



CNMV BULLETIN
Quarter II
2020



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Abbreviations

AA. PP.	Public administration service
ABS	Asset-Backed Security
AIAF	Spanish Market in Fixed-income Securities
AIF	Alternative Investment Fund
ANCV	Spanish National Numbering Agency
APA	Approved Publication Arrangement
APR	Annual Percentage Rate
ASCRI	Spanish Venture Capital & Private Equity Association
AV	Broker
BIS	Bank for International Settlements
BME	Spanish Stock Markets and Financial Systems
CADE	Public Debt Book-entry Trading System
CC. AA.	Autonomous regions
CCP	Central Counterparty
CDS	Credit Default Swap
CFA	Atypical financial contract
CFD	Contract For Differences
CISMC	CIS Management Company
CNMV	(Spanish) National Securities Market Commission
CP	Crowdfunding Platform
CS	Customer Service
CSD	Central Securities Depository
CSRD	Central Securities Depositories Regulation
DLT	Distributed Ledger Technology
EAF	Financial advisory firm
EBA	European Banking Authority
EBITDA	Earnings Before Interest Taxes, Depreciation and Amortisation
EC	European Commission
ECA	Credit and savings institution
ECB	European Central Bank
ECR	Venture capital firm
EFAMA	European Fund and Asset Management Association
EFSM	European Financial Stabilisation Mechanism
EICC	Closed-ended collective investment company
EIOPA	Occupational Pensions Authority
EIP	Public interest entity
EMIR	European Market Infrastructure Regulation
EMU	Economic and Monetary Union
ESFS	European System of Financial Supervision
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange Traded Fund
EU	European Union
EUSEF	European Social Entrepreneurship Fund
FICC	Closed-ended collective investment fund

FII	Real estate investment fund
FIN-NET	Financial Dispute Resolution Network
FINTECH	Financial Technology
FOGAIN	Investment Guarantee Fund
FRA	Forward Rate Agreement
FROB	Fund for Orderly Bank Restructuring
FSB	Financial Stability Board
FTA	Asset securitisation fund
FTH	Mortgage securitisation fund
GDP	Gross Domestic Product
HF	Hedge Fund
HFT	High Frequency Trading
IAGC	Annual corporate governance report
IARC	Annual report on director remuneration
IAS	International Accounting Standards
ICIS	Collective investment company/scheme
ICO	Initial Coin Offering
IF	Investment Firm / Investment Fund
IFRS	International Financial Reporting Standards
IIMV	Ibero-American Securities Market Institute
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPO	Initial Public Offering (for sale/subscription of securities)
IPP	Periodic public information
IRR	Internal Rate of Return
ISIN	International Securities Identification Number
KIID/KID	Key Investor Information Document
Latibex	Market of Latin American Securities
LEI	Legal Entity Identifier
LIIC	Spanish Collective Investment Companies Act
LMV	Spanish Securities Market Act
MAB	Alternative Stock Market
MAD	Market Abuse Directive
MAR	Market Abuse Regulation
MARF	Alternative Fixed-Income Market
MBS	Mortgage Backed Securities
MEFF	Spanish Financial Futures Market
MFP	Maximum Fee Prospectus
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MOU	Memorandum Of Understanding
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
MTF	Multilateral Trading Facility
MTS	Market for Treasury Securities
NCA	National Competent Authority
NDP	National Domestic Product
OECD	Organisation for Economic Cooperation and Development
OIS	Overnight Indexed Swaps
OTC	Over The Counter
OTF	Organised Trading Facility
PER	Price-to-Earnings Ratio
PRIIP	Packaged Retail and Insurance Based Investment Product
PUI	Loan of last resort
RAROC	Risk-Adjusted Return On Capital

REIT	Real Estate Investment Trust
RENADE	Spanish National Registry for Greenhouse Gas Emission Allowances
RFQ	Request For Quote
ROA	Return On Assets
ROE	Return On Equity
SAMMS	Advanced Secondary Market Tracking System
SAREB	Asset Management Company for Assets Arising from Bank Restructuring
SENAF	Electronic Trading Platform for Spanish Government Bonds
SEND	Electronic Debt Trading System
SEPBLAC	The Executive Service of the Commission for the Prevention of Money Laundering and Monetary Offences
SGC	Portfolio management company
SGECR	Venture capital firm management company
SGEIC	Closed-ended investment scheme management company
SGFT	Asset securitisation fund management company
SIBE	Electronic Spanish Stock Market Interconnection System
SICAV	Open-ended collective investment company
SICC	Closed-ended collective investment company
SII	Real estate investment company
SIL	Hedge fund with legal personality
SME	Small and Medium Enterprise
SNCE	National Electronic Clearing System
SPV/SFV	Special purpose/financial vehicle
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
STOR	Suspicious Transaction and Order Report
SV	Broker-dealer
T2S	Target2-Securities
TER	Total Expense Ratio
TOB	Takeover Bid
TRLMV	Recast text of the Spanish Securities Market Act
TVR	Theoretical Value of the Right
UCITS	Undertaking for Collective Investment in Transferable Securities
VCF	Venture Capital Firm / Venture Capital Fund
XBRL	Extensible Business Reporting Language

I Domestic and international financial market performance

International financial markets

The improvement in the health situation resulting from the coronavirus pandemic in Europe and Asia, with the progressive reopening of economies in these regions, in addition to the reactivation of economic activity in the United States, which has fuelled the possibility of a faster recovery, albeit not exempt from risk due to fresh outbreaks, led to significant gains in the international stock markets in the second quarter of the year.¹ In some cases, the markets recovered a significant portion of the losses made in the previous three months, when they recorded the worst quarterly performance in their history.²

This bullish trend, which lasted until the first week of June, when the Federal Reserve predicted a more intense economic contraction than expected at the beginning of the crisis,³ lost momentum once it became known that the more positive initial expectations were tending to deteriorate. These forecasts confirmed a period of economic crisis with a recession on a scale not seen since World War II and put paid to expectations of a V-shaped recovery. The International Monetary Fund (IMF) also published an update of its *World Economic Outlook* report,⁴ which confirmed that recovery would be weaker than expected due to the economic impact of the isolation and distancing measures, in addition to the threats of new tariffs being imposed by the United States on France, Germany, Spain and the United Kingdom, and fears of a flare-up of the virus in autumn that could bring economic recovery to a standstill. On the positive side, the massive monetary and fiscal stimulus programmes launched by the main central banks and governments around the world continue to have an effect,⁵ and some better-than-expected economic activity and consumer confidence data have been released.

1 The closing date for this report is 30 June, except for certain specific information.

2 The leading world stock market indices saw falls in the first quarter of the year, which ranged between 14.2% and 23.2% in the US markets, were more than 25% in the major euro area markets and close to 20% in Japan.

3 The Federal Reserve estimated a contraction of 6.5% for the US in 2021, while indicating that it would keep its rates close to zero throughout 2021 and 2022.

4 IMF forecasts (*WEO* report) indicate a greater than expected global contraction (-4.9% as against -3% in April) and a more moderate recovery in 2021 (5.4% as against 5.8% in April), which implies that at the end of next year world GDP will be 6.5 percentage points lower than the corresponding forecasts published in January 2020. The advanced economies will suffer the greatest impact (-8% as against -6% in April), with setbacks in Spain, Italy and France (-12.8%, -12.8% and -12.5%, respectively) standing out. The recession is expected to be less severe in other advanced economies: USA (-8%), Germany (-7.8%) and Japan (-5.8%). Emerging markets are slated to contract by 3% (as against -1% in April), with particularly sharp falls in Brazil and Mexico, as against the small rise of 1% in China, which is the only large economy expected to record growth. The IMF estimates an increase in public debt of 19 percentage points, to 101% of GDP.

5 In June, the European Central Bank (ECB) approved an extension of its PEPP (Pandemic Emergency Purchase Programme) amounting to €600 billion (making a total of €1.35 trillion) and announced that it will run the programme until June 2021 or beyond if necessary. Likewise, it awarded €1.31 billion to 742 financial institutions in the fourth TLTRO-III (Targeted Longer-Term Refinancing Operations-III) liquidity auction held in mid-June, the highest amount ever awarded in the history of refinancing transactions. The liquidity granted over three years has a cost of -0.5% p.a., which can reach -1% for banks meeting certain requirements for maintaining credit volumes. In addition, it announced a liquidity line aimed at central banks outside the euro area (called EUREP) to facilitate the proper transmission of monetary policy. Further, the ECB estimates that the euro area will see a drop of 8.4% in 2020 and that the recovery will be slow, reaching 6% in 2021. Despite the market liquidity, inflation is forecast to stand at 0.3% this year, while rates will remain anchored at 0% for a long period of time. The Federal Reserve started to buy corporate bonds on the secondary markets under its SMCCF (Secondary Market Corporate Credit Facility)

Despite this complex environment, the main international stock markets made significant gains in the second quarter. These gains were more moderate in the European markets, where the smallest increases were observed in Spain and, to a lesser extent, in France and Italy, economies that are expected to be hit harder by the drop in activity. All the US indices made substantial gains in the second quarter, ranging between 17.8% for the Dow Jones and 30.6% for the technology-heavy NASDAQ, which reached a new all-time high. At 30 June, the latter had accumulated an annual gain of more than 12%, thanks to strong rises in the quoted prices of technology companies,⁶ which benefited from the new forms of consumption driven by the lockdown measures. The more general S&P 500 index⁷ gained 20%, its largest quarterly advance since 1998, at the height of the dot-com boom, while the Dow Jones recorded its largest increases in the same period since 1987. In the main European markets, price increases were more moderate and index gains ranged between 6.6% for Spain's Ibex 35 and 23.9% for Germany's Dax 30. Despite the stimulus measures implemented by the ECB and governments, European markets were conditioned by their greater dependence on companies linked to the traditional economy, their less flexible economies and the larger falls in GDP, in a context in which there have been certain difficulties in making decisions at European level to combat the situation arising from the health crisis with economic measures.⁸

Performances of the main stock market indices

TABLE 1

	%							% vs Dec-19
	2017	2018	2019	III 19	IV 19	I 20	II 20	
Euro area								
Eurostoxx 50	6.5	-14.3	24.8	2.8	4.9	-25.6	16.0	-13.6
Dax 30	12.5	-18.3	25.5	0.2	6.6	-25.0	23.9	-7.1
Cac 40	9.3	-11.0	26.4	2.5	5.3	-26.5	12.3	-17.4
Mib 30	13.6	-16.1	28.3	4.1	6.3	-27.5	13.6	-17.6
Ibex 35	7.4	-15.0	11.8	0.5	3.3	-28.9	6.6	-24.3
United States								
Dow Jones	25.1	-5.6	22.3	1.2	6.0	-23.2	17.8	-9.6
S&P 500	19.4	-6.2	28.9	1.2	8.5	-20.0	20.0	-4.0
Nasdaq-Composite	28.2	-3.9	35.2	-0.1	12.2	-14.2	30.6	12.1
Japan								
Nikkei 225	19.1	-12.1	18.2	2.3	8.7	-20.0	17.8	-5.8

Source: Thomson Datastream.

programme, which was later extended to the primary market (PMCCF or Primary Market Corporate Credit Facility), while at the same time launching its Main Street lending programme to support larger companies.

6 The shares of the main US technology companies, known as FAANG (Facebook, Apple, Amazon, Netflix and Google) posted gains of 36%, 43%, 41%, 21% and 22% respectively in the second quarter, which extend to 11%, 24%, 49%, 41% and 6% in the first half of the year.

7 FAANG companies account for nearly one fifth of this index's capitalisation, the largest proportion ever seen.

8 Agreement on the format, scope and conditions of the European Recovery Fund is expected to be reached at the European Council meeting on 17 July.

The international debt markets, which suffered short-lived tensions in March due to uncertainties about the impact of the crisis on both public and corporate finances, saw interest rates on public debt and, to a lesser extent, on part of corporate sector debt, return to the levels seen prior to the spread of the pandemic. This was mainly a consequence of the exceptional monetary easing measures adopted by the central banks, which include large-scale purchases of both public and private debt in the secondary markets and financing for banks on favourable terms, as well as the stable outlook for official interest rates, which are expected to remain at low levels for a prolonged period of time. Therefore, interest rates on public debt at the end of the second quarter were at similar levels or even lower than at the beginning of the year, significantly reducing volatility. The 10-year German and US bond yields dropped by 27 basis points (bp) and 126 bp, respectively, from the beginning of the year, to stand at -0.46% and 0.65% at the end of the first half, both slightly above the historic lows reached during the quarter.

In the European Union, both sovereign and corporate debt with high credit ratings – which also benefits from ECB purchases as it is considered eligible – have benefited from these purchases,⁹ and from the expectation that they will be extended in time. In addition, the foreseeable approval of the Recovery Fund will reduce uncertainties about the public finances of the Member States, which in turn will help reduce interest rate volatility. The 10-year government bonds of most major European economies closed June at near historic lows, with YTD falls ranging from the aforementioned 27 bp for the German bond to a slight 5 bp increase for the Portuguese bond (the Spanish bond saw no changes). Yields on 10-year debt were negative in Germany (-0.46%), France (-0.12%), Belgium (-0.13%) and the Netherlands (-0.31%), very close to zero in Ireland (0.07%), and below half a percentage point in Spain (0.47%) and Portugal (0.49%). Only Italy (1.32%) and Greece (1.22%) posted yields above one percentage point. Sovereign and corporate credit premiums remained stable in most sections of the curve and for investment grade assets, although significant increases were observed in higher risk assets and those undergoing rating downgrades.¹⁰

Domestic financial markets

The Spanish financial market stress indicator, which rose sharply in March as a result of the crisis, moving from a low level of stress (below 0.27) to a high level (above 0.49), continued to increase in April, although at a slower rate. At the end of April it was above 0.60, reaching its third historic high after the levels seen during

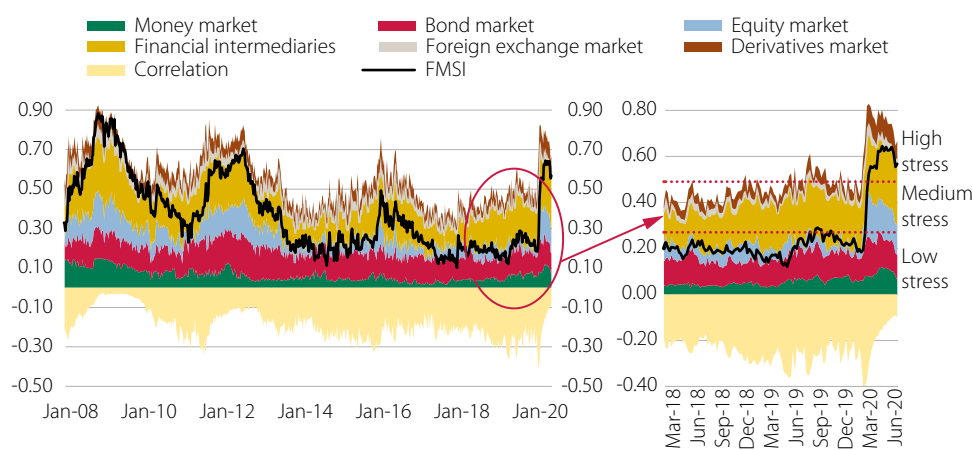
9 The ECB's debt purchase programme (Asset Purchase Programme or APP) accumulated assets amounting to €2.77 trillion at the end of June, which included public debt (€2.24 trillion), corporate debt (€220 billion), covered bonds (€283 billion) and asset-backed securities (€30 billion). This is in addition to the €345 billion accumulated on the same date by the Pandemic Emergency Purchase Programme (PEPP), corresponding to both public and private debt, of which more than €110 billion were acquired in the past year.

10 Over the course of the quarter, credit ratings of various companies in both Europe and the US were downgraded, in some cases placing them below investment grade.

the 2008 financial crisis (0.88) and in the sovereign debt crisis of 2012 (0.70). These values, which were unchanged in May, were the consequence of high levels of stress in the individual indicators (the debt segment, for example, rose to 0.85 in April) and the increased correlation in the system as a whole. From mid-June, the slight downward trend in the various individual segments (except for financial intermediaries, penalised by low stock prices¹¹ and volatility) caused the general indicator to drop slightly to 0.56 (see Figure 1), a value which is still indicative of a high level of stress.

Spanish financial markets stress indicator

FIGURE 1



Source: Thomson Datastream.

Spanish equity markets also posted increases in the second quarter, following a trend parallel to that of the main international equity markets, although the gains were of a lower intensity. This performance was fundamentally curtailed by the negative outlook for the economy (both the IMF and the main international organisations and banks forecast a greater fall in GDP¹² compared with large European economies) and a scenario of high uncertainty in the coming years. It is also worth noting the repercussions deriving from the significant investments held by Spanish companies in Latin America, where the virus is spreading with a great deal of intensity.

