10 billion euros, i.e., 3.3% of non-bank financial intermediation in its narrow sense.

20 The most recent estimated information for these platforms represents a fairly insignificant amount (close to 60 million euros).

Assets of finance companies FIGURE 13



Source: Bank of Spain.

The extent of the risk of finance companies, as mentioned above, is not particularly high, given their small size compared with the financial system and non-bank financial intermediation and the figures relating to the consolidation of the sector into banks. However, Spanish legislation provides for a series of prudential requirements to prevent and mitigate the risks that may arise both for their proper functioning and for the rest of the financial system. The most important of these are as follows:

– These entities have capital requirements that are comparable with those applied to credit institutions, with some exceptions such as the countercyclical capital buffer or the capital conservation buffer, which are not applicable to finance companies classified as an SME.

– With regard to liquidity requirements, legislation has been developed so that the liquid assets of these entities may be sufficient to maintain an adequate financing structure that will avoid potential risks from a temporary lack of liquidity.

– With respect to leverage and large exposures to one single entity, they are subject to the same legislation as for credit institutions.

Economic function 3 (EF3)

EF3 is defined as intermediation of market activities that is dependent on short-term funding or on secured funding of client assets. In Spain, broker-dealers belong to this category.

These non-bank financial entities may be exposed to significant liquidity risk depending on their funding model as they are entities that perform market activities through short-term funding. In the case of entities that use clients' assets to obtain resources (usually via repos), if there is a mismatch between the maturity of the assets and the liabilities, there is a significant risk in the event of a significant withdrawal of funds by clients.

Some of the tools that competent authorities may take into account to mitigate the risks associated with this activity include:

– As in the case of finance companies, the imposition of prudential regulatory regimes equivalent to those for banks.

– Liquidity requirements to ensure proper liquidity risk management. These requirements may be the same or very similar to those of Basel III.

– Capital requirements, both to mitigate excessive leverage as well as the procyclicality associated with their funding structure. Minimum capital requirements may also increase broker-dealers resilience to credit shocks, such as counterparty defaults.

– Restrictions on use of client assets. If these entities use client assets to fund their own long-term investments, they will be acting in a similar manner to banks and therefore one possibility available to regulators is to establish restrictions on these long-term investments, both with regard to volumes and with regard to terms.

In Spain, there are around 45 broker-dealers, which at year-end 2017 had assets of 3.72 billion euros, a very similar figure to that of 2016 (see Figure 14). This size is relatively small if compared with that of other jurisdictions as in Spain investment services are mostly provided by credit institutions. Accordingly, over 80% of the fees received for these services correspond to credit institutions, while broker-dealers receive approximately 10% (see Table 5).

Of the different types of fees, those relating to trading securities are the most significant for broker-dealers, although their relative importance has been gradually falling over recent years in favour of credit institutions. Hence, at the end of 2017, they stood at a little over 30%, while, for example, in 2011 they accounted for over 50%, with over 500 million euros. The other fees, particularly those from distributing investment funds, are almost all received by credit institutions.

Fees received for providing investment services. 2017 TABLE 5

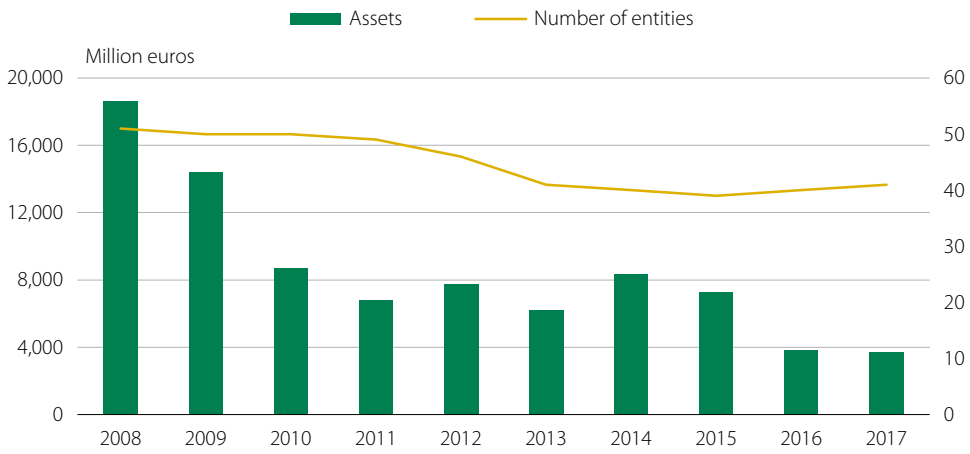
Million euros

	Broker-dealers	Brokers	Portfolio management companies	Credit institutions	Total
Total investment services	405	97	1	3,726	4,229
Placement and underwriting	18	3	-	231	252
Securities trading	218	20	-	457	695
Asset management	50	12	1	197	261
Administration and custody	38	1	-	551	590
Investment fund distribution	81	59	0	2,290	2,431
Total fees received	**548**	**142**	**2**	**14,295**	**14,987**

Source: CNMV and Bank of Spain.

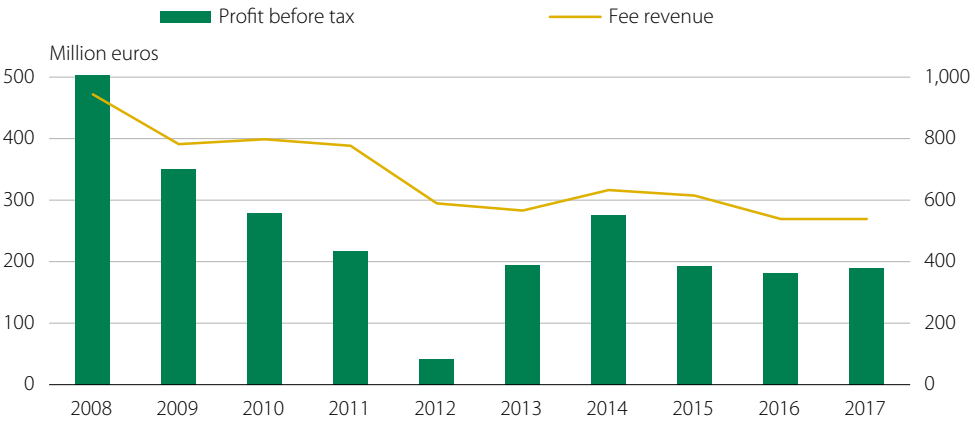
It is important to highlight that the broker-dealer subsector shrank significantly in the early years of the crisis, in which both their assets and their profits fell dramatically: between 2008 and 2011, the assets of broker-dealers fell by 63% and their profit before tax by 57% (see Figures 14 and 15).

Assets of broker-dealers and number of entities FIGURE 14



Source: CNMV.

Profit and fees of broker-dealers FIGURE 15



Source: CNMV.

Broker-dealers are subject to the requirements established in Basel III as they must comply with European legislation[21] on prudential requirements for credit institutions and investment funds. The resulting obligations include:

– When broker-dealers have client funds in the liabilities – which is only permitted on a temporary and provisional basis – these funds must be invested in

21 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.

fully liquid assets (cash or sight deposits). In the case of bonds that mature in a period of under 12 months, they must hold at least 10% in very liquid assets.

– Compliance with the Basel III rules requires, *inter alia*, entities to maintain a capital ratio of 8% of total exposures and additional capital buffers.

– There are a number of requirements with regard to information to be provided to clients, which include specific information on "safeguards" of their assets as well as the most significant risks.

Economic function 4 (EF4)

This category includes entities that perform facilitation of credit creation. In Spain, mutual guarantee companies belong to this category. These companies, which date back to 1978, are defined as financial institutions whose main objective is to facilitate SMEs' access to credit and to improve, in general, their financing conditions by providing guarantees to banks, public authorities or customers and suppliers.

The provision of credit enhancements facilitates both bank and non-bank credit creation. Therefore, in some cases, these entities contribute towards increasing agents' leverage and the formation of cyclical risks that might pose a threat to financial stability. Some tools that might be used to mitigate these effects are:

– Capital requirements. As for other entities referred to above, an appropriate level of capital is crucial for entities that may facilitate credit creation, in this case, through providing financial guarantees and credit insurance. The capital requirements should ideally be countercyclical as mutual guarantee companies may generate procyclical effects on credit availability and, hence, on the real economy.[22]

– Restrictions on scale and scope of business. In theory, entities themselves should be able to price their products and manage the associated risks in an appropriate manner. If the authorities consider that they are not doing so, or are not able to, they should impose certain restrictions or even, in some cases, prohibit a particular investment.

– Liquidity buffers. In order to counter the risks arising from the existence of short-term liabilities and to appropriately manage the risks resulting from a lack of liquidity and maturity transformation, the imposition of liquidity buffers may be considered. These buffers must be adapted to the features of the entity and may differ substantially from the liquidity buffers applied to banks, particularly if they are not financed by deposits.

In Spain, mutual guarantee companies account for a very small fraction of non-bank financial intermediation, as their financial assets account for only 0.2% of the total (with data for the end of 2017). It is therefore highly unlikely that, in the event that

22 The capital of these entities is variable depending on the number of guaranteed parties.

these entities undergo difficulties, these will spread to the rest of the financial system. Nevertheless, the regulation of these entities[23] provides for certain requirements and restrictions that limit the risks associated with their activity. The main ones are:

– The maximum exposure to one client is set at 20% of the entity's own funds. In turn, the sum of the property, plant and equipment and shares and other equity instruments may not exceed 25% of the entity's own funds.

– Investment in liquid assets must be at least 75% of the value of own funds.

– In order to encourage proper transfer of credit risk, those entities that fail to pay the credit granted, therefore triggering the corresponding guarantee, automatically lose the rights over their holding in the mutual guarantee company. In addition, part of the credit risk may be transferred to the public sector through the creation of counter-guarantee companies.

Economic function 5 (EF5)

EF5 is defined as securitisation-based credit intermediation and funding of financial entities. Structured finance vehicles (SFVs) for the purpose of asset securitisation belong to this category.

The provision of funding to banks or other financial entities, with or without real transfers of assets and risks, may be an integral part of credit intermediation chains. It is therefore important to bear in mind the risks associated with non-bank financial intermediation, especially with regard to maturity transformation and excessive leverage.

It is important to point out, however, that securitisation issues in Spain are generally structured so that payments are made with the pools of assets that are amortised, and therefore the problem of maturity transformation is practically insignificant. In addition, in Spain securitisation may be considered as more a tool for financing than for transferring risk, as was the case in other jurisdictions in which it became one of the most significant problems of the last financial crisis as a result of the elimination of incentives to assess risks by the entities that grant the original loans. Finally, it should be pointed out that securitisation may also sometimes be used to reduce the capital requirements resulting from banking regulation. This practice took on significant importance in the development of the last financial crisis, which led to regulatory reforms at an international level.

The following tools may be considered in order to reduce the risk that may be generated through asset securitisation.

23 The basic legislation of these companies can be found in Law 1/1994, of 11 March, on the legal regime of mutual guarantee companies, and in Royal Decree 2345/1996, of 8 November, on the rules on administrative authorisation and solvency requirements of mutual guarantee companies.

– Restrictions on maturity transformation. To the extent that securitisation vehicles are used as funding channels via the issuance, in many cases, of short-term liabilities, restrictions on differences in maturity between the securities issued and the underlying asset pool may be a direct method to limit the risks arising from maturity transformation. As mentioned above, this source of risk is relatively small in Spain.

– Obligations for the originator to retain a proportion of the nominal value of the securitisations performed so that it assumes part of the risk (see footnote 21).

– Restrictions on eligible collateral. Collateral that is highly liquid and trades in a regulated and transparent market can be sold rapidly to neutralise or mitigate losses from counterparty non-performance or default. However, regulators must bear in mind that tighter collateral requirements are likely to reduce the range of eligible collateral and that the quality of collateral may quickly deteriorate during a crisis.

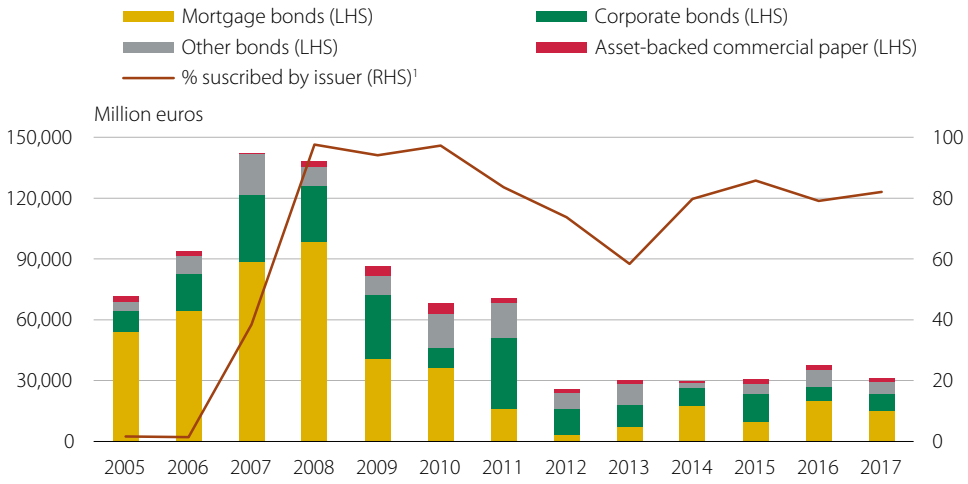
– Restrictions on exposures to banks or other financial institutions. As shown during the subprime crisis, banks may take advantage of alternative sources of funding through securitisation, which may generate the excessive creation of credit and build-up of leverage. There may also be regulatory arbitrage opportunities that might, logically, undermine the effectiveness of banking regulation.

As mentioned at the start of this section, in Spain securitisation accounts for a significant portion of non-bank financial intermediation as it is the second largest sector. The financial assets of SFVs amounted to 207 billion euros at the end of 2017 and accounted for 38.9% of non-bank financial intermediation (broad definition), although in 2010 they amounted to 490 billion euros. As shown in Figure 16, issues of asset-backed securities fell substantially in 2009 and 2012. Between 2009 and 2011 – which was the most unfavourable time for the securitisation market, as it was practically paralysed worldwide – the drop in issues was not as sharp as might have been expected as financial institutions decided to issue securitisations and underwrite them themselves, with the aim of using these assets as collateral in financing operations with the Eurosystem. Thus, the percentage of issues underwritten by the issuer itself was close to 100% between 2008 and 2010. Nevertheless, this fall caused their outstanding balance to suffer and fall progressively from 2009, when this exceeded 450 billion euros, to stand at around 200 billion euros at the end of 2017 (see Figure 17). Since 2011, the percentage of issues underwritten by issuers has fallen slightly, but remains at high levels, close to 80%.[24]

In Spain, most of the total of asset-backed securities and commercial paper have traditionally corresponded to mortgage bonds, whose outstanding balance has amounted to around three quarters of the total since the first issues.

24 In January 2011, the amendment to the Capital Requirements Directive, known as CRD II, came into force. Article 122(a)(1) of this Directive requires the originator to retain a minimum of 5% of the nominal value of securitisations.

Nominal amount issued of asset-backed securities and commercial paper FIGURE 16

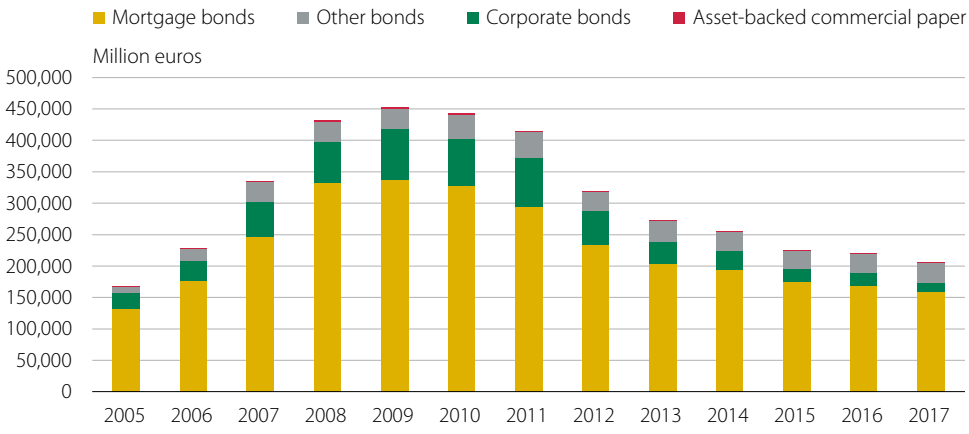


Source: CNMV.

1 This percentage only refers to asset-backed securities. Commercial paper is not included as the figure would be zero.

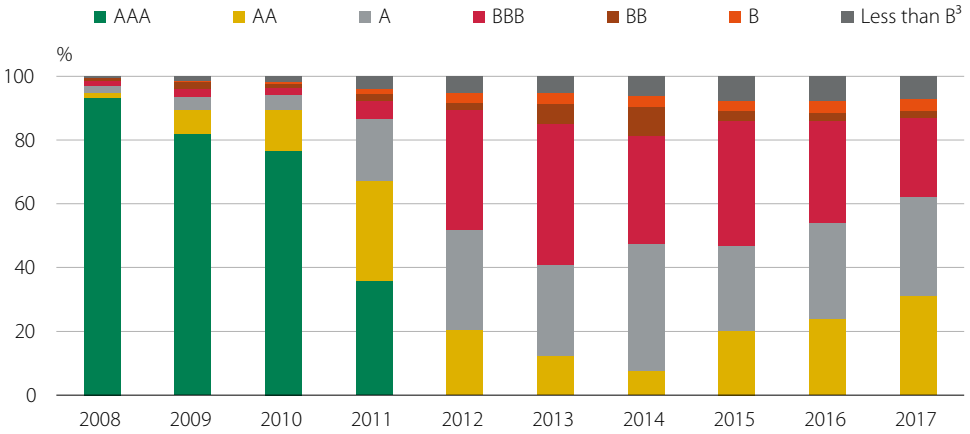
In addition, the credit rating of SFVs, both due to the increase in country risk and reasons intrinsic to these vehicles and the assets that they held, fell progressively from the start of the crisis, with particularly sharp falls in 2011 and 2012. While in 2008, over 90% of the assets were rated AAA and only 3% were BBB or lower, in 2017 there were virtually no AAA assets and BBB or lower assets accounted for a little over 37%.

Outstanding balance of asset-backed securities and commercial paper by type of asset FIGURE 17



Source: CNMV.

Outstanding balance of asset-backed securities and commercial paper by credit rating[1, 2] FIGURE 18



Source: CNMV.

1 Does not include the MARF.

2 Ratings grouped according to their Standard and Poor's equivalent.

3 Includes issues without a rating.

In Spain, there is no specific regulation for securitisation vehicles that provides for specific restrictions with regard to, for example, eligible collateral or maximum credit volumes that may be securitised. However, the CNMV actively promotes the transparency of entities that perform securitisations in order to mitigate the possible negative effects resulting from the complexity of these assets and to reduce the risk for investors when making decisions. In this regard, the management companies of these vehicles must send standardised and detailed half-yearly information on the amount and the status of the securitised assets and the securities issued. This information is published on the CNMV's website.

Despite the lack of a specific national regulation, on 1 January 2019, Regulation (EU) 2017/2402 of the European Parliament and of the Council, of 12 December 2017, laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation entered into force. The most significant new development of this Regulation is the distinction between simple, transparent and standardised (STS) securitisations and other securitisations.[25] One of the main consequences of this differentiation is the favourable treatment with regard to capital requirements and the retention requirement for the originator in the case of STS securitisations under Regulation (EU) 2017/2401 of the European Parliament and of the Council, on prudential requirements for credit institutions and investment firms.

25 For a securitisation to be considered STS it must comply with certain requirements on simplicity (the title of the underlying exposures must be acquired by the securitisation special purpose entity by means of a true sale), on transparency (potential investors must have information on historical default and loss performance) and on standardisation (compliance with risk retention requirements and prohibition on entering into derivative contracts except for hedging purposes). This will be subject to external verification by an independent party and the list of STS securitisations will be published on ESMA's website.

In addition, as mentioned above, a very significant part of the financial assets of these vehicles are consolidated into banking groups. The reason why this happens in Spain is that the transferor, in most situations, retains control in accordance with Bank of Spain Circular 4/2017 and IFRS 10 – Consolidated Financial Statements – by, *inter alia*, continuing to be exposed to the variable returns of the securitised assets and funds, either through credit enhancements or through a swap in which it receives the returns of the securitised portfolio and pays the coupons on the securities. In these cases, in accordance with existing accounting standards, the vehicle must remain on the balance sheet of the issuing banks and, therefore, it falls within the scope of the "traditional" banking regulation.

4 Measuring the risks of non-bank financial intermediation

As mentioned above, financial intermediation carried out by non-bank entities increases the available sources of resources for economic agents and encourages an increase in competition with traditional financial institutions. However, there needs to be a regulation that seeks to prevent and, as the case may be, mitigate the risks that these entities, due to their activity, size or interconnectedness with other entities, might pose to financial stability. In this regard, identifying and monitoring potential risks associated with entities belonging to each one of the economic functions of NBFI takes on particular importance. This section proposes an initial approach for quantifying such risks. Specifically, it assesses credit risk, maturity transformation, liquidity risk and leverage of investment funds,[26] finance companies, broker-dealers and SFVs.[27]

Table 6 shows a representation of the intensity of the risks analysed on the basis of: i) the result of a relevant indicator for each one of the risks and types of entity, and ii) the position of the value of this indicator in relation with some previously determined thresholds.[28] These thresholds have been defined by taking into account the debate relating to them in international forums and they have been adapted to the features of each type of entity. However, they have been set using purely qualitative criteria that may be reviewed in the future, if deemed necessary. The absence of colour indicates the presence of low risk, while purple colours indicate moderate, medium and high risk depending on the intensity of the colour (light, medium and strong). The colours presented in the table correspond to the result of the indicators calculated for 2017. Subsequent figures show for most of the cases the movements in the indicators over time and position with regard to the defined risk thresholds in order to determine more precisely whether a specific risk has been mitigated or aggravated in recent years.

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

27 Mutual guarantee companies are not included in the analysis as their proportion of the sector is lower than 0.5%.

28 See Table A3 in the Annex for further details of the thresholds defined for each risk and type of entity.

Risks associated with non-bank financial intermediation[1]

TABLE 6

	Investment funds					
	Money market	Fixed income	Mixed	Finance companies	Broker-dealers	SFVs: securitisation
Credit risk	●	●	○	●	●	●
Maturity transformation	○	○	○	○	○	○
Liquidity risk	●	●	●	●	○	●
Leverage	○	○	○	●	○	●
Interconnectedness with the banking system	○	○	○	○	○	●
Relative importance[2, 3] (%)	1.3	13.0	28.7	10.8	0.7	38.9

Source: CNMV.

1 The absence of colour indicates the presence of low risk, while purple colours indicate moderate, medium and high risk depending on the intensity of the colour (light, medium and strong).

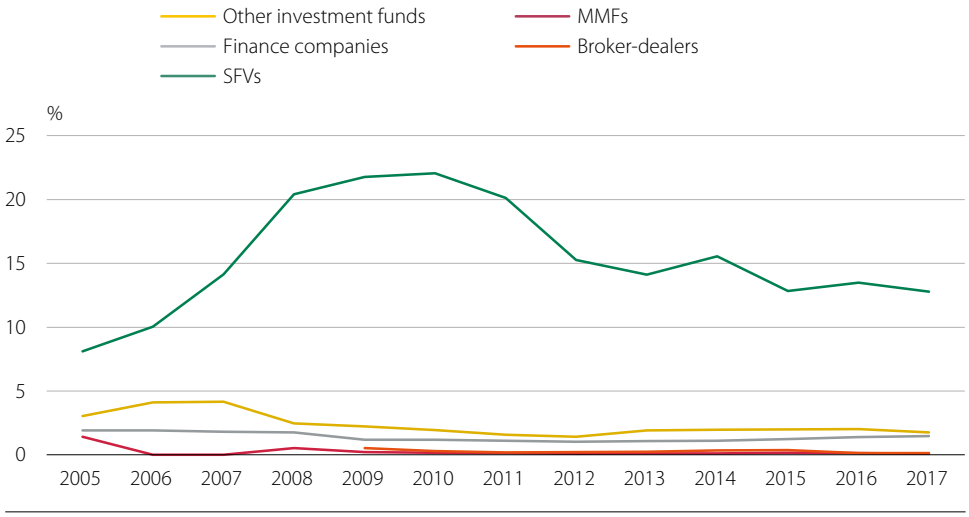
2 The weighting of each one of the entities presented in the table do not add up to 100% as mutual guarantee companies and some types of funds that also belong to NBFI are not represented.

3 These percentages are calculated according to the total size of the sector, without deducting the entities consolidated into banking groups.

Irrespective of the risks associated with each one of the entities considered, which will be analysed in more detail in the following sections, when establishing the possible risks to financial stability, the size of the sector considered and whether it is consolidated into a banking group is also important. For example, SFVs – which, as mentioned in the previous section, account for 38.9% in the broad measure of NBFI (see Table 6) – have a much lower weight (13.5%) after excluding the vehicles whose balance sheet is consolidated into a bank. In contrast, in the case of investment funds, which already have a significant weight prior to excluding entities or vehicles that are consolidated into banking groups (49.5%), see an increase in their importance to 82.5% after the latter are excluded.

In addition to their size, it is also important to establish the interconnectedness of the entities making up NBFI with the banking system. For this purpose, and as an approximation, the analysis uses exposure, both through loans and the holding of fixed-income and equity assets, of banks with these entities and in reverse, i.e., the exposures in both directions have been added together. The results of this exercise, in which said exposure has been calculated as a percentage of banks' total assets, are shown in Figure 19. As can be seen, the interconnectedness of investment funds, finance companies, broker-dealers and mutual guarantee companies stood at below 2% in 2017 and, at least in the last 12 years, has never exceeded 5%. Only securitisation funds show a significant level of interconnectedness with the banking sector with figures slightly under 15%, although this has fallen over recent years.

Interconnectedness with banks (% of bank assets) FIGURE 19



Source: CNMV and Bank of Spain.

Economic function 1: Investment funds

As shown in Table 6, the risks associated with Spanish investment funds are not too high, with the exception of credit risk since, due to the nature of these funds, they have a high percentage of credit assets in their portfolios.[29] As might be expected, money market funds held the highest percentage, practically 100%, at the end of 2017, followed by fixed-income funds, whose credit assets stood at 95%. In mixed funds, at the end of last year, this figure stood at 49% (moderate risk level),[30] far below that of previous years, as their portfolio contains a higher proportion of equity assets. With regard to the evolution of the credit assets of fund portfolios over the last 10 years, there have been virtually no changes in money market funds or in fixed-income funds (see the top left-hand panels of Figures 21 and 22), with values above 80% (high risk threshold). In mixed funds, in contrast, the proportion of credit assets has been falling systematically since 2009, when they stood at close to 80%, to the aforementioned 49% (see the top left-hand panel of Figure 23).

Considering the individual data, Figure 20 shows that all money market funds existing in Spain have a percentage of credit assets higher than 80%, while in the case of fixed-income funds, this threshold is exceeded in over 90% of the cases.[31] A certain polarisation can be seen in mixed funds as over 40% are at a high risk level, while 38% are at low risk (under 40%).

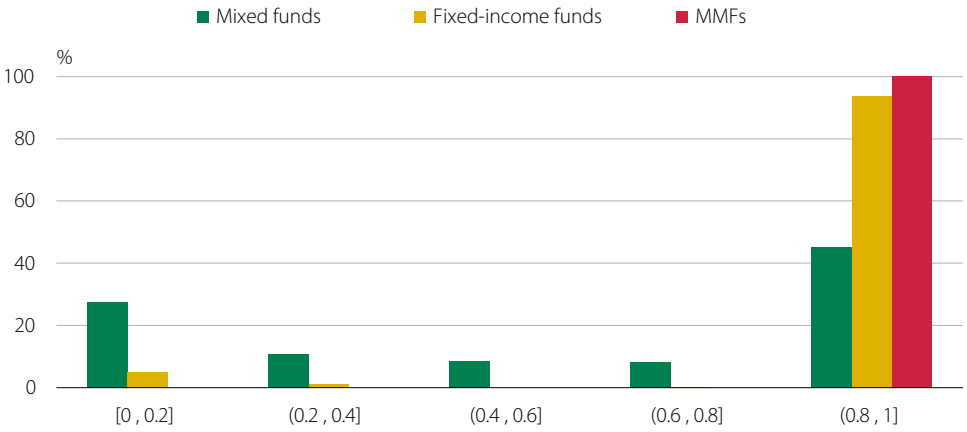
29 Credit assets are made up of cash, deposits and fixed-income securities, both national and foreign.

30 See Annex A3 for critical values of the different risks.

31 It should be highlighted that 6% of fixed-income funds have a proportion of credit assets lower than 40% as they invest practically all of their assets in other CIS, which, despite being mostly other fixed-income funds, is considered an investment in equity.

Distribution of credit risk among the different types of investment fund

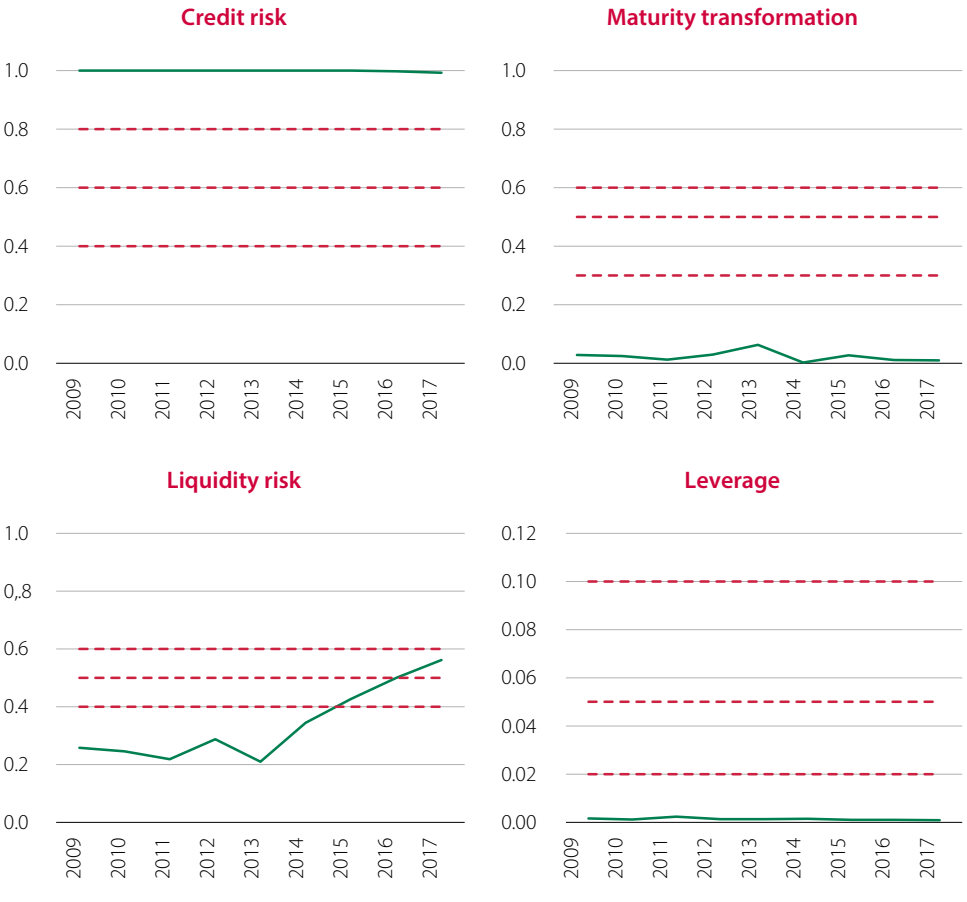
FIGURE 20



Source: CNMV.

Risks in money market investment funds

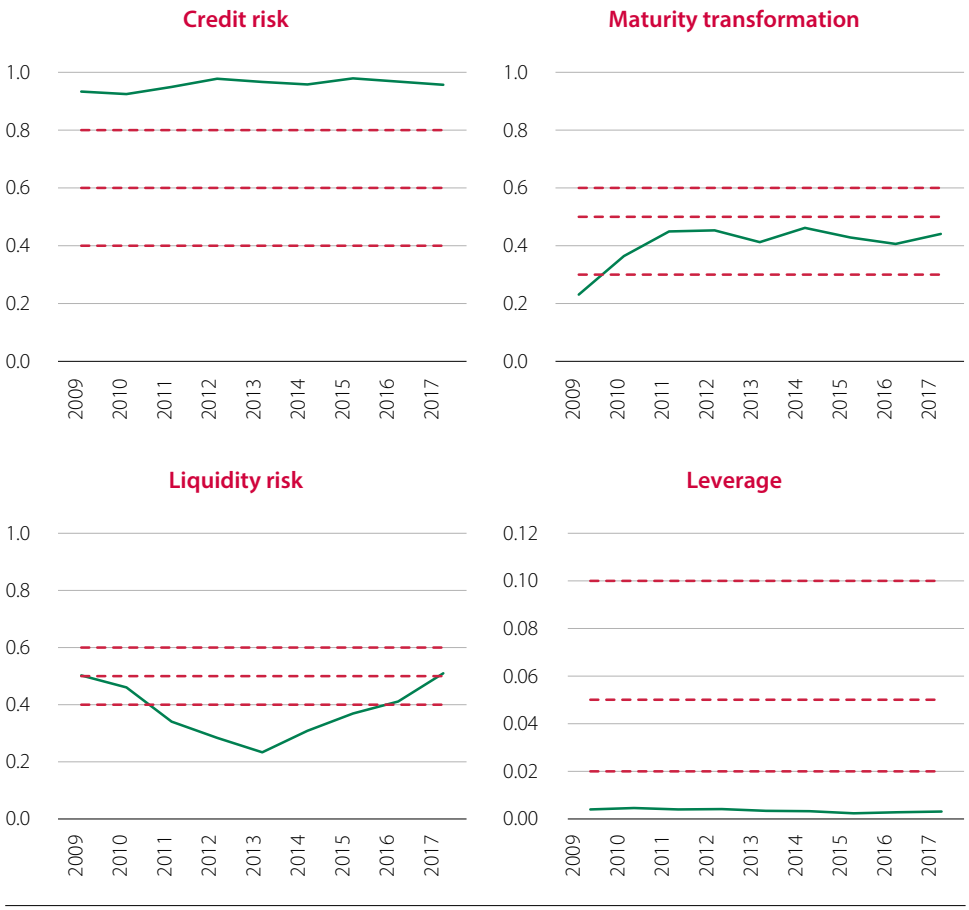
FIGURE 21



Source: CNMV.

Risks in fixed-income investment funds

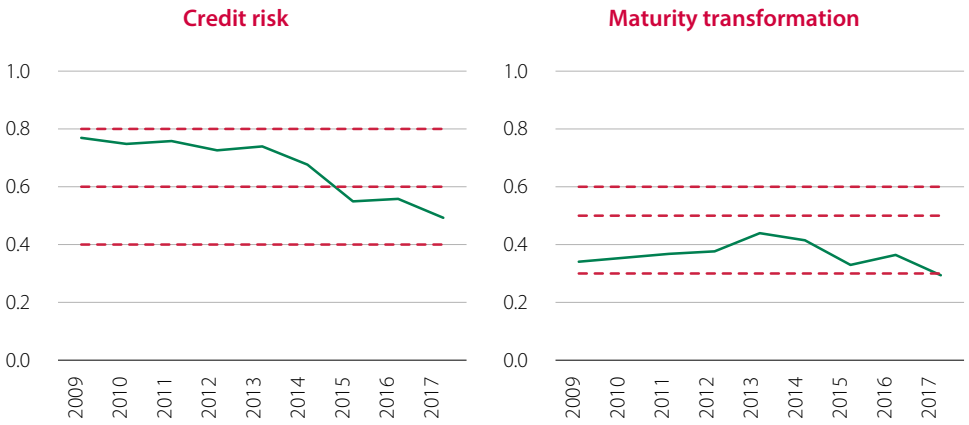
FIGURE 22

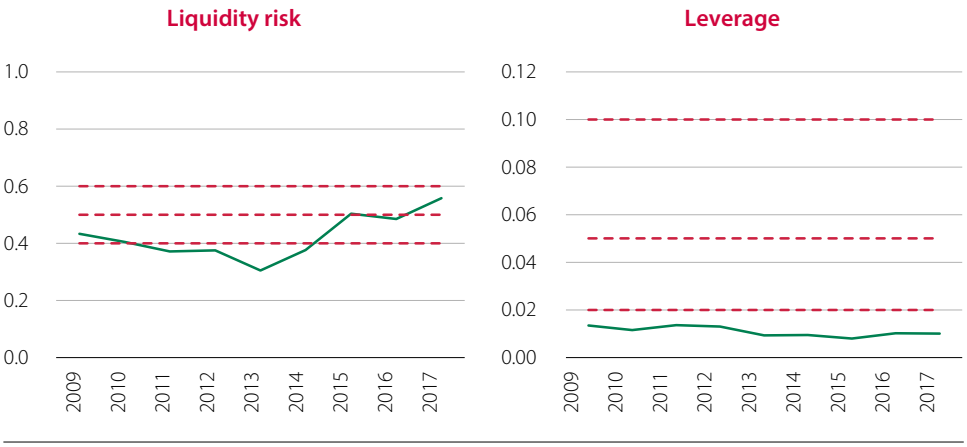


Source: CNMV.

Risks in mixed investment funds

FIGURE 23





Source: CNMV.

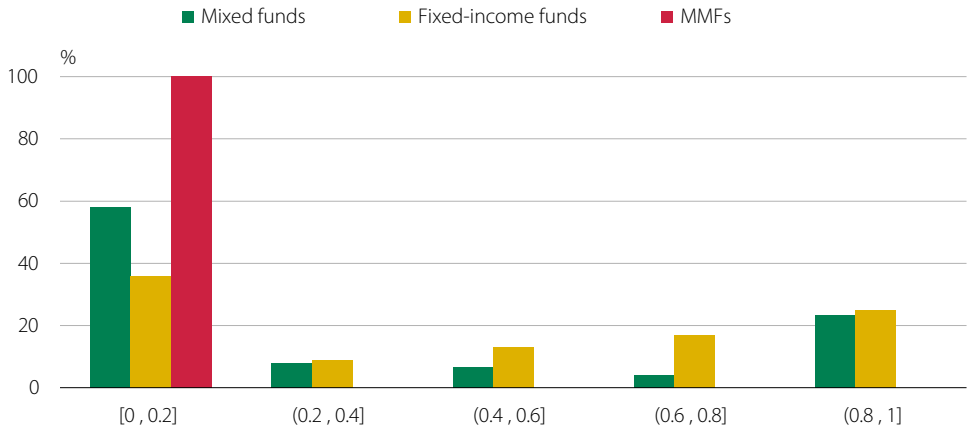
With regard to maturity transformation risk, i.e., whether the entity has the capacity to meet its short-term liabilities – it should be noted that, in the case of investment funds, the ratio between long-term assets and the assets managed by the fund has been used instead of the ratio between short-term liabilities and short-term assets as in the case of other entities. The reason for this difference lies in the fact that unit-holders in investment funds may redeem their units at any time and therefore the short-term liabilities would not represent all amounts the fund may be required to pay out.

Using the aforementioned ratio, only fixed-income funds record a medium risk level (see Annex A1), with a proportion of long-term assets of 44%. The risk is low in the other profiles, although in the case of mixed funds, 2017 is the first year in which they have fallen from moderate risk (see top right-hand panel of Figure 23), to stand at 29%. In money market funds, with significant restrictions to long-term investment,[32] maturity transformation risk is irrelevant.

With reference to the individual distribution of the ratio among funds, Figure 24 shows that in every money market fund, the percentage of long-term assets at the end of 2017 stood at under 20%. In the case of fixed-income and mixed funds, although in overall terms there does not seem to be a high maturity transformation risk, 42% and 18% of them, respectively, are at a high level, i.e., with a proportion of long-term assets greater than 60%.

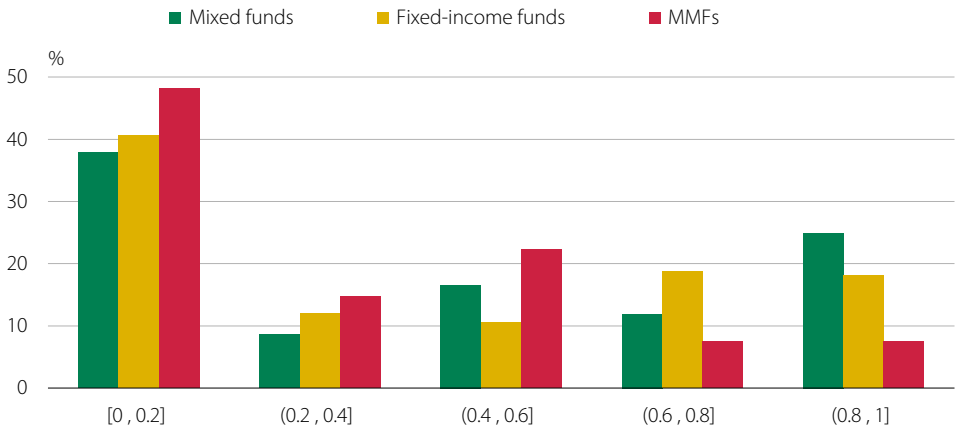
32 In money market funds, the average duration of the portfolio must be less than or equal to 60 days and the average maturity may not exceed 120 days.

Distribution of the maturity transformation risk in the different types of investment fund FIGURE 24



Source: CNMV.

Distribution of liquidity risk among the different types of investment funds[1] FIGURE 25



Source: CNMV.

1 Liquidity risk has been calculated as total illiquid assets (total financial assets – liquid assets) in relation to total financial assets (see Annex A3). Many bodies calculate the numerator of this ratio by taking into account the very short-term liabilities (at 30 days) in order to subtract them from liquid assets to obtain a measure of the "real" liquid assets so as to cater for any unforeseen events. Given that obtaining this data is impossible in most entities, it has been decided not to include it.

Liquidity risk, for its part, is at a medium level in the three analysed profiles (proportion of illiquid assets between 50% and 60%),[33] having increased, in every case,

33 The liquidity risk thresholds for investment funds are lower than those for other entities (see Annex A3) due to their particular features. Specifically, the possibility of mass redemptions by unit-holders generates an additional need for liquidity, which in this case is considered to be 20%. This figure is consistent with the percentage of reduction in assets that determines the publication of price sensitive information by the management company and, from an empirical point of view, with the redemptions that occurred in the period of stress between May and July 2012 in Spanish investment funds. In this last case, the studies performed determined that the fund corresponding to the 90th percentile in relation to redemp-

continuously since 2013 (see bottom left-hand panel of Figures 20, 21 and 22). Values that year stood at between the 20% of money market funds and the 34% of mixed funds, while in 2017, this figure for the three categories stood at between 51% and 56%. If liquidity risk is analysed on an individual basis, it can be seen that at the end of 2017, the proportion of high-risk funds (illiquid assets above 60%) stood at 14.8% for money market funds and at 36.8% for fixed-income and for mixed funds.

Finally, with regard to CIS leverage, Spanish legislation establishes that mutual funds (with the exception of hedge funds) may only borrow on a temporary basis and for a specific reason,[34] and never more than 10% of their assets. In Spain, no category exceeded 2% in 2017 and had not done so since at least 2009.[35] In addition, at an individual level, no fund at the end of last year exceeded 10%.

Economic function 2: Finance companies

Firstly, it should be remembered that the size of this sector in NBFI in the narrow measure (deducting entities that are consolidated into banking groups) is very low – 3.3% of the total. Therefore, irrespective of the risk levels calculated, the effects for financial stability would not, in principle, be significant.

As can be seen in Figure 26, the ratios that determine each one of the risks have shown very little variation over time. Between 2005 and 2017, credit risk, liquidity risk (above 80% in both case) and leverage, which fluctuated around 90%, remained high. Maturity transformation risk, in contrast, has stood at substantially low levels, always under 25%.

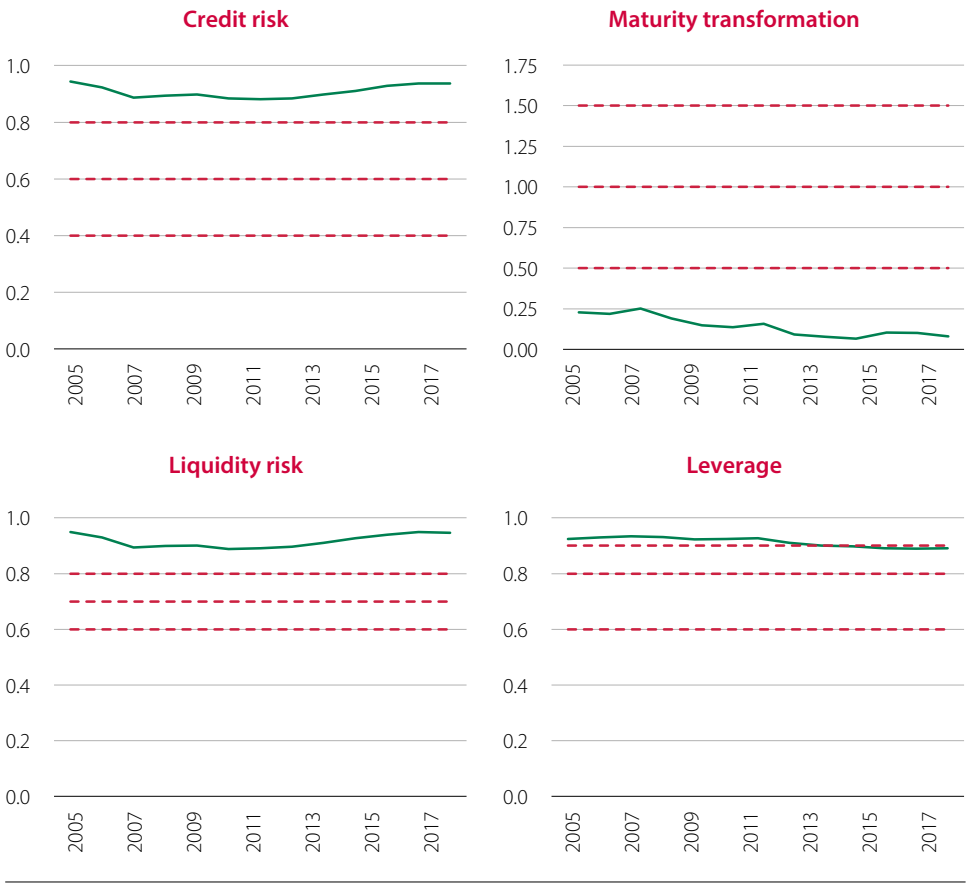
It is important to consider that credit risk is high for these entities due to the nature of their activity as around 90% of the financial assets correspond to loans granted. The high liquidity risk and level of leverage are due to the low level of liquid assets and own funds of these entities.

tions in this period suffered an outflow of funds of 22% of total assets in fixed-income funds and of 13% in equity funds.

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

35 In order to calculate the level of leverage of investment funds, the ratio between the liabilities of these vehicles and their net assets has been calculated.

Risks of finance companies FIGURE 26



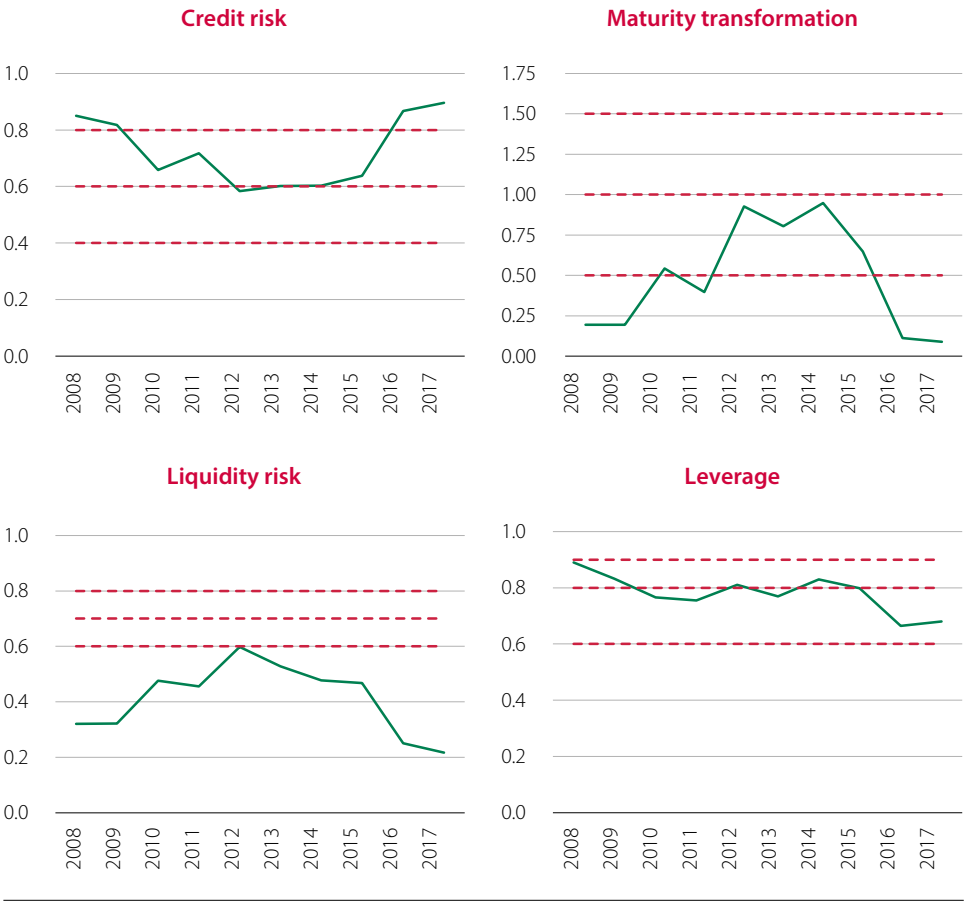
Source: Bank of Spain.

Economic function 3: Broker-dealers

With regard to broker-dealers, is necessary to remember, firstly, that they have a very low relative weight within NBFI (0.7%) and therefore the risk of contagion to the rest of the financial system is very limited. Nevertheless, an analysis of the risks associated with these companies, irrespective of their size, reveals that at the end of last year the credit risk was high (above 80%), the level of leverage was medium and the liquidity risk and the maturity transformation risk were at a low level.

The development of these risks over time, as shown in Figure 27, has been uneven: while credit risk has risen gradually since 2012, when it stood at a moderate level, liquidity risk and leverage have been falling, particularly the former. The figure corresponding to the ratio between short-term liabilities and assets (maturity transformation) has varied considerably since 2008, although it is important to bear in mind that this is mainly due to the fact that both the numerator and the denominator are small figures.

Risks of broker-dealers FIGURE 27



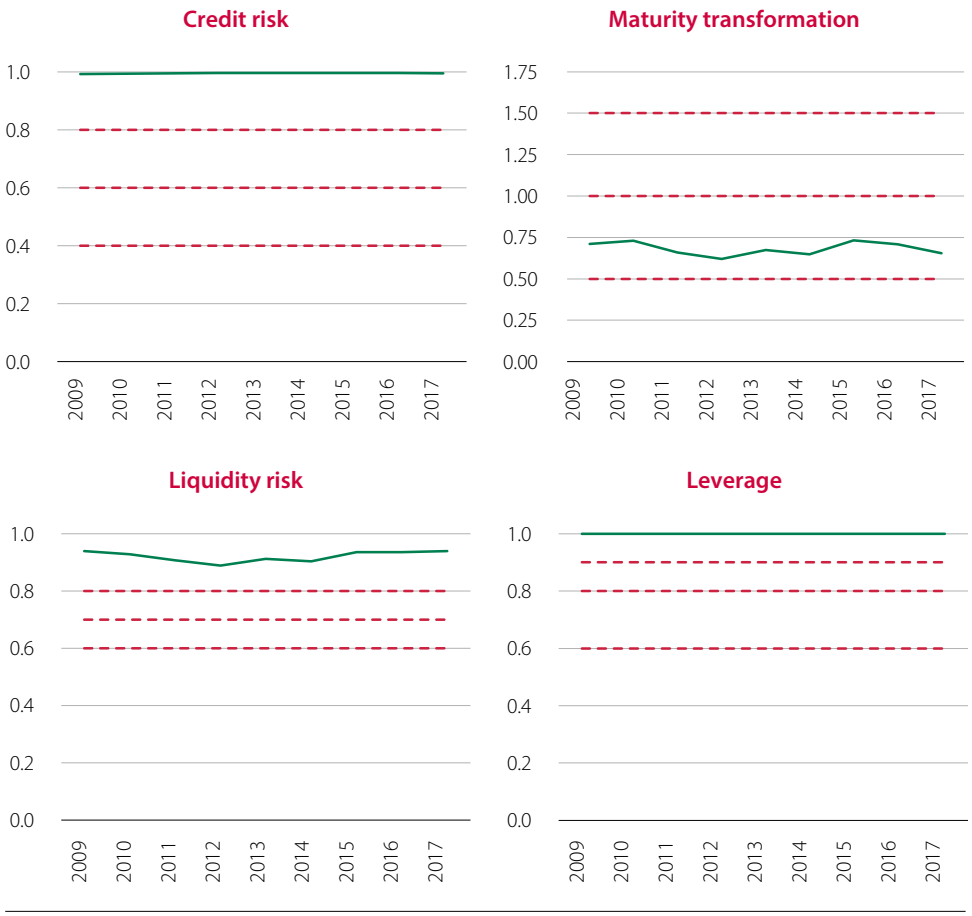
Source: CNMV.

Economic function 5: Securitisation

In the same way as for finance companies and as already mentioned in Section 3, a very high percentage of securitisation vehicles are consolidated into banking groups. Therefore, although their size is high within NBFI in a broad sense (38.9%), once those belonging to a bank are subtracted, the figure drops to 13.5%.

In securitisation funds, only the maturity transformation risk is at a moderate level, with the rest at a high level. However, some of the high values obtained for credit, liquidity and leverage risks need to be clarified. Firstly, credit risk is practically 100% by definition: all assets of SFVs are made up of loans transferred by the originator or assignor. A similar situation exists with leverage: securitisation funds do not have own funds and therefore the ratio, as it is constructed, is always equal to one. For its part, liquidity risk stood at 94% at the end of 2017, a figure that has not changed excessively over recent years (see bottom left-hand panel of Figure 28), as a consequence of the aforementioned composition of the balance sheet: almost all the assets are made up of assigned loans and, therefore, there are very few liquid assets. The individual distribution reflects that around 90% of the funds, with assets of almost 98%, recorded a percentage of illiquid assets above the 80% threshold (see Figure 29).

Risks of securitisation funds FIGURE 28

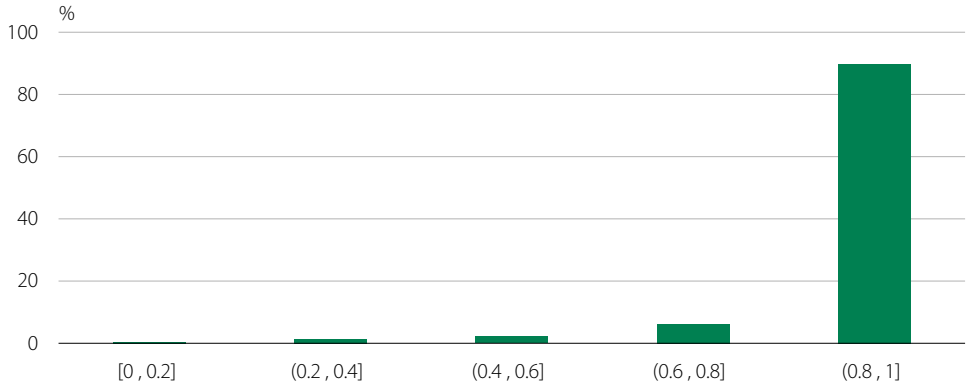


Source: CNMV.

The level of the risk indicator associated with maturity transformation, which is possibly the most important for these vehicles, stood at 66%, showing a moderate asymmetry in the maturities of liabilities compared with assets. This figure has ranged between 62% to 73% over the last 9 years and is therefore relatively stable. However, there are substantial differences between the different vehicles. As shown in Figure 30, the spread in the values of maturity transformation risk for 2017 was high. For example, in 25% of the funds, the ratio between short-term liabilities and assets was lower than 50% (low risk), while in 13%, this figure exceeded 100% (medium and high risk).

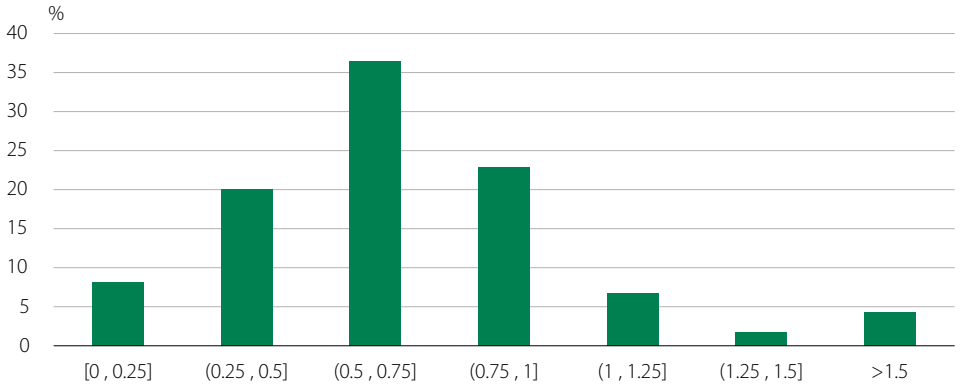
It is also important to bear in mind that most of the securitised assets in Spain come from long-term loans or credit, mostly mortgage loans, while the same is the case for the securities issued (liabilities). The short-term assets and liabilities of Spanish securitisation funds therefore only account for 20% and 13% of the balance sheet, respectively.

Distribution of liquidity risk in securitisation funds FIGURE 29



Source: CNMV.

Distribution of the maturity transformation risk in securitisation funds FIGURE 30



Source: CNMV.

5 Conclusions

The last financial crisis, which began at the end of the last decade, revealed that the risks to the stability of the financial system might originate from and be transmitted by other non-bank participants. This awareness has generated a range of initiatives in different fields in order to gain a better understanding of which entities might perform activities that carry similar risks to those generated by the banking sector, how those risks may be identified and assessed and, lastly, what tools should be available to prevent or, as the case may be, mitigate them.

The first studies to identify the entities and activities that could carry out financial intermediation activities outside the banking channel were performed by the FSB. In a preliminary analysis, the FSB called this sector the shadow banking sector and established five economic functions to assess and identify the entities that belong to this group. The FSB publishes an annual report with the main asset figures per country that it receives through the contribution of its members. In the case of

Europe, since 2016, the European Systemic Risk Board has also published a report that quantifies and describes the most significant risks posed by these entities.

Following some years of debate in international forums, the term "shadow banking" has been replaced by "non-bank financial intermediation" with the aim of avoiding the negative connotation that seemed to suggest the existence of a group of entities that performed similar activities to those of banks without any type of regulation. The fact is that most entities considered within "shadow banking" are subject to strict regulation and supervision, generally performed by security supervisors, even though this is not banking regulation.

The most important entities in Spain belonging to non-bank financial intermediation according to the economic functions established by the FSB are: investment funds (money market funds, fixed-income funds and mixed funds), securitisations, finance companies, broker-dealers and mutual guarantee companies. The assets of these entities at the end of 2017, according to the broad measure of NBFI, stood at 532 billion euros, 49.5% of which belonged to investment funds, 38.9% to securitisations and 10.8% to finance companies. According to the narrow definition – which deducts the volume of assets that are consolidated into bank balance sheets and which mainly affects securitisations – this figure falls to 319 billion euros, 6.8% of the Spanish financial system (13.7% in the countries of the FSB sample). Of this amount, 82.5% corresponds to investment funds, 13.5% to securitisation vehicles and 3.3% to finance companies.

An analysis of the most significant risks by type of entity reveals that securitisation vehicles present high risks in most of the categories analysed: credit risk, liquidity risk, leverage and interconnectedness with the banking sector. However, to the extent that most of their assets are consolidated into the balance sheets of the banking sector, the final assessment of the risks of these entities is mitigated. In the case of investment funds, which form the bulk of NBFI in Spain, it can be seen that the highest risk is credit risk (particularly in money market funds and fixed-income funds) and that the risk relating to maturity transformation is more significant in fixed-income funds. Liquidity risk has not exceeded the thresholds that trigger the first warning signal, but this indicator has worsened notably since 2013 in the three fund categories analysed. It is therefore important to continue assessing and supplementing this analysis with new metrics that will allow a more thorough assessment of this risk.

The CNMV has a set of tools to limit the risks resulting from the activity of these entities. Many of the tools correspond to certain regulatory requirements, for example, maintaining a minimum liquidity ratio or limits to leverage or asset concentration. Other tools, such as suspending redemptions, may only be adopted in exceptional circumstances. The set of macro-prudential tools has recently been extended by Spanish legislation, which has authorised to CNMV to require, for reasons of stability and integrity of the financial system, collective investment schemes to increase the proportion of particularly liquid assets in their portfolios.