In this context, the Ibex 35, after declining 28.9% in the first quarter (its biggest ever quarterly drop), advanced a discreet 6.6% in the second, accumulating losses of 24.3% in the first half of the year. This performance was significantly lower¹³ than that of the rest of the European benchmark indices, which rose by at least

11 The price-to-book ratio of the financial sector as a whole stands at 0.42, a value not seen even in the worst moments of the global financial crisis (at the beginning of 2009), when it stood at 0.56, nor in the moments prior to the request for financial assistance for the Spanish banking system in 2012, when it was around 0.54. Under normal conditions, company quoted prices would be expected to be close to their book value.

12 The National Statistics Institute (INE) confirmed that Spain's GDP fell by 5.2% in the first quarter of the year, the largest setback in the historical series that began in 1970.

13 The CNMV lifted its restrictions on the short selling of certain shares on 18 May, but the analyses carried out by the CNMV on the impact of this measure have not identified anything more than a slight deterioration in the liquidity of the securities affected, with no notable effect on prices.

twice as much as the Spanish index (more than three times in the case of Germany's Dax 30). In general, the sectors with the greatest weight in the Spanish index (financial sector, i.e. banks, and consumer services, including leisure, tourism and hospitality, reflecting the country's economic structure) are experiencing a worse relative performance compared with other European sector indices. For example the financial and consumer goods sectors, which at 30 June 2020¹⁴ had a weighting in the Ibex 35 of 19.1% and 17.1% respectively, and which suffered losses of 40.3% and 31.7% between 1 January and June, have corresponding values of 16.4% and 0% respectively in the Dax 30 index, with the former posting a gain of 2.4% in the same period. In the French Cac 40 index, these sectors represent 11.5% and 8.8% respectively, and saw losses of 22.6% and 18.7% in the same period (the combination of having a greater weight in the index and the worse performance of the sectors with a greater weight led the Ibex 35 to significantly underperform its peers).

The better relative performance of companies with a smaller capitalisation (represented by the Ibex Small Caps index) also stands out. This index saw gains of almost three times that of the Ibex 35 in the second quarter, largely because it contains no financial companies but does have some companies in the pharmaceutical sector, which performed above average.

The performance of quoted prices in the second quarter was not even among sectors or securities (see Table 2), The strongest recoveries were concentrated in companies from the energy, industry, construction and telecommunications sectors, which were less affected by the lockdown, as well as some companies in the food and transport sectors such as Aena, favoured by the gradual return of airport activity. On the negative side, standouts included securities in the consumer goods sector, affected by the shut-down of commercial activity and the drop in consumption, and the meagre gains made by securities in the financial sector, the performance of which is shaped by the projected scenario of further margin reductions for a prolonged period of time, against a backdrop of rising defaults and risk.

The expected decline in corporate earnings over the next few months, together with the slight rise in quoted prices, caused the price-to-earnings ratio of the Ibex 35 to increase significantly, reaching 17.2 x in June,¹⁵ its highest level since 2002. Likewise, volatility, which had reached its highest levels since the 2008 financial crisis in the first quarter, decreased by almost 48 percentage points to close at below 34%¹⁶ in June. Meanwhile, liquidity conditions, which had deteriorated significantly in the first quarter, reflecting the high market volatility and, to some extent, the restrictions established by the CNMV on short selling, progressively improved, returning to close to pre-crisis levels.

14 The weights referred to in the paragraph above have been estimated using the capitalisation of the relevant sectors as at 30 June.

15 In the same period, the PER of the US S&P 500 stock index and the European Eurostoxx 50 index rose to 22.4 and 16.8 x, the highest levels since 2001 and 2002, respectively.

16 Average volatility in the second quarter was 39%, a level similar to that of the European Eurostoxx 50 index (39.5%) and below that of the US Dow Jones (43.2%).

Index	2017	2018	2019	III 19	IV 19	I 20	II 20	% vs Dec-19
Ibex 35	7.4	-15.0	11.8	0.5	3.3	-28.9	6.6	-24.3
Madrid	7.6	-15.0	10.2	-0.3	3.0	-29.4	6.4	-24.9
Ibex Medium Cap	4.0	-13.7	8.4	-5.5	11.1	-31.0	7.8	-25.6
Ibex Small Cap	31.4	-7.5	11.9	-1.3	5.0	-24.6	17.5	-11.5
Sectors¹								
Financial and real estate services	10.5	-27.1	-2.6	-6.3	4.3	-40.7	1.0	-40.1
Oil and energy	3.9	6.1	14.4	5.4	-3.2	-13.9	10.6	-4.8
Basic mats., industry and construction	2.6	-8.6	24.9	2.1	4.1	-30.5	11.5	-22.5
Technology and telecommunications	7.5	-5.5	4.5	-2.5	-0.3	-30.3	11.0	-22.6
Consumer goods	-2.1	-16.7	34.8	5.0	11.3	-19.1	-0.3	-19.3
Consumer services	23.3	-19.7	8.6	-3.9	12.3	-50.2	8.8	-45.8

Sources: BME and Thomson Datastream.

1 Sectors belonging to the IGBM (Madrid Stock Exchange General Index).

Trading in Spanish equities decreased by 23.5% in the second quarter compared with the first, and by 15.6% year-on-year, standing at €187 billion.¹⁷ The accumulated figure for the first half of the year (€431 billion) reflects a 4% year-on-year increase. Of this figure, €233 billion were traded through Bolsas y Mercados Españoles (BME), 1% less than in the same period the previous year. Therefore, Spanish shares traded through BME accounted for 57.5% of the total in the second quarter, representing a notable recovery in market share (which had dropped to a historic low of 52.2% in the previous quarter) compared with other trading venues and competing markets. Trading through competing centres was €198 billion in the first half, up 9.6% year-on-year, the growth of smaller operators being particularly notable.

Further, activity on most European exchanges¹⁸ has been uneven as, although the improvement in the situation alleviates the selling pressure associated with price falls, the lifting of restrictions on short selling boosts trading, as does the fact that volatility remains at relatively high levels. The high volatility favours some forms of trading characterised by high volumes, such as algorithmic trading and high frequency trading (which are more common in trading centres competing with regulated markets).

Issuances were concentrated in the capital increases made by Amadeus and ArcelorMittal, the first of these under the accelerated book build format. Lastly, no IPOs or public offerings were registered in the continuous market, while in the Alternative Stock Market (MAB) there were four listings for a total value of around €30 million.

17 Average daily trading on the continuous market stood at €1.75 billion in the second quarter, 20% less than in the same period of 2019 and 12.5% less than in the first quarter.

18 According to data from the World Federation of Exchanges, accumulated trading up until May increased in year-on-year terms by 10.9% in Deutsche Börse (10.9%), but fell by 3.6% on Euronext, 10.2% in London Stock Exchange Group (London and Italy) and 19.4% in Cboe Europe.

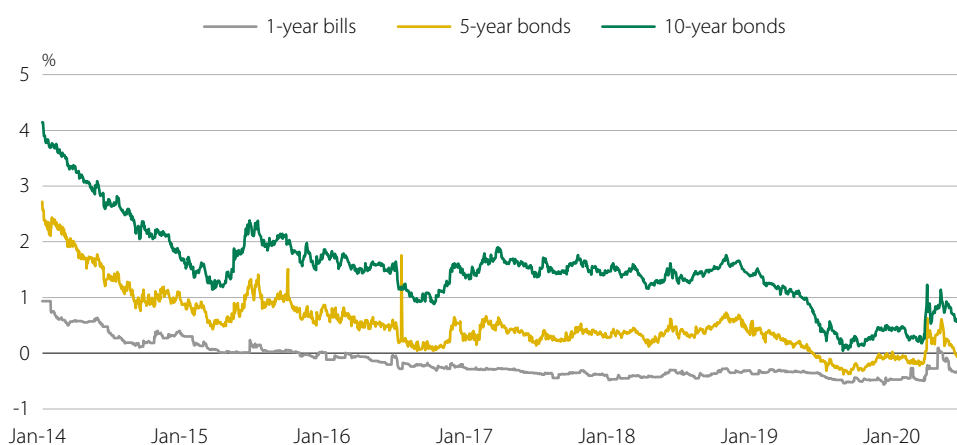
In the fixed income markets, rates dropped progressively as purchases of both public and private debt by the ECB increased, and the ECB confirmed that it would maintain its extraordinary stimulus measures for an extended period of time. Therefore, yields on short-term public debt (see Figure 2) decreased compared with the previous quarter, which had seen significant increases, to reach levels similar to those at the beginning of the year and close to historic lows. In the longer-dated tranches interest rates also fell significantly, with the 10-year bond yield standing at 0.47%, the same level as at the beginning of the year. Corporate bonds followed a similar trend, as major issuers also benefited from the ECB's purchases,¹⁹ although there was a wider dispersion of yields.

The risk premium on sovereign debt started April at 118 bp, and after a temporary upturn in the middle of that month, when it exceeded 150 bp, fell to around 95 bp at the end of June, standing above the 65 bp seen at the start of the year. The better relative performance of the German economy compared with most of the other European Union economies led to a sharper fall in debt yields and a slight increase in risk premiums (compared with the beginning of the year).

The risk premiums applied to private sectors of the economy also followed a downward trend, but the reductions were slightly lower than those of public debt assets. Even so, both the risk premiums applied to financial institutions and non-financial companies showed moderate decreases, favoured by the support of the ECB. In the first case, while the extended period of low interest rates claws away at banks' net interest income, they have access to abundant liquidity and financing at very low cost, while at the same time low interest rates help to moderate the foreseeable increase in non-performing loans in the context of a sharp decline in economic activity. Non-financial companies, meanwhile, benefit from easier access to financing and from keeping their financial expenses low, in an environment of greater uncertainty about the future of their business.

Interest rates on Spanish public debt

FIGURE 2



Source: Thomson Datastream.

19 The ECB runs a specific programme for corporate debt purchases (CSPP, Corporate Sector Purchase Programme) as part of its Asset Purchase Programme (APP) and the new PEPP programme also includes purchases of private debt.

Interest rate on public debt¹

TABLE 3

%

	Dec-17	Dec-18	Dec-19	Sep-19	Dec-19	Mar-20	Jun-20
Treasury bills							
3 months	-0.62	-0.50	-0.58	-0.54	-0.58	-0.28	-0.48
6 months	-0.45	-0.41	-0.47	-0.53	-0.47	-0.24	-0.45
12 months	-0.42	-0.33	-0.48	-0.49	-0.48	-0.28	-0.45
Treasury bonds							
3 year	-0.09	-0.04	-0.29	-0.44	-0.29	0.02	-0.28
5 year	0.31	0.43	-0.06	-0.27	-0.06	0.26	-0.11
10 year	1.46	1.43	0.45	0.20	0.45	0.68	0.47

Source: Thomson Datastream and CNMV.

1 Monthly average of daily data.

In this situation of abundant liquidity and easier-to-perform debt placements, thanks to ECB's purchasing programme, the fixed income issuances made by Spanish companies registered with the CNMV in the second quarter grew by 72% compared with the previous quarter, and by 150% year-on-year, to stand at €35.79 billion. Standouts include issuances of mortgage-backed securities and public sector covered bonds,²⁰ which represented more than 40% of the total, as well as €6.27 billion in internationalisation bonds.²¹ Issuances in the first half totalled €56.55 billion, a year-on-year increase of 61%, which is largely attributable to the increase in issuances of corporate commercial paper and mortgage-backed securities. Issuances made by Spanish companies abroad also rose, albeit at a much more lower rate of 3.8%, reaching €46.28 billion in the first five months of the year. Therefore, considering both the issues registered by Spanish companies with the CNMV and those made abroad, the volume amounted to almost €103 billion, nearly 29% more than in the same period of 2019. This increase reflects the interest of large companies in taking advantage of the good market conditions to raise funds and shore up their liquidity, while also refinancing at longer terms in case financial conditions worsen in the future.

20 Issuances of public sector covered bonds stood at €4.75 billion in the second quarter, the highest value seen in one quarter in recent years and the highest figure since 2016.

21 Issuances of internationalisation bonds corresponded to four issues made by two different issuers, and represent the highest volume in the historical series. Issuances of this type totalled only €1.5 billion in 2019.

II Reports and analysis

Quantifying uncertainty in adverse liquidity scenarios for investment funds

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This study presents a statistical approach for the generation of severe but plausible redemption scenarios for investment funds, which is the main trigger in liquidity stress tests.¹ The copula method allows consistent scenarios to be established for funds with different business models, while the conditional quantiles adjust the severity of the scenario. To carry out the empirical estimation, a single investment fund database is created by combining information from confidential statements and credit quality data. A simulation exercise compares the distribution of the risk measures used to define the redemption scenarios. The results show that the proposed methodology generates narrower confidence intervals for the distribution of the shock than those obtained using the current regulatory approach. Lastly, the response of Spanish investment funds to stress scenarios is analysed in terms of the redemption coverage ratio (RCR). Results show that considering not only the point estimate but also a range of potential redemption scenarios allows vulnerable investment funds to be recognised, that would not be identified by using the point estimation method. Spanish investment funds show resilience to redemption shocks, with the exception of few funds that have significant percentages of illiquid assets, such as high yield corporate bonds.

1 Introduction and review of the literature

Investment fund vulnerabilities can pose potential risks to the stability of the financial system. In particular, the mismatch between the redemption terms and the liquidity of the investment funds generates an externality that can trigger a systemic event.

This problem is created by investors who withdraw large amounts of their investment from the fund. Large redemptions force the fund manager to sell part of the portfolio at a lower price, in order to obtain sufficient liquidity to be able to cover these withdrawals. As a consequence, the cost of withdrawing from the fund is borne by the remaining investors. This creates an incentive to redeem the investment before other investors, known as the “first-mover advantage”, which triggers herding behaviour among investors and makes it difficult for the fund manager to meet all redemption requests. The FSB (2017) identifies liquidity mismatch as one of the main vulnerabilities of open-ended funds. Due to liquidity constraints, funds may be forced to sell their assets at a lower price, which affects the market price and, therefore, other funds with common exposure to these assets (Braverman and Minca, 2018; Cont and Wagalath, 2016; Duarte and Eisenbach, 2015). Losses can lead to a loop of redemptions, fire sales and losses in the investment fund industry, which could affect the real economy through ownership ties, common asset exposure and wholesale financing of funds for banks.

1 I wish to thank Eudald Canadell for his support in the production of this work. I would also like to thank José Alberto Toribio and Miryam Santos for their help in constructing the database, and Ramiro Losada, Ricardo Crisóstomo and Albert Martínez for their comments and suggestions, which have proven very useful for improving the quality of the study.

This potential transmission channel for systemic risk has recently been the object of interest of financial authorities (Office of Financial Research, 2013; IMF, 2015), which have put forward recommendations on the subject (IOSCO, 2018b; IOSCO, 2018a; ESRB 2018). Following these recommendations on investment funds, ESMA (2019) developed a methodology to carry out liquidity stress tests in the investment fund sector, based on a three-step framework related to the redemption shock, fire sales and second-round effects. ESMA considers a wide range of approaches to generate a simulation exercise in its *Economic Report*, but does not explore the robustness of the estimates or more sophisticated techniques that could replicate the stylized facts of the net flows of funds. The existence of a time structure in the series of net flows, changes in volatility over time and the evolution of the relationship net flows, which show tail dependence in stress periods, are empirical features of the net flows that should be reflected by the statistical model. Small changes in model estimates can modify the outcome of the redemption scenarios, adding a degree of difficulty to quantifying the consequences for the financial system once fire sales and second-round effects have been taken into account.

This article focuses on the process of creating redemption scenarios for investment funds, in particular estimating the uncertainty in these scenarios and its implications for stress tests. The modelling and simulation of shocks in investment funds is a key step in the design of liquidity stress tests and, consequently, determines the scale of the adjustments in fund portfolios and their losses. The database used in this work also provides relevant results at a national level as it allows tailor-made investment fund categories to be established and is not restricted by those provided by databases of external providers such as Morningstar. Furthermore, the great granularity of the data made available by the national authorities, in combination with the credit rating databases, enhances the results of the ESMA *Economic Report* (2019).