Looking ahead, the CNMV will publish a periodic update of the most important figures of this sector, as well as changes in its risks. These updates may include new indicators to assess the most important risk categories. These include the

development of new indicators to assess liquidity risk or leverage, extending the analysis of the latter to include synthetic measurements. It may also be useful to analyse the concentration of entities according to their assets and unit-holders and, lastly, by interconnectedness with other participants in the system.

6 Bibliography

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7 Annex

Measurement of risks associated with investment funds

TABLE A1

	Money market funds	Fixed-income funds	Mixed funds
Credit risk			
Credit assets / total financial assets	0.99	0.96	0.49
Maturity transformation			
LT assets / total financial assets	0.01	0.44	0.29
Liquidity risk			
(Total financial assets – liquid assets(B)) / total financial assets	0.56	0.51	0.60
Leverage			
(ST liabilities + LT liabilities) / total financial assets	0.00	0.00	0.01

Source: CNMV.

LT stands for long-term and refers to instruments with a maturity of over one year.

ST stands for short-term and refers to instruments with a maturity of less than 30 days.

"Liquid assets (B)" correspond to a "broad" definition of such assets, in that they include assets that may be easily and immediately converted into cash.

Measurement of risks associated with finance companies, broker-dealers and SFVs

TABLE A2

	Finance companies	Broker-dealers	SFVs: securitisation
Credit risk			
Credit assets / total financial assets	0.94	0.89	0.99
Maturity transformation			
ST liabilities / ST assets	0.08	7.68	0.66
Liquidity risk			
(Total financial assets – liquid assets(B)) / total financial assets	0.95	0.22	0.94
Leverage			
(Total financial assets – equity) / total financial assets	0.89	0.67	1.00

Source: CNMV.

Critical values of the risks associated with NBFI

TABLE A3

	Low risk to moderate risk	Moderate risk to medium risk	Medium risk to high risk
Credit risk			
Credit assets / total financial assets	0.4	0.6	0.8
Maturity transformation			
EF1: LT assets / total financial assets	0.3	0.5	0.6
Others: ST liabilities / ST assets	0.5	1.0	1.5
Liquidity risk			
EF1 (Total financial assets – liquid assets(B)) / total financial assets	0.4	0.5	0.6
Other: (Total financial assets – liquid assets(B)) / total financial assets	0.6	0.7	0.8
Leverage			
EF1 (ST liabilities + LT liabilities) / total financial assets	0.02	0.05	0.1
Others: (Total financial assets – equity) / total financial assets	0.6	0.8	0.9

Source: CNMV.

Remuneration and incentives for executive directors in the Ibex 35 companies between 2013 and 2017

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1 Introduction[1]

This article analyses the different components of the remuneration of executive directors and chief executive officers (CEOs) in the companies included in the Ibex 35 between 2013 and 2017 in order to quantify the incentives of said directors and the extent to which they align with the objectives of the shareholders that they represent.

When talking about directors' remuneration based on statistics set out in the Annual Directors' Remuneration Reports (ADRRs) published by the CNMV, emphasis is usually placed on the amount of the remuneration (its total) and, sometimes, on the largest components. While the *level* of remuneration is important, it is even more important to consider its *design*, i.e., how much "skin in the game" executive directors and, in particular, chief executive officers, have. This study seeks to answer that question in a thorough and quantitative manner.

For this purpose, the study uses a standard methodology in the literature on executive compensation that has been applied for decades to data in the United States and, more recently, to data from other comparable European countries. Interestingly, there is no evidence that this analysis has been carried out with data on Spanish directors even though such data are public and have been available since 2013. This article aims to cover that gap.

A brief theoretical introduction provides a framework for quantifying incentives and using objective criteria to analyse their suitability. A preliminary step is to distinguish between the remuneration effectively received by the director in a specific year and the estimated market value of the remuneration granted. The first concept – *effective remuneration* – follows a *cash principle*: cash that the director has received during the period as non-variable remuneration (basically, the salary), either as short and long-term variable remuneration (the bonus) or as profit on unrestricted shares (i.e., those that may be sold at any time) and on the options that have expired over the year. These are the amounts analysed in the CNMV's ADRRs. Statistics on these components are presented in Table 1.

The second concept – *estimated remuneration* – follows an *accrual principle* and aims to quantify how the director's wealth changes during the period through their *expected* remuneration. Restricted shares are the fundamental element of this concept (with a expiry date after the reporting period) together with company stock options. An estimate is made of the value of both at the time they are granted and, more importantly, how the value of the portfolio of said assets held by the director changes each year.

After introducing these concepts, Table 2 presents statistics on their distribution among executive directors of Ibex 35 companies, distinguishing CEOs from other directors. The relative weight of each component of the estimated remuneration is

1 I would like to thank Eudald Canadell for giving me the opportunity to do this study and José Alberto Toribio and Guillermo Cambronero for their invaluable help with the data. This study has also benefited from comments by María Gutiérrez and José Sanz.

then calculated: salary, fixed remuneration, attendance fees, membership of committees, severance payments, contribution to savings schemes, other items, restricted shares and options granted in the year in Table 3 and their evolution between 2013 and 2017 in Table 4. Compared with data from other peer European countries (Table 5), chief executive officers of the Ibex 35 are at the bottom in terms of average percentage of their remuneration in restricted shares and options: only 5% compared with the European average of 19% and clearly far from the average of 42% in the United States. In contrast, the percentage of the bonus – short and long-term variable remuneration – of the CEOs of the Ibex 35 (33%) is the second highest in the sample, only behind Germany (40%) and well above the European average (18%) and even the US average (22%). Most of the bonus, however, is short-term. An element that emerges as specific to the case of Spain is the weight of the contributions to savings schemes (which include retirement plans and life insurance), which account for an average of 10.6% of the remuneration, reaching 15.3% in 2015.

In theory, the decisions taken by directors (presumably, those taken by CEOs in particular) should affect the price of the company's shares over the medium and long term and, therefore, the value of the restricted shares and options in their hands. Other remuneration components, such as the salary, attendance fees or supplements for belonging to committees would have, *a priori*, a less immediate link to the company's performance.[2] Empirically, evidence from the United States (see, for example, Hall and Liebman, 1998; and Frydman and Sacks, 2010) supports this prediction: the dynamic evolution of the value of the portfolio of restricted shares and options is the most important component in explaining the director's incentives.

This analysis conducts a separate calculation for the incentives in the period (estimated remuneration) and the *latent* variation of directors' remuneration through the evolution of the value of their portfolio of assets in the company. Based on these estimates, the average relationship between directors' estimated remuneration and the company's return is quantified. In addition, a measurement is made of how much the value of the portfolio of each director is expected to change, in euros and in percentage terms, when the company's return grows significantly.

Table 6 confirms the results of previous studies in other countries (e.g. Edmans, Gabaix and Jenter, 2017): the fundamental variable for explaining differences in remuneration between directors is the size of the company. For every 100 basis points (bp) that the company's market capitalisation rises in relation to the companies in its sector, CEO remuneration grows by an average of 33 bp. The component of estimated remuneration that grows most is the bonus: 56 bp on average. There is no evidence that the estimated remuneration of executive directors (whether they are CEOs or not) varies significantly with the price of the company's shares. As might be expected, the exposure to stock returns is significant only among those directors that receive restricted shares and options. There is certain evidence that the bonuses and incentives in shares and options received by CEOs are indexed to the Ibex 35, as the theory predicts.

2 See Prendergast (1999) for a review of the literature on incentives.

The exposure of directors' remuneration to the company's stock return, should it exist, must therefore come from the portfolio of restricted shares and options. Only 10% of the observations of the sample included restricted shares or options. This means that, on average, the exposure of the portfolio of Ibex 35 directors to changes in the company's return is very low, both in euros and in percentage terms (elasticity). However, among the 10% of the observations that do include restricted shares or options, significant incentive levels are detected. Tables 7 and 8 show that for that 10% of observations, in the event of a hypothetical 100% increase in the company's return, the portfolio of CEOs gains at least 900,000 euros (61% in relative terms) and may gain up to 3.1 million euros (115% in relative terms). For all directors, the incentives from options are stronger than those from restricted shares.

The article is structured as follows. Section 2 introduces the theoretical framework of the analysis of incentives. Section 3 presents the sample and the statistical data of the effective and estimated remuneration of executive directors and CEOs, both in euros and in percentages. The structure of the estimated remuneration in Spain is also compared with that of other countries. Section 4 analyses the exposure of directors' estimated remuneration and of the directors' portfolio of restricted shares and options to the company's return. The conclusions are presented in Section 5. The appendices provide details of the sample (A) and the definitions and formulas necessary for the analysis (B).

2 Theoretical framework

An exhaustive analysis of a director's incentives should consider how his/her *total* present and future wealth is related to the value and profitability of the company on whose board he/she sits. This would give a measure of the alignment of objectives between the director and the company's shareholders. Performing this in-depth analysis would require access not only to the director's remuneration and its composition (salary, attendance fees, bonus, shares, options, etc.), but also his/her wealth and income from other sources outside the company, including the probability of being fired or promoted. In practice, due to the constraints of the available data, studies focus on the exposure of the executive's remuneration to the company's performance, which is referred to as pay-performance sensitivity. It is important, therefore, to bear in mind that in this, as in any empirical analysis on incentives, the conclusions are always partial.

In order to establish some concepts, a simple model for a period inspired by Edmans and Gabaix (2016) is considered. For the sake of simplicity, it is assumed that the company has no debt. Let S be the value of the company at the beginning of the period. At the end of the period, the company has a stochastic value V. The expected return for the director will therefore be: $E(r) = (E(V) - S)/S$[3]. The expected compensation of the director at the end of the period is given by:

$$E(c) = F + \theta E(V), \qquad (1)$$

3 The operator E( ) denotes expected value.

where F represents the director's fixed remuneration and θ denotes the director's interest in the value of the company (mainly through variable bonuses, shares and options). At the start of the period, the value of the director's compensation is known and is given by $c = F + \theta S$. This amount may be considered the director's "reserve" compensation, i.e., the minimum compensation demanded by the director to join the board at the start of the period.

The following measures are used in the analysis of the director's *ex ante* exposure to expected wealth created for the shareholder:

i) Expected monetary variation (in euros) of the director's compensation *E(c)* in the event of changes in the wealth created for the shareholder (also in euros). In this case, (1) should be written as $E(c) = F + \theta S + \theta\left(E(V) - S\right) =$ so that the exposure of the director's monetary remuneration to changes in the company's wealth (also monetary) is:[4]

$$\frac{\partial E(c)}{\partial\left(E(V) - S\right)} = \theta. \qquad (2)$$

In other words, this measure indicates by how many euros the director's compensation is expected to rise for each euro that the company's value rises during the period. Note that this measure is bounded between zero euros (when the director has no interest in the company) and one euro (when the company belongs entirely to the director). This measure has been used, among others, by Demsetz and Lehn (1985) and by Jensen and Murphy (1990).

ii) Expected monetary change (in euros) in the director's compensation *E(c)* in the event of changes in the company's expected rate of return *E(r)*. In this case, (1) should be written as $E(c) = F + \theta S\left(1 + E(r)\right)$, so that the exposure of the director's monetary compensation to the company's expected rate of return is:

$$\frac{\partial E(c)}{\partial E(r)} = \theta S. \qquad (3)$$

In other words, this measure indicates by how many euros the director's compensation is expected to rise for each percentage point that the company's share price rises. This exposure measure has been used by Hall and Liebman (1998) and by Baker and Hall (2004).

iii) Expected percentage change in the director's compensation, *E(c)/c*, in the event of percentage changes in the company's wealth, *E(r)*. This measure is known as the pay-performance *elasticity*. Given (3), it quickly follows that:

$$\frac{\partial E(c)/c}{\partial E(r)} = \frac{\theta S}{c}. \qquad (4)$$

In other words, this measure tells us how many percentage points the director's compensation is expected to rise for each percentage point that the company's value rises. The idea is to measure the relative weight of the variable

4 The operator ∂ denotes partial derivative.

remuneration (linked to the company's value) with regard to the director's total remuneration. This measure can be found in the work by Edmans, Gabaix and Landier (2009); Hall and Liebman (1998); Gibbons and Murphy (1992); Rosen (1992); and Murphy (1985).

The model's expected return, *E(r)*, will depend, among other things, on the non-observable effort made by the director. This gives rise to a moral hazard problem that this article ignores for the sake of simplicity. Which measure is most appropriate for assessing remuneration incentives will depend on how the link between the director's effort and the creation of value for the shareholder is modelled. Edmans and Gabaix (2016) address this point in detail. The three measures will be used in the empirical analysis.

Note that in the three measures described in equations (2)-(4), a fundamental variable is θ that is, the director's interest in the company. This analysis will follow the definition of Jensen and Murphy (1990):

$$\theta = \frac{No.\ director's\ shares + \Delta\ No.\ director's\ options}{No.\ shares\ of\ the\ company} \qquad (5)$$

Δ denotes the delta of the director's options and measures the extent to which an option is exposed to changes in the price of the underlying share. By definition, the Δ of the shares is 1 and the Δ of the options is less than 1. This definition ignores the *ex ante* incentives of the short-term and, especially, the long-term variable incentives or bonuses. There are examples in which the achievement of certain accounting or market targets triggers remuneration in shares or options. These data are not tabulated in the ADRRs, but are described in free text and, therefore, fall outside the scope of this study. The *ex post* sensitivity of the director's remuneration (including bonuses) to the return of the company's shares will be calculated.

Hall and Liebman (1998) show that the portfolio of unexercised options and shares is the most important component in estimating θ. It is not possible, therefore, to limit the study to shares and options granted in the period, but rather the evolution of the director's portfolio of shares and options must be reconstructed period by period. One advantage of the data collected in the ADRRs is that they allow the historical series of the director's portfolio of shares and options to be reconstructed.

In addition, estimating Δ for the options portfolio is a challenge as companies do not usually report the characteristics – such as the maturity or strike price – of the options granted in previous years, which are essential parameters for valuing the options and calculating Δ. This has led to approximate estimation procedures, such as those by Core and Guay (2002) or Edmans, Gabaix and Landier (2009). In the case of this study, the data included in the ADRRs allow for an individualised estimate of all these parameters for each option.

Finally, this analysis will set aside any considerations on incentives to risk in directors' remuneration. For a review of the literature in this regard, the reader is referred to Prendergast (2002).

3 Description of the sample

The original sample consists of 2,377 observations, each one of which corresponds to a director-company-year. From this sample, non-CEO executive directors (211 observations) and CEOs (167) are studied separately. The study focuses on executive directors because the part of the remuneration that in theory is most closely linked to incentives, i.e., variable remuneration (including shares and options) of non-executive directors is very low and would distort the conclusions. CEOs are also studied independently. The literature on executive compensation, based primarily on US data, focuses on the Chief Executive Officer. This allows our results to be compared with those of other articles and countries.[5] The observations come from 42 companies, belonging to 11 different sectors, that formed part of the Ibex 35 between 2013 and 2017. Table A1 in Appendix A includes the list of companies in the sample and the distribution of observations by company.

With regard to the directors, the sample includes 65 executive directors (excluding CEOs) and 46 CEOs. There is an average of 2 executive directors per company and year, with a maximum of 6 directors. These figures are stable over the years of the sample.

The data on the remuneration of the directors have been obtained from the ADRRs that each company files with the CNMV every year. The following section describes the variables used in the study.

The share prices (from which the annual return and the volatility have been calculated), the dividends per share, the number of company shares, the yield on the German bond (used as a risk-free asset) and the return of the Ibex 35 have been obtained from Bloomberg.

3.1 Description of the variables

Appendix B.1 sets out the definition of the different remuneration components in accordance with CNMV Circular 4/2013, of 12 June.[6] Two components require additional valuation work based on the elements included in the ADRRs: shares and options.

A distinction is made between two types of shares granted: restricted and unrestricted. The distinction between the two is based on the exercise period. If this is greater

5 The CEOs and chairpersons have been identified from the companies' websites. The non-CEO executive directors include 56 observations corresponding to the board chairperson. Within the original sample, there are 38 observations of non-executive board chairpersons. These directors are not included in the analysis because their remuneration is basically fixed, with a very low variable remuneration component in most cases. All the CEOs identified in the sample are executive directors, except one who is independent (also included in the analysis). In some years, more than one CEO per company appear if there has been a change of director during that year.

6 The Circular includes other items such as advance payments, loans granted and guarantees issued by the company in favour of directors. The amounts are very small compared with the other items and are not included in the sample.

than one year, the shares are classified as restricted. Otherwise, they are unrestricted. Under the criteria followed in the CNMV, the latter are considered to be fully liquid and are valued at their market price on the grant date, irrespective of whether or not the shares have been sold by the director.[7] Their value is included as part of the gross profit on the shares declared by the company in the ADRR.

If the shares have an expiration period greater than the reporting period, it is assumed that they cannot be made effective until the expiry date. These shares are also valued at market price on the grant date.[8] Subsequently, during the years prior to the expiry date, they are valued at the start and end of each year as part of the director's asset portfolio up to their expiration, when they are included in the remuneration for the year as gross profit on shares as appears in the ADRR.

In total, the sample records 293 observations with issues of unrestricted shares, corresponding to 68 non-CEO executive directors and 45 CEOs. Similarly, 42 issues of restricted shares are recorded, corresponding to 12 non-CEO executive directors and 10 CEOs.

The Black-Scholes-Merton formula with dividends is used for the valuation of options. Appendix B.2 includes the formulas and variables needed to evaluate the options. A total of 26 observations were detected with issues of options during the sample period, corresponding to 8 non-CEO executive directors and 6 CEOs. The statistical data from the table in Appendix B.2 confirm that these options were issued "at the money": the statistical data on the market price on the issue date and the option's strike price are very similar. The average exercise period of the issued options was 3.3 years, with a minimum of 1.7 and a maximum of 5.8. When they are granted, the options are valued at the issue date. Subsequently, when the option is "outstanding" (before its maturity date), it is valued at the start and end of the year as part of the director's asset portfolio until the time of its maturity, when it is included in the remuneration for the year as gross profit on the options (as appears in the ADRR).

On the basis of these elements, the following is constructed for each observation:

– **The effective remuneration for the year,** which includes: salary, fixed remuneration, attendance fees, remuneration for membership of committees, severance payments, contributions in the year to long-term savings schemes, short and long-term variable remuneration and gross profit from transactions with shares and options in the year.

– **The estimated remuneration for the year,** which includes: salary, fixed remuneration, attendance fees, remuneration for membership of committees, severance payments, contributions in the year to long-term savings schemes, short

7 Following the same methodology as in Coles, Daniel and Naveen (2006), if the grant date is not specified, it is assumed that they are granted in the middle of the year, 1 July of the corresponding year. The same criterion is applied to the options granted. This assumption is used by Standard & Poor's Execucomp database.

8 Following Standard & Poor's Execucomp methodology, no liquidity discount is applied to these shares.

and long-term variable remuneration and estimated value of restricted shares and options granted during the year.[9]

– **Change in the portfolio of options and restricted shares**: difference in the value of the outstanding portfolio of restricted shares and options between the end and the start of the year, less the estimated value of the restricted shares and options granted plus the dividends on the restricted shares during the year.

– **Change in estimated wealth**: sum of the estimated remuneration for the year and the change in the value of the portfolio of options and restricted shares.

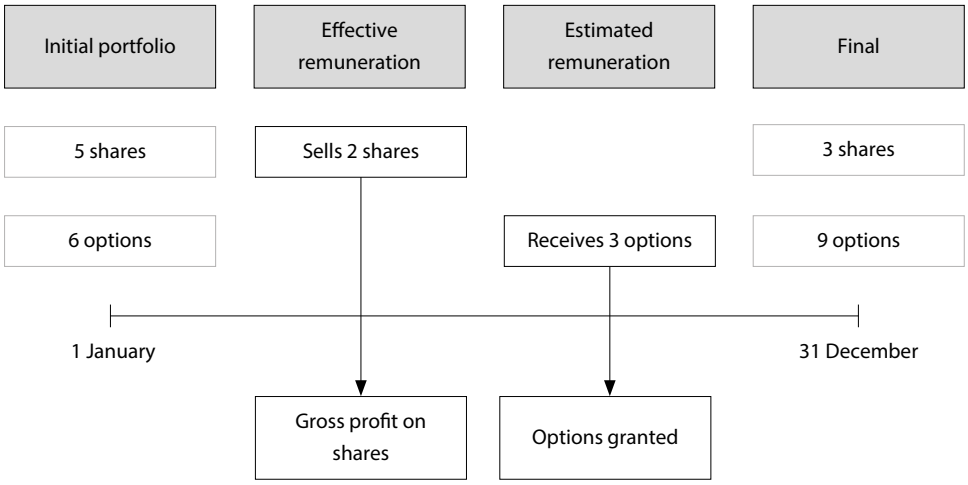
Figure 1 depicts, by way of example, the dynamics in the valuation of both effective and estimated remuneration and of the portfolio during a year. During this year, the director sells two expired restricted shares and receives three new options. The first movement is included as gross profit on the shares, while the second is included as options granted in the year. Simultaneously, the portfolio of shares and options changes.

In the case of the restricted shares, the director in the example receives the gross profit on the sale and, in turn, sees a reduction in his/her portfolio for the value of such shares. The amount of the shares would form part of the director's effective remuneration. This remuneration is periodically reported in the ADRR drawn up by the CNMV based on the reports provided by companies. However, for incentive purposes, these shares no longer play a role. Moreover, to the extent that the shares are not replaced by other shares or options from a new plan, the director's incentives that year would fall by precisely the same amount. This is classified as a change in the value of the portfolio and, in the aggregate a change in the estimated *expected* wealth.

In the case of the options, it is the estimated remuneration for the year and not the effective remuneration which rises by the value of the options on the grant date. At the end of the year, the director's remuneration increases by the difference in the value between the three options at the end of the year and the value of the options on the grant date. The value of the options will be dynamically adjusted over the years prior to their maturity, with the corresponding change in value allocated to each year. It will therefore be possible to study the extent to which the director's estimated wealth linked to his/her remuneration changes with the value of the company, year by year. This will give a measure of the alignment of the director's incentives with those of the shareholders.

9 This item corresponds to the TDC1 variable (also called "direct pay") in Standard & Poor's Execucomp database.

Example of change in portfolio and effective and estimated remuneration for the year FIGURE 1



Source: Compiled by author.

In summary, the distinction between effective remuneration (cash principle) and estimated remuneration (accrual principle) is fundamental for analysing the executive's incentives. What is of interest, for the purposes of incentives, is how the director's estimated wealth and, particularly, his/her portfolio of restricted shares and options changes in relation to the value created for the shareholder during the year (the company's return). This follows the criterion used in other articles of the literature on the compensation of executive directors (in most cases, CEOs are studied), such as Hall and Liebman (1998), Jensen and Murphy (1990) and Gayle and Miller (2009).[10] Hall and Liebman (1998), in particular, estimate that most of the exposure of the director (in this case, CEO) to the company's value comes precisely from the change in the value of the director's portfolio. Bearing in mind that the options that are granted during the period of the sample have an average exercise period of 3 years (see Appendix B.2), ignoring the evolution of the portfolio would, in theory, underestimate this exposure.

In order to break down the director's remuneration, the evolution of the restricted shares and options in the portfolio of each director during the sample has been reconstructed, verifying whether there is continuity year by year from the time that the restricted shares and options are granted up to their maturity.

3.2 Analysis of remuneration components

This section presents some statistical data on the remuneration of executive directors and CEOs and its evolution over the sample.

10 For a comparison between effective and estimated remuneration for the year and a review of the literature, the papers by Jarque and Muth (2013) and Edmans, Gabaix and Jenter (2017) are recommended reading.

Panel A of Table 1 shows the statistics on the effective remuneration of non-CEO executive directors. The first thing to highlight is the range of the observations. There is a great deal of asymmetry in most of the components and in the remuneration as a whole, with few very high values that appear in the last column as maximums. Ignoring the top and bottom 1st percentile, the effective remuneration for the year ranges between 5,000 and 15.2 million euros. It is more representative in this case to speak of the median executive director than the mean director. For the median executive, the remuneration for the year is 1.6 million euros, more than a third of which (589,000 euros) corresponds to the salary and 302,000 euros to the short-term variable bonus. Fixed remuneration and other items record a marginal, albeit positive, contribution. The most noteworthy aspect is that the items that are in theory more closely associated with incentives for creating shareholder value (long-term variable bonus, shares and options) have a zero median value. The long-term bonus is only positive for 10% of the sample. The gross profit on the options is only positive for 1% of the sample of executive directors. Contributions to saving schemes take on a preponderant role as from the 75th percentile, and have a high relative weight for the 10% highest-paid executives in the sample, with a minimum amount similar to the gross profit on shares. Only the top 1% of executive directors record items in their remuneration with higher values than that of salary (without including fixed remuneration). The highest components of the sample ("Maximum" column) are, in descending order: savings schemes (over 19 million), severance payments (11 million), and gross profit from options (9.4 million).

Panel B presents the same statistics as Panel A for the subsample of 167 observations corresponding to CEOs. Although the values are generally higher, as is to be expected, the distribution is very similar to that referred to in Panel A. Ignoring the top and bottom 1% of the sample, the effective remuneration of CEOs in the year ranges between 125,000 euros and 16.4 million euros. The effective remuneration for the year of the median director amounts to 2.5 million euros, although this does not include any component related to either shares or options. There is a certain shift to the left in the distribution in some items linked to incentives, in relation to the case of non-CEO executive directors. For example, the short-term variable bonus is higher than the salary for 25% of CEOs. However, long-term incentives, such as the gross profit on shares or the long-term variable bonus, maintain a proportion compared with salary similar to that shown in Panel A. The profits resulting from options remain at zero for 90% of the sample. Contributions to savings schemes (almost 80 million), severance payments (15 million) and gross profit on shares (14 million) are the three highest components of the sample.

There may be a substitution between variable and non-variable remuneration for those CEOs that receive shares or options compared with those that do not. In other words, it may be the case that the incentives differ in the instrument (salary, bonus, shares or options) but are balanced in the aggregate: directors with holdings in the company (shares or options) would receive, in such a case, a lower salary or bonus. In order to investigate this hypothesis, Panel C of Table 1 presents the statistics on the remuneration components for the 100 observations corresponding to CEOs in the years in which they do not receive gross profit from shares or options. Panel D of the same table includes 67 observations of CEOs in years in which they receive gross profit from shares or options.

The evidence from Panels C and D allows us to reject the hypothesis: there is no substitution between components of directors' remuneration with or without a profit on shares or options. The difference in remuneration between the mean CEO in Panel C (2.7 million euros) and that of Panel D (6.2 million euros) is significant. This difference cannot be explained by the gross profit on the shares or options alone. The salary and short-term variable bonus are, in terms of both the mean and the median, higher for the CEOs of Panel D. The differences tend to increase when we move towards higher values of the distribution, those with a strong component of profit from shares or options. Savings schemes seem, at first sight, higher in Panel D, but the difference is not significant once we eliminate the extreme observation of 79.8 million euros. The only item where CEOs without a profit from shares or options exceed those that do receive said profit is the long-term variable bonus, although this is only true for higher values in the distribution (in terms of the mean they are very similar).

From this analysis, it can be concluded that, in practice, the remuneration of executive directors and CEOs of Ibex 35 companies is concentrated in most cases in the salary and the short-term variable bonus. With regard to the materialised incentives, the long-term bonus and the gross profit on shares are only equal to or higher than the salary for 10% of CEOs, while the gross profit on options is equal to or higher than the salary only for 1% of such directors. This seems to indicate that the materialised long-term incentives are only monetarily relevant for a very small proportion of Ibex 35 directors. There is no evidence that higher remuneration through shares or options is offset by lower salaries or variable bonuses. It should be noted that for the best paid 1% of executive directors and CEOs during the year, the most significant item is by far the contribution to savings schemes. It is debatable to what extent this item may be associated with long-term incentives and what type of incentives it entails.[11]

Up to this point, the components effectively received by executive directors and CEOs have been analysed. Table 2 analyses the expected incentives through the estimated value of the restricted shares and the options granted during the year and the evolution of the director's portfolio. These replace, respectively, the gross profit on shares and options of Table 1.

The value of the incentives through restricted shares is even more skewed than in the case of effective remuneration. The estimated value of the restricted shares and the options is zero for 99% of the non-CEO executive directors. The pattern is similar for CEOs, but with one important quantitative difference: for the top 1% of the sample, restricted shares almost double the amount of the salary for CEOs, while they are only the equivalent of half of the salary in the case of non-CEO executive directors. The value of the options granted to the directors, whether CEOs or not, is very marginal even at the maximum.[12]

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11 Yermack and Wei (2011) study internal savings schemes in defined benefit pension plans in a sample of CEOs in the United States. The evidence shows that directors behave more conservatively, aligning with the objectives of the company's creditors, to the extent that they themselves become creditors of the future benefits (also called the company's "inside debt"). In order to study this concept in depth, the nature (internal or external) of the savings schemes and their characteristics (redemption conditions and portability, for example) should be studied, which falls outside the aim of this study.

12 This corresponds to the evidence in the table in Appendix B.2 on the 26 option issues observed in the sample: issued at the money (strike price very close to the share value) and with relatively low volatility

Breakdown of effective remuneration for the year between 2013 and 2017

TABLE 1

Panel A. Executive directors

Item	Mean	Std. dev.	Min.	p1	p10	p25	Median	p75	p90	p99	Max.
Salary	715,867	559,630	0	0	0	345,000	589,000	1,000,000	1,568,000	2,231,000	2,368,000
Fixed remuneration	108,735	187,888	0	0	0	0	55,000	92,000	240,000	907,000	960,000
Membership of committees	29,076	84,809	0	0	0	0	0	0	170,000	550,000	550,000
Attendance fees	23,166	45,335	0	0	0	0	0	28,000	80,000	250,000	250,000
Savings schemes	498,739	1,837,932	0	0	0	0	0	392,000	1,040,000	9,856,000	19,252,000
Severance payments	89,299	830,588	0	0	0	0	0	0	0	2,405,000	11,003,000
Other items	102,512	371,893	0	0	0	0	9,000	54,000	184,000	1,468,000	3,769,000
Short-term variable	540,417	694,753	0	0	0	58,000	302,000	783,000	1,396,000	3,304,000	4,027,000
Long-term variable	98,521	283,022	0	0	0	0	0	0	478,000	1,360,000	2,101,000
Gross profit on shares	273,791	631,130	0	0	0	0	0	127,000	1,142,000	2,729,000	3,914,000
Gross gain on options	78,829	680,832	0	0	0	0	0	0	0	1,660,000	9,383,000
Effective remuneration for the year	**2,558,953**	**2,873,883**	**0**	**5,000**	**460,000**	**882,000**	**1,590,000**	**3,337,000**	**5,605,000**	**15,258,000**	**20,545,000**
Observations	211										

Panel B. CEOs

Item	Mean	Std. dev.	Min.	p1	p10	p25	Median	p75	p90	p99	Max.
Salary	999,940	732,509	0	0	147,000	460,000	831,000	1,344,000	2,044,000	3,250,000	3,250,000
Fixed remuneration	90,946	157,911	0	0	0	0	55,000	100,000	177,000	881,000	1,043,000
Membership of committees	20,150	48,886	0	0	0	0	0	0	127,000	177,000	200,000
Attendance fees	19,425	42,605	0	0	0	0	0	28,000	49,000	275,000	275,000
Savings schemes	934,431	6,225,135	0	0	0	0	55,000	438,000	1,601,000	8,910,000	79,834,000
Severance payments	168,042	1,354,041	0	0	0	0	0	0	0	8,375,000	15,081,000
Other items	59,108	165,574	0	0	0	0	7,000	30,000	129,000	1,000,000	1,381,000
Short-term variable	972,096	1,008,747	0	0	0	217,000	629,000	1,352,000	2,678,000	3,627,000	4,225,000
Long-term variable	172,683	584,004	0	0	0	0	0	0	734,000	3,502,000	5,520,000
Gross profit on shares	564,772	1,458,903	0	0	0	0	0	231,000	2,022,000	4,548,000	14,105,000
Gross gain on options	113,371	683,291	0	0	0	0	0	0	0	4,565,000	6,619,000
Effective remuneration for the year	**4,114,964**	**6,822,240**	**34,000**	**125,000**	**600,000**	**1,118,000**	**2,547,000**	**5,570,000**	**9,351,000**	**16,423,000**	**80,801,000**
Observations	167										

Breakdown of effective remuneration for the year between 2013 and 2017 *(continuation)*

TABLE 1

	Panel C. CEOs WITHOUT gross profit on shares or options										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Salary	877,990	690,661	0	0	126,500	399,500	710,500	1,248,500	1,636,500	3,250,000	3,250,000
Fixed remuneration	90,780	163,355	0	0	0	0	59,500	115,000	166,000	962,000	1,043,000
Membership of committees	18,490	46,314	0	0	0	0	0	0	122,500	188,500	200,000
Attendance fees	20,290	49,521	0	0	0	0	0	26,000	45,500	275,000	275,000
Savings schemes	514,610	1,159,076	0	0	0	0	87,000	402,500	1,613,000	6,666,500	8,910,000
Severance payments	100,170	851,816	0	0	0	0	0	0	0	5,008,500	8,375,000
Other items	31,380	115,739	0	0	0	0	4,000	14,000	59,000	706,000	1,000,000
Short-term variable	807,840	917,017	0	0	0	210,000	522,000	1,070,000	2,634,500	3,827,500	4,225,000
Long-term variable	208,090	651,449	0	0	0	0	0	0	841,500	3,750,000	5,520,000
Gross profit on shares	0	0	0	0	0	0	0	0	0	0	0
Gross gain on options	0	0	0	0	0	0	0	0	0	0	0
Effective remuneration for the year	2,669,640	2,632,800	34,000	80,000	500,000	977,000	1,726,500	3,694,500	5,938,000	13,424,000	14,678,000
Observations	100										

	Panel D. CEOs WITH gross profit on shares or options										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Salary	1,181,955	760,177	0	0	300,000	600,000	1,000,000	1,923,000	2,250,000	3,250,000	3,250,000
Fixed remuneration	91,194	150,632	0	0	0	0	51,000	88,000	177,000	567,000	567,000
Membership of committees	22,627	52,754	0	0	0	0	0	0	170,000	177,000	177,000
Attendance fees	18,134	29,735	0	0	0	0	0	32,000	57,000	140,000	140,000
Savings schemes	1,561,030	9,735,868	0	0	0	0	0	475,000	1,443,000	79,834,000	79,834,000
Severance payments	269,343	1,872,315	0	0	0	0	0	0	0	15,081,000	15,081,000
Other items	100,493	214,371	0	0	0	6,000	18,000	66,000	281,000	1,381,000	1,381,000
Short-term variable	1,217,254	1,093,650	0	0	114,000	256,000	897,000	1,910,000	3,185,000	3,627,000	3,627,000
Long-term variable	119,836	465,303	0	0	0	0	0	0	275,000	3,502,000	3,502,000
Gross profit on shares	1,407,716	2,036,821	0	0	0	64,000	908,000	2,022,000	3,395,000	14,105,000	14,105,000
Gross gain on options	282,582	1,061,014	0	0	0	0	0	0	448,000	6,619,000	6,619,000
Effective remuneration for the year	6,272,164	9,938,613	125,000	125,000	844,000	1,936,000	5,123,000	7,318,000	9,894,000	80,801,000	80,801,000
Observations	67										

Effective remuneration for the year is the sum of all the quantities effectively received by the executive and associated with his/her remuneration for the year and the profit from the rights (shares and options) maturing during the year. The amounts come from the ADRRs and the items are explained in Appendix B.1. Panel A includes non-CEO executive directors and Panel B includes CEOs. In Panel C (Panel D) we include the observations of CEOs that have not (that have) received gross profit on shares or options during the year.

Source: Compiled by author.

A review of the portfolio of shares and options reveals that there is no significant variation within the 10th and 90th percentiles of the sample. The bulk of the variation is in fact concentrated in the bottom 1% and the top 1%. The reductions come from directors with share and option plans that matured and were not replaced during the year. Part of this would correspond with the gross profits analysed in Table 1. The quantities may be high: almost 9 million euros in the case of shares for one CEO and 10.4 million euros in the case of options for a non-CEO executive director. The positive changes may also be considerable: almost 6 million in restricted shares for one CEO and 6.4 million in options for one non-CEO executive director. These cases would reflect an increase in the value of the shares or options in the portfolio as the value of the securities granted during the year is not taken into account (only their increase in value up to the end of the year).

A first conclusion is that (dis)incentives can become economically relevant, especially when taking into account that the maximum salary among non-CEO executive directors is 2.3 million (3.2 million for CEOs). However, they are present in only 2% of the observations. In theory, this may be due to low volatility in the prices of the shares, active management by the companies to maintain the stability of directors' remuneration or an absence of incentives linked to shares and options, including low sensitivity of options to the underlying (a low delta). The fact that only 22 executive directors (including CEOs) receive restricted shares during the observed period and only 14 receive options certainly helps to explain the asymmetry of the distribution in Tables 1 and 2. The design of these incentives and their sensitivity to changes in added value for shareholders are analysed individually below.

In order to be able to compare remuneration of the CEOs of Ibex 35 companies with directors in other countries, the components are regrouped and estimated each year as a percentage of the estimated annual remuneration. Given their absolute size, the salary, fixed remuneration and contributions to savings schemes are maintained on an individualised basis. Membership of committees, attendance fees and other items are grouped together under the heading of "Other". The bonus is obtained from the sum of the short and long-term variable remuneration. The heading of "Shares" includes the value of the restricted shares granted, while the heading of "Options" includes the value of the options granted according to the Black-Scholes-Merton formula with dividends. These items are divided each year by the estimated remuneration for the year in order to express them as percentages. The statistical data corresponding to non-CEO executive directors (Panel A) and CEOs (Panel B) are presented in Table 3.

The salary accounts for an average of 38% of the remuneration of non-CEO directors and close to 40% of that of CEOs, although the median of the distribution, slightly above 36%, is very similar in both panels. The salary accounts for over one-half of the estimated remuneration for one quarter of the sample of executive directors and CEOs. The following component with most weight is the bonus, with 24.5% as mean and median for executive directors and around 33% as mean and median for CEOs. The bonus constitutes over half of the remuneration for around 10% of

during the sample (with an average close to 9%).

Breakdown of estimated remuneration and change in the portfolio of shares and options between 2013 and 2017

TABLE 2

Panel A. Executive directors

Item	Mean	Std. dev.	Min.	p1	p10	p25	Median	p75	p90	p99	Max.
Salary	715,867	559,630	0	0	0	345,000	589,000	1,000,000	1,568,000	2,231,000	2,368,000
Fixed remuneration	108,735	187,888	0	0	0	0	55,000	92,000	240,000	907,000	960,000
Membership of committees	29,076	84,809	0	0	0	0	0	0	170,000	550,000	550,000
Attendance fees	23,166	45,335	0	0	0	0	0	28,000	80,000	250,000	250,000
Savings schemes	498,739	1,837,932	0	0	0	0	0	392,000	1,040,000	9,856,000	19,252,000
Severance payments	89,299	830,588	0	0	0	0	0	0	0	2,405,000	11,003,000
Other items	102,512	371,893	0	0	0	0	9,000	54,000	184,000	1,468,000	3,769,000
Short-term variable	540,417	694,753	0	0	0	58,000	302,000	783,000	1,396,000	3,304,000	4,027,000
Long-term variable	98,521	283,022	0	0	0	0	0	0	478,000	1,360,000	2,101,000
Restricted shares granted	92,267	383,802	0	0	0	0	0	0	0	1,333,480	3,752,336
Options granted	7,121	45,245	0	0	0	0	0	0	0	191,593	413,356
Estimated remuneration	**2,305,720**	**2,537,060**	**424**	**807**	**434,000**	**849,000**	**1,518,000**	**3,043,000**	**4,892,320**	**12,606,000**	**20,207,000**
Annual change in portfolio of shares	-59,786	418,111	-3,380,133	-2,731,115	0	0	0	0	0	285,712	1,638,000
Annual change in portfolio of options	-2,831	883,060	-10,407,490	-841,156	-7	0	0	0	0	1,174,487	6,456,737
Annual dividend on restricted shares	3,843	20,071	0	0	0	0	0	0	0	128,571	159,834
Annual change in portfolio	**-58,774**	**1,061,194**	**-12,978,770**	**-3,056,178**	**-37,425**	**0**	**0**	**0**	**0**	**1,881,168**	**5,584,007**
Change in estimated wealth	**2,246,946**	**2,670,330**	**-7,688,290**	**-299,458**	**380,000**	**830,000**	**1,508,000**	**3,040,000**	**4,751,658**	**12,606,000**	**20,207,000**
Observations	211										

Panel B. CEOs

Item	Mean	Std. dev.	Min.	p1	p10	p25	Median	p75	p90	p99	Max.
Salary	999,940	732,509	0	0	147,000	460,000	831,000	1,344,000	2,044,000	3,250,000	3,250,000
Fixed remuneration	90,946	157,911	0	0	0	0	55,000	100,000	177,000	881,000	1,043,000
Membership of committees	20,150	48,886	0	0	0	0	0	0	127,000	177,000	200,000
Attendance fees	19,425	42,605	0	0	0	0	0	28,000	49,000	275,000	275,000
Savings schemes	934,431	6,225,135	0	0	0	0	55,000	438,000	1,601,000	8,910,000	79,834,000
Severance payments	168,042	1,354,041	0	0	0	0	0	0	0	8,375,000	15,081,000
Other items	59,108	165,574	0	0	0	0	7,000	30,000	129,000	1,000,000	1,381,000
Short-term variable	972,096	1,008,747	0	0	0	217,000	629,000	1,352,000	2,678,000	3,627,000	4,225,000
Long-term variable	172,683	584,004	0	0	0	0	0	0	734,000	3,502,000	5,520,000
Restricted shares granted	230,230	879,469	0	0	0	0	0	0	199,837	5,896,000	6,253,970
Options granted	5,648	40,959	0	0	0	0	0	0	0	359,237	365,661
Estimated remuneration	**3,672,698**	**6,684,089**	**34,000**	**42,000**	**547,000**	**1,118,000**	**2,344,000**	**4,516,000**	**6,171,000**	**16,285,000**	**80,737,000**
Annual change in portfolio of shares	-164,475	1,242,680	-8,894,356	-8,801,843	-604	0	0	0	0	1,688,022	5,900,113
Annual change in portfolio of options	13,809	299,581	-1,690,314	-744,100	-609	0	0	0	0	1,354,646	2,818,768
Annual dividend on restricted shares	9,891	42,821	0	0	0	0	0	0	3,999	300,046	302,871
Annual change in portfolio	**-140,774**	**1,163,034**	**-8,501,797**	**-6,075,588**	**-121,756**	**0**	**0**	**0**	**0**	**1,990,893**	**6,615,965**
Change in estimated wealth	**3,531,924**	**6,733,756**	**-6,033,588**	**-4,045,553**	**541,000**	**1,111,000**	**2,259,000**	**4,389,116**	**6,414,570**	**16,285,000**	**80,737,000**
Observations	167										

Estimated remuneration is the sum of all the items included in the ADRRs and effectively paid to the director during the year plus the estimated value of the restricted shares and options granted during the year. It represents the expected value of the remuneration received by the director during the year measured at the end of that year. All the items are explained in Appendix B.1. Shares are valued at market price on the grant date. Options are valued according to the Black-Scholes-Merton formula with dividends on their grant date (see Appendix B.2). The annual change in the portfolio of shares (alternatively, options) is the difference between the value at the end and at the start of the year of the portfolio of shares (alternatively, options) less the value of the shares (alternatively, options) granted during the year. The annual change in the portfolio is the sum of the change in the portfolio of shares and options plus the dividends corresponding to the restricted shares paid during the year. The change in estimated wealth is the sum of the estimated remuneration and the change in the portfolio. It represents the estimated change in the director's wealth associated with his/her remuneration for the year and the value of the rights accumulated in the past (in the form of shares and options). Panel A includes non-CEO executive directors and Panel B includes CEOs.

Source: Compiled by author.

executive directors and CEOs. This component accounted for over 80% of the remuneration for the same CEO in 2015 and 2016.

Contributions to savings schemes have a mean weight of approximately between 11% and 12% in both subsamples. It is interesting to note that, for a quarter of directors, savings schemes account for, respectively, at least 21.9% (non-CEO directors) and 15.6% (CEOs) of the estimated remuneration for the year. This component accounts for 98.9% of the remuneration in the extreme case of one CEO that received almost 80 million euros in 2017. The item "Other" accounts for over 80% of the total remuneration for two CEOs that received a large severance payment in the year in which they ceased to hold their office.

Breakdown of estimated remuneration in percentages TABLE 3

%

	Panel A. Executive directors										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Salary	38.2	24.7	0.0	0.0	0.0	26.1	36.2	53.5	70.3	99.6	100.0
Fixed remuneration	9.8	20.0	0.0	0.0	0.0	0.0	2.3	7.2	40.3	100.0	100.0
Savings schemes	11.8	18.1	0.0	0.0	0.0	0.0	0.0	21.0	35.9	78.2	95.3
Other	11.0	22.5	0.0	0.0	0.0	0.3	3.6	9.7	21.9	100.0	100.0
Bonus	24.5	19.8	0.0	0.0	0.0	8.0	24.5	37.4	48.1	84.4	90.5
Shares	3.6	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5	100.0
Options	1.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	100.0
Observations	211										

	Panel B. CEOs										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Salary	39.7	23.1	0.0	0.0	6.4	24.2	36.5	54.9	70.0	99.8	100.0
Fixed remuneration	6.2	14.2	0.0	0.0	0.0	0.0	1.6	5.5	12.6	73.8	100.0
Savings schemes	10.6	16.1	0.0	0.0	0.0	0.0	1.0	15.6	30.3	77.3	98.9
Other	5.7	13.3	0.0	0.0	0.0	0.4	2.2	4.8	10.7	91.4	92.7
Bonus	32.8	19.5	0.0	0.0	0.0	20.5	33.5	45.2	55.3	84.7	85.9
Shares	4.9	14.8	0.0	0.0	0.0	0.0	0.0	0.0	25.5	62.0	99.3
Options	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	8.8
Observations	167										

The table presents the breakdown in percentages of estimated remuneration. "Other" includes remuneration, attendance fees, membership of committees, and other items. "Bonus" is the sum of short and long-term variable remuneration. "Shares" includes the value of restricted shares on the grant date. "Options" includes the value of options granted during the year valued according to the Black-Scholes-Merton formula with dividends (see Appendix B.2). All the items are explained in Appendix B.1. Panel A includes non-CEO executive directors and Panel B includes CEOs.
Source: Compiled by author.

Shares constitute a mean average of 3.6% of the remuneration for non-CEO directors and 5% for CEOs, with a median value of zero in both subsamples. They exceeded 80% of the remuneration in the case of one CEO in 2013. Options have a lower mean average weight in both cases, standing at only 0.1% for CEOs and 1.2% for non-CEO directors (median of zero in both subsamples). This corroborates the concentration of these components, shares and options, in the upper part of the distribution that was already detected in absolute values in Tables 1 and 2. In fact, the

weight of options is zero at the 90th percentile of the distribution, both for non-CEO directors and CEOs. For CEOs, the maximum weight is 8.8% of estimated remuneration. In the case of shares, they account for at least 25% of the remuneration for the year for 10% of CEOs. Only 10% of non-CEO executive directors record a significant weight in shares.

Table 4 presents the mean values of each component over the 5 years of the sample for non-CEO executive directors (Panel A) and CEOs (Panel B). There are no major changes and no clear trend in the salary percentages, with the exception of the upturn of over 40% in 2017. The component of "Other" fell significantly, with a value in 2017 of less than one third of the value in 2013 in both panels. The bonus, in contrast, rose towards the end of the sample, where it accounted for around 30% of remuneration in both panels. Although with some volatility, the percentage of options fell in the final stretch of the sample, while that of shares followed the opposite path and rose. Fixed remuneration and contributions to savings schemes did not follow a clear trend and showed certain volatility during the sample.

Breakdown of the mean estimated remuneration in percentages per year TABLE 4

%

Panel A. Executive directors

Year	Salary	Fixed rem.	Sav. schemes	Other	Bonus	Shares	Options
2013	39.3	9.2	9.5	12.2	24.7	3.9	1.3
2014	37.1	7.9	10.5	11.7	28.4	2.9	1.5
2015	39.4	7.4	13.2	8.0	28.3	3.7	0.0
2016	38.8	9.1	11.8	5.8	29.9	4.4	0.2
2017	40.4	6.2	12.0	4.0	30.8	6.2	0.5

Panel B. CEOs

Year	Salary	Fixed rem.	Sav. schemes	Other	Bonus	Shares	Options
2013	36.8	10.2	10.8	15.1	21.9	3.0	2.1
2014	36.2	8.5	10.0	15.7	24.9	2.3	2.5
2015	38.3	10.5	15.3	9.5	22.5	4.0	0.0
2016	38.7	11.3	12.9	7.7	25.6	3.6	0.3
2017	42.2	8.3	9.9	4.0	29.4	5.5	0.7

The table presents the breakdown in percentages per year of the estimated mean remuneration. "Other" includes: attendance fees, membership of committees, and other items. "Bonus" is the sum of short and long-term variable remuneration. "Shares" includes the value of shares granted. "Options" includes options granted during the year valued according to the Black-Scholes-Merton formula with dividends (see Appendix B.2). All the items are explained in Appendix B.1. Panel A includes non-CEO executive directors and Panel B includes CEOs.
Source: Compiled by author.

Finally, the data obtained for Ibex 35 CEOs from Table 3 are compared with data available in other countries in Table 5. The data for other countries comes from Table 5 of the article by Edmans, Gabaix and Jenter (2017) for CEOs in 11 countries between 2002 and 2009.

The "Salary" variable in Table 5 covers the salary and fixed remuneration in Table 3 for Ibex 35 CEOs. Similarly, the item "Other" in Table 5 includes the contributions

to savings schemes in Table 3. The shares and options columns have also been added together. With these adjustments, the mean values of Panel B of Table 3 are added to the last row of Table 5. In addition, it is important to bear in mind that this sample is much smaller in size than that of other countries in the table and that it corresponds to different periods. The methodology for estimating the value of the restricted shares and the options is the same for every country.

With these caveats, the structure of remuneration of Ibex 35 CEOs can be compared with that of other similar countries and the mean of such countries. If we exclude the United States (with a weight of the component of shares and options that is much higher than in the other countries), Ibex 35 CEOs receive a percentage of fixed payment (salary and fixed remuneration) lower than the average of the other European countries (46% compared with 53%). The component "Other" is, however, higher than the average (16% compared with 10%), very possibly due to the contributions to savings schemes in the case of Spain. Ibex 35 CEOs receive a percentage of their remuneration in bonuses that is much higher than the European average (33% compared with 18%). In contrast the percentage of shares and options is considerably lower (5% compared with 19%). The country that is closest to the distribution of proportions of the Ibex 35 is Germany, with the exception of the component "Other" and that of options and shares (double that of the Ibex 35).

Average structure of the estimated remuneration in different countries TABLE 5

		Structure of the estimated remuneration			
Country	**Obs.**	**Salary**	**Other**	**Bonus**	**Stock & options**
Belgium	218	60	11	20	10
France	1,455	63	3	18	16
Germany	582	42	8	40	10
Ireland	406	47	11	15	27
Italy	488	57	20	14	9
Netherlands	583	49	13	19	19
Norway	227	77	7	10	7
Sweden	659	65	20	13	2
Switzerland	210	51	10	14	24
United Kingdom	3,957	48	9	17	26
European average	8,785	53	10	18	19
United States	13,361	30	6	22	42
Spain (Ibex 35)	167	46	16	33	5

This table includes the mean percentages of the remuneration of CEOs in 11 countries plus Spain. Data for other countries are taken from Table 5 of Edmans, Gabaix and Jenter (2017) and correspond to observations between 2002 and 2009. The data for Spain come from the average value column in Table 3 with the following adjustments: "Salary" and "Fixed remuneration" have been added together; "Other" includes savings schemes; "Shares" and "Options" have been added together. The methodology for calculating the value of the shares and options is same for every country.

Source: Compiled by author for Spanish data. Data for other countries comes from Table 5 in the article by Edmans, Gabaix and Jenter (2017) for CEOs from 11 countries between 2002 and 2009.

4 Analysis of directors' exposure to the company's return

This section investigates the connection between directors' remuneration and the different measures of added value for the shareholder. In an initial approximation, the average elasticity of the estimated remuneration of directors is quantified in relation to the company's return in the year. In the second approximation, an estimate is made for each individual director of the three measures of exposure of the director's portfolio of restricted shares and options with regard to expected changes in the value of the shares of the company studied in Section 2.

4.1 Average elasticity of the estimated remuneration in relation to the company's return

This first analysis is *ex post.* In this case, the aim is to quantify, on average, the percentage change in the director's estimated remuneration as a result of percentage changes in the added value for shareholders during the last year – i.e., the return of the company's shares. For this purpose, an average value of the measure (4) of Section 2 is employed: the elasticity of the directors' estimated remuneration in relation to the company's effective return. This analysis can be found in Hall and Liebman (1998) and Edmans, Gabaix and Jenter (2017). This will allow an initial approximation to the incentives of the directors in the analysed sample.

Specifically, the following regression is estimated:

$$Ln(Rem_{it}) = \alpha_i + \delta_i Ln\left(Cap_{i,t}\right) + \beta_i^1 Ln\left(1 + R_{i,t}\right) + \beta_i^2 Ln\left(1 + R_{i,t-1}\right) + \\ + \gamma_i^1 Ln\left(1 + R_{IBEX\,35,t}\right) + \gamma_i^2 Ln(1 + R_{IBEX\,35,t-1)} + \mu_{k\dagger} + \epsilon_{i,t}, \qquad (6)$$

where Rem_{it} denotes the estimated remuneration (or any of its components) of the director i in year t; $Cap_{i,t}$ denotes the capitalisation of the company (number of shares multiplied by share price) of director i in year t; $R_{i,t}$ and $R_{i,t-1}$ represent, respectively, the return of the company of director i in the current year, t, and the previous year, t-1; $R_{IBEX\,35,t}$ and $R_{IBEX\,35,t-1}$ represent, respectively, the return of the Ibex 35 index in the current year, t, and the previous year, t-1; and μ_k represents fixed sector effects, k.[13]

In order to present the results in a more concise manner, the salary, fixed remuneration, attendance fees, remuneration for belonging to committees, severance payments and contributions in the year to savings schemes are grouped together in a variable that we call "Non-variable remuneration". "Bonus" includes short and long-term variable remuneration. "Shares and options" shows the sum of these two components. "Estimated remuneration" is the sum of the three components.

13 By taking logarithms of all the variables, the coefficients are immediately interpreted as elasticities. If fixed effects for each year are included, the Ibex 35 variables disappear from the analysis as they are constant each year for every observation. In this case, the coefficients of the rest of the variables are practically identical to those of columns 2-5.

The fundamental objective is to estimate the coefficients β_i^1 and β_i^2, which measure the exposure of director *i* to the return on the shares of the company in year *t* and *t-1*, respectively. There is extensive evidence documented in numerous studies (e.g., Frydman and Saks, 2010) that CEO remuneration grows with the size of the company. The company's capitalisation is therefore included in the regression. In theory, it makes sense to think that the bonuses paid in the year are correlated with the stock return in the current year. However, salaries are likely to be updated in a given year according to the company's return in the previous year. There are also observations whose period overlaps between two consecutive years. For these reasons, the company's return in the year in progress and in the previous year are included. The return of the Ibex 35 index is introduced in order to check whether there is empirical evidence that the remuneration or any of its components are indexed to the market (represented by the Ibex 35). Should this be the case, the coefficient γ_i^1 or γ_i^2 is expected to be negative, which would indicate that the director's remuneration is set relative to market return in the current or previous year. Finally, some fixed effects by sector are included in order to control those non-observable variables in a certain sector that might condition the director's remuneration. The coefficients, in this case, have to be interpreted relative to the sector average.

Table 6 presents the results of the regression (6). Standard errors are clustered by company. Columns 6-9 include the fixed effects by sector. The positive relationship between non-variable remuneration and company size is confirmed. Specifically, for non-CEO executive directors (Panel A), for each percentage point that the company size rises, the remuneration not linked to incentives rises by 38.6 bp, significant at 1%, although the coefficient falls to 22.7 bp (significant at 10%) when the comparison is performed within each sector. There is also evidence that larger companies pay larger bonuses: when controlled for fixed effects by sector, directors' bonuses rise by 44.6 bp (significant at 5%) for every 1% increase in company size. In contrast, when the value of the company's capitalisation rises by 1%, the remuneration in shares and options falls significantly by between 1.4% and 2.21% (controlled for fixed effects by sector). This result is consistent with a concave relationship between company size and the interest that the director holds in the company: the larger the company, the lower the percentage of shares and options over shares held by the mean director.

The evidence on the exposure of the mean executive director (excluding CEOs) to the company's return is limited and not robust. Only the remuneration in shares and options increases significantly with the company's return (up to 10.5% per 1% increase in return, significant at 5%), although this relationship is largely mechanical given that the regression only includes observations with issues of shares or options in the year – among the companies that grant shares or options, the value of these increases with the return of the shares. Companies are apparently aware of this and that is why there is strong evidence of remuneration relative to the performance of the Ibex 35 for the case of shares and options. Companies seem to adjust the value of the shares and options that they grant so that they reflect actual creation of value beyond the market return, represented by the Ibex 35. Due to the low weight of restricted shares and options in total remuneration, these effects disappear when they are estimated using all the observations for the estimated remuneration of the last column.

In the case of CEOs (Panel B), it can be seen that the elasticity of total estimated remuneration with regard to company size is higher than that recorded in Panel A (33.6 bp when fixed effects by sector are included) and significant at 5%. The elasticity of the bonus with regard to size is also significant (56.4 bp, significant at 1%). However, the relationship between company size and remuneration in shares and options disappears. The sensitivity of shares and options with regard to the company's return is a little lower quantitatively than in Panel A, although still very significant economically (an increase of up to 7.8% per 1% of return) and statistically (significant at 1%). The evidence of indexation to the Ibex 35 is weaker in this case than in Panel A for shares and options but appears as significant for the bonus (significant only at 10% when fixed effects by sector are included).

In summary, larger companies tend to pay more to their executive directors and, particularly, to their CEOs. In particular, CEOs of larger companies receive, in relation to other companies in the sector, a larger bonus and more non-variable remuneration. There is no evidence that the effective remuneration of executive directors or CEOs is linked to the company's return except for the remuneration in shares and options, which exhibits a very high exposure. There is partial evidence that this component and the bonus are indexed to market return (Ibex 35), which is weaker in the case of CEOs.

The limitations of this exercise are evident. As the estimate comes from the regression of all the observations simultaneously, it is only possible to speak of *average exposure*. Tables 2 and 3 show that the distribution of the estimated remuneration is very skewed towards the top end of the sample, particularly for certain components such as long-term bonuses, shares and options. To speak of a "mean" director is to oversimplify: a great deal of relevant information and dispersion is lost. It would be desirable to quantify the exposure of each director on an individual basis.

At the same time, what is of interest for this study, according to the definitions set out in Section 2, is the director's exposure to *expected* changes in the shareholder value created, not to past changes. This information is ultimately linked to the incentives implicit in the director's portfolio of restricted shares and options and how its value changes as a result of future changes in the return of the company's shares. This is what we intend to study in the following section.