Specifically, this study uses data on investment funds to analyse how their response in terms of RCR could change depending on the definition of the redemption scenario, its severity and the model risk. Consequently, it is linked to two branches of the literature related to the generation of scenarios for investment fund stress tests and uncertainty in the results of the model used to establish the stress scenario. In regard to the first branch, Braverman and Minca (2018) study the interaction between portfolio positions common to different equity funds using vulnerability measures similar to those proposed by Greenwood et al. (2015) for the banking sector, where the main shock is the winding up of a specific fund. Baranova et al. (2017) study the relationship between intermediaries and open-ended funds using a partial equilibrium model and establishing a predetermined shock. Goldstein et al. (2017) study the behaviour of bond funds and their links to investor redemptions and conclude that this relationship differs from the relationship found in equity funds. Fricke and Fricke (2020) implement the model proposed by Greenwood et al. (2015) for the banking system to equity funds, where the stress test shock is set by default as a 5% drop in the fund equity. Shaw and Dunne (2017) link the specific characteristics of the fund categories with their mean response to extreme scenarios. To do this, they use a GARCH-DCC model with kernel innovations to adjust performance, ignoring the existence of possible tail dependence. Regarding the second branch of the literature, Gross and Población (2019) use Bayesian model weighting (BMA) to measure the uncertainty of the satellite models, which translates the macroeconomic scenarios

into losses on the bank's balance sheet. With the same objective, Maqui et al. (2019) use the BMA approach to project the impact of macroeconomic scenarios on aggregate investment fund redemptions at country level. The short length of the database – quarterly data over a period of 15 years – favours the use of Bayesian models. The BMA approach does not take account of non-linearities and tail dependence in the relationship between macro scenarios and fund redemptions, which may be relevant in times of crisis. Bouveret (2017) distinguishes four approaches to generate investment fund redemption scenarios: the study of events, the macroeconomic approach, the statistical approach and expert opinion. Maqui et al. (2019) use a macroeconomic approach, while the method proposed in this article is within the group of scenarios constructed under the statistical approach. This approach is agnostic, in the sense that no assumptions are made about macroeconomic behaviour, and the scenario focuses on the variable of interest, i.e., the series of net flows. Furthermore, although Maqui et al. consider the potential model risk when using the BMA approach, the macroeconomic inputs taken from the macro-financial scenario of the 2018 European stress test should undergo further uncertainty analysis. In short, directly observing the series of net flows simplifies the methodology and eliminates possible errors in the estimation of macroeconomic inputs. Furthermore, the macro-financial scenario of the 2020 European stress test for the banking sector uses a statistical approach to generate the estimates for financial scenarios.² This study takes into account non-linearities, asymmetries and tail dependence among redemptions through the use of copulas, which are ignored in the macroeconomic scenarios approach. Bassanin et al. (2020) are the only exception, since they use a non-parametric copula to factor in historical dependence on extreme realisations in the generation of countercyclical macroeconomic scenarios.

In summary, this study proposes a methodology that takes into account the main statistical characteristics of financial time series. The fit of the model is checked using backtesting procedures and contrasting the distribution adjustment. These analyses are carried out on both the unconditional and the conditional distribution. They show that the confidence intervals of redemption shocks constructed by bootstrapping are narrower than those obtained using the model proposed by the European regulator (STRESSI). Furthermore, this study advocates for the use of conditional measures, specifically *CoVaR* and *CoES*, to generate consistent severe scenarios in line with the technical development of other regulatory authorities such as the European Central Bank (ECB). A detailed description of the procedure to be followed to obtain these measures is also provided. Results indicate that the interquartile range of the distribution of the risk measure decreases by between 10% and 90% when this methodology is used. This decrease depends on the measure of risk, the severity of the scenario and the category of the fund. Using a confidence interval and not just a point estimate reveals vulnerable funds that could otherwise be passed over. Spanish investment funds have sufficient liquidity in their portfolios to handle severe redemptions. Few funds show problems due to large positions in high yield bonds.

This work is structured as follows: Section 2 presents the data used, its transformation and how the different databases are combined to generate the sample. Section 3

2 See page 37 of the document "Adverse scenario for the EBA 2020 EU-wide banking sector stress test".

describes the methodology proposed by the European regulator (STRESSI) and presents the proposal in this study, which overcomes the limitations of the first methodology. Section 4 presents the results of the analysis in terms of the confidence intervals for the redemption shock and the RCR of Spanish funds. Section 5 completes the study.

2 Data

This section first presents the different data sources that have been combined to build our database. The process used for cleaning the fund sample is then shown, followed by an explanation of how the net flows and liquidity of the funds are assessed.

2.1 Data sources and sample construction

The main data source comes from the confidential financial statements of undertakings for collective investment schemes, the identification codes of which are available in the BOE (2008). Data referring to net asset value, assets and dividends are obtained from the MB2 and T01 statements, while the information in the Mo4 statement offers a breakdown by compartment. The MB7 statement provides a breakdown of the fund assets by the amount invested by investor. This statement is useful for classifying the funds as retail or wholesale.³

Bloomberg⁴ and Thomson-Reuters⁵ databases are used to identify the country, sector and rating⁶ of each position held by the fund, available in the Mo4 statement.⁷ This information is indicated at the end of each year from 2007 to 2018 and allows the aggregation of funds of the same type (bond, equity, etc.), according to characteristics such as the credit quality of its assets or sector distribution.⁸ In addition, the information is used to construct a liquidity index, i.e., the index of high-quality liquid assets (HQLA), which helps calculate the resilience of investment funds in a redemption scenario. This approach is much more flexible than the classification provided by Morningstar, which is the database employed by ESMA (2019) in its empirical study, for three reasons. Firstly, it allows tailor-made fund classifications to be made based on characteristics that are relevant to the redemption shock (retail or wholesale fund, corporate or sovereign bond fund, etc.). Secondly, Chen et al.

3 This study follows the approach of Cambón and Losada (2014) to define an investment fund as wholesale, i.e., funds in which investors holding more than €150,000 account for at least 50% of the fund assets.

4 Fields used: CENTRY OF RISK, CENTRY OF DOMICILE, INDUSTRY SECTOR, RTG MOODY, RTG SP, RTG FITCH, RTG MOODY ISSUER, RTG SP LT LC ISSUER CREDIT, RGT FITCH LT ISSUER DEFAULT.

5 Fields used: TR.FilssuerCountry, TR.HQCountryCode, TR.TRBCEconomicSector, TR.GR.Rating, TR.IssuerRating.

6 The rating of the bond issue is used.

7 For ISINs where the country and the sector are available but not the rating, it is assumed that the rating is the median of the set of assets that have the same country, asset type and sector in the same year.

8 It should be noted that the aggregation of funds in year t is carried out with the information obtained at the end of $t - 1$.

(2019) have identified a bias in the Morningstar investment fund classifications. According to this article, investment funds consistently report higher ratings for their portfolio than those looking at their portfolio breakdown. Thirdly, our approach helps to calculate liquid positions in investment funds, where the composition of the fund and information on ratings are obtained jointly, while Morningstar presents this information separately.

There are two kinds of cleaning processes in the database obtained from the confidential statements. The first focuses on funds with a redemption policy or idiosyncratic characteristics that could skew the results of the study. The second data filtering process identifies funds for which insufficient information can be obtained from the ISIN codes of the assets in which they invest. This lack of information is due to some funds investing in other funds, which consequently makes it difficult to track the ratings of the fund's assets. Ownership links between funds create an interesting transmission channel for contagion, which, however, is out of the scope of this article. This study focuses on the relationship between the redemption shock and systemic risk resulting from a liquidity mismatch.

As regards fund styles that feature a particular redemption policy, the following are excluded from the analysis:

- i) Guaranteed funds, which have high costs for the withdrawal of the investment, unless it occurs during specified periods known as “liquidity windows”. Given the redemption policy for these types of funds, their redemption patterns are expected to differ from those of open-ended funds. The inclusion of guaranteed funds could generate distortions in the estimation of the parameters of the model.
- ii) Passively managed funds, which have a similar policy to guaranteed funds, and are therefore excluded from the sample for the same reason.
- iii) Dividend-paying funds are also excluded because they generate distortions due to the effects of the profit sharing on the NAV of the fund. In addition, these payments could condition investor behaviour.
- iv) Funds of funds and side pockets are excluded from the sample because of their particular characteristics, which mean that they are not representative of the Spanish investment fund sector.
- v) Funds with a time series of less than six months or with assets of less than half a million euros are also excluded because they can create erratic time series of net flows.

This cleaning process is performed annually, since a fund may change category from one year to the next. With regard to information on the fund portfolio, only funds in which at least 60% of the portfolio can be traced are included, i.e. those with investments in other funds or temporary positions accounting for less than 40% of their assets.

2.2 Fund categories and measurement of net flows

The funds used in the sample are classified into the following eight types:

- Bond funds.
 - Sovereign bond funds: Bond funds that hold more than 40% of their portfolio in sovereign debt.
 - » Wholesale sovereign bond funds (WB): Sovereign bond funds in which investors holding investments of over €150,000 account for at least 50% of the fund assets.
 - » Retail bond funds (RB).
 - Corporate bond funds: Bond funds that hold more than 60% of their portfolio in corporate debt.
 - » Investment grade (IG) corporate bond funds.
 - » High yield corporate bond funds (HY): Corporate bond funds that hold more than 20% of their private debt investment in assets with a credit rating lower than BBB.
 - Mixed bond funds (MX): Bond funds not included in any of the above categories.
- Equity funds.
 - Wholesale equity funds (WS): Equity funds in which investors holding investments of over €150,000 account for at least 50% of the fund assets.
 - Retail equity funds (RS).
- Other funds (OT): This category includes absolute return funds and global funds.

At the individual level, the net flows for fund i are obtained from the asset time series (AuM). First, the return $R_{i,t}$ of the fund is obtained from the net asset value per share ($NAV_{i,t}$), i.e.,

$$R_{i,t} = \frac{NAV_{i,t} - NAV_{i,t-1}}{NAV_{i,t-1}}$$

The net flow is then obtained by adjusting the change in the fund assets for the return $R_{i,t}$, i.e.,

$$Flows_{i,t} = AuM_{i,t} - AuM_{i,t-1} (1 + R_{i,t}) \quad (1)$$

Lastly, the net flows are measured as a percentage of the assets defined for each fund style, i.e.,

$$flow_{K,t} = \frac{\sum_{i \in K} Flows_{i,t}}{\sum_{i \in K} AuM_{i,t-1}} \quad (2)$$

where $flow_{K,t}$ reflects the net funds of the group of funds in category K at time t expressed as a percentage of its assets. This aggregation assumes netting between the funds in the same category. ESMA (2019) and Bouveret (2017) suggest that this approach can lead to milder shocks because the flows compensate for each other. To obtain the net flow in the sector as a percentage of the assets, the individual data on the group of funds in the sample are aggregated.⁹ Net funds, as a percentage of assets, are stored weekly, as in the ESMA empirical study (2019). Table 1 shows some basic statistics, showing that the sovereign bond fund category presents a positive asymmetry, while the net funds of the rest of the categories present a negative asymmetry. All categories present leptokurtic distributions of their net flows, with the kurtosis reaching a value of 45 for high-yield corporate bond funds. Furthermore, the autocorrelation test is rejected for all categories of funds.

Statistical descriptions of net flows

TABLE 1

	WB	RB	MX	IG	HY	WS	RS	OT	AL
μ	-0.0036	-0.0018	-0.0013	-0.0027	-0.0021	-0.0006	-0.0007	0.0002	-0.0016
σ	0.0112	0.0092	0.0072	0.0075	0.0109	0.0060	0.0064	0.0075	0.0050
λ	1.6709	0.2197	-0.9179	-0.7410	-4.7961	-4.1062	-1.8229	-1.1229	-1.2495
κ	33.3079	12.8965	6.9929	6.1333	48.7964	29.3109	12.7209	10.0708	7.3426
q=0.01	-3.38%	-2.42%	-2.76%	-2.79%	-4.65%	-2.81%	-2.23%	-2.56%	-1.71%
q=0.05	-2.05%	-1.55%	-1.17%	-1.62%	-1.59%	-0.93%	-1.14%	-1.17%	-1.08%
q=0.5	-0.22%	-0.15%	-0.08%	-0.23%	-0.10%	0.05%	-0.03%	0.06%	-0.09%
q=0.95	0.77%	1.12%	0.92%	0.80%	0.89%	0.49%	0.82%	1.15%	0.49%
q=0.99	2.08%	2.48%	1.68%	1.45%	1.58%	0.65%	1.15%	1.88%	0.80%
IQR (bps)	91	85	78	74	69	39	60	58	60
LBQ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LBQ2	0.3911	0.0000	0.0000	0.0000	0.6565	0.0000	0.0000	0.0000	0.0000
ARCH	0.0041	0.0000	0.0000	0.0000	0.9913	0.0000	0.0000	0.0028	0.0000

Note: The underlying variable to be modelled is net flows as a percentage of assets.

Fund categories are: wholesale sovereign bond funds (WB), retail sovereign bond funds (RB), mixed bond funds (MX), investment grade corporate bond funds (IG), high yield funds (HY), wholesale equity funds (WS), retail equity funds (RS) and other funds (OT), comprising global funds and absolute return funds. Aggregate net funds (AL) are used to generate a consistent stress scenario across the different categories using copulas.

μ is the mean, σ is the standard deviation, λ is the asymmetry, κ is the kurtosis, q refers to different quantiles, IQR is the interquartile range, LBQ is the p -value of the Ljung-Box Q autocorrelation test, $LBQ2$ is the p -value of the same test for squared series, $ARCH$ is the Engle test heteroscedasticity test.

⁹ Subscriptions for more than 20% of assets are eliminated, since these normally come from fund mergers.

2.3 Measurement of investment fund liquidity

To estimate the resilience of funds to redemption shocks, it is necessary to establish a way of measuring liquidity for investment funds. This article follows the liquidity buckets approach, where assets in the portfolio of funds are classified in different buckets representing different degrees of liquidity. ESMA (2015) applies the high-quality liquid assets (*HQLA*) approach, where a liquidity index is obtained as the weighted sum of the fund assets, the weight of which depends on the bucket into which each asset class is placed, i.e.,

$$HQLA = \sum_{k=1}^n \omega_k \times s_k \quad (3)$$

where ω_k is the liquidity weight for asset k and s_k is the percentage of asset k in NAV. The haircut applied to the fund assets under stress conditions provides an economic interpretation of the liquidity weight. These weights have been proposed in Basel III for the calculation of the LCR (liquidity coverage ratio) by banks. ESMA (2019) applies the weights obtained from the CRR (capital requirement regulation) (see Table 2).

Liquidity weight by asset class

TABLE 2

Asset class	CQS1	CQS2	CQS3	<CQS3
Public debt	100	85	50	0
Corporate debt	85	50	50	0
Securitisations	65	0	0	0
Equity	50	50	50	50
Cash	100	100	100	100

Note: CQS: Credit Quality Step. CQS1 refers to ratings between AAA and AA, CQS2 to rating A, CQS3 to rating BBB and <CQS3 to all ratings below BBB-. Liquidity weights are shown in%.

Source: ESMA (2019) and (ESMA, 2015:37).

3 Methodology and measures for redemption shocks

3.1 Conditional and unconditional statistical measures

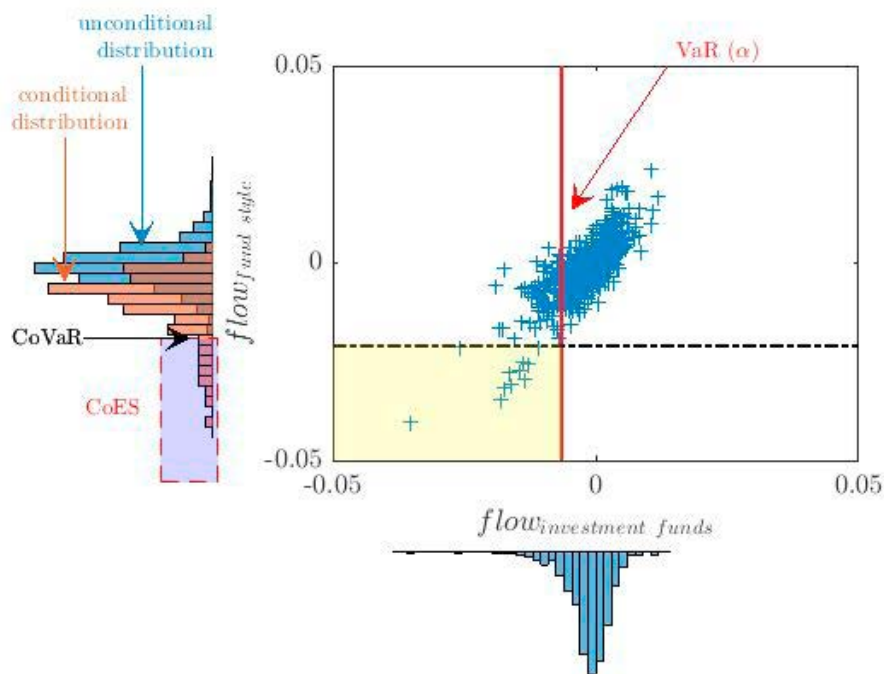
ESMA (2019) proposes two risk measurements for calculating redemption shocks: value at risk (*VaR*) and expected shortfall (*ES*). The *Economic Report* suggests the use of copulas to obtain the dependence among redemptions. The copula method allows any non-linearity and tail dependence that occur in adverse redemption events to be captured. Copulas have already been used to design severe but plausible scenarios, moving from an unconditional to a conditional framework.¹⁰ In other words, moving from *VaR* and *ES* to using their conditioned versions.

10 For example, in the 2019 ESMA stress test for money market funds, the 2019 ESMA clearing house stress test, the 2019 EIOPA pension fund stress test and the 2020 European stress test for the banking sector.

In summary, conditional VaR and ES depend on another variable. This scenario is defined based on a threshold for the conditional variable, which is usually set by a percentile of this variable. For example, Figure 1 presents a point cloud between the aggregate net flow of funds ($flow_{aggregate\ funds}$), showing its histogram on the x -axis, and the net funds for the category of mixed bond funds ($flow_{fund\ style}$), showing its histogram on the y -axis (blue bars). A stressed scenario for the investment sector could be defined as a redemption shock above the highest $\alpha 100\%$ of redemptions. This scenario is defined by the area to the left of the red line in Figure 1. The blue points to the left of this threshold represent the relationship between variables conditioned to this extreme event. The histogram of the net flows of mixed bond funds moves from blue bars to orange bars when this scenario materialises. The calculation of VaR and ES in conditional distribution is known as $CoVaR$ and $CoES$ respectively (see Girardi and Ergün, 2013).

Example of conditional risk measures

FIGURE 1



The vertical red line represents the threshold defining the stress scenario. The red line is chosen in terms of quantiles of the conditional variable. The blue points to the left of the red line generate the conditional distribution, represented on the left axis by the orange bars. $CoVaR$ is represented by the black line in the conditional distribution and $CoES$ is the mean net flow below $CoVaR$.

$CoVaR$ is a value that ensures the following identity holds:

$$P(flow_j > CoVaR_{jk}(\alpha, \beta) | flow_k < VaR_k(\alpha)) = \beta \quad (4)$$

where α is the threshold of the percentile used to define the stress scenario of the conditional variable ($flow_k$) and β is the conditional quantile of in this scenario. $CoES$ would be the average value of the redemptions beyond $CoVaR$, i.e.,

$$CoES_{jk}(\alpha, \beta) = \int_0^u F_j^{-1}(v) dv \quad (5)$$

Where $u = F_j^{-1}(CoVaR_{jk}(\alpha, \beta))$ and F_j^{-1} is the inverse distribution function of variable j .

To simplify their interpretation, the results in Section 4 are shown in terms of redemptions, not net flows. This study considers a stress level for the joint probability which has the same probability as the unconditional risk measures.

3.2 ESMA approach

ESMA (2019) suggests using the Extreme Value Theory (EVT) (Coles et al., 2001) to model the behaviour of the distribution of net flows in tails and a Clayton copula, which shows a closer relationship between redemptions the larger they are.

The main limitations of this methodology lie in the assumption that weekly net flows are independent and identically distributed and that the dependence between the flows remains constant over time.

In regard to the first issue, Table 1 reflects the presence of a time structure and volatility clusters. If the flows are not i.i.d., the distribution function is poorly specified and this would make it difficult to estimate the copula (Patton, 2012; Fermanian and Scaillet, 2004; Fantazzini, 2009; Patton 2013). In addition, the dependence in the model should change over time to capture the real structure of the data, especially in the period analysed, in which the experiences of the 2008 financial crisis and the sovereign debt crisis that took place between 2010 and 2012 may have led to changes in the relationships between net flows of different categories of funds.

3.2.1 ESMA methodology for modelling net flows

The distribution of net flows (*flow*) is modelled using a semi-parametric representation, assuming that the central distribution of flows is adjusted in a kernel function, while for tails (below the 10th percentile and above the 90th percentile) generalised Pareto distributions (GPD) are used.

ESMA (2019) proposes copulas to reflect the relationship between net flows, as they have the flexibility to reflect complex relationships between variables. Sklar's theorem (Sklar, 1959) states that a multivariate distribution can be expressed as a combination of marginal distributions and a copula, i.e.,

$$F(\text{flow}_k, \text{flow}_j) = C(F_k(\text{flow}_k), F_j(\text{flow}_j)) \quad (6)$$

where F_l for $l = j, k$ is the marginal distribution function and $C(\dots)$ is the copula. The dependence between net flows is modelled using a Clayton copula, which shows dependence in the lower tail; that is, the probability of extreme redemptions in a fund category is much higher if there is an extreme redemption event in the aggregated funds.

3.2.2 A state-of-the-art method for modelling redemption shocks

Following ESMA methodology, the redemption shock is a point estimate of the distribution of net flows in which a certain criterion is met. For example, for $Var(\alpha)$ the criterion is that it must be above the highest $\alpha_{100\%}$ of the redemptions. Looking at different percentiles, i.e., different α s, we can observe how these shocks can change depending on a key parameter for distress.

However, there are parameters that determine redemptions, even when they have been conditioned to a specific quantile, which is assumed to be known. These parameters are related to the distribution of subscriptions and redemptions and the relationship between different net flows. Small changes in the estimates of these parameters can have a large impact on the results of the redemption scenarios, especially for the extreme quantiles. Investment funds can be forced to sell illiquid assets in the event of a redemption shock that affects a specific fund category. Uncertainty over current model parameters can create very different redemption scenarios, which could lead to fire sales and second round effects.

In this study, a 5-step process has been followed to measure uncertainty in the estimation of the parameters for the redemption model. First, an econometric model is proposed that can be adjusted for the data generating process. Specifically, an AR(4)-GARCH(1.1) model is proposed, where innovations in the process derive from the non-parametric distribution (kernel function) and the dependence between funds evolves between two states: one of calm and another corresponding to turbulent periods. Dependence over time follows a process of regime shifts (Markov switching), where dependence is defined by a Gaussian or normal multivariate relationship in periods of calm and distribution has greater dependence when significant redemptions occur in the investment funds.¹¹ The regime shift approach is more resilient to specification problems than other models used to incorporate changing characteristics over time.¹² This sophisticated technique endogenously identifies different regimes over time with a clear economic interpretation.

Once the model estimates have been obtained, different series of net flows are simulated and the model is re-estimated, so that as many estimates are obtained as there are simulations of the funds' time series. In the last step, the long-term redemption shock is calculated, based on the mean, variance and dependence that would be calculated as a long-term forecast. By using long-term values, it is assumed that the redemption shock is not conditioned to the last value in the sample; i.e., the scenario used is unconditional on the moment in time, but conditional on movements in aggregate redemptions in the sector.

In summary, the procedure to obtain confidence intervals for the redemption scenarios is as follows:

11 Three types of copulas are considered for modelling this type of relationship: Clayton copula, rotated Gumbel copula (180 degrees), and rotated Joe copula (180 degrees).

12 For a comparison between different specifications for changes in dependence using copulas, see Manner and Reznikova (2012).

- i) Model $f(\dots;\theta)$ is used, adjusted for the characteristics of the flows, i.e., $flow$.
- ii) The estimated parameters of the model ($\tilde{\theta}$) are obtained, using model $f(\dots;\theta)$ proposed in step i) and the real time series of net flows (see Tables 3, 4 and 5).
- iii) Time series of length T (\widetilde{flow}) are simulated W times using the data generating process proposed in step i) with the estimated parameters of step ii).
- iv) $\tilde{\theta}_w$, is obtained, the estimated parameters of model $f(\dots;\theta)$ proposed in step i) using the \widetilde{flow} time series of the simulated flows.
- v) $\tilde{\theta}$ is used to obtain the point estimate of the redemption shock estimation (\hat{s}) and $\tilde{\theta}_w$ to obtain a range for the redemption shock (\tilde{s}_w). A q percentile and another $1 - q$ percentile of \tilde{s}_w are selected to obtain a confidence interval ($1 - 2q$) of 100% on the estimation error in the point estimate.

4 Results

This section first presents the results of the uncertainty analysis of the redemption shock based on the model used, which focus on the expected shortfall (ES) and the conditional expected shortfall ($CoES$) measured at a severity level of 97% ($\alpha = 0.03$), in line with the severity level applied by ESMA (2019). Next, the interquartile range of the redemption shock distribution is calculated to obtain an idea of the accuracy of the point estimate. Lastly, the resilience of the investment funds is analysed by comparing the redemption shock with the liquid assets held by the investment funds ($HQLA$). The ratio between the $HQLA$ and the redemption shock is known as the Redemption Coverage Ratio (RCR), i.e.,

$$RCR = \frac{HQLA}{Redemption\ shock} \quad (7)$$

which indicates that a fund will have problems covering redemptions if $RCR < 1$.

Figure 2 shows the expected shortfall from redemptions with a severity of 97% and the confidence interval using the proposed methodology (black point and blue bar) and the ESMA approach (asterisk and green bar). Redemptions with a severity of 97% fall between 1% and 7%. To get an idea of the scale of these values, ESMA (2019) obtains redemptions of between 5.2% and 9% using a Morningstar database. The values obtained using the proposed methodology are smaller than those obtained following the ESMA method, as demonstrated by the black point to the left of the asterisk. Figure 3 reflects the conditional expected shortfall ($CoES$) and shows that ESMA methodology generates extremely wide ranges for the bond category, for high yield funds and for wholesale equity funds. Ignoring the time structure may have important implications for estimating the parameters of the generalised Pareto distribution, which affects the calculation of measures that look beyond a specific percentile, i.e., expected shortfall and the conditional expected shortfall.

	WB	RB	MX	IG	HY	WS	RS	OT	AL
β_0	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.00	-0.00
	[0.00 (***)]	[0.00 (***)]	[0.00]	[0.00 (***)]	[0.00 (***)]	[0.00]	[0.00]	[0.00]	[0.00]
β_1	0.22	0.52	0.47	0.38	0.38	0.41	0.35	0.34	0.49
	[0.04 (***)]	[0.05 (***)]	[0.04 (***)]	[0.04 (***)]	[0.07 (***)]	[0.06 (***)]	[0.04 (***)]	[0.03 (***)]	[0.04 (***)]
β_2	0.14	0.20	0.23	0.16	0.14	0.05	0.14	0.11	0.22
	[0.04 (***)]	[0.05 (***)]	[0.04 (***)]	[0.04 (***)]	[0.05 (***)]	[0.05]	[0.04 (***)]	[0.04 (***)]	[0.04 (***)]
β_3	0.02	-0.02	0.12	0.12	0.12	0.12	0.15	0.14	0.06
	[0.03]	[0.04]	[0.04 (***)]	[0.04 (***)]	[0.04 (***)]	[0.04 (***)]	[0.04 (***)]	[0.03 (***)]	[0.04 (*)]
β_4	0.25	0.12	0.03	0.14	0.08	0.06	0.08	0.25	0.11
	[0.03 (***)]	[0.03 (***)]	[0.03]	[0.03 (***)]	[0.04 (**)]	[0.03 (*)]	[0.03 (**)]	[0.03 (***)]	[0.03 (***)]
α	0.21	0.34	0.16	0.10	0.28	0.22	0.25	0.05	0.21
	[0.07 (***)]	[0.10 (***)]	[0.05 (***)]	[0.06 (*)]	[0.23]	[0.17 (*)]	[0.05 (***)]	[0.06]	[0.05 (***)]
β	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]	[0.01]	[0.00]	[0.00]	[0.00]

Note: The underlying variable to be modelled is net flows as a percentage of assets.

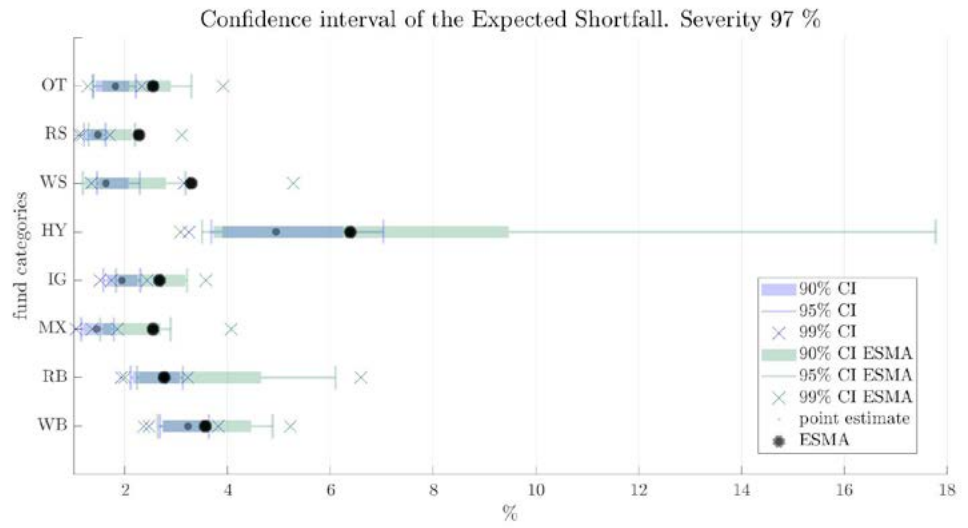
The standard deviation is shown along with the estimates. Standard deviations are obtained by bootstrapping.

Fund categories are: wholesale sovereign bond funds (WB), retail sovereign bond funds (RB), mixed bond funds (MX), investment grade corporate bond funds (IG), high yield funds (HY), wholesale equity funds (WS), retail equity funds (RS) and other funds (OT), comprising global funds and absolute return funds. Aggregate net funds (AL) are used to generate a consistent stress scenario across the different categories using copulas.

The confidence intervals are also narrower, as shown in Table 6. The third column of this table shows the interquartile range using ESMA methodology in basis points, while the second column shows the ratio of the interquartile range using the methodology of this study compared to that of ESMA, as a percentage. The 100 basis point threshold is reached in the case of expected shortfall for the high yield fund category and for the high yield fund and retail sovereign bond fund categories if we look at conditional expected shortfall. The methodology used here reduces the interquartile range between 1/2 and 4/5 of the interquartile range using the ESMA approach, depending on the severity, the degree of risk and the category of funds considered. The greater decrease in the interquartile range may derive from the fact that the time structure is taken into account in the focus of this study and, consequently, the copula inputs are i.i.d and, therefore, this noise factor is not being transmitted. which would make estimating the dependence parameter more difficult.

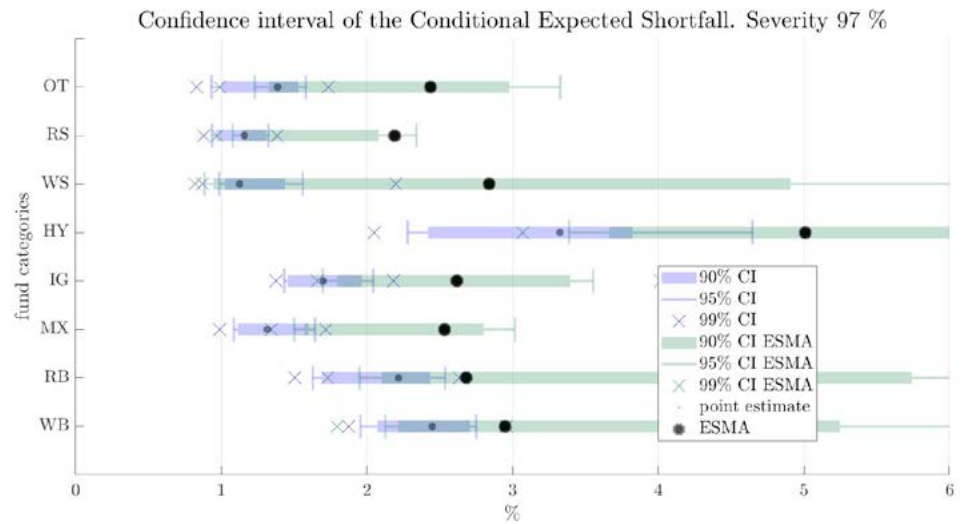
ES($\alpha = 0.03$) and confidence interval of funds by category

FIGURE 2



CoES($\alpha = \sqrt{0.03}, \beta = \sqrt{0.03}$) and confidence interval by fund category

FIGURE 3



AICc values for copula selection

TABLE 4

Copula	WB	RB*	MX*	IG	HY*	WS	RS*	OT
Clayton	-93.08	-108.89	-296.74	-219.22	-48.52	-68.68	-94.04	-109.98
180Gumbel	-93.35	-134.31	-364.32	-217.80	-62.21	-67.29	-103.04	-117.54
180Joe	-93.15	-99.81	-286.43	-217.77	-41.64	-67.85	-88.60	-115.55

Note: This table shows the values of the Akaike information criterion corrected for bias for small samples (AIC_c) (Hurvich and Tsai 1989).

$$AIC_c = 2k \frac{T}{T-k-1} - 2 \log(\hat{L}),$$

where T is the sample size, k is the number of estimated parameters, and \hat{L}

is the value of the log-likelihood. The lower value of AIC_c indicates the best copula.