Results of the estimated remuneration in relation to the company's return

TABLE 6

Panel A. Executive directors

Variable	Ln(Non-variable)	Ln(Bonus)	Ln(Shares & opt.)	Ln(Estimated rem.)	Ln(Non-variable)	Ln(Bonus)	Ln(Shares & opt.)	Ln(Estimated rem.)
Ln(Cap_i,t)	0.386***	0.195	-1.408**	0.172	0.227*	0.446**	-2.212***	0.137
	(4.08)	(1.52)	(-2.60)	(1.01)	(1.83)	(2.36)	(-3.36)	(0.80)
Ln(1+R_i,t)	-0.210	-0.291	8.973*	-0.178	-0.351	-0.126	10.521**	0.058
	(-0.70)	(-0.61)	(2.00)	(-0.50)	(-0.90)	(-0.24)	(2.69)	(0.13)
Ln(1+R_i,t-1)	-0.323	-1.663**	4.856**	-0.293	-0.409	-1.267	2.159	-0.225
	(-1.11)	(-2.34)	(2.28)	(-0.75)	(-1.27)	(-1.63)	(1.14)	(-0.55)
Ln(1+R_Ibex35,t)	-1.543	0.746	-10.169***	-1.430	-1.293	0.548	-6.663**	-1.143
	(-1.36)	(0.77)	(-3.34)	(-1.18)	(-1.29)	(0.56)	(-2.31)	(-0.97)
Ln(1+R_Ibex35,t-1)	-0.915	1.290	1.270	-1.303	-0.801	0.814	3.040	-1.175
	(-1.13)	(1.41)	(0.31)	(-1.22)	(-1.04)	(0.92)	(0.72)	(-1.19)
Sector fixed effects	NO	NO	NO	NO	YES	YES	YES	YES
Constant	5.080**	8.966***	42.276***	10.269**	9.007***	3.323	57.245***	11.430***
	(2.25)	(2.98)	(3.28)	(2.64)	(3.04)	(0.74)	(3.83)	(2.81)
Observations	207	163	34	210	207	163	34	210
Adjusted R2	0.16	0.11	0.47	0.01	0.18	0.33	0.71	0.04

Panel B. CEOs

Variable	Ln(Non-variable)	Ln(Bonus)	Ln(Shares & opt.)	Ln(Estimated rem.)	Ln(Non-variable)	Ln(Bonus)	Ln(Shares & opt.)	Ln(Estimated rem.)
Ln(Cap_i,t)	0.304***	0.240*	0.031	0.295***	0.237*	0.564***	0.691	0.336**
	(3.18)	(1.73)	(0.03)	-2.87	(1.96)	(3.43)	(1.13)	(2.58)
Ln(1+R_i,t)	-0.356	-0.272	6.982	-0.446	-0.702	-0.415	9.524	-0.788*
	(-1.05)	(-0.65)	(1.06)	(-1.27)	(-1.63)	(-1.02)	(0.98)	(-1.74)
Ln(1+R_i,t-1)	-0.517*	-0.357	6.356**	-0.359	-0.743*	-0.425	7.846***	-0.540
	(-1.75)	(-0.83)	(2.52)	(-1.06)	(-1.93)	(-0.84)	(3.24)	(-1.32)
Ln(1+R_Ibex35,t)	-1.424*	-2.028**	-9.206	-1.518*	-1.002	-1.341*	-13.355*	-1.062
	(-1.81)	(-2.47)	(-1.40)	(-1.81)	(-1.41)	(-1.79)	(-1.90)	(-1.27)
Ln(1+R_Ibex35,t-1)	0.119	-0.297	-1.520	-0.265	0.084	-0.400	-3.276	-0.308
	(0.19)	(-0.34)	(-0.37)	(-0.33)	(0.16)	(-0.48)	(-0.51)	(-0.44)
Sector fixed effects	NO	NO	NO	NO	YES	YES	YES	YES
Constant	7.295***	8.269**	9.264	8.042***	8.801***	0.492	-9.357	7.036**
	(3.30)	(2.58)	(0.43)	(3.36)	(3.03)	(0.12)	(-0.68)	(2.25)
Observations	164	147	32	164	164	147	32	164
Adjusted R2	0.14	0.06	0.05	0.11	0.22	0.29	0.21	0.21

The table presents the results of the regression of the logarithm of the estimated remuneration (or any of its components) of director i in year t with regard to the logarithm of the following variables: Cap_(i,t) denotes the capitalisation of the company (number of shares times share price) of the director i in year t; R_i,t and R_i,t-1 represent, respectively, the return of the company of director i in the current year, t, and the previous year, t-1; R_Ibex35,t and R_Ibex35,t-1 represent, respectively, the return of the Ibex 35 index in the current year, t, and the previous year, t-1. Columns 6-9 include fixed sector effects, μ_k. "Non-variable remuneration" includes salary, fixed remuneration, attendance fees, remuneration for membership of commissions, severance payments and contributions for the year to savings schemes. "Bonus" includes short and long-term variable remuneration. "Shares and options" groups the value of the restricted shares and options granted during the year. "Estimated remuneration" is the sum of the three components. Standard errors are clustered by company. ***, **, * denote significant at 1%, 5% and 10%, respectively. Panel A includes non-CEO executive directors and Panel B includes CEOs.

Source: Compiled by author.

4.2 Exposure of the director's portfolio to changes in the company's return

In this section, the measures of exposure of the director's wealth to the company's return set out in Section 2 are used to quantify the alignment of incentives between directors and shareholders in the sample analysed.

Table 7 presents some statistical data on the composition, value and exposure of the two elements that determine the directors' portfolio at the end of each year: restricted shares and options.[14] Confirming the evidence of Table 2 on the change in the portfolio, 10% of the observations in the sample of executive directors (whether CEOs or not) have restricted shares or options at the end of a year during the sample period. CEOs have more restricted shares in their portfolio than non-CEO executive directors (four times more, on average) with an average value in euros that is three times higher. In contrast, CEOs have, on average, 20% fewer options in their portfolio, with an average value that is 30% lower at the end of the year.

This trend is confirmed when analysing the observations corresponding to the top 1% of the distribution and the maximum in the last two columns of the table. An analysis of the maximum values reveals that they may be very high, with a maximum value of options of 10.4 million euros in Panel A (non-CEO executive directors) and 21.2 million euros for restricted shares in Panel B (CEOs).

Finally, the sensitivity of restricted shares and options to changes in the price of the underlying share is studied. For restricted shares, this sensitivity coincides with the number of shares at the end of the year: this would be the amount (in euros) of the change in the director's wealth for each euro that the share price changes. In other words, the delta of the shares is 1. For options, the delta for each option is calculated according to the formula in Appendix B.2 and multiplied by the number of options at the end of the year. This measure indicates how much the director's wealth is expected to vary for each euro that the price of the underlying share varies. For non-CEO executive directors (Panel A), the sensitivity of the options is much higher than that of the shares: 58,465 euros compared with 13,253 euros on average. If the 99th percentile is analysed, the difference is also notable. In Panel B, for CEOs, the sensitivity of restricted shares and options is similar, although slightly higher for the former: 52,913 euros compared with 43,089 euros on average. If the 99th percentile is analysed, the conclusions are similar. Only for the maximum values of the sample is the relationship reversed.

14 The analysis of the long-term variable remuneration included in the bonus requires collecting additional data on the structure of such incentives and exceeds the scope of this study.

Exposure of directors' portfolio to the company's return

TABLE 7

	Panel A. Executive directors										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Number of restricted shares	13,253	65,328	0	0	0	0	0	0	0	350,000	662,613
Value of restricted shares (EUR)	266,275	1,015,532	0	0	0	0	0	0	512	5,275,272	5,631,582
Number of options	160,173	558,052	0	0	0	0	0	0	351,160	2,816,884	4,416,884
Value of options (EUR)	108,989	785,121	0	0	0	0	0	0	19,802	2,052,365	10,402,888
Aggregate delta of the options	58,465	255,649	0	0	0	0	0	0	58,267	1,235,318	2,550,481
Observations	211										

	Panel B. CEOs										
Item	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
Number of restricted shares	52,913	248,620	0	0	0	0	0	0	16,266	1,673,512	1,724,823
Value of restricted shares (EUR)	762,451	2,821,338	0	0	0	0	0	0	619,962	14,432,296	21,196,398
Number of options	131,888	494,000	0	0	0	0	0	0	300,000	2,900,000	3,891,859
Value of options (EUR)	76,566	444,861	0	0	0	0	0	0	14,036	2,106,907	4,925,676
Aggregate delta of the options	43,089	216,105	0	0	0	0	0	0	12,683	1,160,575	2,241,652
Observations	167										

For each director we calculate the number of restricted shares and options at the end of each year. The restricted shares are valued at the share price at the end of the year. Each option and its delta are valued according to the Black-Scholes-Merton formula with dividends in Appendix B.2 at the end of the year. In order to estimate the value of the options, the value of each option is multiplied by the number of options in the portfolio and added for all options in the director's portfolio at the end of the year. In order to estimate the aggregate delta of the portfolio, the number of options is multiplied by the delta of the option and added for all the options held in the director's portfolio at the end of the year. The aggregate delta of the options should be interpreted as the change in euros of the director's portfolio for each euro that the price of the underlying share changes. The delta of the shares matches, by definition, the number of restricted shares in the director's portfolio at the end of the year. Panel A includes non-CEO executive directors and Panel B includes CEOs.

Source: Compiled by author.

Table 8 analyses the three measures of directors' exposure to the company's return set out in Section 2.

The measure of equation (2), also called the Jensen-Murphy measure, is estimated first. The proportion of each director's holding in the company is calculated according to equation (5) and multiplied by 1,000. This indicates the expected variation in the value of the director's portfolio for every 1,000 euros of variation in the value of the company's shares. For non-CEO executive directors, the value of their portfolio would vary, on average, by 6 euro cents, with a very similar contribution from shares and options. The maximum of this amount is 2.38 euros. In Panel B, for CEOs, the average variation is 14 euro cents, with 9 euro cents from options and 5 euro cents from shares. The maximum variation is 9.21 euros. As a reference, when this measure was calculated for the first time for a sample of CEOs in the United States from 1975 to 1986, Jensen and Murphy (1990) estimated that the mean CEO's portfolio grew by 3.25 dollars for every 1,000-dollar increase in the value of the company's shares. This led them to state that CEOs are "paid like bureaucrats", i.e., with hardly any incentives. The Spanish data are, therefore, much more pessimistic *on average*, although the maximum values are relatively high. Hall and Liebman (1998) argued

that even if the CEOs' share of company profits is low (especially in large companies), monetary incentives may be high. This led to the following measure.

The second measure that is analysed corresponds to equation (3). Firstly, the distribution of the returns of all companies during the period of the sample is estimated. This distribution provides the return corresponding to the median (16.19%) and to the 75th percentile (33.68%). A calculation is then made of how much the value in euros of the director's portfolio of shares and options changes at the end of each year when the return hypothetically doubles, moving from the median return of the sample to the 75th percentile. The value of the restricted shares and options in each period is recalculated for each director in both scenarios and the variation in the value of the restricted shares, the options and the portfolio as a whole is estimated. If the return of the company's shares rises from 16% to 33%, the mean non-CEO executive director will see an increase in wealth of approximately 143,486 euros, of which over 100,000 euros would come from the options. For the 10% of observations with the highest growth, the increase in the portfolio's value would be at least 480,201 euros, reaching 4 million euros for the highest value. The average growth in the portfolio of CEOs is 188,520 euros, of which 111,764 comes from restricted shares. For the 10% of observations with highest growth, the minimum increase in the portfolio's value would be 901,932 euros, and would stand at 3.16 million euros for the highest value.

To put these quantities into perspective, it should be remembered that the estimated average remuneration in Table 2 is 2.3 million euros for non-CEO directors and 3.6 million euros for CEOs.

Finally, in order to express the aforementioned estimated amounts in relative terms, the elasticity of equation (4) is calculated for each director. Elasticity should be interpreted as the expected percentage change in the director's estimated wealth at the end of the year in response to changes in the company's return from 16% to 33%. All the components of the remuneration are assumed to remain fixed except for the value of the portfolio of restricted shares and options. Three possible scenarios are studied. Firstly, the case in which the director only receives restricted shares (i.e., their portfolio of options is ignored). In the second case, the elasticity is studied with the director only receiving options (ignoring, in this case, the portfolio of shares). Finally, the effect on the total portfolio of restricted shares and options held by the director is analysed. The average elasticity of the non-CEO executive directors of Panel A is 0.28, which means that when the company's return is doubled (from 16% to 33%), the mean director's remuneration rises by 28%. The fundamental contribution to elasticity comes from options, and reaches a value of 4.95 for the top 1% of the sample, with a maximum of 14.75 – clearly an outlier.[15] In comparison, the elasticity of the restricted shares is much lower, with a maximum value of 0.86. In Panel B, for CEOs, the average elasticity of the portfolio is 0.14 with a substantial contribution from the options (0.10), which reaches 2.55 at its highest value. As a reference, Frydman and Saks (2010) estimate the elasticity of the portfolio of shares and options for the three highest-paid executives in a sample of large US firms

15 It corresponds to a director who only received options in 2013.

between 2000 and 2005. The estimated median value is 4.2 for a change in the value of the shares between the median and the 70th percentile.

Measures of exposure of directors' portfolio of restricted shares and options TABLE 8

	Panel A. Executive directors										
Exposure measure	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
EUR for changes of EUR 1,000: shares	0.04	0.19	0	0	0	0	0	0	0.03	0.99	1.59
EUR for changes of EUR 1,000: options	0.03	0.14	0	0	0	0	0	0	0.00	0.55	1.39
EUR for changes of EUR 1,000: portfolio	0.06	0.29	0	0	0	0	0	0	0.09	1.84	2.38
EUR for changes from p50 to p75: shares	39,992	151,796	0	0	0	0	0	0	104	767,165	802,976
EUR for changes from p50 to p75: options	103,494	392,064	0	0	0	0	0	0	231,192	2,193,995	3,335,390
EUR for changes from p50 to p75: portfolio	143,486	470,438	0	0	0	0	0	0	480,201	2,193,995	4,059,261
Elasticity for changes from p50 to p75: shares	0.05	0.17	0	0	0	0	0	0	0.00	0.84	0.86
Elasticity for changes from p50 to p75: options	0.26	1.20	0	0	0	0	0	0	0.65	4.95	14.75
Elasticity for changes from p50 to p75: portfolio	0.28	1.19	0	0	0	0	0	0	0.68	4.95	14.75
Observations	211										

	Panel B. CEOs										
Exposure measure	**Mean**	**Std. dev.**	**Min.**	**p1**	**p10**	**p25**	**Median**	**p75**	**p90**	**p99**	**Max.**
EUR for changes of EUR 1,000: shares	0.05	0.27	0	0	0	0	0	0	0.03	2.34	2.38
EUR for changes of EUR 1,000: options	0.09	0.61	0	0	0	0	0	0	0.04	3.90	6.83
EUR for changes of EUR 1,000: portfolio	0.14	0.87	0	0	0	0	0	0	0.10	6.24	9.21
EUR for changes from p50 to p75: shares	111,764	395,557	0	0	0	0	0	0	92,096	2,023,400	2,597,632
EUR for changes from p50 to p75: options	76,756	243,114	0	0	0	0	0	0	233,471	1,252,289	1,257,689
EUR for changes from p50 to p75: portfolio	188,520	497,004	0	0	0	0	0	17,626	901,932	2,193,059	3,168,659
Elasticity for changes from p50 to p75: shares	0.07	0.19	0	0	0	0	0	0	0.35	0.86	0.86
Elasticity for changes from p50 to p75: options	0.10	0.33	0	0	0	0	0	0	0.35	1.63	2.55
Elasticity for changes from p50 to p75: portfolio	0.14	0.29	0	0	0	0	0	0.03	0.61	1.12	1.15
Observations	167										

The table presents three measures of exposure of the directors' portfolio of restricted shares and options to changes in the price of the shares. "EUR for changes of EUR 1,000" is also known as the Jensen-Murphy measure. For shares it is calculated by dividing the number of restricted shares in the director's portfolio by the number of the company's shares and multiplying by EUR 1,000. For options, it is calculated by multiplying the number of options by their delta and by EUR 1,000. For the portfolio, it is the sum of the two previous measures and corresponds to equation (5) of the article multiplied by EUR 1,000. "EUR for changes from p50 to p75" estimates the change in euros in the value of the director's shares, options and portfolio at the end of the year when the return on the company's shares changes from the median of the sample to the 75th percentile, i.e., from 16% to 33%. "Elasticity for changes from p50 to p75" is calculated as the percentage change in the expected wealth of the director assuming, respectively, that said director only receives restricted shares, options, or both, when the return on the company's shares rises from 16% to 33%. Panel A includes non-CEO executive directors and Panel B includes CEOs.
Source: Compiled by author.

In summary, the evidence set out in Tables 7 and 8 leads to the conclusion that Ibex 35 directors do not have, on average, sufficient incentives. However, if we focus on the top 10% of the sample that does have a portfolio of restricted shares and options, the incentives are significant. In response to a hypothetical 100% increase in the company's return, the expected wealth of CEOs would rise by at least 900,000 euros

(61% in relative terms) and up to 3.1 million euros (115% in relative terms). The incentives from options are stronger than those from restricted shares, especially for non-CEO executive directors.

5 Conclusion

The incentives for executive directors and CEOs of Ibex 35 companies between 2013 and 2017 have been analysed separately using the data that the companies themselves provide to the markets authority (CNMV) in their annual reports (ADRRs).

On average, executive directors (including CEOs) show very low exposure to the company's return. This is due to four factors highlighted in this analysis:

i) The variable remuneration (the bonus) accounts for an average of 33% of estimated remuneration among Ibex 35 CEOs. However, it is fundamentally short term.

ii) On average, the value of the restricted shares and options granted to the CEOs of Ibex 35 companies accounts for only 5% of their estimated annual remuneration, compared with an average of 19% in comparable countries.

iii) When the value of the company increases by 1,000 euros, the value of the expected wealth of the mean director increases by only 6 cents (14 cents in the case of CEOs).

iv) Only 10% of the directors in the sample have a portfolio of restricted shares or options.

When the incentives among the 10% of the observations that have a portfolio of restricted shares and options are analysed, the conclusions are somewhat more optimistic.

i) The average term of the options granted during the years of the sample is a little over 3 years, and in some cases reaches almost 6 years.

ii) A hypothetical 100% increase in the company's return would lead to an estimated increase of between 61% and 115% in the value of the expected wealth of CEOs.

iii) Directors' exposure to the company's return mainly comes through options and, to a lesser extent, through restricted shares.

Issues pending study are an analysis of the design of long-term bonuses and their impact on the company's accounting practices (earnings management), the relationship between incentives and risks, an in-depth analysis of the incentives implicit in savings schemes and the implications of the CEOs' exposure to the company's return for the investment and financing decisions that they take.

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Appendix A

Number of observations per company in the sample

TABLE A1

Company	Executive director (non-CEO)	CEO
ABENGOA, S.A.	2	2
ABERTIS INFRAESTRUCTURAS, S.A.	2	3
ACCIONA, S.A.	5	5
ACERINOX, S.A.	0	5
ACS, ACTIVIDADES DE CONSTRUCCIÓN Y SERVICIOS, S.A.	12	4
AENA, S.M.E., S.A.	0	3
AMADEUS IT GROUP, S.A.	0	4
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	11	5
BANCO DE SABADELL, S.A.	10	5
BANCO POPULAR ESPAÑOL, S.A.	9	4
BANCO SANTANDER, S.A.	17	7
BANKIA, S.A.	9	5
BANKINTER, S.A.	6	4
BOLSAS Y MERCADOS ESPAÑOLES, SDAD HOLDING	2	2
CAIXABANK, S.A.	4	6
CELLNEX TELECOM, S.A.	0	2
DISTRIBUIDORA INTERNACIONAL DE ALIMENTACIÓN, S.A.	0	5
EBRO FOODS, S.A.	0	1
ENAGÁS, S.A.	6	4
ENDESA, S.A.	6	4
FERROVIAL, S.A.	5	5
FOMENTO DE CONSTRUCCIONES Y CONTRATAS, S.A.	2	3
GAS NATURAL SDG, S.A.	4	5
GRIFOLS, S.A.	11	5
IBERDROLA, S.A.	3	5
INDRA SISTEMAS, S.A.	6	4

Number of observations per company in the sample *(continuation)* TABLE A1

Company	Executive director (non-CEO)	CEO
INDUSTRIA DE DISEÑO TEXTIL, S.A.	0	4
INMOBILIARIA COLONIAL, SOCIMI, S.A.	1	1
INTERNATIONAL CONSOLIDATED AIRLINES GROUP, S.A.	7	6
JAZZTEL, PLC.	2	2
MAPFRE, S.A.	20	5
MEDIASET ESPAÑA COMUNICACIÓN, S.A.	10	5
MELIÁ HOTELS INTERNATIONAL, S.A.	1	1
MERLIN PROPERTIES, SOCIMI, S.A.	3	3
OBRASCÓN HUARTE LAIN, S.A.	4	3
RED ELÉCTRICA CORPORACIÓN, S.A.	1	5
REPSOL, S.A.	7	4
SACYR, S.A.	0	4
SIEMENS GAMESA RENEWABLE ENERGY, S.A.	6	5
TÉCNICAS REUNIDAS, S.A.	5	5
TELEFÓNICA, S.A.	9	5
VISCOFÁN, S.A.	3	2
Total observations	**211**	**167**

Each observation corresponds to a director-company-year. All the CEOs are executives except for one who is independent.
Source: Compiled by author.

Appendix B

B.1 Definition of the components of directors' remuneration included in the analysis

According to CNMV Circular 4/2013, of 12 June:

Salary

Amount of the non-variable remuneration accrued by directors for their executive work.

Fixed remuneration

Amount of the remuneration paid in cash, with a pre-established payment frequency, whether or not this may expire over time, and accrued by the director for board membership, irrespective of his/her effective attendance at board meetings.

Remuneration for membership on board committees

Amount of items other than attendance fees received by directors for membership of board committees or advisory committees, irrespective of the director's effective attendance at the meetings of such committees.

Attendance fees

Amount of all the fees for attending board meetings and, where appropriate, board committee meetings.

Long-term savings schemes

The report must include all the long-term savings plans, including retirement plans and any other survival benefits, both partially or fully funded by the company, and whether allocated internally or externally.

Severance payments

Any remuneration accrued by the director for the termination of the relationship linking him/her with the company.

Other items

Total amount of the remaining remuneration accrued in the year not covered in the previous items or in any of the following sections, including remuneration in kind. Remuneration in kind will be measured at the cost for the company of the director using, consuming or obtaining the goods, rights or services.

Short-term variable remuneration

Variable amount linked to performance or the achievement of a series of individual or group objectives (quantitative or qualitative) in an accrual period equal to or less than one financial year. For the purposes of this Circular, the director will be understood to have accrued the short-term variable remuneration on the end date of the accrual period. The accrual period is the period of time over which the director's performance is measured for the purposes of determining the short-term variable remuneration, irrespective of the method or periods stipulated for payment of said remuneration or whether payment is subject to deferment, withholding, *ex post* adjustment *malus* clauses or clawback clauses.

Long-term variable remuneration

Variable amount linked to performance or the achievement of a series of individual or group objectives (quantitative or qualitative) in an accrual period greater than one financial year. For the purposes of this Circular, the director will be understood to have accrued the long-term variable remuneration on the end date of the accrual period. The accrual period is the period of time over which the director's performance is measured for the purposes of determining the long-term variable remuneration, irrespective of the method or periods stipulated for payment of said

remuneration or whether payment is subject to deferment, withholding, *ex post* adjustment *malus* clauses or clawback clauses.

Gross profit

In the case of stock options, positive difference between the listed price of the shares on the settlement date of the option and the exercise price, multiplied by the number of shares subject to the exercise option. Any cash settlement will correspond to the gross amount paid to the director by virtue of said settlement. In the case of share appreciation rights, the positive difference between the list price of the shares on the settlement date of the share appreciation rights and the strike price, multiplied by the number of rights granted.

Shares awarded during the year

Number of shares awarded during year *t* which are not subject to further conditions, without prejudice to the applicability of clawback clauses.

Options allocated during the year

Options granted to the director, although ownership remains dependent on the corresponding scheme to which they are subject.

Strike price

Purchase price in euros of the shares to which the option gives the right of purchase according to the conditions of the plan or the value of the share in euros based on which the share appreciation rights will be settled.

Exercise term

Period of time in which directors may exercise the options over which they have effectively obtained ownership, or in which the share appreciation rights will be settled. The period stated will be the maximum period, without prejudice to any time restrictions on the sale.

B.2 Valuation of options according to the Black-Scholes-Merton model with dividends

For the valuation of call options, we follow the same procedure as in Coles, Daniel and Naveen (2006). The formula used is as follows:

$$C = Se^{-qT}N(d_1) - Xe^{-rT}N(d_2),$$

$$d_1 = \frac{\ln\left(\frac{S}{X}\right) + \left(r - q + \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}},$$

$$d_2 = \frac{\ln\left(\frac{S}{X}\right) + \left(r - q - \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}}.$$

Where:

- C is the value of a European call option.
- S is the price of the share at the time it is valued adjusted for stock splits or reverse stock splits. If the grant date is not specified, it is considered to be granted in the middle of the year (1 July).
- X is the **strike price** as it appears in the ADRR.
- T if the **strike term** as it appears in the ADRR. It corresponds to the time expressed in years from the valuation date up to the expiration of the option.
- r is the risk-free rate of return. We use the annual yield on the German bond on the valuation date and with maturity equal to the (rounded) maturity of the option.
- σ is the standard deviation of the stock return over the last 60 months "winsorised" between 5% and 95%.
- q is the average annualised dividend yield over the past 24 months "winsorised" between 5% and 95%.
- N is the cumulative probability distribution of a standardised normal variable.

In order to calculate the sensitivity of the value of the option to changes in the price of the underlying share, we use the following delta formula:

$$\Delta = \frac{\partial C}{\partial S} = e^{-qT} N(d_1).$$

During the period considered in the sample, 26 new issues of options for director remuneration were detected. The following table details the essential statistical data of the aforementioned variables in these new issues.

Variables of stock options granted

TABLE B2

	Issues	Mean	Std. dev.	Minimum	Maximum	Observ.
S	Euros	14,192	15,991	1,543	66,760	26
X	Euros	14,303	16,479	1,350	62,840	26
T	Years	3.330	0.870	1.751	5.819	26
r	Perc. points	-0.002	0.004	-0.007	0.007	26
q	Perc. points	0.056	0.034	0.011	0.107	26
σ	Perc. points	0.088	0.021	0.058	0.119	26

Source: Compiled by author.

III Legislative annex

New legislation since publication of the CNMV bulletin for the last quarter of 2018 is as follows:

Spanish legislation

– Constitutional Law 1/2019, of 20 February, amending Constitutional Law 10/1995, of 23 November, on the Criminal Code, in order to transpose European Union Directives in the areas of finance and terrorism, and address international issues.

The purpose of this Constitutional Law is to transpose Directive 2014/57/EU of the European Parliament and of the Council, of 16 April 2014, on criminal sanctions for market abuse; Directive 2017/541/EU of the European Parliament and of the Council, of 15 March 2017, on combating terrorism; and Directive (EU) 2017/1371 of the European Parliament and of the Council, of 5 July 2017, on the fight against fraud to the Union's financial interests by means of criminal law, as well as the further transposition of Directive 2014/62/EU of the European Parliament and of the Council, of 15 May 2014, on the protection of the euro and other currencies against counterfeiting by criminal law.

The transposition of Directive 2014/57/EU provides for three distinct types of criminal offences along the lines followed by the Directive itself, which requires Member States to classify insider trading operations as criminal offences (at least in serious cases and when committed intentionally), which includes recommending or inducing another person to engage in insider trading; the unlawful disclosure of inside information; and market manipulation, in the terms specified in Articles 3 to 5. This is all in order to guarantee, firstly, the integrity of the Union's financial markets and, secondly, to increase investor protection and confidence in those markets.

In addition, it requires classifying acts of incitement, complicity and attempts to perform the aforementioned operations as criminal offences, as well as taking into account the liability of legal persons in relation to the commission of such criminal actions.

This Directive is part of the package also comprising Regulation (EU) 596/2014 of the European Parliament and of the Council, of 16 April 2014, on market abuse, which has been supplemented by two further regulations: Commission Delegated Regulation (EU) 2016/522, of 17 December 2015, as regards an exemption for certain third countries' public bodies and central banks, the indicators of market manipulation, the disclosure thresholds, the competent authority for notifications of delays, the permission for trading during closed periods and types of notifiable managers' transactions; and Commission Delegated Regulation (EU) 2016/957, of 9 March 2016, with regard to regulatory technical standards for the appropriate arrangements, systems and procedures as well as notification templates to be used for preventing, detecting and reporting abusive practices or suspicious orders or transactions.

The legislator has opted for criminal classifications which, in the most severe cases of market manipulation and insider trading, are classified as serious offences. The legal principle protected is not so much concerned with the assets or the socioeconomic system itself, but rather with the integrity of the markets and the confidence of the investors acting in them.

The transposition of this Directive requires a specific amendment to the Criminal Code, in order to adjust the content of its Articles 284 and 285 to the provisions of the said Directive, as well as to include a precept that expands, in the terms of this Directive, the conceptual scope of those precepts.

In addition, three new precepts have been incorporated into the Criminal Code: Article 285 *bis*, to criminalise the unlawful communication of inside information when this endangers the integrity of the market or investor confidence; Article 285 *ter*, to link the conceptual contents (financial instruments, contracts, conduct, operations and envisaged orders) to European and Spanish regulations on the market and financial instruments, with full respect for the principle of legality; and Article 285 *quater*, to expressly establish the punishment of acts of proposition, conspiracy and provocation of the three aforementioned crimes. The punishment applicable to acts committed by a legal person is also amended, when the criminal liability thereof is declared, to align it with the seriousness of the conduct of natural persons.

Directive (EU) 2017/1371 of the European Parliament and of the Council, of 5 July 2017, on the fight against fraud to the Union's financial interests by means of criminal law, involves the harmonised regulation of these types of fraud, as well as the criminalisation of other forms of conduct closely related to them: money laundering, bribery and embezzlement. One of the first new features of the Directive is the increase in the amount of defrauded tax liability to determine the criminal offence against the European Union's finances, with the corresponding articles having been adapted for this purpose. Similarly, and in order to resolve insolvency problems that arose in practice in the application of Articles 306 and 308, a joint regulation has been opted for.

In addition, a new feature introduced by the Directive in Article 4.4(b) expands the concept of public official that must be taken into account in offences of bribery and embezzlement (foreign and European Union officials for bribery offences).

Furthermore, the transposition of Directive 2014/62/EU of the European Parliament and of the Council, of 15 May 2014, on the protection of the euro and other currencies against counterfeiting by criminal law, is completed.

Finally, the regulation of offences of corruption is finalised in accordance with the guidelines of the Group of States Against Corruption (GRECO).

This constitutional law shall enter into force 20 days after its publication in the *BOE* (Official State Gazette).

– Law 1/2019, of 20 February, on Business Secrets.

– CNMV Resolution of 20 February 2019, approving the code of conduct relating to investments by non-profit entities.

– Order ECE/228/2019, of 28 February, on basic payment accounts, the payment account transfer procedure and comparison website requirements.

– Royal Decree-Law 5/2019, of 1 March, on contingency measures in the event of the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union without the agreement provided for in Article 50 of the Treaty on European Union having been ratified.

  The purpose of this Royal Decree-Law is the adoption of measures to adapt the Spanish legal system in order to deal with the consequences of the withdrawal of the European Union from the United Kingdom of Great Britain and Northern Ireland, and the Colony of Gibraltar, without an agreement concluded in accordance with Article 50.2 of the Treaty on the European Union.

  Worthy of note is Chapter IV, Economic Activities, Section 1, Financial Services. This establishes a framework for ensuring the continuity of financial service contracts provided in Spain by financial institutions established in the United Kingdom or Gibraltar. A withdrawal without agreement (no deal) by the United Kingdom from the European Union could have consequences for the financial system.