Fund categories are: wholesale sovereign bond funds (WB), retail sovereign bond funds (RB), mixed bond funds (MX), investment grade corporate bond funds (IG), high yield funds (HY), wholesale equity funds (WS), retail equity funds (RS) and other funds (OT), comprising global funds and absolute return funds. Aggregate net funds (AL) are used to generate a consistent stress scenario across the different categories using copulas. Categories with an asterisk indicate that a constant copula is estimated. This selection is a consequence of the conditional backtesting exercises.

Copula model estimation and standard deviation

TABLE 5

	WB	RB*	MX*	IG	HY*	WS	RS*	OT
ρ_{11}	0.99	-	-	0.87	-	0.65	-	0.86
	[0.01 (***)]	-	-	[0.04 (***)]	-	[0.10 (***)]	-	[0.12 (***)]
ρ_{22}	0.99	-	-	0.79	-	0.80	-	0.97
	[0.01 (***)]	-	-	[0.07 (***)]	-	[0.13 (***)]	-	[0.18 (***)]
ρ	0.61	-	-	0.79	-	0.67	-	0.82
	[0.04 (***)]	-	-	[0.03 (***)]	-	[0.10 (***)]	-	[0.08 (***)]
θ	1.03	1.44	1.92	0.20	1.27	0.20	1.34	1.24
	[0.03 (***)]	[0.00 (***)]	[0.00 (***)]	[0.13 (*)]	[0.00 (***)]	[0.11 (*)]	[0.00 (***)]	[0.28 (***)]

The standard deviation is shown along with the estimates. Standard deviations are obtained by bootstrapping. Fund categories are: wholesale sovereign bond funds (WB), retail sovereign bond funds (RB), mixed bond funds (MX), investment grade corporate bond funds (IG), high yield funds (HY), wholesale equity funds (WS), retail equity funds (RS) and other funds (OT), comprising global funds and absolute return funds. Aggregate net funds (AL) are used to generate a consistent stress scenario across the different categories using copulas.

θ refers to the copula chosen based on the values in Table 4.

Categories with an asterisk indicate that a constant copula is estimated. This selection is a consequence of the conditional backtesting exercises.

Interquartile range (q0,75–q0,25)

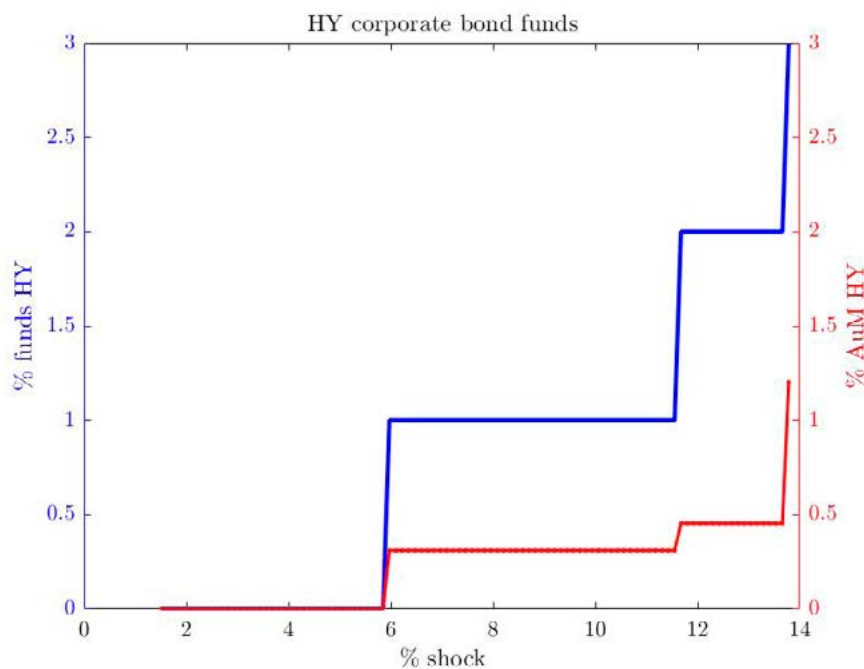
TABLE 6

<i>ES</i>	q=0.03	ESMA q=0.03
WB	49.05	70
RB	38.93	98
MX	46.58	49
IG	41.21	51
HY	34.82	182
WS	22.95	65
RS	52.59	33
OT	44.49	60
<i>CoES</i>	q=0.03	ESMA q=0.03
WB	33.30	91
RB	30.27	109
MX	39.36	52
IG	28.89	61
HY	9.30	416
WS	14.80	96
RS	30.85	37
OT	27.54	76

Fund categories are: wholesale sovereign bond funds (WB), retail sovereign bond funds (RB), mixed bond funds (MX), investment grade corporate bond funds (IG), high yield funds (HY), wholesale equity funds (WS), retail equity funds (RS) and other funds (OT), comprising global funds and absolute return funds. Aggregate net funds (AL) are used to generate a consistent stress scenario across the different categories using copulas.

The second column of the table shows the ratio (in %) of the interquartile range of the distribution of *ES* and *CoES* according to the proposed model versus the ESMA model. The third column presents the interquartile range of the distribution of the risk measure in basis points (bps) using ESMA methodology. The interquartile range greater than 1%, i.e., 100 basis points, is shown in bold.

Lastly Figure 4 studies the resilience of investment funds, using individual funds with an *RCR* in the equation (7) of below one. A whole range of values is used for the redemption shock, not just a point estimate, to obtain the *RCR*, in such a way that it is possible to assess the robustness of the results when this shock is slightly different. All funds with an *RCR* < 1 are high-yield corporate bond funds. Figure 4 shows the percentage of funds (left axis) and the percentage of assets under management (right axis) that these funds represent within the high yield category. These results demonstrate the resilience of the Spanish investment fund sector and the limited impact that a redemption shock would have on the high yield category.



5 Conclusions

This study sets out a detailed methodology to create redemption scenarios for investment funds that overcomes the drawbacks present in the ESMA (2019) approach. The two methods are compared in terms of uncertainty analysis, and therefore the interquartile ranges of the risk measures used to define the redemption scenario present a value up to 90% lower using this methodology than when using the methodology proposed by ESMA (2019). The database in this study combines data from the supervisor with data on the credit quality of assets, allowing a granular construction of fund categories and a detailed calculation of high-quality liquid assets to be made. The proposed model takes into account the statistical characteristics of the net funds, i.e., time structure, heteroscedasticity and movements in the correlation and tail dependence over time.

The results show that using the methodology in this study redemption shocks are slightly smaller and present narrower intervals than those that would be obtained following the ESMA (2019) method. Overlooking the time structure of the net flows gives rise to two types of disturbances in the model proposed by ESMA (2019). First, it generates greater uncertainty in the estimation of the parameters that determine behaviour in the distribution tails. Second, the time structure of the inputs for the copula function creates a nuisance factor that complicates the estimation of the dependency parameter between net flows. Consequently, consistent risk measurements, i.e., expected shortfall and conditional expected shortfall have wider confidence intervals and conditional risk measures may be biased. High-yield sovereign,

mixed and corporate bond funds experience higher redemptions in periods of stress, in line with the literature on this topic (Chen et al., 2010; Lynch and Musto, 2003; Goldstein et al., 2017). The response of Spanish investment funds in these redemption scenarios is analysed in terms of the ratio between the liquid assets held by the funds and the redemptions made by each fund category. The high-yield corporate bond funds category is the only one in which there are institutions under stress, although they account for fewer than 3% of funds and less than 1.5% of the assets under management in this category.

Possible extensions of this work could assess how redemptions could affect Spanish financial institutions in aspects other than the redemption coverage ratio, i.e. the effects on the market and asset prices and the consequent second-round effects. The consequences of an initial shock could have a significant impact on the losses arising from changes in market prices, as shown by Cont and Schaanning (2017) for the banking sector.

Our study offers support to supervisory authorities in the design of redemption scenarios for investment funds. From a statistical point of view, this article calls for a careful analysis of the econometric characteristics present in the series of net flows. Using simulation methods, a range of redemption scenarios is generated rather than a single scenario. This broader analysis identifies vulnerable funds that could otherwise be overlooked. This range of potential redemption shocks can help the supervisor to identify “cliff effects” in fund losses. The cliff effect refers to significant changes in the stress test results deriving from small changes in key parameters of the model. It is essential to have a range of potential redemption scenarios, which is the first step in a liquidity stress test. Changes in this initial shock could generate a different pattern of losses over time for investment funds. Lastly, this article advocates for the use of conditional risk measures. The use of these measures generates a severe shock for each category of funds, but it also reflects the dependence between flows in extreme scenarios, which provides, in addition to severity, plausibility in the initial shocks.

References

Baranova, Coen, Noss and Lowe (2017). Simulating stress across the financial system: the resilience of corporate bond markets and the role of investment funds. *Bank of England Financial Stability Paper* (42).

Bassanin, Ojea Ferreiro and Rancoita (2020). The macrofin copula: a probabilistic approach for scenario calibration. Working paper.

BOE (2008). CNMV Circular 3/2008, of 11 September on accounting standards, annual accounts and confidential information statements of collective investment schemes.

Bouveret (2017). Liquidity Stress Tests for Investment Funds: A Practical Guide. IMF Working Papers 17/226.

Braverman and Minca (2018). Networks of common asset holdings: aggregation and measures of vulnerability. *The Journal of Network Theory in Finance* 4 (3).

Cambón and Losada (2014). Competition and structure of the mutual fund industry in Spain: the role of credit institutions. *The Spanish Review of Financial Economics* 12 (2), 58-71.

Chen, Cohen and Gurun (2019). Don't take their word for it: The misclassification of bond mutual funds. Technical report, National Bureau of Economic Research.

Chen, Goldstein and Jiang (2010). Payoff complementarities and financial fragility: Evidence from mutual fund outflows. *Journal of Financial Economics* 97 (2), 239–262.

Coles, Bawa, Trenner and Dorazio (2001). *An introduction to statistical modelling of extreme values*, Springer.

Cont and Schaanning (2017). Fire sales, indirect contagion and systemic stress testing. Working paper.

Cont and Wagalath (2016). Institutional investors and the dependence structure of asset returns. *International Journal of Theoretical and Applied Finance* 19 (02).

Duarte and Eisenbach (2015). Fire-sale spillovers and systemic risk. staff report, 645. Technical report.

ESMA (2015). Report on trends, risks and vulnerabilities. Technical Report 2, ESMA.

ESMA (2019). Stress simulation for investment funds. ESMA Economic Report.

ESRB (2018). Recommendation on liquidity and leverage risks in investment funds. *Official Journal of the European Union*, 2018/C 151/1.

Fantazzini (2009). The effects of misspecified marginals and copulas on computing the value at risk: A Monte Carlo study. *Computational Statistics & Data Analysis* 53 (6).

Fermanian and Scaillet (2004). Some statistical pitfalls in copula modelling for financial applications. Technical report, FAME Working Paper.

Fricke and Fricke (2020). Vulnerable asset management? the case of mutual funds. *Journal of Financial Stability*.

FSB (2017). Transforming shadow banking into resilient market-based finance: Re-hypothecation and collateral re-use: Potential financial stability issues, market evolution and regulatory approaches. Technical report, FSB.

Girardi and Ergün (2013). Systemic risk measurement: Multivariate GARCH Estimation of CoVar. *Journal of Banking and Finance* 37 (8), 3169–3180.

Goldstein, Jiang and Ng (2017). Investor flows and fragility in corporate bond funds. *Journal of Financial Economics* 126 (3), 592–613.

- Greenwood, Landier and Thesmar (2015). Vulnerable banks. *Journal of Financial Economics* 115 (3), 471–485.
- Gross and Población (2019). Implications of model uncertainty for bank stress testing. *Journal of Financial Services Research* 55 (1), 31–58.
- Hurvich and Tsai (1989). Regression and time series model selection in small samples. *Biometrika* 76 (2), 297–307.
- IMF (2015). The asset management industry and financial stability. Technical report, Global Financial Stability Report.
- IOSCO (2018a). Open-ended fund liquidity and risk management – good practices and issues for consideration.
- IOSCO (2018b). Recommendations for liquidity risk management for collective investment schemes.
- Lynch and Musto (2003). How investors interpret past fund returns. *The Journal of Finance* 58 (5), 2033–2058.
- Manner and Reznikova (2012). A survey on time-varying copulas: Specification, simulations, and application. *Econometric Reviews* 31 (6), 654–687.
- Maqui, Sydow and Gourdel (2019). Investment funds under stress. Working Paper Series 2323, European Central Bank.
- Office of Financial Research (2013). Asset management and financial stability.
- Patton (2013). “Copula methods for forecasting multivariate time series”. In *Handbook of economic forecasting*, Volume 2, pp. 899–960. Elsevier.
- Patton (2012). A review of copula models for economic time series. *Journal of Multivariate Analysis* 110, 4–18.
- Shaw and Dunne (2017). Investment fund risk: The tale in the tails. Technical report, Central Bank of Ireland.
- Sklar (1959). Fonctions de repartition à n dimensions et leurs marges. *Publ. Inst. Statist. Univ. Paris* 8, 229–231.

III Legislative Annex

Since the publication of the CNMV Bulletin for the first quarter of 2020, the following legislative developments have taken place:

National regulations

- **Royal Decree-Law 15/2020, of 21 April**, on urgent complementary measures to support the economy and employment.

To address the need for greater support due to the extension in time of this exceptional situation, a new package of measures has been approved that reinforces those previously adopted and focuses on support for businesses and employees.

Measures have been implemented to reinforce financing for businesses. Given the adverse situation affecting the credit market and the difficulties that as a consequence of the reduction in coverage of insured risks may affect business relationships and payments between companies, the Spanish Insurance Compensation Consortium (Consortio de Compensación de Seguros) is authorised to carry out credit and surety reinsurance activities from 2020.

A new Section 3 has been added to the Eighth Additional Provision of Royal Decree-Law 11/2020, of 31 March, implementing additional urgent social and economic measures to deal with COVID-19, to facilitate the lodging and processing, as part of contracting procedures that public sector entities have agreed to continue, in accordance with the provisions of Section 4 of the Third Additional Provision of Royal Decree 463/2020, of 14 March, of special appeals under the terms established in Law 9/2017, of 8 November, on Public Sector Contracts (hereinafter LCSP), without the appeal procedure being considered suspended. In this way, all bidders participating in these processes will have their rights guaranteed, since the special appeal deadlines set down in the LCSP will continue to be calculated under the terms established in that Law.

An Additional Provision is introduced that regulates the unilateral grant by credit institutions of notarial instruments formalising extensions deriving from the statutory moratorium on loans and credits secured by mortgages or by some other registrable right, explaining that the purpose of the above instruments is to document unilateral acknowledgement by the creditor of an obligation established *ex lege*.

Article 159.4.d) of the LCSP has been amended as it relates to the opening of the envelopes or electronic files of bidders whose bids are assessed on the basis of criteria quantified merely by application of certain formulae, as part of the simplified opening procedure, eliminating the requirement for envelopes to always be opened in a public act.

The amendment is aimed at allowing the opening of the economic offer, as provided in Article 157.4 of the LCSP for open procedures, of which the simplified open procedure is merely a special version, to be carried out in a public

act, except when it is envisaged that electronic means may be used in the bidding procedure. The amendment is not only a desirable technical improvement that is in line with the general rules for the submission of bids by electronic means established in the Fifteenth Additional Provision of the LCSP, which already guarantees the integrity and secrecy of the bids and allows access to the documents corresponding to the application of certain formulae, but it also resolves the problem that arises in those bidding procedures where processing has been resumed because they are essential for the operation of key public administration services but where it is not possible to open the envelopes due to the restrictions imposed by the containment measures adopted to mitigate the spread of the COVID-19 pandemic.

An amendment has been made to Law 9/2017, of 8 November, on Public Sector Contracts, transposing Directive 2014/23/EU of the European Parliament and of the Council, of 26 February, into Spanish law.

Royal Decree-Law 8/2020, of 17 March, on urgent extraordinary measures to deal with the social and economic impact of COVID-19 has been amended. The following amendment stands out:

The counter-guarantee granted by the Compañía Española de Reafianzamiento, Sociedad Anónima (CERSA) has been consolidated to increase the guarantee capacity of Reciprocal Guarantee Companies. These companies have a widespread presence in all the autonomous regions of Spain and strengthen access to financing for SMEs in the different geographical areas in which they operate. Provision is also made for the above guarantees to cover promissory notes included in the Market in Fixed Income Securities (AIAF) and the Alternative Fixed Income Market (MARF), ensuring that the sources of liquidity provided by capital markets are maintained, not only through traditional banking channels. In both cases, the conditions of the guarantees will be established by agreement of the Council of Ministers. Lastly, assurance is provided as regards the release of a line of guarantees of up to €100 billion until 31 December 2020.