  In order to avoid a situation in which increased uncertainty and loss of access to the European market could affect financial stability or even harm the customers of financial services, a section is included with contingency measures related to financial services. This section supplements the measures taken by the European Commission, which has limited its action to ensuring the critical functions of the European financial system that depend on access to the UK market.

  This Royal Decree-Law shall enter into force on the date on which the Treaties of the European Union cease to apply to the United Kingdom, in accordance with Article 50.3 of the Treaty on the European Union.

  However, this Royal Decree-Law shall not enter into force if, prior to that date, a withdrawal agreement between the European Union and the United Kingdom has entered into force in accordance with Article 50.2 of the Treaty on the European Union.

– Royal Decree 102/2019, of 1 March, creating the Macro-prudential Authority Financial Stability Council, establishing its legal regime and implementing certain aspects related to macro-prudential tools.

  Its purpose is to create the Macro-prudential Authority Financial Stability Council (Spanish acronym: AMCESFI) as a national macro-prudential authority aimed at identifying, preventing and mitigating the development of systemic

risk and ensuring a sustainable contribution of the financial system to economic growth and the development of the macro-prudential tools that may be adopted by the Bank of Spain, the CNMV and the Directorate-General for Insurance and Pension Funds, as well as the procedure for their communication to the AMCESFI prior to their adoption.

– Royal Decree-Law 6/2019, of 1 March, on urgent measures to guarantee equal treatment and opportunities for women and men in employment and occupation.

– Law 5/2019, of 15 March, which regulates real estate loan agreements.

The purpose of this Law is to establish certain rules for the protection of natural persons who are debtors or guarantors of loans that are guaranteed by means of a mortgage or other *in rem* rights of guarantee on immovable property for residential use, or whose purpose is to acquire or retain property rights on land or immovable property constructed or to be constructed.

The First Final Provision amends the Mortgage Act in order to incorporate improvements to borrower protection in matters of early maturity and delay interests, as well as other improvements of a technical nature.

The Third Final Provision amends Law 2/1994, of 30 March, on subrogation and modification of mortgage loans, amended by Law 41/2007, of 7 December, which amends Law 2/1981, of 25 March, on the Regulation of the Mortgage Market and other rules applicable to the mortgage and financial system, on the regulation of reverse mortgages and dependency insurance and establishing specific tax legislation.

The Seventh Final Provision amends Law 44/2002, of 22 November, on Financial System Reform Measures, in order to give all real estate lenders access to the Bank of Spain's Risk Information Centre.

The Eleventh Final Provision amends Law 9/2012, of 14 November, on the restructuring and resolution of credit institutions, in order to clarify the necessary conditions and requirements under which Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria, S.A. may bring enforcement proceedings for the purposes of effectively performing the functions entrusted to it, retaining its position to execute the collateral of the financial assets acquired. This measure falls under the sole corporate purpose of Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria, S.A. and is in the public interest as a result of its activity within the process to restructure and reorganise the Spanish banking sector.

This Law shall enter into effect three months after its publication in the *BOE* (Official State Gazette).

European legislation

- Commission Implementing Regulation (EU) 2019/255, of 13 February 2019, amending Implementing Regulation (EU) No. 821/2014 laying down rules for the application of Regulation (EU) No. 1303/2013 of the European Parliament and of the Council as regards detailed arrangements for the transfer and management of programme contributions, the reporting on financial instruments, technical characteristics of information and communication measures for operations and the system to record and store data.

- Commission Delegated Regulation (EU) 2019/396, of 19 December 2018, amending Delegated Regulation (EU) 2015/2205, Delegated Regulation (EU) 2016/592 and Delegated Regulation (EU) 2016/1178 supplementing Regulation (EU) No. 648/2012 of the European Parliament and of the Council as regards the date at which the clearing obligation takes effect for certain types of contracts.

- Commission Delegated Regulation (EU) 2019/397, of 19 December 2018, amending Delegated Regulation (EU) 2016/2251 supplementing Regulation (EU) No. 648/2012 of the European Parliament and of the Council as regards the date until which counterparties may continue to apply their risk-management procedures for certain OTC derivative contracts not cleared by a CCP.

Other

- Resolution of 25 February 2019, of the State Attorney's Office-State Legal Department, publishing the Legal Assistance Agreement with the Spanish National Securities Market Commission.

- Resolution of 6 March 2019, of the Independent Office for Regulation and Supervision of Contracts, publishing Instruction 1/2019, of 28 February, on minor contracts, regulated by Law 9/2017, of 8 November.

IV Statistics annex

1 Markets

1.1 Equity

Share issues and public offerings[1]

TABLE 1.1

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[2]
NO. OF ISSUERS								
Total	45	46	46	15	12	19	24	13
Capital increases	45	44	45	14	12	19	24	13
Primary offerings	3	3	2	0	0	0	2	1
Bonus issues	18	12	12	5	2	5	5	5
Of which, scrip dividend	12	9	10	5	2	5	3	5
Capital increases by conversion	8	5	6	1	4	2	2	2
For non-monetary consideration	3	8	7	2	0	3	3	0
With pre-emptive subscription rights	11	8	10	4	1	2	3	2
Without trading warrants	11	15	16	4	5	7	10	3
Secondary offerings	2	4	1	1	0	0	0	0
NO. OF ISSUES								
Total	81	89	81	22	14	19	26	13
Capital increases	79	82	80	21	14	19	26	13
Primary offerings	4	4	2	0	0	0	2	1
Bonus issues	25	16	17	5	2	5	5	5
Of which, scrip dividend	19	13	15	5	2	5	3	5
Capital increases by conversion	17	6	10	1	5	2	2	2
For non-monetary consideration	4	12	9	3	0	3	3	0
With pre-emptive subscription rights	11	8	10	4	1	2	3	2
Without trading warrants	18	36	32	8	6	7	11	3
Secondary offerings	2	7	1	1	0	0	0	0
CASH VALUE (million euro)								
Total	20,251.7	32,538.1	12,063.2	3,995.4	559.2	3,897.0	3,611.7	515.1
Capital increases	19,745.1	29,593.6	11,329.5	3,261.7	559.2	3,897.0	3,611.7	515.1
Primary offerings	807.6	956.2	200.1	0.0	0.0	0.0	200.1	10.0
Bonus issues	5,898.3	3,807.3	3,939.7	1,362.8	133.1	2,120.3	323.5	310.7
Of which, scrip dividend	5,898.3	3,807.3	3,915.2	1,362.8	133.1	2,120.3	299.0	310.7
Capital increases by conversion	2,343.9	1,648.8	388.7	1.6	223.9	153.3	9.9	13.0
For non-monetary consideration[3]	1,791.7	8,469.3	2,999.7	1,179.1	0.0	1,263.4	557.3	0.0
With pre-emptive subscription rights	6,513.3	7,831.4	888.4	574.7	63.0	109.2	141.5	171.0
Without trading warrants	2,390.2	6,880.5	2,912.9	143.5	139.2	250.7	2,379.5	10.5
Secondary offerings	506.6	2,944.5	733.7	733.7	0.0	0.0	0.0	0.0
NOMINAL VALUE (million euro)								
Total	4,206.1	3,165.1	2,092.4	1,104.8	119.4	388.5	479.7	214.2
Capital increases	4,189.8	2,662.8	1,810.6	823.0	119.4	388.5	479.7	214.2
Primary offerings	28.2	749.2	104.9	0.0	0.0	0.0	104.9	0.5
Bonus issues	877.8	324.3	381.6	132.6	1.5	170.8	76.7	140.9
Of which, scrip dividend	708.0	299.1	357.1	132.6	1.5	170.8	52.2	140.9
Capital increases by conversion	648.0	182.8	90.0	1.6	84.8	2.7	1.0	12.4
For non-monetary consideration	248.9	181.9	557.6	220.7	0.0	132.7	204.1	0.0
With pre-emptive subscription rights	1,403.0	882.0	611.1	448.6	17.5	76.6	68.3	60.1
Without trading warrants	983.9	342.6	65.5	19.5	15.6	5.6	24.7	0.2
Secondary offerings	16.3	502.3	281.7	281.7	0.0	0.0	0.0	0.0
Pro memoria: transactions MAB[4]								
No. of Issuers	15	13	8	1	3	3	2	4
No. of Issues	21	15	12	3	3	4	2	4
Cash value (million euro)	219.7	129.9	164.5	13.2	95.7	52.3	3.4	17.3
Capital increases	219.7	129.9	164.5	13.2	95.7	52.3	3.4	17.3
Of which, primary offerings	9.7	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Secondary offerings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Registered transactions at the CNMV. Does not include data from MAB, ETF or Latibex.
2 Available data: February 2019.
3 Capital increases for non-monetary consideration are valued at market prices.
4 Unregistered transactions at the CNMV. Source: BME and CNMV.

Companies listed[1]

TABLE 1.2

				2018				2019
	2016	2017	2018	I	II	III	IV	I[2]
Total electronic market[3]	130	134	133	133	133	131	133	132
Of which, foreign companies	7	7	8	7	7	8	8	8
Second Market	5	4	4	4	4	4	4	4
Madrid	2	1	1	1	1	1	1	1
Barcelona	3	3	3	3	3	3	3	3
Bilbao	0	0	0	0	0	0	0	0
Valencia	0	0	0	0	0	0	0	0
Open outcry	14	12	11	11	11	11	11	11
Madrid	5	4	4	4	4	4	4	4
Barcelona	8	6	6	6	6	6	6	6
Bilbao	5	4	3	3	3	3	3	3
Valencia	3	3	3	3	3	3	3	3
MAB[4]	3,336	2,965	2,842	2,910	2,879	2,856	2,842	2,821
Latibex	20	20	19	20	20	19	19	19

1 Data at the end of period.
2 Available data: February 2019.
3 Without ETFs (Exchange Traded Funds).
4 Alternative Stock Market.

Capitalisation[1]

TABLE 1.3

				2018				2019
Million euro	2016	2017	2018	I	II	III	IV	I[2]
Total electronic market[3]	779,123.8	877,867.6	733,656.4	853,412.1	869,858.7	833,728.9	733,656.4	819,168.6
Of which, foreign companies[4]	151,043.2	178,620.3	143,598.7	177,079.4	184,514.8	183,387.7	143,598.7	176,119.5
Ibex 35	484,059.2	534,250.1	444,178.3	511,770.8	494,267.2	482,579.5	444,178.3	471,518.1
Second Market	114.1	49.9	37.4	49.7	38.2	39.3	37.4	45.5
Madrid	72.0	8.7	1.9	8.7	2.2	3.3	1.9	1.8
Barcelona	42.1	41.2	35.4	41.0	36.0	36.0	35.4	43.7
Bilbao	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valencia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Open outcry	1,291.6	1,288.5	1,459.1	1,429.0	1,565.6	1,532.3	1,459.1	1,435.9
Madrid	289.9	165.9	219.4	164.4	254.4	234.2	219.4	219.4
Barcelona	1,136.6	1,134.3	1,318.4	1,276.7	1,432.7	1,399.3	1,318.4	1,298.5
Bilbao	54.0	211.3	56.5	209.1	283.5	263.3	56.5	56.5
Valencia	349.2	54.0	257.0	56.4	53.5	54.1	257.0	253.7
MAB[5, 6]	38,580.8	43,804.8	40,020.7	41,411.4	40,960.3	43,032.7	40,020.7	41,995.1
Latibex	198,529.6	215,277.7	223,491.3	284,843.2	209,870.5	239,781.3	223,491.3	223,630.7

1 Data at the end of period.
2 Available data: February 2019.
3 Without ETFs (Exchange Traded Funds).
4 Foreign companies capitalisation includes their entire shares, whether they are deposited in Spain or not.
5 Calculated only with outstanding shares, not including treasury shares, because capital stock is not reported until the end of the year.
6 Alternative Stock Market.

Trading

TABLE 1.4

				2018				2019
Million euro	2016	2017	2018	I	II	III	IV	I[1]
Total electronic market[2]	635,797.8	640,293.7	583,327.6	144,284.5	190,087.9	116,892.9	132,062.2	72,730.8
Of which, foreign companies	6,018.0	6,908.0	3,517.1	1,153.0	805.6	841.5	717.0	621.6
Second Market	3.1	0.7	0.8	0.1	0.3	0.4	0.0	0.0
Madrid	2.7	0.5	0.6	0.0	0.1	0.4	0.0	0.0
Barcelona	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0
Bilbao	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valencia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Open outcry	7.4	8.1	8.2	1.0	3.1	2.0	2.1	0.6
Madrid	3.2	2.3	0.7	0.0	0.0	0.1	0.7	0.0
Barcelona	4.2	6.2	7.4	0.9	3.1	1.9	1.4	0.6
Bilbao	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Valencia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAB[3]	5,055.1	4,985.6	4,216.3	1,401.5	1,020.4	762.0	1,032.3	633.1
Latibex	156.4	130.8	151.6	43.8	33.2	31.6	43.0	28.0

1 Available data: February 2019.
2 Without ETFs (Exchange Traded Funds).
3 Alternative Stock Market.

Trading on the electronic market by type of transaction[1]

TABLE 1.5

				2018				2019
Million euro	2016	2017	2018	I	II	III	IV	I[2]
Regular trading	619,351.6	619,108.6	552,716.8	140,550.3	172,034.7	113,345.0	126,786.8	69,678.3
Orders	346,980.8	335,917.3	300,107.8	82,614.6	75,366.9	70,956.2	71,170.0	40,890.6
Put-throughs	68,990.5	51,315.9	48,644.1	11,599.5	15,435.6	10,691.5	10,917.4	6,563.8
Block trades	203,380.2	231,875.3	203,965.0	46,336.1	81,232.2	31,697.3	44,699.3	22,223.9
Off-hours	1,996.2	2,373.8	1,667.2	421.1	746.6	154.0	345.5	444.1
Authorised trades	12,667.0	9,265.3	2,597.0	551.2	551.9	720.9	772.9	364.8
Art. 36.1 SML trades	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tender offers	788.4	389.9	18,981.7	843.2	15,368.8	1,474.8	1,294.8	1,667.2
Public offerings for sale	777.5	2,288.1	1,333.2	710.2	0.0	89.0	534.0	0.0
Declared trades	37.3	0.0	200.0	0.0	0.0	0.0	200.0	0.0
Options	5,408.3	4,462.2	3,793.9	604.9	921.3	627.2	1,640.5	305.3
Hedge transactions	1,833.8	2,405.7	2,037.8	603.6	464.6	482.0	487.6	271.1

1 Without ETFs (Exchange Traded Funds).
2 Available data: February 2019.

1.2 Fixed-income

Gross issues registered at the CNMV

TABLE 1.6

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[1]
NO. OF ISSUERS								
Total	51	48	43	15	16	16	20	14
Mortgage covered bonds	13	9	12	3	4	4	7	5
Territorial covered bonds	3	1	2	0	0	0	2	0
Non-convertible bonds and debentures	16	16	12	9	7	7	7	8
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	20	21	14	3	4	2	6	1
Commercial paper	14	13	13	3	0	6	4	2
Of which, asset-backed	1	1	1	1	0	0	0	0
Of which, non-asset-backed	13	12	12	2	0	6	4	2
Other fixed-income issues	1	1	0	0	0	0	0	0
Preference shares	0	1	4	1	1	1	1	0
NO. OF ISSUES								
Total	399	378	303	89	69	69	76	50
Mortgage covered bonds	41	28	28	7	4	4	13	7
Territorial covered bonds	4	1	2	0	0	0	2	0
Non-convertible bonds and debentures	277	276	215	70	52	53	40	40
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	61	58	41	8	12	5	16	1
Commercial paper[2]	15	13	13	3	0	6	4	2
Of which, asset-backed	1	1	1	1	0	0	0	0
Of which, non-asset-backed	14	12	12	2	0	6	4	2
Other fixed-income issues	1	1	0	0	0	0	0	0
Preference shares	0	1	4	1	1	1	1	0
NOMINAL AMOUNT (million euro)								
Total	139,028.2	109,487.4	101,295.6	20,204.9	10,864.7	11,793.1	58,433.0	17,467.5
Mortgage covered bonds	31,642.5	29,823.7	26,575.0	5,125.0	1,700.0	5,050.0	14,700.0	2,645.0
Territorial covered bonds	7,250.0	350.0	2,800.0	0.0	0.0	0.0	2,800.0	0.0
Non-convertible bonds and debentures	40,170.4	30,006.2	35,836.4	4,983.4	1,176.6	1,430.7	28,245.7	12,461.5
Convertible bonds and debentures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Backed securities	35,504.9	29,415.4	18,145.2	5,430.7	3,754.0	1,048.0	7,912.5	1,000.0
Commercial paper[3]	22,960.4	17,911.2	15,089.1	3,415.8	3,884.1	3,264.4	4,524.8	1,361.0
Of which, asset-backed	1,880.0	1,800.0	240.0	0.0	240.0	0.0	0.0	0.0
Of which, non-asset-backed	21,080.4	16,111.2	14,849.1	3,415.8	3,644.1	3,264.4	4,524.8	1,361.0
Other fixed-income issues	1,500.0	981.0	0.0	0.0	0.0	0.0	0.0	0.0
Preference shares	0.0	1,000.0	2,850.0	1,250.0	350.0	1,000.0	250.0	0.0
Pro memoria:								
Subordinated issues	4,278.7	6,504.6	4,923.0	1,856.5	832.0	933.2	1,301.3	350.0
Underwritten issues	421.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: February 2019.
2 Shelf registrations.
3 The figures for commercial paper refer to the amount placed.

Issues admitted to trading on AIAF[1]

TABLE 1.7

Nominal amount in million euro	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[2]
Total	130,141.0	121,556.6	76,751.3	30,948.9	9,852.9	10,932.3	25,017.2	39,635.5
Commercial paper	22,770.6	18,388.9	15,007.0	3,201.6	3,934.0	2,797.8	5,073.5	1,472.9
Bonds and debentures	31,723.0	43,182.3	19,234.2	15,161.5	918.9	852.5	2,301.2	26,147.6
Mortgage covered bonds	31,392.5	30,000.0	19,935.0	5,125.0	1,700.0	5,050.0	8,060.0	9,015.0
Territorial covered bonds	7,250.0	350.0	800.0	0.0	0.0	0.0	800.0	2,000.0
Backed securities	35,504.9	28,635.4	18,925.2	6,210.7	2,950.0	1,232.0	8,532.5	1,000.0
Preference shares	0.0	1,000.0	2,850.0	1,250.0	350.0	1,000.0	250.0	0.0
Matador bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other fixed-income issues	1,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Includes only corporate bonds.
2 Available data: February 2019.

AIAF. Issuers, issues and outstanding balance

TABLE 1.8

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[1]
NO. OF ISSUERS								
Total	375	362	353	370	362	363	353	349
Corporate bonds	374	342	320	343	330	330	320	317
Commercial paper	14	14	9	13	13	11	9	9
Bonds and debentures	52	48	45	48	46	46	45	44
Mortgage covered bonds	43	41	40	41	41	41	40	38
Territorial covered bonds	9	7	7	7	7	7	7	7
Backed securities	276	262	244	265	254	253	244	242
Preference shares	9	4	7	4	5	6	7	6
Matador bonds	6	6	5	6	5	5	5	5
Government bonds	1	20	33	27	32	33	33	32
Letras del Tesoro	1	1	1	1	1	1	1	1
Long government bonds	1	1	1	1	1	1	1	1
Regional goverments debt	–	11	14	14	14	14	14	13
Foreign public debt	–	–	9	3	8	9	9	9
Other public debt	–	7	8	8	8	8	8	8
NO. OF ISSUES								
Total	2,637	2,468	2,851	2,563	2,890	2,881	2,851	2,845
Corporate bonds	2,433	2,084	1,917	2,059	1,999	1,964	1,917	1,903
Commercial paper	351	179	106	137	122	101	106	100
Bonds and debentures	856	764	737	781	768	755	737	741
Mortgage covered bonds	231	218	213	215	213	211	213	210
Territorial covered bonds	29	24	20	24	22	22	20	21
Backed securities	948	889	828	891	863	863	828	819
Preference shares	12	4	8	5	6	7	8	7
Matador bonds	6	6	5	6	5	5	5	5
Government bonds	204	384	934	504	891	917	934	942
Letras del Tesoro	12	12	12	12	12	12	12	12
Long government bonds	192	226	243	230	228	226	243	240
Regional goverments debt	–	133	164	170	165	163	164	164
Foreign public debt	–	–	502	75	470	500	502	513
Other public debt	–	13	13	17	16	16	13	13
OUTSTANDING BALANCE[2] (million euro)								
Total	1,408,556.6	1,466,964.4	6,663,565.5	2,594,094.1	6,770,127.9	6,688,189.9	6,663,565.5	6,682,207.7
Corporate bonds	531,056.9	493,629.6	448,394.4	500,535.2	482,204.0	477,131.8	448,394.4	466,340.8
Commercial paper	16,637.4	11,978.9	9,308.7	10,685.2	8,851.8	7,797.9	9,308.7	9,213.0
Bonds and debentures	85,477.8	70,127.7	47,894.0	79,437.4	74,340.9	73,761.6	47,894.0	61,860.2
Mortgage covered bonds	180,677.5	181,308.7	183,266.8	180,317.9	177,490.8	180,845.1	183,266.8	187,663.7
Territorial covered bonds	29,387.3	23,862.3	18,362.3	23,862.3	22,062.3	20,062.3	18,362.3	19,862.3
Backed securities	217,992.1	204,570.0	185,002.7	203,200.4	196,148.4	190,355.1	185,002.7	183,186.7
Preference shares	497.8	1,395.0	4,245.0	2,645.0	2,995.0	3,995.0	4,245.0	4,240.0
Matador bonds	386.9	386.9	314.8	386.9	314.8	314.8	314.8	314.8
Government bonds	877,499.6	973,334.7	6,215,171.1	2,093,558.9	6,287,923.9	6,211,058.2	6,215,171.1	6,215,866.9
Letras del Tesoro	81,037.1	78,835.2	70,442.2	72,599.4	69,375.7	68,538.1	70,442.2	70,049.4
Long government bonds	796,462.5	864,059.7	918,000.0	890,343.3	901,887.3	917,024.0	918,000.0	928,860.9
Regional goverments debt	–	28,620.8	33,100.4	34,037.3	32,862.2	32,484.0	33,100.4	34,331.7
Foreign public debt	–	–	5,192,055.3	1,093,949.8	5,281,341.3	5,190,554.7	5,192,055.3	5,181,051.6
Other public debt	–	1,819.1	1,573.2	2,629.1	2,457.4	2,457.4	1,573.2	1,573.2

1 Available data: February 2019.
2 Nominal amount.

AIAF. Trading

TABLE 1.9

Nominal amount in million euro	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[1]
BY TYPE OF ASSET								
Total	169,658.2	68,422.0	94,241.3	18,345.4	30,179.4	20,172.5	25,543.9	30,170.6
Corporate bonds	169,534.0	68,297.4	435.4	197.0	122.4	62.9	53.1	50.6
Commercial paper	20,684.3	7,144.4	0.0	0.0	0.0	0.0	0.0	0.0
Bonds and debentures	27,795.6	15,839.5	427.0	194.7	116.7	62.7	52.8	48.1
Mortgage covered bonds	79,115.6	24,936.4	0.0	0.0	0.0	0.0	0.0	0.0
Territorial covered bonds	5,329.3	381.7	0.0	0.0	0.0	0.0	0.0	0.0
Backed securities	36,554.9	18,502.5	7.3	1.9	5.1	0.0	0.3	2.0
Preference shares	43.1	1,482.3	1.2	0.4	0.6	0.2	0.1	0.5
Matador bonds	11.1	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Government bonds	124.2	124.6	93,805.8	18,148.4	30,057.1	20,109.6	25,490.8	30,120.1
Letras del Tesoro	8.5	4.2	24,766.7	146.7	3,472.1	8,792.7	12,355.2	1,809.0
Long government bonds	115.8	120.4	56,122.5	17,998.5	24,686.6	6,960.0	6,477.3	20,613.5
Regional goverments debt	–	0.0	3.2	3.1	0.1	0.0	0.0	26.0
Foreign public debt	–	–	12,913.5	0.0	1,898.3	4,356.9	6,658.3	7,671.5
Other public debt	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BY TYPE OF TRANSACTION								
Total	169,658.3	68,422.0	94,241.3	18,345.4	30,179.4	20,172.5	25,543.9	30,170.6
Outright	127,643.7	57,723.9	94,241.3	18,345.4	30,179.4	20,172.5	25,543.9	30,170.6
Repos	4,143.7	671.6	0.0	0.0	0.0	0.0	0.0	0.0
Sell-buybacks/Buy-sellbacks	37,870.9	10,026.5	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: February 2019.

AIAF. Third-party trading. By purchaser sector

TABLE 1.10

Nominal amount in million euro	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[1]
Total	117,373.0	49,230.2	92,661.9	17,891.9	30,171.0	20,168.5	24,430.5	30,166.7
Non-financial companies	7,119.3	1,492.6	0.0	0.0	0.0	0.0	0.0	0.0
Financial institutions	63,048.2	23,402.5	92,661.9	17,891.9	30,171.0	20,168.5	24,430.5	30,166.7
Credit institutions	46,583.9	15,363.2	437.9	181.7	106.6	51.2	98.4	96.2
CIS, insurance and pension funds	8,525.2	4,337.8	0.0	0.0	0.0	0.0	0.0	0.0
Other financial institutions	7,939.1	3,701.5	92,224.0	17,710.2	30,064.4	20,117.2	24,332.1	30,070.5
General government	4,969.7	3,196.3	0.0	0.0	0.0	0.0	0.0	0.0
Households and NPISHs[2]	1,076.0	256.6	0.0	0.0	0.0	0.0	0.0	0.0
Rest of the world	41,159.9	20,882.3	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: February 2019.
2 Non-profit institutions serving households.

Equity markets. Issuers, issues and outstanding balances

TABLE 1.11

				2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
NO. OF ISSUERS								
Total	17	15	14	15	14	14	14	14
Private issuers	7	7	6	7	6	6	6	6
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	7	7	6	7	6	6	6	6
General government[2]	10	8	8	8	8	8	8	8
Regional governments	2	2	2	2	2	2	2	2
NO. OF ISSUES								
Total	75	64	58	65	57	60	58	60
Private issuers	26	24	19	24	19	19	19	19
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	26	24	19	24	19	19	19	19
General government[2]	49	40	39	41	38	41	39	41
Regional governments	23	22	21	22	19	22	21	21
OUTSTANDING BALANCES[3] (million euro)								
Total	10,203.4	9,718.0	8,268.3	9,689.9	7,666.4	8,438.0	8,268.3	8,251.3
Private issuers	899.4	760.6	589.8	735.8	640.1	611.9	589.8	572.5
Non-financial companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial institutions	899.4	760.6	589.8	735.8	640.1	611.9	589.8	572.5
General government[2]	9,304.0	8,957.4	7,678.5	8,954.0	7,026.2	7,826.1	7,678.5	7,678.8
Regional governments	8,347.6	8,193.1	6,959.7	8,193.1	6,274.1	7,079.7	6,959.7	6,959.7

1 Available data: February 2019.
2 Without public book-entry debt.
3 Nominal amount.

SENAF. Public debt trading by type

TABLE 1.12

				2018				2019
Nominal amounts in million euro	2016	2017	2018	I	II	III	IV	I[1]
Total	165,472.0	131,475.0	96,708.0	30,800.0	20,094.0	20,309.0	25,505.0	26,617.0
Outright	165,472.0	131,475.0	96,708.0	30,800.0	20,094.0	20,309.0	25,505.0	26,617.0
Sell-buybacks/Buy-sellbacks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: February 2019.

1.3 Derivatives and other products

1.3.1 Financial derivatives markets: MEFF

Trading on MEFF

TABLE 1.13

				2018				2019
Number of contracts	2016	2017	2018	I	II	III	IV	I[1]
Debt products	360	0	0	0	0	0	0	0
Debt futures[2]	360	0	0	0	0	0	0	0
Ibex 35 products[3, 4]	7,468,299	6,911,671	6,983,287	1,872,019	1,725,341	1,552,198	1,833,729	1,259,448
Ibex 35 plus futures	6,836,500	6,268,290	6,342,478	1,704,051	1,595,835	1,430,789	1,611,803	971,945
Ibex 35 mini futures	249,897	161,886	149,023	42,749	39,544	30,556	36,175	232,711
Ibex 35 micro futures	–	–	–	–	–	–	–	17
Ibex 35 dividend impact futures	58,044	43,372	70,725	15,588	13,247	7,218	34,672	15,885
Ibex 35 sectorals futures	1,619	7,753	2,745	859	706	690	490	0
Call mini options	169,871	206,843	193,480	52,005	35,428	41,750	64,297	17,832
Put mini options	152,368	223,527	224,835	56,767	40,582	41,195	86,292	21,058
Stock products[5]	32,736,458	32,335,004	31,412,879	7,804,263	8,424,744	6,542,076	8,641,796	4,202,666
Futures	9,467,294	11,671,215	10,703,192	2,864,619	3,138,663	2,015,974	2,683,936	1,795,087
Stock dividend futures	367,785	346,555	471,614	142,701	142,742	58,563	127,608	37,505
Stock plus dividend futures	760	880	200	0	0	0	200	0
Call options	11,239,662	8,848,643	7,761,974	1,968,560	2,089,005	1,786,866	1,917,543	1,126,176
Put options	11,660,957	11,467,711	12,475,899	2,828,383	3,054,334	2,680,673	3,912,509	1,243,898

1 Available data: February 2019.
2 Contract size: 100,000 euros.
3 The number of Ibex 35 mini futures (multiples of 1 euro) was standardised to the size of the Ibex 35 plus futures (multiples of 10 euro).
4 Contract size: Ibex 35, 10 euros.
5 Contract size: 100 stocks.

1.3.2 Warrants, option buying and selling contracts, and ETF (Exchange-Traded Funds)

Issues registered at the CNMV

TABLE 1.14

				2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
WARRANTS								
Premium amount (million euro)	2,688.6	2,433.6	2,084.9	819.7	630.8	313.9	320.5	404.6
On stocks	1,438.2	939.5	819.0	269.9	239.1	141.0	169.0	194.7
On indexes	1,153.1	1,443.0	1,160.5	510.3	366.0	139.2	145.0	187.9
Other underlyings[2]	97.2	51.1	105.5	39.5	25.7	33.7	6.5	22.0
Number of issues	7,809	5,730	5,231	1,800	1,521	1,039	871	1,200
Number of issuers	5	6	5	5	5	4	3	4
OPTION BUYING AND SELLING CONTRACTS								
Nominal amounts (million euro)	650.0	1,964.5	953.0	302.0	401.0	250.0	0.0	0.0
On stocks	650.0	1,950.0	950.0	300.0	400.0	250.0	0.0	0.0
On indexes	0.0	14.5	3.0	2.0	1.0	0.0	0.0	0.0
Other underlyings[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of issues	4	15	11	5	4	2	0	0
Number of issuers	1	2	2	2	2	1	0	0

1 Available data: February 2019.
2 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.

Equity markets. Warrants and ETF trading

TABLE 1.15

				2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
WARRANTS								
Trading (million euro)	715.5	462.6	435.2	103.2	93.1	86.0	152.9	59.1
On Spanish stocks	248.4	156.8	93.3	17.2	25.5	20.7	29.8	13.6
On foreign stocks	32.6	29.9	31.6	7.0	7.3	7.0	10.3	1.4
On indexes	420.4	266.0	305.5	77.8	59.1	57.5	111.1	44.0
Other underlyings[2]	14.2	9.9	4.8	1.2	1.2	0.8	1.6	0.2
Number of issues[3]	6,296	5,084	3,986	1,059	1,109	864	954	828
Number of issuers[3]	8	7	7	7	7	6	7	7
CERTIFICATES								
Trading (million euro)	0.4	0.3	0.2	0.0	0.2	0.0	0.0	0.0
Number of issues[3]	2	2	2	2	2	2	2	2
Number of issuers[3]	1	1	1	1	1	1	1	1
ETFs								
Trading (million euro)	6,045.2	4,464.1	2,806.4	759.9	957.3	456.6	632.7	329.3
Number of funds	33	8	6	8	6	6	6	6
Assets[4] (million euro)	349.3	359.3	288.9	340.1	334.1	334.1	288.9	300.6

1 Available data: February 2019.
2 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.
3 Issues or issuers which were traded in each period.
4 Only assets from national collective investment schemes are included because assets from foreign schemes are not available.

2 Investment services

Investment services. Spanish firms, branches and agents

TABLE 2.1

			2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
BROKER-DEALERS								
Spanish firms	40	41	39	40	40	40	39	39
Branches	27	24	25	26	26	26	25	20
Agents	5,761	5,747	2,027	2,134	2,185	2,165	2,027	1,995
BROKERS								
Spanish firms	41	48	52	50	52	53	52	53
Branches	22	23	21	23	24	24	21	24
Agents	492	461	414	393	430	423	414	369
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	2	1	1	1	1	1	1	1
Branches	8	0	0	0	0	0	0	0
Agents	0	0	0	0	0	0	0	0
FINANCIAL ADVISORY FIRMS								
Spanish firms	160	171	158	168	165	162	158	155
Branches	16	21	25	24	23	25	25	26
CREDIT INSTITUTIONS[2]								
Spanish firms	126	122	114	120	120	120	114	113

1 Available data: February 2019.
2 Source: Banco de España.

Investment services. Foreign firms

TABLE 2.2

			2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
Total	3,310	3,340	3,477	3,398	3,434	3,438	3,477	3,519
Investment services firms	2,843	2,873	3,005	2,924	2,959	2,970	3,005	3,048
From EU member states	2,840	2,870	3,002	2,921	2,956	2,967	3,002	3,045
Branches	46	53	61	54	56	55	61	61
Free provision of services	2,794	2,817	2,941	2,867	2,900	2,912	2,941	2,984
From non-EU states	3	3	3	3	3	3	3	3
Branches	0	0	0	0	0	0	0	0
Free provision of services	3	3	3	3	3	3	3	3
Credit institutions[2]	467	467	472	474	475	468	472	471
From EU member states	460	461	466	468	470	463	466	465
Branches	55	52	53	54	54	53	53	51
Free provision of services	405	409	413	414	416	410	413	414
Subsidiaries of free provision of services institutions	0	0	0	0	0	0	0	0
From non-EU states	7	6	6	6	5	5	6	6
Branches	5	4	3	4	3	3	3	3
Free provision of services	2	2	3	2	2	2	3	3

1 Available data: February 2019.
2 Source: Banco de España and CNMV.

Intermediation of spot transactions[1]

TABLE 2.3

Million euro	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
FIXED-INCOME								
Total	4,625,411.6	3,727,687.0	3,082,789.5	840,921.2	865,998.4	888,233.8	644,508.3	684,049.0
Broker-dealers	3,171,599.2	2,347,959.0	2,184,921.9	588,965.3	604,086.9	629,121.5	463,909.0	487,804.5
Spanish organised markets	1,350,483.4	836,831.1	855,948.9	173,689.7	196,847.5	230,333.3	222,782.1	205,986.0
Other Spanish markets	1,570,540.0	1,255,087.2	1,111,231.9	349,221.0	336,165.9	338,333.8	205,198.5	231,533.7
Foreign markets	250,575.8	256,040.7	217,741.1	66,054.6	71,073.5	60,454.4	35,928.4	50,284.8
Brokers	1,453,812.4	1,379,728.0	897,867.6	251,955.9	261,911.5	259,112.3	180,599.3	196,244.5
Spanish organised markets	25,247.8	6,067.6	6,237.8	1,024.2	1,667.7	1,231.9	944.6	2,393.6
Other Spanish markets	1,222,925.7	1,175,387.4	702,731.7	208,188.7	206,815.7	206,672.4	148,974.5	140,269.1
Foreign markets	205,638.9	198,273.0	188,898.1	42,743.0	53,428.1	51,208.0	30,680.2	53,581.8
EQUITY								
Total	798,564.7	804,328.3	630,896.1	216,783.5	161,477.8	213,323.2	118,831.1	137,264.0
Broker-dealers	636,727.0	660,312.8	600,442.4	158,155.7	149,934.8	204,926.8	114,083.1	131,497.7
Spanish organised markets	583,283.9	610,682.8	525,648.7	145,357.3	135,402.8	173,871.0	105,785.0	110,589.9
Other Spanish markets	2,313.1	3,178.2	839.1	647.5	201.1	290.6	143.7	203.7
Foreign markets	51,130.0	46,451.8	73,954.6	12,150.9	14,330.9	30,765.2	8,154.4	20,704.1
Brokers	161,837.7	144,015.5	30,453.7	58,627.8	11,543.0	8,396.4	4,748.0	5,766.3
Spanish organised markets	11,090.1	7,037.7	6,462.5	2,313.8	1,871.9	1,625.2	1,176.9	1,788.5
Other Spanish markets	8,902.9	12,052.0	1,328.5	4,831.0	463.0	319.2	217.1	329.2
Foreign markets	141,844.7	124,925.8	22,662.7	51,483.0	9,208.1	6,452.0	3,354.0	3,648.6

1 Period accumulated data. Quarterly.

Intermediation of derivative transactions[1, 2]

TABLE 2.4

Million euro	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
Total	10,985,305.6	10,708,583.9	10,308,915.0	3,145,938.1	2,812,720.9	2,659,541.6	2,257,783.7	2,578,868.8
Broker-dealers	10,698,379.2	10,528,524.3	10,065,090.4	3,092,685.7	2,750,608.8	2,595,678.8	2,212,452.0	2,506,350.8
Spanish organised markets	4,842,990.7	5,330,761.9	5,457,270.1	1,755,443.2	1,399,069.6	1,384,442.9	1,250,515.7	1,423,241.9
Foreign organised markets	5,204,785.7	4,676,156.7	3,927,718.5	1,161,762.4	1,178,164.9	1,036,058.2	863,611.6	849,883.8
Non-organised markets	650,602.8	521,605.7	680,101.8	175,480.1	173,374.3	175,177.7	98,324.7	233,225.1
Brokers	286,926.4	180,059.6	243,824.6	53,252.4	62,112.1	63,862.8	45,331.7	72,518.0
Spanish organised markets	20,935.4	17,171.0	30,836.1	7,512.7	4,748.4	9,147.5	5,236.5	11,703.7
Foreign organised markets	59,427.1	48,043.8	105,915.8	19,445.7	30,026.3	27,491.9	21,002.9	27,394.7
Non-organised markets	206,563.9	114,844.8	107,072.7	26,294.0	27,337.4	27,223.4	19,092.3	33,419.6

1 The amount of the buy and sell transactions of financial assets, financial futures on values and interest rates, and other transactions on interest rates will be the securities nominal or notional value or the principal to which the contract reaches. The amount of the transactions on options will be the strike price of the underlying asset multiplied by the number of instruments committed.

2 Period accumulated data. Quarterly.

Portfolio management. Number of portfolios and assets under management[1]

TABLE 2.5

	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
NUMBER OF PORTFOLIOS								
Total[2]	15,818	12,601	16,170	12,601	13,321	13,968	14,928	16,170
Broker-dealers. Total	5,743	3,769	3,805	3,769	3,862	3,903	3,900	3,805
CIS[3]	34	18	37	18	22	28	32	37
Other[4]	5,709	3,751	3,768	3,751	3,840	3,875	3,868	3,768
Brokers. Total	6,512	8,831	12,364	8,831	9,459	10,065	11,028	12,364
CIS[3]	90	89	83	89	90	93	91	83
Other[4]	6,422	8,742	12,281	8,742	9,369	9,972	10,937	12,281
Portfolio management companies.[2] Total	3,563	1	1	1	–	–	–	1
CIS[3]	1	1	1	1	–	–	–	1
Other[4]	3,562	0	0	0	–	–	–	0
ASSETS UNDER MANAGEMENT (thousand euro)								
Total[2]	13,298,318	36,923,861	4,843,460	36,923,861	5,589,254	6,029,150	5,554,205	4,843,460
Broker-dealers. Total	5,534,052	33,958,038	2,205,697	33,958,038	2,597,455	2,793,817	2,417,154	2,205,697
CIS[3]	890,371	344,474	838,379	344,474	486,772	641,621	834,096	838,379
Other[4]	4,643,682	33,613,564	1,367,318	33,613,564	2,110,683	2,152,195	1,583,058	1,367,318
Brokers. Total	2,557,207	2,949,741	2,619,297	2,949,741	2,991,799	3,235,333	3,137,051	2,619,297
CIS[3]	1,352,653	1,595,851	1,295,580	1,595,851	1,676,348	1,728,140	1,662,052	1,295,580
Other[4]	1,204,553	1,353,890	1,323,717	1,353,890	1,315,451	1,507,193	1,474,999	1,323,717
Portfolio management companies.[2] Total	5,207,059	16,082	18,466	16,082	–	–	–	18,466
CIS[3]	15,916	16,082	18,466	16,082	–	–	–	18,466
Other[4]	5,191,143	0	0	0	–	–	–	0

1 Data at the end of period. Quarterly.
2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.
3 Includes both resident and non-resident CIS management.
4 Includes the rest of clients, both covered and not covered by the Investment Guarantee Fund, an investor compensation scheme regulated by Royal Decree 948/2001.

Financial advice. Number of contracts[1, 2]

TABLE 2.6

	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
NUMBER OF CONTRACTS								
Total[3]	21,341	20,170	23,155	20,170	21,471	22,721	24,116	23,155
Broker-dealers. Total[4]	4,678	5,125	5,269	5,125	5,269	5,523	5,825	5,269
Retail clients	4,669	5,108	5,239	5,108	5,251	5,497	5,795	5,239
Professional clients	3	6	21	6	9	17	21	21
Eligible counterparties	6	11	9	11	9	9	9	9
Brokers. Total[4]	14,358	15,045	17,886	15,045	16,202	17,198	18,291	17,886
Retail clients	14,170	14,881	17,632	14,881	16,030	17,016	18,108	17,632
Professional clients	154	132	199	132	125	134	134	199
Eligible counterparties	34	32	55	32	47	48	49	55
Portfolio management companies[3]. Total[4]	2,305	0	0	0	–	–	–	0
Retail clients	2,303	0	0	0	–	–	–	0
Professional clients	2	0	0	0	–	–	–	0
Eligible counterparties	0	0	0	0	–	–	–	0
***Pro memoria*: commission received for financial advice[5]** (thousand euro)								
Total[3]	11,515	17,123	35,287	17,123	3,191	6,625	11,411	35,287
Broker-dealers	2,547	5,551	9,562	5,551	1,099	2,352	4,945	9,562
Brokers	8,614	11,572	25,725	11,572	2,092	4,273	6,466	25,725
Portfolio management companies[3]	354	0	0	0	–	–	–	0

1 Data at the end of period. Quarterly.
2 Quarterly data on assets advised are not available since the entry into force of CNMV Circular 3/2014, of 22 October.
3 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.
4 Includes retail, professional and other clients.
5 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.

Aggregated income statement. Broker-dealers

TABLE 2.7

Thousand euro[1]	2016	2017[2]	2018	2018 I[3]	2018 II[3]	2018 III	2018 IV	2019 I[4]
I. Interest income	53,930	21,377	73,969	8,665	46,031	50,418	73,969	647
II. Net commission	373,552	402,154	296,037	77,836	151,557	224,194	296,037	16,388
Commission revenues	538,586	549,298	414,595	109,553	213,150	314,030	414,595	23,756
Brokering	245,700	217,601	160,320	48,289	92,739	125,574	160,320	8,217
Placement and underwriting	5,955	17,553	11,090	1,015	2,029	7,732	11,090	26
Securities deposit and recording	47,843	38,200	42,958	10,720	21,937	31,676	42,958	2,923
Portfolio management	23,738	49,720	13,505	3,930	7,765	10,298	13,505	1,002
Design and advising	14,648	16,406	21,135	3,370	7,716	12,663	21,135	1,214
Stocks search and placement	2,155	1,500	543	10	211	275	543	0
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	75,505	83,354	55,483	14,588	28,185	42,614	55,483	4,354
Other	123,042	124,964	109,561	27,632	52,569	83,198	109,561	6,019
Commission expenses	165,034	147,144	118,558	31,717	61,593	89,836	118,558	7,368
III. Financial investment income	104,292	43,725	27,088	9,004	16,138	23,262	27,088	3,417
IV. Net exchange differences and other operating products and expenses	-1,177	28,507	16,614	5,789	12,451	17,830	16,614	2,139
V. Gross income	530,597	495,763	413,708	101,294	226,177	315,704	413,708	22,591
VI. Operating income	169,499	145,364	85,837	21,793	62,998	71,194	85,837	-2,018
VII. Earnings from continuous activities	140,521	120,683	91,771	20,153	60,661	73,535	91,771	-2,037
VIII. Net earnings of the period	140,521	157,065	91,771	20,153	60,661	73,535	91,771	-2,037

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in March 2019.
3 Data revised in December 2018.
4 Available data: January 2019.

Results of proprietary trading. Broker-dealers

TABLE 2.8

Thousand euro[1]	2016	2017[2]	2018	2017 IV[2]	2018 I[3]	2018 II[3]	2018 III	2018 IV
TOTAL								
Total	152,893	92,832	114,751	92,832	23,650	74,932	91,929	114,751
Money market assets and public debt	8,332	3,909	11,193	3,909	1,368	4,042	4,996	11,193
Other fixed-income securities	35,415	34,369	11,842	34,369	7,009	9,231	13,858	11,842
Domestic portfolio	19,863	20,941	8,304	20,941	3,502	2,371	4,898	8,304
Foreign portfolio	15,552	13,428	3,538	13,428	3,507	6,860	8,960	3,538
Equities	135,587	53,601	10,844	53,601	1,496	5,531	8,216	10,844
Domestic portfolio	14,010	11,494	9,901	11,494	1,452	5,105	7,504	9,901
Foreign portfolio	121,577	42,107	943	42,107	44	426	712	943
Derivatives	-52,325	-40,286	-1,167	-40,286	14	-159	-112	-1,167
Repurchase agreements	-471	-288	-107	-288	0	-20	-46	-107
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	-1,030	114	3,884	114	599	1,223	2,732	3,884
Net exchange differences	-29,730	4,353	283	4,353	-531	194	73	283
Other operating products and expenses	28,555	24,154	16,330	24,154	6,320	12,257	17,757	16,330
Other transactions	28,560	12,906	61,649	12,906	7,375	42,633	44,455	61,649
INTEREST INCOME								
Total	53,930	21,377	73,968	21,377	8,664	46,032	50,419	73,968
Money market assets and public debt	1,708	1,576	2,036	1,576	782	1,019	1,446	2,036
Other fixed-income securities	1,742	1,285	1,300	1,285	293	655	946	1,300
Domestic portfolio	809	415	124	415	27	51	72	124
Foreign portfolio	933	870	1,176	870	266	604	874	1,176
Equities	24,619	6,140	3,673	6,140	108	1,777	2,479	3,673
Domestic portfolio	3,298	3,047	2,892	3,047	44	1,291	1,956	2,892
Foreign portfolio	21,321	3,093	781	3,093	64	486	523	781
Repurchase agreements	-471	-288	-107	-288	0	-20	-46	-107
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	-1,030	114	3,884	114	599	1,223	2,732	3,884
Other transactions	27,362	12,550	63,182	12,550	6,882	41,378	42,862	63,182
FINANCIAL INVEST INCOME								
Total	104,291	43,725	27,088	43,725	9,004	16,137	23,262	27,088
Money market assets and public debt	6,624	2,333	9,157	2,333	586	3,023	3,550	9,157
Other fixed-income securities	33,673	33,084	10,542	33,084	6,716	8,576	12,912	10,542
Domestic portfolio	19,054	20,526	8,180	20,526	3,475	2,320	4,826	8,180
Foreign portfolio	14,619	12,558	2,362	12,558	3,241	6,256	8,086	2,362
Equities	110,968	47,461	7,171	47,461	1,388	3,754	5,737	7,171
Domestic portfolio	10,712	8,447	7,009	8,447	1,408	3,814	5,548	7,009
Foreign portfolio	100,256	39,014	162	39,014	-20	-60	189	162
Derivatives	-52,325	-40,286	-1,167	-40,286	14	-159	-112	-1,167
Other transactions	5,351	1,133	1,385	1,133	300	943	1,175	1,385
EXCHANGE DIFFERENCES AND OTHER ITEMS								
Total	-5,328	27,730	13,695	27,730	5,982	12,763	18,248	13,695
Net exchange differences	-29,730	4,353	283	4,353	-531	194	73	283
Other operating products and expenses	28,555	24,154	16,330	24,154	6,320	12,257	17,757	16,330
Other transactions	-4,153	-777	-2,918	-777	193	312	418	-2,918

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in March 2019.
3 Data revised in December 2018.

Aggregated income statement. Brokers

TABLE 2.9

				2018				2019
Thousand euro[1]	2016	2017	2018	I[2]	II[2]	III	IV	I[3]
I. Interest income	903	3,127	1,583	83	1,076	1,278	1,583	21
II. Net commission	108,111	120,194	135,782	26,669	57,465	87,192	135,782	9,605
Commission revenues	129,682	142,323	156,624	31,525	68,417	102,975	156,624	11,100
Brokering	24,181	20,459	20,018	5,195	10,415	14,486	20,018	1,902
Placement and underwriting	3,193	3,427	1,120	333	849	949	1,120	1
Securities deposit and recording	603	924	824	179	424	633	824	69
Portfolio management	11,054	12,492	15,412	3,257	6,859	11,143	15,412	1,084
Design and advising	8,980	11,935	26,446	2,179	4,462	6,765	26,446	685
Stocks search and placement	40	0	0	0	0	0	0	0
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	50,504	59,398	63,821	14,144	30,867	47,810	63,821	4,785
Other	31,128	33,689	28,983	6,238	14,539	21,189	28,983	2,574
Commission expenses	21,571	22,129	20,842	4,856	10,952	15,783	20,842	1,495
III. Financial investment income	245	1,139	-51	-69	-86	220	-51	411
IV. Net exchange differences and other operating products and expenses	-1,030	-1,706	-279	-430	-775	-1,194	-279	-14
V. Gross income	108,229	122,754	137,035	26,253	57,680	87,496	137,035	10,023
VI. Operating income	10,140	16,929	12,031	1,140	5,460	8,725	12,031	1,625
VII. Earnings from continuous activities	6,982	11,890	7,459	934	4,868	7,767	7,459	1,480
VIII. Net earnings of the period	6,982	11,890	7,459	934	4,868	7,767	7,459	1,480

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in December 2018.
3 Available data: January 2019.

Aggregated income statement. Portfolio management companies[1]

TABLE 2.10

Thousand euro[2]	2014	2015	2016	2017	2018
I. Interest income	574	399	83	23	6
II. Net commission	11,104	8,526	6,617	1,543	350
Commission revenues	15,411	13,064	6,617	1,543	350
Portfolio management	13,572	11,150	4,228	1,095	350
Design and advising	849	371	354	59	0
Other	990	1,544	2,035	390	0
Commission expenses	4,307	4,538	0	0	0
III. Financial investment income	-6	-28	-1	6	-25
IV. Net exchange differences and other operating products and expenses	-237	-234	-126	-52	-20
V. Gross income	11,435	8,663	6,573	1,520	311
VI. Operating income	5,860	3,331	3,172	623	-2
VII. Earnings from continuous activities	4,135	2,335	2,222	439	-2
VIII. Net earnings of the period	4,135	2,335	2,222	439	-2

1 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this.
2 Accumulated data from the beginning of the year. It includes companies removed throughout the year.

Capital adequacy and capital ratio[1]

TABLE 2.11

	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
TOTAL2								
Total capital ratio[3]	44.13	33.40	42.46	33.40	35.96	35.23	34.20	42.46
Own funds surplus (thousand euro)	965,833	803,793	916,520	803,793	868,636	836,468	825,626	916,520
Surplus (%)[4]	451.60	317.54	430.78	317.54	349.54	340.35	327.45	430.78
Number of companies according to its surplus percentage								
≤ 100%	15	18	21	18	23	18	20	21
> 100-≤ 300%	25	23	28	23	21	20	22	28
> 300-≤ 500%	13	14	9	14	14	18	18	9
> 500%	18	18	16	18	16	19	15	16
BROKER-DEALERS								
Total capital ratio[3]	45.97	34.28	45.27	34.28	37.39	36.48	35.54	45.27
Own funds surplus (thousand euro)	912,248	755,143	875,190	755,143	826,890	789,353	780,992	875,190
Surplus (%)[4]	474.60	328.55	465.85	328.55	367.34	356.01	344.24	465.85
Number of companies according to its surplus percentage								
≤ 100%	8	8	7	8	10	7	9	7
> 100-≤ 300%	11	10	10	10	8	8	7	10
> 300-≤ 500%	9	8	6	8	7	9	10	6
> 500%	12	13	15	13	14	15	13	15
BROKERS								
Total capital ratio[3]	26.35	24.69	21.26	24.69	22.27	23.68	22.13	21.26
Own funds surplus (thousand euro)	47,620	48,452	41,134	48,452	41,746	47,115	44,634	41,134
Surplus (%)[4]	229.33	208.66	165.74	208.66	178.35	195.97	176.67	165.74
Number of companies according to its surplus percentage								
≤ 100%	7	10	14	10	13	11	11	14
> 100-≤ 300%	13	12	17	12	13	12	15	17
> 300-≤ 500%	4	6	3	6	7	9	8	3
> 500%	5	5	1	5	2	4	2	1
PORTFOLIO MANAGEMENT COMPANIES[2]								
Total capital ratio[3]	61.64	30.70	30.00	30.70	–	–	–	30.00
Own funds surplus (thousand euro)	5,965	198	196	198	–	–	–	196
Surplus (%)[4]	670.22	282.86	272.00	282.86	–	–	–	272.00
Number of companies according to its surplus percentage								
≤ 100%	0	0	0	0	–	–	–	0
> 100-≤ 300%	1	1	1	1	–	–	–	1
> 300-≤ 500%	0	0	0	0	–	–	–	0
> 500%	1	0	0	0	–	–	–	0

1 On 1 January 2014 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, entered into force which has changed the own funds requirements calculation. Since January 2014 only the entities subject to reporting requirements are included, according to CNMV Circular 2/2014, of 23 June, on the exercise of various regulatory options regarding solvency requirements for investment firms and their consolidated groups.

2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.

3 Total capital ratio is the own funds of the institution expressed as a percentage of the total risk exposure amount. This ratio should not be under 8%, pursuant to the provisions of Regulation (EU) No. 575/2013.

4 Average surplus percentage is weighted by the required equity of each company. It is an indicator of the number of times, in percentage terms, that the surplus contains the required equity in an average company.

Return on equity (ROE) before taxes[1, 2]

TABLE 2.12

	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
TOTAL[3]								
Average (%)[4]	15.74	17.73	12.27	17.73	7.47	11.78	9.83	12.27
Number of companies according to its annualized return								
Losses	18	20	40	20	36	34	35	40
0-≤ 15%	31	28	22	28	19	22	23	22
> 15-≤ 45%	17	22	10	22	21	18	17	10
> 45-≤ 75%	6	4	6	4	5	4	6	6
> 75%	11	15	14	15	9	14	12	14
BROKER-DEALERS								
Average (%)[4]	15.93	17.84	12.16	17.84	7.70	11.72	9.52	12.16
Number of companies according to its annualized return								
Losses	7	7	18	7	14	14	16	18
0-≤ 15%	20	17	12	17	13	12	13	12
> 15-≤ 45%	6	11	5	11	10	10	9	5
> 45-≤ 75%	2	1	2	1	3	2	1	2
> 75%	5	4	2	4	0	2	1	2
BROKERS								
Average (%)[4]	11.30	16.49	13.24	16.49	4.94	12.49	13.43	13.24
Number of companies according to its annualized return								
Losses	11	13	21	13	22	20	19	21
0-≤ 15%	10	11	10	11	6	10	10	10
> 15-≤ 45%	11	10	5	10	11	8	8	5
> 45-≤ 75%	3	3	4	3	2	2	5	4
> 75%	6	11	12	11	9	12	11	12
PORTFOLIO MANAGEMENT COMPANIES[3]								
Average (%)[4]	46.28	20.65	-0.84	20.65	–	–	–	-0.84
Number of companies according to its annualized return								
Losses	0	0	1	0	–	–	–	1
0-≤ 15%	1	0	0	0	–	–	–	0
> 15-≤ 45%	0	1	0	1	–	–	–	0
> 45-≤ 75%	1	0	0	0	–	–	–	0
> 75%	0	0	0	0	–	–	–	0

1 Revised data on March 2019.

2 ROE has been calculated as:

$$ROE = \frac{Earnings\ before\ taxes\ (annualized)}{Own\ Funds}$$

Own Funds= Share capital + Paid-in surplus + Reserves – Own shares + Prior year profits and retained earnings – Interim dividend.

3 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.

4 Average weighted by equity, %.

Financial advisory firms. Main figures[1]

TABLE 2.13

Thousand euro	2014	2015	2016	2017	2018
ASSETS ADVISED[2]					
Total	21,284,942	25,084,882	30,174,877	30,790,535	31,658,460
Retail clients	5,671,431	6,499,049	7,588,143	9,096,071	10,281,573
Professional	4,808,250	5,108,032	5,654,358	6,482,283	7,052,031
Other	10,805,261	13,477,801	16,932,376	15,212,181	14,324,856
COMMISSION INCOME[3]					
Total	48,460	57,231	52,534	65,802	61,851
Commission revenues	47,641	56,227	51,687	65,191	61,021
Other income	819	1,004	847	611	831
EQUITY					
Total	24,808	25,021	24,119	32,803	33,798
Share capital	5,372	5,881	6,834	8,039	6,894
Reserves and retained earnings	7,978	7,583	12,123	13,317	15,469
Income for the year[3]	11,458	11,481	7,511	11,361	10,746
Other own funds	–	76	-2,349	86	688

1 Annual frequency since 2015 (CNMV Circular 3/2014, of 22 October).

2 Data at the end of each period.

3 Accumulated data from the beginning of the year.

3 Collective investment schemes (CIS)[a]

Number, management companies and depositories of CIS registered at the CNMV

TABLE 3.1

			2018				2019
	2016	2017	2018	I	II	III	IV	I[1]
Total financial CIS	5,035	4,564	4,386	4,516	4,444	4,420	4,386	4,371
Mutual funds	1,748	1,676	1,617	1,668	1,628	1,630	1,617	1,620
Investment companies	3,239	2,833	2,713	2,793	2,763	2,734	2,713	2,694
Funds of hedge funds	7	8	7	8	7	7	7	7
Hedge funds	41	47	49	47	46	49	49	50
Total real estate CIS	9	7	7	7	7	7	7	6
Real estate mutual funds	3	3	3	3	3	3	3	2
Real estate investment companies	6	4	4	4	4	4	4	4
Total foreign CIS marketed in Spain	941	1,013	1,024	1,009	1,022	1,031	1,024	1,009
Foreign funds marketed in Spain	441	455	429	450	446	445	429	406
Foreign companies marketed in Spain	500	558	595	559	576	586	595	603
Management companies	101	109	119	113	116	117	119	119
CIS depositories	56	54	37	53	44	41	37	36

1 Available data: February 2019.

Number of CIS investors and shareholders[1, 2]

TABLE 3.2

				2018				2019
	2016	2017	2018	I	II	III	IV	I[3]
Total financial CIS	8,704,329	10,704,585	11,627,118	11,435,510	11,851,561	11,744,182	11,627,118	11,579,471
Mutual funds	8,248,249	10,283,312	11,213,482	11,015,788	11,431,573	11,327,950	11,213,482	11,166,161
Investment companies	456,080	421,273	413,636	419,722	419,988	416,232	413,636	413,310
Total real estate CIS	4,601	1,424	905	1,517	908	906	905	691
Real estate mutual funds	3,927	1,097	483	1,092	483	483	483	483
Real estate investment companies	674	327	422	425	425	423	422	208
Total foreign CIS marketed in Spain[4, 5]	1,748,604	1,984,474	n.a.	3,253,485	3,325,314	3,035,849	n.a.	n.a.
Foreign funds marketed in Spain	372,872	431,295	n.a.	639,377	662,625	593,388	n.a.	n.a.
Foreign companies marketed in Spain	1,375,732	1,553,179	n.a.	2,614,108	2,662,689	2,442,461	n.a.	n.a.

1 Investors and shareholders who invest in many sub-funds from the same CIS have only been taking into account once. For this reason, investors and shareholders can be different from those in tables 3.6 and 3.7.
2 In 2018, data on foreign CIS are estimated with the 99.2% of the entities subject to reporting requirements in the first quarter, the 95.5% in the second quarter and the 93.9% in the third quarter.
3 Available data: January 2019.
4 Includes only data on UCITs. Until IV quarter 2017, data on Exchange Traded Funds (ETFs) are not included.
5 On 1 January 2018, CNMV Circular 2/2017, of 25 October, entered into force, which has increased the entities subject to reporting requirements and therefore data may not be comparable to the previous information.

a All information about mutual funds and investment companies comprised in this section do not include hedge funds and funds of hedge funds. The information about hedge funds and funds of hedge funds is included in Table 3.12.