- **Royal Decree-Law 16/2020, of 28 April**, on procedural and organisational measures to deal with COVID-19 in the context of the administration of justice.

Chapter I regulates procedural measures. For this purpose, a series of provisions are established aimed at restoring ordinary court activity and part of August is declared as business days for judicial activities. For the sake of legal certainty, it is necessary to establish general rules for the calculation of time periods, and in this regard Article 3 establishes the restart of the calculation of procedural time limits, not taking into consideration the period elapsed prior to the declaration of the state of alarm. The time limits for appeals against judgements and other decisions which, under procedural law, bring the proceedings to an end, and where the judgement or decision that is the subject of the appeal has been notified during the suspension of time limits established in Royal Decree 463/2020, of 14 March, are extended, in addition to those that are notified within 20 business days following the lifting of the suspended time limits. In this way, these may be presented in a staggered manner over a

longer period of time, and not concentrated in a few days after the time limits have been lifted.

Chapter II includes insolvency and corporate measures.

Further measures have been added to those implemented under Royal Decree-Law 8/2020, of 17 March, to ensure the economic continuity of companies, professionals and self-employed workers that, prior to the entry into force of the state of alarm, had been regularly complying with the obligations deriving from an agreement, an out-of-court payment agreement or an approved refinancing agreement.

For these debtors, the obligation to file for liquidation is postponed when, during the term of the agreement, they become aware that they will be unable to meet the repayment obligations and commitments arranged after its approval. Likewise, the modification of the agreement or out-of-court payment agreement or approved refinancing agreement is facilitated. With regard to the latter, a new application may also be submitted without having to wait for 12 months to elapse from the submission of the previous application. The financing of companies is encouraged to help meet their temporary liquidity needs, classifying as claims against the estate, in the event of liquidation, those derived from financing commitments or the provision of guarantees on behalf of third parties, including such parties specially related to the debtor as may be included in the proposal or in the proposed modification of the agreement already approved by the judge. Further, to facilitate the credit and the liquidity of the company, claims of parties specially related to the debtor in any insolvencies arising during the two years following the declaration of the state of alarm are to be classified as ordinary claims.

A series of rules is established to streamline the bankruptcy process, such as the declaration of insolvency, the preferential processing of certain actions aimed at protecting the rights of workers, maintaining the continuity of the company and preserving the value of assets and rights, as well as the simplification of certain acts and incidents (auctions, contesting the inventory and lists of creditors or approval of liquidation plans).

The suspension of the obligation to file for insolvency is extended until 31 December 2020 and for the purposes of the legal cause of dissolution due to losses, those of the current year will not be included. The Repealing Provision repeals Article 43 of Royal Decree-Law 8/2020, of 17 March, which established the suspension of the obligation to file for insolvency during the state of alarm and provided that the judges would not admit insolvency applications for processing until two months after the end of said period.

Chapter III regulates organisational and technological measures designed to deal with the consequences of the COVID-19 crisis for the Administration of Justice. A system is established for attending to the public by telephone or through the email address set up for this purpose, so as to limit face-to-face meetings to strictly necessary cases and only by appointment.

The Third Final Provision introduces a technical improvement in the amendment of Article 159.4 of Law 9/2017, of 8 November, on Public Sector Contracts, approved by Royal Decree-Law 15/2020, of 21 April, on urgent complementary measures to support the economy and employment (paragraphs d) and f) of Article 159.4 are amended).

The Fourth and Fifth Final Provisions extend the availability of pension plans for freelance or self-employed workers to those who, while not ceasing their activity, have seen a reduction of at least 75% in their income as a result of the health crisis.

- **Royal Legislative Decree 1/2020, of 5 May**, approving the recast text of the Insolvency Law.

The recast text is divided into three books:

Book I, the most extensive, is dedicated to insolvency proceedings.

There are significant differences in the classification of subjects under the different titles that make up this first book compared to the system used in Law 22/2003, of 9 July.

Articles 572 *et seq.* establish the particularities of insolvency proceedings based on the person of the debtor, in the event of proceedings filed by a company that has issued securities or financial instruments traded on a regulated market.

The titles in this book are:

- A specific title for insolvency bodies, divided into two chapters: one dedicated to the insolvency judge and the other to insolvency administration.
- One title for aggregate assets and another for aggregate liabilities.
- A title on the insolvency administration report.
- A separate title for payments to creditors.
- A title regarding publication.

This new system has resulted in the movement and reordering of many rules contained in different titles of the Insolvency Law. Among many other significant examples, title 4, dedicated to aggregate assets, not only includes information relating to the composition of the assets and their conservation, but also addresses the general rules for the disposal of the assets and rights contained therein, many of which are now described in the title on liquidation; the regime for reintegration to the estate, deriving from the title on the effects of the declaration of insolvency; the regime for reduction actions and the regulation of claims against assets, which were listed in the part of the law that addressed the composition of aggregate liabilities, including special features in the event of

their being insufficient assets to cover these claims, which was contained in the title dedicated to the conclusion of the insolvency proceedings.

The general insolvency rules are included in the first 12 titles of this book. At the same time, the special rules that were set out in different articles have been excluded from those titles.

In Title 14, the final title of book I, the special insolvency features of debtors with certain subjective or objective characteristics have been grouped together with insolvency of inheritances.

Book II is dedicated to traditional insolvency law.

This second book is divided into four independent titles: the first, starting at Article 5 *bis*, addresses the communication of opening of negotiations with creditors; the second deals with refinancing agreements; the third is related to out-of-court payment agreements, which was included in the Insolvency Law by Law 14/2013, of 27 September, amended by Law 25/2015, of 28 June, and the last deals with the specificities of consecutive insolvency, involving either a refinancing agreement or an out-of-court payment agreement.

The terminology of these new legal instruments has been maintained as it is included in Annex A of Regulation (EU) 2015/848 of the European Parliament and of the Council, of 20 May, on insolvency proceedings.

Book III includes the rules of private international law which were previously contained in title 9 of the Insolvency Law. The reason for creating this last book can be found in the aforementioned Regulation (EU) 2015/848. Unlike Council Regulation (EC) No. 1346/2000, of 29 May, the new Regulation applies not only to insolvencies, but also to the “procedures” grouped in Book 2 of the recast text.

It also draws attention to the Sole Repealing Provision, regulatory repeal.

Articles 1 to 242 *bis* are repealed, as well as the Second, Second *bis*, Second *ter*, Fourth, Fifth, Sixth, Seventh and Eighth Additional Provisions and the Fifth and Sixth Final Provisions of the Insolvency Law 22/2003, of 9 July.

Any provisions of equal or lesser rank that conflict with the provisions of this Royal Legislative Decree and the recast text that it approves, are also repealed, in particular, the following:

- i) Third Additional Provision of Law 36/2003, of 11 November, on economic reform measures.
- ii) Section 1.d) of the Sole Repealing Provision of Royal Legislative Decree 7/2004, of 29 October, approving the recast text of the Legal Statute of the Spanish Insurance Compensation Consortium.

- iii) Third Additional Provision of Royal Decree-Law 5/2005, of 11 March, on urgent reforms to boost productivity and improve public procurement.
- iv) First Additional Provision and sections 1 and 2 of the Third Final Provision of Law 6/2005, of 22 April, on the reorganisation and winding up of credit institutions.
- v) Chapter III (Articles 6 to 12); First, Second and Third Additional Provisions, and Second to Eighth Transitional Provisions of Royal Decree-Law 3/2009, of 27 March, on urgent tax, financial and insolvency measures in view of the evolution of the economic situation.
- vi) Article 17 of Law 13/2009, of 3 November, on the reform of procedural legislation for the implementation of the new Judicial Office.
- vii) Third Final Provision of Law 11/2011, of 20 May, amending Law 60/2003, of 23 December, on arbitration and regulation of institutional arbitration in the General State Administration.
- viii) Sixth Final Provision of Law 9/2012, of 14 November, on the restructuring and resolution of credit institutions.
- ix) Article 10 of Royal Decree-Law 11/2013, of 2 August, for the protection of part-time workers and other urgent economic and social measures.
- x) Article 21, Article 31, Article 34, paragraph 18 and Transitional Provision of Law 14/2013, of 27 September, on supporting entrepreneurs and their internationalisation.
- xi) Seventh Final Provision of Law 26/2013, of 27 December, on savings banks and banking foundations.
- xii) Article 10 of Law 1/2014, of 28 February, for the protection of part-time workers and other urgent economic and social measures.
- xiii) Sole Article of Royal Decree-Law 4/2014, of 7 March, implementing urgent measures for the refinancing and restructuring of corporate debt.
- xiv) Sole Article of Royal Decree-Law 11/2014, of 5 September, implementing urgent measures for the refinancing and restructuring of corporate debt.
- xv) Sole Article of Law 17/2014, of 30 September, implementing urgent measures for the refinancing and restructuring of corporate debt.
- xvi) Article 1; First, Second and Third Additional Provisions and First Transitional Provision of Royal Decree-Law 1/2015, of 27 February, on the second chance mechanism, debt reduction and other measures of a social nature.

- xvii) First Final Provision of Law 5/2015, of 27 April, on promoting business financing.
- xviii) Fifth Final Provision of Law 9/2015, of 25 May, on urgent insolvency measures.
- xix) Fifth Final Provision of Law 11/2015, of 18 June, on the recovery and resolution of credit institutions and investment firms (insolvencies of credit institutions or entities legally assimilated thereto, investment firms and insurance companies, as well as member entities of official securities markets and entities participating in securities clearing and settlement systems, to which the special features for insolvency proceedings apply).
- xx) Fifth Final Provision of Law 20/2015, of 14 July, on the organisation, supervision and solvency of insurance and reinsurance companies.
- xxi) Article 1 and First Transitory Provision of Law 25/2015, of 28 July, on the second chance mechanism, debt reduction and other measures of a social nature.
- xxii) Fifth Final Provision of Law 40/2015, of 1 October, on the Legal Regime of the Public Sector.

This Royal Legislative Decree and the recast text of the Insolvency Law which it approves will enter into force on **1 September 2020**.

- **Resolution of 6 May 2020**, of the Secretary of State for the Economy and Business Support, publishing the Agreement of the Council of Ministers of 5 May 2020, which establishes the terms and conditions of the third tranche of the line of guarantees for loans granted to companies and self-employed workers, the promissory notes included on the Alternative Fixed Income Market (MARF) and the counter-guarantees extended by Compañía Española de Reafianzamiento, SME, Sociedad Anónima (CERSA). Further, limits are authorised to take on spending commitments for future years in application of the provisions of Article 47 of the General Budgetary Law 47/2003, of 26 November.
- **Royal Decree-Law 18/2020, of 12 May**, on social measures in defence of employment.

The provisions of Article 5 on the limitations for dividend distribution and fiscal transparency stand out. Specifically, mercantile companies or other legal persons that have recourse to the temporary employment regulation procedures (ERTEs) regulated by Article 1 of this Royal Decree-Law and that make use of the public resources allocated for this purpose, may not distribute dividends for the tax year in which the ERTes apply, unless they have previously paid the amount corresponding to the exemption applied to social security contributions.

The year in which the company does not distribute dividends in application of the provisions of the preceding paragraph will not be taken into account for

the purpose of shareholders exercising their right of separation as provided in Article 348 *bis.1* of the recast text of the Spanish Corporate Enterprises Act, approved by Royal Legislative Decree 1/2010, of 2 July. This limitation on distributing dividends will not apply to entities that, at 29 February 2020, employed less than 50 workers, or persons assimilated thereto, registered in the social security system.

- **Royal Decree-Law 19/2020, of 26 May**, adopting additional agricultural, scientific, economic, employment, social security and tax measures to mitigate the effects of COVID-19.

This Royal Decree-Law implements agricultural, scientific, economic, employment, social security and tax measures. These include:

- Sector framework agreements put forward by the representative associations of financial entities for the deferral of financing transactions for customers affected by the coronavirus crisis: this Royal Decree-Law incorporates a special regime for moratorium agreements reached between lenders and their customers.
- Filing of corporate tax returns for taxpayers that comply with the provisions of Articles 40 and 41 of Royal Decree-Law 8/2020, of 17 March on urgent extraordinary measures to deal with the social and economic impact of COVID-19 in relation to the formulation and approval of their annual accounts. Corporation tax payers with a deadline for the formulation and approval of their annual accounts regulated by Articles 40 and 41 of the aforementioned Royal Decree-Law 8/2020 must file their tax returns for the period corresponding to said year before the deadline set down in Article 124.1 of Corporate Tax Law 27/2014, of 27 November. If, at the end of this period, their annual accounts have not been approved by the corresponding body, the tax declaration must be filed with the available annual accounts.

For the purposes of this Royal Decree-Law available annual accounts are understood to be: i) for listed public limited companies, the audited annual accounts referred to in Article 41.1.a) of the aforementioned Royal Decree-Law 8/2020; ii) for the rest of taxpayers, the audited annual accounts or, failing that, the annual accounts formulated by the corresponding body or, in the absence of the latter, the available accounting records, always in accordance with the provisions of the Commercial Code or with the rules governing them.

Article 40 of Royal Decree-Law 8/2020, of 17 March, on urgent extraordinary measures to deal with the social and economic impact of COVID-19 established an extraordinary regulation regarding the deadlines for the formulation, verification and approval of the annual accounts of private-law legal entities that are not included in the scope of application of the Article 41 of this legal text relating to listed public limited companies. This affects the obligation to file a corporate tax return, since the determination of taxable income according to the direct estimation method is made on the basis of accounting profit. Therefore,

to mitigate the effects of the aforementioned extraordinary measures, corporate tax payers unable to approve their annual accounts before the end of the tax declaration period will be allowed to submit the statement with the annual accounts available at that time, in accordance with established terms.

When the accounts are subsequently approved in accordance with the law and the accounting profit is definitively known, a second declaration must be presented. If this results in a higher or lower amount to be paid than in the one previously submitted, a second self-assessment must be submitted, which shall have the status of a supplementary statement. In all other cases, this second self-assessment shall rectify the first statement on submission, and no resolution from the tax authority regarding its source shall be required. In no case will the second self-assessment have a preclusive effect, and the corporate tax may be subject to full verification. Therefore, to progress in the reactivation of economic, social, administrative and judicial activity, and to provide the system with legal certainty, Article 40 of Royal Decree-Law 8/2020, of 17 March, has been amended to establish that the three-month period for the formulation of annual accounts and other legally required documents will start on 1 June, and not at the end of the state of alarm. This provides legal certainty since it will replace a dynamic and non-standard deadline, which will vary according to the stage of de-escalation in force in the autonomous region where the company is registered, with a specific date, 1 June, thereby reactivating social and legal transactions. Additionally, the term for approving the annual accounts after their formulation is reduced from three to two months, so that companies will have their accounts approved and filed with the Companies Registry earlier. Further, this deadline will be standardised for all companies, listed or otherwise, so that they must all approve their accounts for issue within the first ten months of the year.

To this end, the Eighth Final Provision of Royal Decree-Law 8/2020, of 17 March, on urgent extraordinary measures to deal with the economic and social impact of COVID-19 has been amended, as follows:

Article 40.3 is amended to read: “The obligation to formulate annual, ordinary or abbreviated, individual or consolidated accounts, within a period of three months from the close of the financial year that corresponds to the governing or administrative body of a legal entity and, when legally required, the management report and other documents required under company legislation, shall be suspended until 1 June 2020, and the period shall resume for another three months from that date. Notwithstanding the foregoing, the accounts formulated by the governing or administrative body of a legal person during the state of alarm shall be valid, and they may also carry out the accounting verification within the legally established period or availing themselves of the extension provided for in the following section”. Article 40.5 has been amended, and is now worded as follows: “To authorise the previous year’s accounts for issue, the corresponding ordinary general meeting must be called within two months from the end of the period for formulating the annual accounts”.

Third Final Provision. Amendment of Law 11/2015, of 18 June, on the recovery and resolution of credit institutions and investment firms. Article 55.3.a) of

Law 11/2015 has been amended. In its current wording, Article 55 prohibits the renewed appointment of the chairman of the FROB (Fund for Orderly Bank Restructuring) on conclusion of the mandate for which he or she has been appointed and determines his or her cessation at that same time. Taking into account that the chairman is the only executive position in the FROB governing committee and in order to ensure the operational continuity of the institution and avoid the risk of a vacant period between two chairmen, it is advisable to establish that the conclusion of the aforementioned term shall not impede the continuation of the chairman until his or her successor can be appointed.

Fourth Additional Provision. Amendment of Royal Decree 877/2015, of 2 October, implementing Law 26/2013, of 27 December, on savings banks and banking foundations, which regulates the reserve fund that must be established by certain banking foundations; Royal Decree 1517/2011, of 31 October, approving the regulation implementing the recast text of the Spanish Audit Law, approved by Royal Legislative Decree 1/2011, of 1 July, has been amended. Royal Decree 1082/2012, of 13 July, approving the implementing regulations of Law 35/2003, of 4 November, on Collective Investment Schemes has been amended. An Additional Provision has been added in the following terms:

First Additional Provision. Suspension of the obligation to contribute to the reserve fund. Due to the economic effects of the COVID-19 pandemic, the banking foundations referred to in Article 2 shall not be obliged to make contributions to the reserve fund during 2020. The constitution period of the reserve fund, pursuant to Article 6, shall be suspended for the whole of 2020. The suspension of the contribution in 2020 shall not be compensated for in the contribution made the following year. Therefore, the remaining contributions required to reach the target amount established by virtue of Article 4 shall be distributed linearly over time, in accordance with Article 6.3.

Recommendation of the European Central Bank, of 27 March 2020, on the distribution of dividends during the COVID-19 pandemic and Repealing Recommendation ECB/2020/1. The European banking supervisor recommends that, at least until 1 October 2020, credit institutions should refrain from distributing dividends or arranging irrevocable commitments to distribute dividends with a charge to profits for 2019 and 2020. Given this circumstance, and since the dividends received by banking foundations are their main source of income, the obligation to contribute to the reserve fund in 2020 has been suspended and the computation of the constitution period halted, thus postponing the pending contributions to the period 2021-2024.

Ninth Final Provision. Amendment to Royal Decree-Law 11/2020 of 31 March, adopting urgent extraordinary measures to deal with the social and economic impact of COVID-19. The wording of Article 21.1 of Royal Decree-Law 11/2020 is now as follows: "Measures have been established to temporarily suspend the contractual obligations derived from any loan or credit without mortgage guarantee that was in force on the date of entry into force of this Royal Decree-Law, when it has been taken out by a natural person who is in a situation of

economic vulnerability, as defined in Article 16, as a consequence of the health crisis caused by COVID-19. In any case, finance lease agreements shall be included in the scope of the temporary suspension referred to in the foregoing paragraph”.

Sole Repealing Provision. The second paragraph of Article 16 *ter* (formalisation in public deed of the mortgage moratorium) and Article 20 (suspension of portability) of Royal Decree-Law 8/2020, of 17 March, implementing urgent extraordinary measures to deal with the social and economic impact of COVID-19 are repealed. With effect from 1 June 2020, the Second Additional Provision (suspension of deadlines in the Labour and Social Security Inspection system) of Royal Decree-Law 15/2020, of 21 April, on urgent complementary measures to support the economy and employment, are repealed.

European regulations

- Decision of the European Systemic Risk Board of 20 March 2020, amending Decision ESRB/2011/1 adopting the Rules of Procedure of the European Systemic Risk Board (ESRB/2020/3).
- Guidelines on standardised procedures and messaging protocols under Article 6(2) of Regulation (EU) No. 909/2014 (06.04.2020). European Securities Market Authority (ESMA).
- Guidelines on EMIR Anti-Procyclicality Margin Measures for Central Counterparties (15.04.2019). European Securities Market Authority (ESMA).
- Recommendation of the European Systemic Risk Board, of 6 May 2020, on the liquidity risks of investment funds (ESRB/2020/4).

Other

- Resolution of 27 April 2020, of the Executive Commission of the Bank of Spain, on the continuation of the applicable procedure in the presentation of claims and complaints, subject to processing and resolution by the Bank of Spain, regulated in Article 30 of Law 44/2002, of 22 November, on measures for the reform of the financial system and in Order ECC/2502/2012, of 16 November.
- Bank of Spain Circular 2/2020, of 11 June, amending Circular 4/2017, of 27 November, to credit institutions on public and confidential financial reporting rules and on financial statement standards. The main objective of the circular is to adapt Circular 4/2017, of 27 November, to credit institutions on public and confidential financial reporting rules and on financial statement standards, to changes in international law on reporting requirements for credit institutions.

- **Bank of Spain Circular 3/2020, of 11 June**, amending Circular 4/2017, of 27 November, to credit institutions on public and confidential financial reporting rules and financial statement standards. Through the amendment introduced by this circular, restructured, refinanced or refinancing credit transactions will not necessarily be classified as performing under special monitoring when they are not classified as non-performing.
- **Order ETD/554/2020, of 15 June**, approving the statistical, accounting and supervisory reporting models for pension funds and their management companies.

The purpose of this Order is to approve the statistical, accounting and supervisory reporting models that the management companies must submit to the General Directorate of Insurance and Pension Funds.

This Order is an improvement in the structure of the Spanish reporting models that pension fund management companies must provide to the General Directorate of Insurance and Pension Funds, adapting them to the new reporting obligations established by European Union regulations that must be submitted to the European Insurance and Occupational Pensions Authority and the European Central Bank.

Order EHA/251/2009, of 6 February, approving the statistical accounting documentation system for pension fund management companies is repealed.

IV Statistics Annex

1 Markets

1.1 Equity

Share issues and public offerings¹

TABLE 1.1

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
NO. OF ISSUERS								
Total	46	46	33	11	10	12	8	8
Capital increases	44	45	33	11	10	12	8	8
Primary offerings	3	2	1	0	0	0	0	0
Bonus issues	12	12	10	4	4	2	5	1
Of which, scrip dividend	9	10	9	4	4	1	5	1
Capital increases by conversion	5	6	3	0	1	1	2	0
For non-monetary consideration	8	7	2	1	1	0	1	0
With pre-emptive subscription rights	8	10	8	1	2	3	0	1
Without trading warrants	15	16	13	6	2	8	0	6
Secondary offerings	4	1	0	0	0	0	0	0
NO. OF ISSUES								
Total	89	81	52	13	10	15	8	8
Capital increases	82	80	52	13	10	15	8	8
Primary offering	4	2	1	0	0	0	0	0
Bonus issues	16	17	15	4	4	2	5	1
Of which, scrip dividend	13	15	14	4	4	1	5	1
Capital increases by conversion	6	10	4	0	1	1	2	0
For non-monetary consideration	12	9	2	1	1	0	1	0
With pre-emptive subscription rights	8	10	9	1	2	3	0	1
Without trading warrants	36	32	21	7	2	9	0	6
Secondary offerings	7	1	0	0	0	0	0	0
CASH VALUE (million euro)								
Total	32,538.1	12,063.2	9,806.0	1,113.7	2,823.1	4,135.5	571.3	1,611.9
Capital increases	29,593.6	11,329.5	9,806.0	1,113.7	2,823.1	4,135.5	571.3	1,611.9
Primary offering	956.2	200.1	10.0	0.0	0.0	0.0	0.0	0.0
Bonus issues	3,807.3	3,939.7	1,565.4	140.4	1,074.9	2.6	396.4	93.5
Of which, scrip dividend	3,807.3	3,915.2	1,564.1	140.4	1,074.9	1.3	396.4	93.5
Capital increases by conversion	1,648.8	388.7	354.9	0.0	0.7	341.1	162.4	0.0
For non-monetary consideration ²	8,469.3	2,999.7	2,034.2	351.6	1,682.6	0.0	12.5	0.0
With pre-emptive subscription rights	7,831.4	888.4	4,729.8	199.8	44.6	3,132.8	0.0	50.0
Without trading warrants	6,880.5	2,912.9	1,111.8	421.9	20.4	659.0	0.0	1,468.4
Secondary offerings	2,944.5	733.7	0.0	0.0	0.0	0.0	0.0	0.0
NOMINAL VALUE (million euro)								
Total	3,165.1	2,092.4	1,297.2	414.9	385.2	305.9	124.2	30.3
Capital increases	2,662.8	1,810.6	1,297.2	414.9	385.2	305.9	124.2	30.3
Primary offering	749.2	104.9	0.5	0.0	0.0	0.0	0.0	0.0
Bonus issues	324.3	381.6	306.3	15.2	148.8	2.6	121.4	1.2
Of which, scrip dividend	299.1	357.1	306.3	15.2	148.8	1.3	121.4	1.2
Capital increases by conversion	182.8	90.0	13.1	0.0	0.7	3.4	1.7	0.0
For non-monetary consideration	181.9	557.6	401.0	210.2	190.8	0.0	1.1	0.0
With pre-emptive subscription rights	882.0	611.1	372.1	141.2	44.6	109.5	0.0	1.0
Without trading warrants	342.6	65.5	204.2	48.2	0.4	190.3	0.0	28.1
Secondary offerings	502.3	281.7	0.0	0.0	0.0	0.0	0.0	0.0
Pro memoria: transactions MAB³								
No. of issuers	13	8	12	2	5	4	5	3
No. of issues	15	12	17	2	6	4	6	3
Cash value (million euro)	129.9	164.5	298.3	3.4	74.1	200.5	18.3	9.9
Capital increases	129.9	164.5	298.3	3.4	74.1	200.5	18.3	9.9
Of which, primary offerings	17.1	0.0	229.4	0.0	30.0	196.3	0.1	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 Capital increases for non-monetary consideration are valued at market prices.

3 Unregistered transactions at the CNMV. Source: BME and CNMV.

Companies listed¹

TABLE 1.2

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
Total electronic market ³	134	133	129	132	128	129	129	129
Of which, foreign companies	7	8	7	8	7	7	7	7
Second market	4	4	3	4	4	3	3	0
Madrid	1	1	1	1	1	1	1	0
Barcelona	3	3	2	3	3	2	2	0
Bilbao	0	0	0	0	0	0	0	0
Valencia	0	0	0	0	0	0	0	0
Open outcry	12	11	9	10	9	9	8	11
Madrid	4	4	3	3	3	3	2	3
Barcelona	6	6	5	5	5	5	4	6
Bilbao	4	3	2	3	2	2	2	2
Valencia	3	3	2	2	2	2	2	2
MAB ⁴	2,965	2,842	2,709	2,774	2,749	2,709	2,677	2,659
Latibex	20	19	19	19	19	19	19	19

1 Data at the end of period.

2 Available data: May 2020.

3 Without ETFs (Exchange Traded Funds).

4 Alternative Stock Market.

Capitalisation¹

TABLE 1.3

Million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
Total electronic market ³	877,867.6	733,656.4	806,064.3	813,664.3	770,475.7	806,064.3	551,292.8	576,332.3
Of which, foreign companies ⁴	178,620.3	143,598.7	141,671.0	177,526.6	132,453.7	141,671.0	73,645.8	72,378.3
Ibex 35	534,250.1	444,178.3	494,789.4	478,002.5	481,981.4	494,789.4	352,613.5	352,613.5
Second market	49.9	37.4	31.1	45.4	45.3	31.1	31.1	0.0
Madrid	8.7	1.9	1.9	1.9	1.9	1.9	1.9	0.0
Barcelona	41.2	35.4	29.2	43.5	43.3	29.2	29.2	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	1,288.5	1,459.1	1,154.2	1,240.4	1,116.8	1,154.2	1,053.0	1,095.9
Madrid	165.9	219.4	69.8	66.3	68.1	69.8	58.9	55.8
Barcelona	1,134.3	1,318.4	1,036.5	1,082.6	1,003.4	1,036.5	939.6	980.6
Bilbao	211.3	56.5	32.9	79.8	32.9	32.9	32.9	27.9
Valencia	54.0	257.0	80.4	77.8	77.8	80.4	76.0	76.0
MAB ^{5,6}	43,804.8	40,020.7	44,706.4	42,822.3	43,607.7	44,706.4	39,698.8	41,578.8
Latibex	215,277.7	223,491.3	199,022.2	239,265.8	193,789.8	199,022.2	128,748.4	142,276.2

1 Data at the end of period.

2 Available data: May 2020.

3 Without ETFs (Exchange Traded Funds).

4 Capitalisation of foreign companies 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

Million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
Total electronic market ²	640,293.7	583,327.6	462,378.8	129,816.2	98,913.6	126,679.1	127,686.0	59,074.5
Of which, foreign companies	6,908.0	3,517.1	3,477.8	918.9	690.9	966.6	987.7	722.9
Second market	0.7	0.8	0.1	0.1	0.0	0.0	0.0	0.0
Madrid	0.5	0.6	0.1	0.1	0.0	0.0	0.0	0.0
Barcelona	0.3	0.2	0.0	0.0	0.0	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	8.1	8.2	6.2	3.2	1.4	0.7	1.1	0.6
Madrid	2.3	0.7	0.8	0.6	0.2	0.0	0.1	0.0
Barcelona	6.2	7.4	3.2	0.5	1.2	0.7	1.0	0.6
Bilbao	0.1	0.0	2.1	2.0	0.1	0.0	0.0	0.0
Valencia	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
MAB ³	4,985.6	4,216.3	4,014.4	1,018.9	704.2	1,358.7	1,145.3	458.5
Latibex	130.8	151.6	136.4	26.0	32.4	39.2	29.2	15.9

1 Available data: May 2020.

2 Without ETFs (Exchange Traded Funds).

3 Alternative Stock Market.

Trading on the electronic market by type of transaction¹

TABLE 1.5

Million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
Regular trading	619,108.6	552,716.8	450,575.7	127,429.1	95,693.0	124,322.8	123,941.0	57,201.9
Orders	335,917.3	300,107.8	258,242.2	66,302.8	62,180.0	65,055.7	87,831.8	41,128.6
Put-throughs	51,315.9	48,644.1	38,888.0	8,715.0	10,408.8	10,283.0	12,503.4	4,406.8
Block trades	231,875.3	203,965.0	153,445.5	52,411.3	23,104.1	48,984.1	23,605.8	11,666.5
Off-hours	2,373.8	1,667.2	3,098.1	617.0	1,074.4	797.4	1,715.4	641.8
Authorised trades	9,265.3	2,597.0	1,706.3	279.8	677.5	342.8	254.7	203.2
Art. 36.1 SMA trades	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tender offers	389.9	18,981.7	2,509.5	337.6	451.8	0.0	0.0	0.0
Public offerings for sale	2,288.1	1,333.2	634.4	39.5	20.0	574.9	0.0	802.8
Declared trades	0.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0
Options	4,462.2	3,793.9	3,422.0	722.1	629.1	1,378.5	980.5	170.6
Hedge transactions	2,405.7	2,037.8	1,799.4	391.1	367.7	629.2	794.5	54.2

1 Without ETFs (Exchange Traded Funds).

2 Available data: May 2020.

1.2 Fixed income

Gross issues registered at the CNMV

TABLE 1.6

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
NO. OF ISSUERS								
Total	48	43	39	17	16	18	13	16
Mortgage-covered bonds	9	12	12	7	4	6	3	7
Territorial-covered bonds	1	2	2	0	0	2	0	2
Non-convertible bonds and debentures	16	12	13	8	5	7	6	3
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	21	14	13	3	5	6	2	3
Commercial paper	13	13	12	3	4	2	2	4
Of which, asset-backed	1	1	1	0	0	0	0	0
Of which, non-asset-backed	12	12	11	3	4	2	2	4
Other fixed-income issues	1	0	1	0	1	0	0	2
Preference shares	1	4	1	0	0	0	0	0
NO. OF ISSUES								
Total	378	303	294	66	64	94	59	55
Mortgage-covered bonds	28	28	29	7	4	9	6	9
Territorial-covered bonds	1	2	3	0	0	3	0	3
Non-convertible bonds and debentures	276	215	201	50	36	59	43	24
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	58	41	48	6	19	21	8	11
Commercial paper ¹	13	13	11	3	4	2	2	4
Of which, asset-backed	1	1	0	0	0	0	0	0
Of which, non-asset-backed	12	12	11	3	4	2	2	4
Other fixed-income issues	1	0	1	0	1	0	0	4
Preference shares	1	4	1	0	0	0	0	0
NOMINAL AMOUNT (million euro)								
Total	109,487.4	101,295.6	90,065.8	14,325.0	19,967.6	35,018.1	20,762.7	35,829.2
Mortgage-covered bonds	29,823.7	26,575.0	22,933.0	5,930.0	6,750.0	7,508.0	6,250.0	10,100.0
Territorial-covered bonds	350.0	2,800.0	1,300.0	0.0	0.0	1,300.0	0.0	4,750.0
Non-convertible bonds and debentures	30,006.2	35,836.4	29,601.7	2,364.6	1,533.4	12,083.8	6,158.7	1,884.7
Convertible bonds and debentures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Backed securities	29,415.4	18,145.2	18,740.9	2,881.4	4,909.0	9,680.5	3,065.7	5,059.5
Commercial paper ²	17,911.2	15,089.1	14,990.2	3,149.0	5,275.2	4,445.9	5,288.3	7,768.7
Of which, asset-backed	1,800.0	240.0	0.0	0.0	0.0	0.0	0.0	0.0
Of which, non-asset-backed	16,111.2	14,849.1	14,990.2	3,149.0	5,275.2	4,445.9	5,288.3	7,768.7
Other fixed-income issues	981.0	0.0	1,500.0	0.0	1,500.0	0.0	0.0	6,266.2
Preference shares	1,000.0	2,850.0	1,000.0	0.0	0.0	0.0	0.0	0.0
Pro memoria:								
Subordinated issues	6,504.6	4,923.0	3,213.5	316.2	459.0	2,088.3	860.7	516.0
Underwritten issues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Shelf registrations.