CIS total net assets[1]

TABLE 3.3

				2018				2019
Million euro	2016	2017	2018	I	II	III	IV	I[2]
Total financial CIS	269,953.8	296,619.5	286,930.9	302,020.1	304,605.7	305,404.2	286,930.9	292,562.3
Mutual funds[3]	237,862.2	265,194.8	259,095.0	271,264.3	273,774.0	274,645.4	259,095.0	263,755.7
Investment companies	32,091.6	31,424.7	27,835.9	30,755.8	30,831.7	30,758.8	27,835.9	28,806.5
Total real estate CIS	1,077.4	991.4	1,058.2	920.5	880.3	877.9	1,058.2	1,058.4
Real estate mutual funds	370.1	360.0	309.4	360.9	309.4	309.4	309.4	309.4
Real estate investment companies	707.3	631.4	748.8	559.6	570.9	568.5	748.8	749.1
Total foreign CIS marketed in Spain[4, 5]	114,990.2	150,420.6	n.a.	161,394.0	174,946.1	180,924.1	n.a.	n.a.
Foreign funds marketed in Spain	21,337.5	26,133.9	n.a.	27,908.5	33,038.4	34,880.5	n.a.	n.a.
Foreign companies marketed in Spain	93,652.8	124,286.7	n.a.	133,485.5	141,907.7	146,043.6	n.a.	n.a.

1 In 2018, data on foreign CIS are estimated with the 99.2% of the entities subject to reporting requirements in the first quarter, 95.5% in the second quarter and the 93.9% in the third quarter.
2 Available data: January 2019.
3 Mutual funds investment in financial mutual funds of the same management company reached 6,095.6 million euro in December 2018.
4 Includes only UCITs data. Until IV quarter 2017 exchange traded funds (ETFs) data are not included.
5 On 1 January 2018, CNMV Circular 2/2017, of 25 October, entered into force, which has increased the entities subject to reporting requirements and therefore data may not be comparable to the previous information.

Mutual funds asset allocation

TABLE 3.4

				2017	2018			
Million euro	2016	2017	2018	IV	I	II	III	IV
Asset	237,862.2	265,194.8	259,095.0	265,194.8	271,264.3	273,774.0	274,645.4	259,095.0
Portfolio investment	219,141.1	244,598.0	241,016.2	244,598.0	249,808.0	250,815.1	253,303.6	241,016.2
Domestic securities	95,799.1	83,032.1	74,486.1	83,032.1	83,206.6	78,221.9	75,622.0	74,486.1
Debt securities	63,471.1	55,389.1	50,537.5	55,389.1	54,869.3	51,096.6	48,998.8	50,537.5
Shares	8,529.9	10,911.7	10,868.4	10,911.7	12,192.4	12,419.1	12,330.6	10,868.4
Collective investment schemes	6,249.5	7,625.9	6,984.9	7,625.9	7,907.1	7,666.1	7,982.1	6,984.9
Deposits in credit institutions	17,134.3	8,657.1	5,854.8	8,657.1	7,871.1	6,696.5	5,973.5	5,854.8
Derivatives	405.7	441.4	235.4	441.4	359.7	337.8	331.8	235.4
Other	8.5	6.8	5.2	6.8	7.1	5.9	5.3	5.2
Foreign securities	123,336.0	161,556.6	166,522.5	161,556.6	166,594.4	172,586.0	177,674.3	166,522.5
Debt securities	56,307.9	67,794.0	74,079.1	67,794.0	69,764.9	73,945.3	76,175.4	74,079.1
Shares	20,035.3	27,081.8	26,660.8	27,081.8	28,031.5	29,236.3	30,409.3	26,660.8
Collective investment schemes	46,435.1	66,099.9	65,624.3	66,099.9	68,426.1	68,981.4	70,839.7	65,624.3
Deposits in credit institutions	81.2	74.7	21.1	74.7	38.5	38.4	38.4	21.1
Derivatives	474.3	504.7	136.0	504.7	332.1	383.3	210.0	136.0
Other	2.3	1.4	1.2	1.4	1.4	1.3	1.4	1.2
Doubtful assets and matured investment	6.1	9.3	7.6	9.3	7.1	7.2	7.3	7.6
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash	18,392.6	19,988.5	16,897.1	19,988.5	21,265.2	22,157.5	20,668.7	16,897.1
Net balance (Debtors - Creditors)	328.5	608.3	1,181.7	608.3	191.1	801.4	673.1	1,181.7

Asset allocation of investment companies

TABLE 3.5

				2017	2018			
Million euro	2016	2017	2018	IV	I	II	III	IV
Asset	32,091.6	31,424.7	27,835.9	31,424.7	30,755.8	30,831.7	30,758.8	27,835.9
Portfolio investment	28,127.7	28,804.9	24,840.8	28,804.9	28,072.2	27,989.2	27,919.3	24,840.8
Domestic securities	7,707.1	6,229.4	5,031.5	6,229.4	5,714.0	5,640.4	5,390.3	5,031.5
Debt securities	2,395.4	1,653.8	1,433.8	1,653.8	1,275.2	1,334.2	1,237.0	1,433.8
Shares	2,871.9	2,674.5	2,193.7	2,674.5	2,684.5	2,586.4	2,543.9	2,193.7
Collective investment schemes	1,485.3	1,625.9	1,193.8	1,625.9	1,494.2	1,487.0	1,400.3	1,193.8
Deposits in credit institutions	925.3	236.2	164.3	236.2	218.2	192.3	170.4	164.3
Derivatives	-5.2	-0.6	-0.2	-0.6	-1.1	-1.3	-5.5	-0.2
Other	34.4	39.7	46.2	39.7	43.0	41.8	44.2	46.2
Foreign securities	20,412.7	22,566.2	19,803.8	22,566.2	22,353.3	22,343.8	22,524.0	19,803.8
Debt securities	4,263.3	4,396.6	4,241.6	4,396.6	4,215.2	4,367.0	4,298.8	4,241.6
Shares	6,465.5	6,987.8	5,979.1	6,987.8	6,844.5	6,832.5	7,169.8	5,979.1
Collective investment schemes	9,653.0	11,153.5	9,540.9	11,153.5	11,267.7	11,114.0	11,048.2	9,540.9
Deposits in credit institutions	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Derivatives	15.7	19.3	27.6	19.3	15.0	16.8	-5.6	27.6
Other	8.4	8.9	14.5	8.9	11.0	13.6	12.8	14.5
Doubtful assets and matured investment	7.9	9.3	5.6	9.3	5.0	5.0	4.9	5.6
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.1	0.6	0.5	0.6	0.6	0.6	0.6	0.5
Cash	3,791.7	2,421.7	2,731.9	2,421.7	2,500.1	2,521.4	2,576.1	2,731.9
Net balance (Debtors - Creditors)	172.2	197.5	262.6	197.5	182.9	320.5	262.9	262.6

Financial mutual funds: number, investors and total net assets by category[1, 2]

TABLE 3.6

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[3]
NO. OF FUNDS								
Total financial mutual funds	1,805	1,741	1,725	1,748	1,724	1,719	1,725	1,727
Fixed-income[4]	306	290	279	284	281	280	279	279
Mixed fixed-income[5]	148	155	168	154	161	166	168	169
Mixed equity[6]	168	176	184	177	176	179	184	185
Euro equity	112	111	113	106	108	111	113	114
Foreign equity	201	211	236	224	229	229	236	237
Guaranteed fixed-income	122	79	67	76	69	67	67	68
Guaranteed equity[7]	198	188	163	186	175	167	163	162
Global funds	203	225	242	241	236	238	242	243
Passive management	220	202	172	201	187	181	172	172
Absolute return	106	104	99	99	102	99	99	96
INVESTORS								
Total financial mutual funds	8,253,611	10,287,454	11,217,569	11,019,934	11,435,155	11,332,911	11,217,569	11,169,497
Fixed-income[4]	2,347,984	2,627,547	2,709,547	2,711,617	2,840,000	2,726,028	2,709,547	2,707,048
Mixed fixed-income[5]	1,043,798	1,197,523	1,188,157	1,239,848	1,252,577	1,245,007	1,188,157	1,182,579
Mixed equity[6]	448,491	584,408	624,290	618,234	615,754	623,901	624,290	621,806
Euro equity	395,697	710,928	831,115	877,146	929,169	833,260	831,115	823,075
Foreign equity	1,172,287	1,865,367	2,225,366	2,071,665	2,186,454	2,237,176	2,225,366	2,212,046
Guaranteed fixed-income	307,771	190,075	165,913	184,036	175,776	166,125	165,913	162,666
Guaranteed equity[7]	552,445	527,533	494,660	519,396	505,574	499,529	494,660	495,351
Global funds	658,722	1,086,937	1,501,730	1,236,975	1,366,657	1,444,064	1,501,730	1,498,812
Passive management	746,233	638,966	543,192	601,927	554,981	552,612	543,192	542,528
Absolute return	565,325	858,170	930,641	959,090	1,008,213	1,002,252	930,641	920,629
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	237,862.2	265,194.8	259,095.0	271,264.3	273,774.0	274,645.4	259,095.0	263,755.7
Fixed-income[4]	74,226.4	70,563.9	66,889.3	69,325.4	68,881.3	67,936.3	66,889.3	66,597.4
Mixed fixed-income[5]	40,065.6	43,407.0	40,471.0	43,766.1	43,979.4	43,640.9	40,471.0	40,800.0
Mixed equity[6]	16,310.6	22,386.7	23,256.0	23,860.3	24,039.9	24,782.7	23,256.0	24,058.3
Euro equity	8,665.9	12,203.2	12,177.7	13,714.2	14,282.2	13,985.1	12,177.7	12,933.8
Foreign equity	17,678.8	24,064.6	24,404.9	24,808.0	26,484.3	27,648.1	24,404.9	26,058.9
Guaranteed fixed-income	8,679.8	5,456.7	4,887.4	5,311.3	4,982.8	4,779.7	4,887.4	4,859.2
Guaranteed equity[7]	15,475.7	15,417.5	14,556.0	15,203.6	14,664.1	14,294.3	14,556.0	14,690.0
Global funds	20,916.8	35,511.5	42,137.2	39,908.6	42,633.5	44,676.3	42,137.2	43,292.8
Passive management	23,601.6	19,477.8	16,138.6	18,097.7	16,686.8	16,580.5	16,138.6	16,529.2
Absolute return	12,215.2	16,705.9	14,172.5	17,269.0	17,139.7	16,307.1	14,172.5	13,931.6

1 Sub-funds which have sent reports to the CNMV excluding those in process of dissolution or liquidation.
2 Data on side-pocket sub- are only included in aggregate figures, an not in each individual category.
3 Available data: January 2019.
4 Fixed income euro, Foreign fixed-income, Monetary market funds and Short-term monetary market funds.
5 Mixed euro fixed-income and Foreign mixed fixed-income.
6 Mixed euro equity and Foreign mixed equity.
7 Guaranteed equity and Partial guarantee.

Financial mutual funds: detail of investors and total net assets by types

TABLE 3.7

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[1]
INVESTORS								
Total financial mutual funds	8,253,611	10,287,454	11,217,569	11,019,934	11,435,155	11,332,911	11,217,569	11,169,497
Individuals	8,059,916	10,080,255	11,008,977	10,804,999	11,218,135	11,120,683	11,008,977	10,962,379
Residents	7,985,404	9,994,395	10,917,387	10,716,077	11,127,615	11,029,299	10,917,387	10,870,929
Non-residents	74,512	85,860	91,590	88,922	90,520	91,384	91,590	91,450
Legal entities	193,695	207,199	208,592	214,935	217,020	212,228	208,592	207,118
Credit institutions	497	515	655	506	635	642	655	649
Other resident institutions	192,381	205,804	207,073	213,531	215,461	210,704	207,073	205,601
Non-resident institutions	817	880	864	898	924	882	864	868
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	237,862.2	265,194.8	259,095.0	271,264.3	273,774.0	274,645.4	259,095.0	263,755.7
Individuals	195,567.5	218,429.6	215,785.0	223,612.2	226,346.6	227,261.9	215,785.0	219,643.2
Residents	192,743.0	215,290.8	212,758.3	220,446.1	223,127.5	224,043.9	212,758.3	216,554.8
Non-residents	2,824.5	3,138.8	3,026.7	3,166.1	3,219.0	3,218.0	3,026.7	3,088.4
Legal entities	42,294.8	46,765.1	43,310.0	47,652.1	47,427.4	47,383.5	43,310.0	44,112.6
Credit institutions	374.3	342.2	384.1	369.7	346.2	450.5	384.1	403.3
Other resident institutions	41,212.4	45,518.8	41,967.9	46,318.5	46,033.0	45,887.6	41,967.9	42,691.0
Non-resident institutions	708.1	904.1	957.9	963.9	1,048.1	1,045.5	957.9	1,018.3

1 Available data: January 2019.

Subscriptions and redemptions of financial mutual funds by category[1, 2]

TABLE 3.8

Million euro	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
SUBSCRIPTIONS								
Total financial mutual funds	113,274.7	151,586.4	n.a.	46,229.8	48,437.9	34,408.7	23,005.0	n.a.
Fixed-income	53,163.3	59,088.5	n.a.	18,942.1	18,772.2	15,737.5	8,699.0	n.a.
Mixed fixed-income	11,065.3	20,513.3	n.a.	5,216.0	6,323.9	3,908.0	2,410.4	n.a.
Mixed equity	4,250.6	10,452.2	n.a.	2,932.9	4,351.9	2,295.2	2,037.0	n.a.
Euro equity	3,716.3	9,452.9	n.a.	4,184.1	2,908.8	1,731.3	1,215.5	n.a.
Foreign equity	7,167.6	14,866.5	n.a.	5,632.3	4,907.1	2,891.3	2,768.8	n.a.
Guaranteed fixed-income	2,005.3	986.9	n.a.	183.1	110.9	167.1	171.2	n.a.
Guaranteed equity	7,942.5	2,413.1	n.a.	314.3	346.2	490.0	358.8	n.a.
Global funds	8,914.5	21,571.9	n.a.	6,060.3	7,502.4	5,118.3	4,014.5	n.a.
Passive management	10,195.7	2,374.0	n.a.	489.0	752.9	356.9	559.7	n.a.
Absolute return	4,853.2	9,867.1	n.a.	2,275.8	2,461.5	1,713.1	770.1	n.a.
REDEMPTIONS								
Total financial mutual funds	99,492.3	130,248.0	n.a.	40,584.7	39,524.8	32,389.8	22,161.3	n.a.
Fixed-income	45,549.5	62,087.2	n.a.	18,873.1	19,828.2	15,838.0	9,449.9	n.a.
Mixed fixed-income	14,242.9	18,011.6	n.a.	4,503.4	5,597.7	3,962.0	3,002.9	n.a.
Mixed equity	7,280.8	4,942.6	n.a.	1,442.6	2,483.3	1,749.7	1,298.8	n.a.
Euro equity	4,259.2	6,908.0	n.a.	3,641.1	1,051.1	1,475.6	1,340.1	n.a.
Foreign equity	6,821.0	10,363.6	n.a.	4,517.0	3,363.2	2,092.2	1,763.1	n.a.
Guaranteed fixed-income	5,208.0	3,876.9	n.a.	530.9	309.4	399.8	170.2	n.a.
Guaranteed equity	2,464.1	3,001.5	n.a.	853.4	607.8	810.1	544.7	n.a.
Global funds	5,334.6	8,587.6	n.a.	2,421.5	2,667.2	2,414.6	2,268.8	n.a.
Passive management	4,405.7	6,954.8	n.a.	1,939.2	1,899.6	1,737.9	807.1	n.a.
Absolute return	3,906.8	5,488.2	n.a.	1,836.6	1,717.2	1,909.9	1,515.7	n.a.

1 Estimated data.
2 Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Change in assets in financial mutual funds by category: Net subscriptions/redemptions and return on assets[1]

TABLE 3.9

				2017	2018			
Million euro	2016	2017	2018	IV	I	II	III	IV
NET SUBSCRIPTIONS/REDEMPTIONS								
Total financial mutual funds	13,823.2	21,325.0	7,841.8	5,642.3	8,913.3	2,014.0	856.1	-3,941.6
Fixed-income	8,243.5	-3,638.0	-2,766.0	265.0	-1,145.9	30.0	-887.2	-762.9
Mixed fixed-income	-4,750.8	2,890.5	-1,063.7	686.6	731.3	448.9	-295.7	-1,948.2
Mixed equity	-5,194.5	5,498.6	2,485.9	1,516.4	1,878.4	40.4	634.5	-67.4
Euro equity	-538.0	2,549.7	1,848.7	495.1	1,827.58	257.4	-124.6	-111.6
Foreign equity	-32.5	4,514.0	3,864.1	1,114.5	1,638.4	813.6	961.8	450.3
Guaranteed fixed-income	-3,699.6	-3,262.6	-575.8	-388.7	-198.5	-262.9	-168.1	53.7
Guaranteed equity	5,465.9	-309.5	-667.2	-498.1	-268.5	-368.1	-245.6	215.0
Global funds	7,801.3	13,405.9	9,448.9	3,629.5	5,055.6	2,695.5	1,836.9	-139.1
Passive management	5,603.4	-4,585.0	-2,790.4	-1,450.3	-1,275.4	-1,447.8	-77.2	10.0
Absolute return	943.5	4,287.3	-1,899.6	298.3	729.0	-193.1	-794.1	-1,641.4
RETURN ON ASSETS								
Total financial mutual funds	1,909.9	6,022.6	-13,919.3	1,086.6	-2,837.8	499.0	25.4	-11,605.9
Fixed-income	399.3	-24.1	-908.5	1.9	-92.6	-474.0	-57.8	-284.1
Mixed fixed-income	25.1	451.4	-1,865.1	50.2	-370.6	-233.8	-40.9	-1,219.8
Mixed equity	2.2	577.8	-1,616.6	115.9	-404.8	139.2	108.3	-1,459.3
Euro equity	110.8	987.8	-1,871.2	-45.0	-257.8	254.6	-172.4	-1,695.6
Foreign equity	568.4	1,872.3	-3,522.6	505.0	-894.8	863.3	202.1	-3,693.2
Guaranteed fixed-income	3.9	39.4	6.6	17.1	53.2	-65.6	-35.0	54.0
Guaranteed equity	43.1	251.3	-194.2	5.8	54.6	-171.4	-124.2	46.8
Global funds	432.1	1,190.3	-2,602.1	443.7	-657.9	249.0	206.3	-2,399.5
Passive management	281.5	472.9	-537.5	-44.3	-101.1	36.9	-21.4	-451.9
Absolute return	43.7	203.4	-796.6	67.1	-165.9	-99.1	-38.4	-493.2

1 Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Return on assets in financial mutual funds. Breakdown by category[1]

TABLE 3.10

				2017	2018			
% of daily average total net assets	2016	2017	2018	IV	I	II	III	IV
MANAGEMENT YIELDS								
Total financial mutual funds	1.91	3.41	-4.19	0.67	-0.82	0.43	0.25	-4.14
Fixed-income	1.24	0.59	-0.79	0.16	0.00	-0.55	0.05	-0.30
Mixed fixed-income	1.26	2.22	-3.25	0.40	-0.59	-0.26	0.16	-2.66
Mixed equity	1.45	4.36	-5.46	0.88	-1.41	0.92	0.73	-5.72
Euro equity	3.38	11.14	-11.98	0.07	-1.56	2.24	-0.75	-12.66
Foreign equity	5.55	10.80	-11.89	2.64	-3.20	3.75	1.15	-13.73
Guaranteed fixed-income	0.79	1.14	0.56	0.44	1.12	-1.19	-0.63	1.23
Guaranteed equity	1.09	2.18	-0.80	0.15	0.50	-1.02	-0.71	0.43
Global funds	3.95	5.39	-5.11	1.64	-1.45	0.87	0.77	-5.25
Passive management	2.11	2.81	-2.55	-0.08	-0.39	0.37	0.02	-2.66
Absolute return	1.41	2.32	-4.01	0.46	-0.76	-0.37	-0.02	-3.09
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	0.95	0.91	0.86	0.23	0.21	0.22	0.22	0.21
Fixed-income	0.58	0.54	0.45	0.13	0.11	0.11	0.12	0.11
Mixed fixed-income	1.12	1.05	0.96	0.26	0.25	0.24	0.24	0.24
Mixed equity	1.40	1.34	1.26	0.33	0.31	0.32	0.32	0.31
Euro equity	1.75	1.71	1.47	0.42	0.37	0.37	0.37	0.35
Foreign equity	1.71	1.69	1.41	0.42	0.36	0.36	0.36	0.33
Guaranteed fixed-income	0.68	0.48	0.38	0.11	0.10	0.10	0.09	0.09
Guaranteed equity	0.70	0.58	0.53	0.14	0.13	0.14	0.13	0.13
Global funds	1.26	1.07	0.98	0.27	0.25	0.25	0.25	0.25
Passive management	0.56	0.52	0.48	0.13	0.12	0.12	0.12	0.11
Absolute return	0.96	0.91	0.79	0.23	0.20	0.20	0.20	0.20
EXPENSES. DEPOSITORY FEE								
Total financial mutual funds	0.08	0.08	0.07	0.02	0.02	0.02	0.02	0.02
Fixed-income	0.07	0.07	0.06	0.02	0.02	0.02	0.01	0.02
Mixed fixed-income	0.09	0.09	0.08	0.02	0.02	0.02	0.02	0.02
Mixed equity	0.11	0.10	0.10	0.02	0.02	0.02	0.02	0.02
Euro equity	0.12	0.11	0.10	0.03	0.02	0.02	0.02	0.02
Foreign equity	0.12	0.10	0.09	0.02	0.02	0.02	0.02	0.02
Guaranteed fixed-income	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01
Guaranteed equity	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01
Global funds	0.10	0.09	0.08	0.02	0.02	0.02	0.02	0.02
Passive management	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.01
Absolute return	0.08	0.07	0.06	0.02	0.02	0.02	0.02	0.02

1 Data on side-pocket sub-funds data are only included in aggregate figures, and not in each individual category.

Quarterly returns of mutual funds. Breakdown by category[1]

TABLE 3.11

				2018				2019
In %	2016	2017	2018	I	II	III	IV	I[2]
Total financial mutual funds	0.98	2.42	-4.89	-1.04	0.23	0.02	-4.13	2.28
Fixed-income	0.52	-0.13	-1.44	-0.26	-0.68	-0.09	-0.42	0.34
Mixed fixed-income	0.27	1.10	-4.27	-0.84	-0.53	-0.10	-2.85	1.50
Mixed equity	1.19	3.23	-6.45	-1.69	0.62	0.43	-5.83	3.34
Euro equity	2.61	11.16	-13.01	-1.77	1.88	-1.29	-11.94	6.12
Foreign equity	4.15	8.75	-12.34	-3.51	3.59	0.88	-13.06	7.19
Guaranteed fixed-income	-0.03	0.72	0.09	1.02	-1.30	-0.75	1.14	0.71
Guaranteed equity	0.19	1.61	-1.33	0.35	-1.16	-0.86	0.34	0.68
Global funds	1.99	4.46	-5.69	-1.58	0.66	0.49	-5.27	3.68
Passive management	1.16	2.13	-3.16	-0.51	0.23	-0.15	-2.74	1.16
Absolute return	0.38	1.44	-4.81	-0.93	-0.57	-0.23	-3.14	1.15

1 Data on side-pocket sub-funds data are only included in aggregate figures, and not in each individual category.
2 Available data: January 2019.

Hedge funds and funds of hedge funds

TABLE 3.12

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
HEDGE FUNDS								
Investors/shareholders	3,089	2,930	3,656	3,656	3,973	4,077	4,350	4,437
Total net assets (million euro)	1,764.8	1,889.2	2,298.2	2,298.2	2,329.7	2,335.3	2,397.7	2,343.9
Subscriptions (million euro)	596.6	425.5	663.9	195.6	176.0	85.3	150.2	63.3
Redemptions (million euro)	260.5	376.6	607.2	108.5	128.1	110.6	74.5	22.2
Net subscriptions/redemptions (million euro)	336.1	48.9	56.7	87.1	48.0	-25.3	75.6	41.1
Return on assets (million euro)	56.3	75.5	149.4	19.0	-16.5	30.9	-13.2	-94.9
Returns (%)	4.83	4.32	7.84	0.80	-0.91	1.35	-0.75	-4.84
Management yields (%)[2]	6.17	4.68	9.51	1.31	-0.38	1.68	-0.40	-3.92
Management fee (%)[2]	2.34	2.25	2.59	0.47	0.85	0.38	0.24	0.14
Financial expenses (%)[2]	0.51	0.10	0.00	0.00	0.00	0.00	0.00	0.00
FUNDS OF HEDGE FUNDS								
Investors/shareholders	1,265	1,237	3,596	3,596	3,605	2,797	2,802	2,800
Total net assets (million euro)	319.8	293.7	468.7	468.7	470.0	469.0	472.2	467.8
Subscriptions (million euro)	8.3	0.0	205.4	12.0	3.4	0.5	1.5	–
Redemptions (million euro)	54.9	28.1	22.1	14.3	0.4	0.2	0.0	–
Net subscriptions/redemptions (million euro)	-46.6	-28.1	183.4	-2.3	3.1	0.3	1.4	–
Return on assets (million euro)	21.0	2.1	-8.3	-1.0	-1.8	-1.3	1.8	–
Returns (%)	6.16	0.90	-1.66	-0.13	-0.37	-0.27	0.42	-0.94
Management yields (%)[3]	6.61	-0.95	-0.24	0.43	0.08	0.18	0.99	–
Management fee (%)[3]	0.48	0.82	1.45	0.42	0.40	0.40	0.42	–
Depository fee (%)[3]	0.04	0.06	0.06	0.02	0.01	0.02	0.02	–

1 Available data: November 2018.
2 % of monthly average total net assets.
3 % of daily average total net assets.

Management companies. Number of portfolios and assets under management[1]

TABLE 3.13

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[2]
NUMBER OF PORTFOLIOS[3]								
Mutual funds	1,748	1,676	1,617	1,668	1,628	1,630	1,617	1,622
Investment companies	3,231	2,824	2,713	2,784	2,754	2,725	2,713	2,695
Funds of hedge funds	7	8	7	8	7	7	7	7
Hedge funds	41	47	49	47	46	49	49	49
Real estate mutual funds	3	3	3	3	3	3	3	2
Real estate investment companies	6	4	4	4	4	4	4	4
ASSETS UNDER MANAGEMENT (million euro)								
Mutual funds	237,862.2	265,194.8	259,095.0	271,264.3	273,774.0	274,645.4	259,095.0	263,755.7
Investment companies	31,783.2	31,021.1	27,479.7	30,366.6	30,428.1	30,356.4	27,479.7	28,471.0
Funds of hedge funds[4]	293.7	468.7	469.9	470.0	469.0	472.3	466.4	–
Hedge funds[4]	1,889.2	2,298.2	2,335.1	2,329.6	2,335.3	2,397.7	2,343.9	–
Real estate mutual funds	370.1	360.0	309.4	360.9	309.4	309.4	309.4	309.4
Real estate investment companies	707.3	631.5	748.8	559.6	570.9	568.5	748.8	749.1

1 Until March 2016, all assets of investment companies which are co-managed by management companies and other different companies are considered "assets under management".
2 Available data: January 2019.
3 Data source: Collective Investment Schemes Registers.
4 Available data for IV quarter 2018: November 2018.

Foreign Collective Investment Schemes marketed in Spain[1, 2, 3]

TABLE 3.14

	2016	2017	2018	2017 IV	2018 I	2018 II	2018 III	2018 IV
INVESTMENT VOLUME[4] (million euro)								
Total	114,990.2	150,420.6	n.a.	150,420.6	161,394.0	174,946.1	180,924.1	n.a.
Mutual funds	21,337.5	26,133.9	n.a.	26,133.9	27,908.5	33,038.4	34,880.5	n.a.
Investment companies	93,652.8	124,286.7	n.a.	124,286.7	133,485.5	141,907.7	146,043.6	n.a.
INVESTORS/SHAREHOLDERS[4]								
Total	1,748,604	1,984,474	n.a.	1,984,474	3,253,485	3,325,314	3,035,849	n.a.
Mutual funds	372,872	431,295	n.a.	431,295	639,377	662,625	593,388	n.a.
Investment companies	1,375,732	1,553,179	n.a.	1,553,179	2,614,108	2,662,689	2,442,461	n.a.
NUMBER OF SCHEMES								
Total	941	1,013	1,024	1,013	1,009	1,022	1,031	1,024
Mutual funds	441	455	429	455	450	446	445	429
Investment companies	500	558	595	558	559	576	586	595
COUNTRY								
Luxembourg	391	429	447	429	425	437	444	447
France	286	292	263	292	288	276	270	263
Ireland	160	184	200	184	187	196	200	200
Germany	32	35	42	35	36	38	41	42
UK	32	33	27	33	33	30	31	27
The Netherlands	2	2	2	2	2	2	2	2
Austria	23	21	24	21	21	24	24	24
Belgium	4	5	5	5	5	5	5	5
Denmark	1	1	1	1	1	1	1	1
Finland	4	8	9	8	8	9	9	9
Liechtenstein	6	3	4	3	3	4	4	4

1 This table includes only UCITs data. Until IV quarter 2017 Exchange Traded Funds (ETFs) data are not included.
2 On 1 January 2018, CNMV Circular 2/2017 entered into force, which has increased the entities subject to reporting requirements, and therefore data may not be comparable to the previous information.
3 In 2018, data on investment volume and investors/shareholders are estimated with the 99.2% of the entities subject to reporting requirements in the first quarter, the 95.5% in the second quarter and the 93.9% in the third quarter.
4 Investment volume: participations or shares owned by the investors/shareholders at the end of the period valued at that moment.

Real estate investment schemes[1]

TABLE 3.15

	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV	2019 I[2]
REAL ESTATE MUTUAL FUNDS								
Number	3	3	2	3	2	2	2	2
Investors	3,927	1,097	483	1,092	483	483	483	483
Asset (million euro)	370.1	360.0	309.4	360.9	309.4	309.4	309.4	309.4
Return on assets (%)	-5.35	-2.60	0.24	0.24	0.02	-0.01	0.01	0.00
REAL ESTATE INVESTMENT COMPANIES								
Number	6	4	4	4	4	4	4	4
Shareholders	674	327	422	425	425	423	422	422
Asset (million euro)	707.3	631.5	749.1	559.6	570.9	568.5	748.8	749.1

1 Real estate investment schemes which have sent reports to the CNMV, excluding those in process of dissolution or liquidation.
2 Available data: January 2019.