2 The figures for commercial paper refer to the amount placed.

Issues admitted to trading on AIAF¹

TABLE 1.7

Nominal amount in million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
Total	121,556.6	76,751.3	114,034.0	14,219.7	18,335.6	28,921.7	26,909.2	38,581.3
Commercial paper	18,388.9	15,007.0	15,036.1	3,364.4	4,098.5	5,609.4	4,126.3	8,951.9
Bonds and debentures	43,182.3	19,234.2	45,082.0	2,773.9	2,585.1	1,684.8	16,299.0	909.3
Mortgage-covered bonds	30,000.0	19,935.0	29,375.0	6,030.0	4,500.0	9,560.0	5,448.3	12,100.0
Territorial-covered bonds	350.0	800.0	3,300.0	0.0	0.0	1,300.0	0.0	4,750.0
Backed securities	28,635.4	18,925.2	18,740.9	1,051.4	5,652.0	10,767.5	1,035.7	5,580.0
Preference shares	1,000.0	2,850.0	1,000.0	1,000.0	0.0	0.0	0.0	0.0
Matador bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other fixed-income issues	0.0	0.0	1,500.0	0.0	1,500.0	0.0	0.0	6,290.1

1 Only includes corporate bonds.

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
NO. OF ISSUERS								
Total	362	353	331	337	327	331	327	325
Corporate bonds	342	320	299	305	295	299	295	293
Commercial paper	14	9	9	9	9	9	9	9
Bonds and debentures	48	45	40	42	40	40	39	39
Mortgage-covered bonds	41	40	35	39	37	35	35	36
Territorial-covered bonds	7	7	7	7	7	7	7	7
Backed securities	262	244	227	229	222	227	224	223
Preference shares	4	7	6	6	6	6	6	5
Matador bonds	6	5	5	5	5	5	5	7
Government bonds	20	33	32	32	32	32	32	32
<i>Letras del Tesoro</i>	1	1	1	1	1	1	1	1
Long government bonds	1	1	1	1	1	1	1	1
Regional government debt	11	14	13	13	13	13	13	13
Foreign public debt	–	9	10	10	10	10	10	10
Other public debt	7	8	8	8	8	8	8	8
NO. OF ISSUES								
Total	2,468	2,851	2,775	2,858	2,785	2,775	2,701	2,682
Corporate bonds	2,084	1,917	1,834	1,901	1,834	1,834	1,765	1,719
Commercial paper	179	106	84	108	100	84	67	78
Bonds and debentures	764	737	718	752	730	718	678	620
Mortgage-covered bonds	218	213	209	207	206	209	212	215
Territorial-covered bonds	24	20	23	21	21	23	21	21
Backed securities	889	828	787	785	764	787	774	773
Preference shares	4	8	8	8	8	8	8	7
Matador bonds	6	5	5	5	5	5	5	5
Government bonds	384	934	941	957	951	941	936	963
<i>Letras del Tesoro</i>	12	12	12	12	12	12	12	12
Long government bonds	226	243	236	246	241	236	237	237
Regional government debt	133	164	173	170	169	173	164	169
Foreign public debt	–	502	508	516	516	508	511	533
Other public debt	13	13	12	13	13	12	12	12
OUTSTANDING BALANCE¹ (million euro)								
Total	1,466,964.4	6,663,565.5	6,421,003.0	6,588,828.9	6,550,655.7	6,421,003.0	6,412,421.1	6,478,122.2
Corporate bonds	493,629.6	448,394.4	463,816.1	463,325.3	464,021.4	463,816.1	465,404.2	479,780.9
Commercial paper	11,978.9	9,308.7	6,423.1	8,665.5	6,965.1	6,423.1	5,840.2	6,401.8
Bonds and debentures	70,127.7	47,894.0	62,477.8	70,786.7	72,674.1	62,477.8	69,882.2	75,780.5
Mortgage-covered bonds	181,308.7	183,266.8	195,719.1	186,258.2	189,286.3	195,719.1	199,396.8	207,478.3
Territorial-covered bonds	23,862.3	18,362.3	20,762.3	19,862.3	19,862.3	20,762.3	17,762.3	19,112.3
Backed securities	204,570.0	185,002.7	172,878.9	172,197.8	169,678.7	172,878.9	166,967.9	165,753.2
Preference shares	1,395.0	4,245.0	5,240.0	5,240.0	5,240.0	5,240.0	5,240.0	4,940.0
Matador bonds	386.9	314.8	314.8	314.8	314.8	314.8	314.8	314.8
Government bonds	973,334.7	6,215,171.1	5,957,186.8	6,125,503.6	6,086,634.3	5,957,186.8	5,947,017.0	5,998,341.3
<i>Letras del Tesoro</i>	78,835.2	70,442.2	68,335.5	67,284.4	65,204.9	68,335.5	68,888.5	81,414.0
Long government bonds	864,059.7	918,000.0	937,290.9	949,953.2	949,990.4	937,290.9	1,006,709.3	1,057,726.8
Regional government debt	28,620.8	33,100.4	35,247.6	34,989.3	34,942.4	35,247.6	31,493.3	32,097.8
Foreign public debt	–	5,192,055.3	4,914,792.7	5,071,703.5	5,034,923.4	4,914,792.7	4,838,405.6	4,825,582.4
Other public debt	1,819.1	1,573.2	1,520.2	1,573.2	1,573.2	1,520.2	1,520.2	1,520.2

¹ Nominal amount.

AIAF. Trading

TABLE 1.9

Nominal amount in million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
BY TYPE OF ASSET								
Total	68,422.0	94,241.3	158,807.2	44,245.0	39,146.0	26,175.9	45,994.9	53,413.4
Corporate bonds	68,297.4	435.4	275.2	71.5	59.4	62.9	61.8	27.5
Commercial paper	7,144.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bonds and debentures	15,839.5	427.0	260.0	60.0	59.0	62.4	61.4	27.5
Mortgage-covered bonds	24,936.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Territorial-covered bonds	381.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Backed securities	18,502.5	7.3	13.8	11.5	0.1	0.2	0.0	0.0
Preference shares	1,482.3	1.2	1.4	0.0	0.3	0.3	0.4	0.1
Matador bonds	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Government bonds	124.6	93,805.8	158,532.0	44,173.5	39,086.6	26,113.1	45,933.1	53,385.9
<i>Letras del Tesoro</i>	4.2	24,766.7	25,858.4	5,501.1	8,190.4	7,865.0	5,504.2	12,722.2
Long government bonds	120.4	56,122.5	92,592.8	26,937.1	21,176.1	11,072.9	30,410.2	30,920.3
Regional government debt	0.0	3.2	35.1	7.6	1.5	0.0	0.0	0.0
Foreign public debt	–	12,913.5	40,027.8	11,709.7	9,718.6	7,175.2	10,018.6	9,743.4
Other public debt	0.0	0.0	18.0	18.0	0.0	0.0	0.0	0.0
BY TYPE OF TRANSACTION								
Total	68,422.0	94,241.3	158,807.2	44,245.0	39,146.0	26,175.9	45,994.9	53,413.4
Outright	57,723.9	94,241.3	158,807.2	44,245.0	39,146.0	26,175.9	45,994.9	53,413.4
Repos	671.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sell-buybacks/Buy-sellbacks	10,026.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AIAF. Third-party trading. By purchaser sector

TABLE 1.10

Nominal amount in million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
Total	49,230.2	92,661.9	158,792.5	44,241.5	39,143.6	26,172.0	45,990.7	53,407.9
Non-financial companies	1,492.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial institutions	23,402.5	92,661.9	158,792.5	44,241.5	39,143.6	26,172.0	45,990.7	53,407.9
Credit institutions	15,363.2	437.9	385.5	107.8	84.4	69.8	56.4	37.4
CIS, insurance and pension funds	4,337.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other financial institutions	3,701.5	92,224.0	158,407.0	44,133.7	39,059.2	26,102.2	45,934.3	53,370.4
General government	3,196.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Households and NPISHs ¹	256.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of the world	20,882.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

¹ Non-profit institutions serving households.

Equity markets. Issuers, issues and outstanding balances

TABLE 1.11

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
NO. OF ISSUERS								
Total	15	14	13	13	13	13	12	12
Private issuers	7	6	5	5	5	5	5	5
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	7	6	5	5	5	5	5	5
General government ²	8	8	8	8	8	8	7	7
Regional governments	2	2	2	2	2	2	2	2
NO. OF ISSUES								
Total	64	58	54	59	57	54	52	52
Private issuers	24	19	16	16	16	16	16	16
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	24	19	16	16	16	16	16	16
General government ¹	40	39	38	43	41	38	36	36
Regional governments	22	21	20	21	21	20	18	18
OUTSTANDING BALANCES³ (million euro)								
Total	9,718.0	8,268.3	7,340.4	8,202.0	8,163.1	7,340.4	6,249.6	6,238.9
Private issuers	760.6	589.8	481.1	517.8	498.6	481.1	464.2	453.1
Non-financial companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial institutions	760.6	589.8	481.1	517.8	498.6	481.1	464.2	453.1
General government ²	8,957.4	7,678.5	6,859.2	7,684.1	7,664.6	6,859.2	5,785.5	5,785.8
Regional governments	8,193.1	6,959.7	6,260.7	6,959.7	6,959.7	6,260.7	5,179.3	5,179.3

1 Available data: May 2020.

2 Without public book-entry debt.

3 Nominal amount.

SENAF. Public debt trading by type

TABLE 1.12

Nominal amounts in million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
Total	131,475.0	96,708.0	150,634.0	35,920.0	37,224.0	34,036.0	28,005.0	31,167.0
Outright	131,475.0	96,708.0	150,634.0	35,920.0	37,224.0	34,036.0	28,005.0	31,167.0
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

1.3 Derivatives and other products

1.3.1 Financial derivative markets: MEFF

Trading on MEFF

TABLE 1.13

Number of contracts

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
Debt products	0	0	0	0	0	0	0	0
Debt futures ¹	0	0	0	0	0	0	0	0
Ibex 35 products ^{2, 3}	6,911,671	6,983,287	7,935,425	1,952,837	2,056,740	1,999,333	2,693,090	1,602,972
Ibex 35 plus futures	6,268,290	6,342,478	5,965,905	1,463,601	1,553,764	1,475,185	1,992,435	1,231,531
Ibex 35 mini futures	161,886	149,023	1,454,885	351,831	386,841	366,525	619,842	307,848
Ibex 35 micro futures	–	–	36	5	1	3	0	0
Ibex 35 dividend impact futures	43,372	70,725	144,831	51,710	16,277	52,827	10,122	8,225
Ibex 35 sector futures	7,753	2,745	6	4	1	1	0	0
Call mini options	206,843	193,480	177,369	33,841	46,123	60,488	36,055	18,825
Put mini options	223,527	224,835	192,393	51,846	53,733	44,304	34,636	36,543
Stock products ⁴	32,335,004	31,412,879	32,841,027	9,672,088	5,126,089	9,339,160	9,850,736	7,531,055
Futures	11,671,215	10,703,192	15,298,027	5,841,433	1,487,978	3,103,189	3,437,527	3,657,008
Stock dividend futures	346,555	471,614	758,700	496,789	57,552	108,004	62,040	4,200
Stock plus dividend futures	880	200	0	0	0	0	0	3,264
Call options	8,848,643	7,761,974	7,405,619	1,555,488	1,439,960	2,597,957	3,216,199	1,393,792
Put options	11,467,711	12,475,899	9,378,681	1,778,378	2,140,599	3,530,010	3,134,970	2,472,791

1 Contract size: 100,000 euros.

2 The number of Ibex 35 mini futures (multiples of 1 euro) and micro futures (multiples of 0.1 euro) was standardised to the size of the Ibex 35 plus futures (multiples of 10 euro).

3 Contract size: Ibex 35, 10 euros.

4 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

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
WARRANTS								
Premium amount (million euro)	2,433.6	2,084.9	1,837.7	563.5	246.0	557.7	219.4	453.3
On stocks	939.5	819.0	901.4	252.1	145.0	258.3	72.1	202.0
On indexes	1,443.0	1,160.5	809.3	261.4	80.9	267.5	139.8	233.7
Other underlyings ¹	51.1	105.5	127.1	50.0	20.1	31.9	7.5	17.7
Number of issues	5,730	5,231	5,496	1,631	1,107	1,306	646	1,426
Number of issuers	6	5	6	5	5	6	3	2
OPTION BUYING AND SELLING CONTRACTS								
Nominal amounts (million euro)	1,964.5	953.0	0.0	0.0	0.0	0.0	0.0	0.0
On stocks	1,950.0	950.0	0.0	0.0	0.0	0.0	0.0	0.0
On indexes	14.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Other underlyings ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of issues	15	11	0	0	0	0	0	0
Number of issuers	2	2	0	0	0	0	0	0

1 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
WARRANTS								
Trading (million euro)	462.6	435.2	291.6	81.6	59.4	63.3	86.4	44.3
On Spanish stocks	156.8	93.3	81.1	25.6	14.6	21.1	20.5	12.6
On foreign stocks	29.9	31.6	19.7	4.5	4.5	7.1	9.6	3.6
On indexes	266.0	305.5	186.6	50.3	39.2	33.6	53.1	26.3
Other underlyings ²	9.9	4.8	3.7	1.1	0.7	1.6	3.2	1.9
Number of issues ³	5,084	3,986	3,605	938	872	823	1,095	773
Number of issuers ³	7	7	8	7	8	8	7	7
CERTIFICATES								
Trading (million euro)	0.3	0.3	0.3	0.2	0.1	0.1	0.2	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)	4,464.1	3,027.6	1,718.8	375.9	414.3	461.6	819.0	409.9
Number of funds	8	6	6	6	5	5	5	5
Assets ⁴ (million euro)	359.3	288.9	229.2	296.5	267.0	229.2	205.5	224.3

1 Available data: May 2020.

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

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
BROKER-DEALERS								
Spanish firms	41	39	39	39	40	39	37	39
Branches in Spain	24	25	21	22	22	21	23	23
Agents operating in Spain	5,747	2,027	1,944	1,954	1,948	1,944	1,698	1,407
Branches in EEA ¹	5	9	9	9	9	9	9	9
Firms providing services in EEA ¹	24	24	25	25	25	25	25	26
Passports to operate in EEA ^{1,2}	165	172	205	223	223	205	205	208
BROKERS								
Spanish firms	48	52	56	55	57	56	56	54
Branches in Spain	23	21	19	22	22	19	20	17
Agents operating in Spain	461	414	361	374	354	361	338	343
Branches in EEA ¹	2	2	1	1	1	1	1	1
Firms providing services in EEA ¹	22	25	24	24	24	24	25	24
Passports to operate in EEA ^{1,2}	116	150	144	146	146	144	146	143
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	1	1	1	1	1	1	1	1
FINANCIAL ADVISORY FIRMS								
Spanish firms	171	158	140	146	144	140	140	139
Branches in Spain	19	21	22	23	22	22	21	21
Branches in EEA ¹	2	2	2	2	2	2	2	2
Firms providing services in EEA ¹	29	29	29	29	29	29	26	29
Passports to operate in EEA ^{1,2}	62	51	51	51	51	51	48	50
CREDIT INSTITUTIONS³								
Spanish firms	122	114	112	113	113	112	111	111

1 EEA: European Economic Area.

2 Number of passports to provide services in the EEA. The same entity may provide investment services in one or more Member States.

3 Source: Banco de España [Bank of Spain] and CNMV.

Investment services. Foreign firms

TABLE 2.2

	2017	2018	2019	2019			2020	
				II	III	IV	I	II
Total	3,339	3,474	3,567	3,596	3,582	3,567	3,569	3,588
Investment services firms	2,872	3,002	3,088	3,117	3,103	3,088	3,090	3,105
From EU Member states	2,869	2,999	3,085	3,114	3,100	3,085	3,087	3,102
Branches	53	61	65	64	62	65	64	66
Free provision of services	2,816	2,938	3,020	3,050	3,038	3,020	3,023	3,036
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 ¹	467	472	479	479	479	479	479	483
From EU Member states	461	466	473	473	473	473	474	478
Branches	52	53	54	54	53	54	54	53
Free provision of services	409	413	419	419	420	419	420	425
Subsidiaries of free provision of services institutions	0	0	0	0	0	0	0	0
From non-EU States	6	6	6	6	6	6	5	5
Branches	4	3	3	3	3	3	3	3
Free provision of services	2	3	3	3	3	3	2	2

1 Source: Banco de España [Bank of Spain] and CNMV.

Intermediation of spot transactions¹

TABLE 2.3

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
FIXED INCOME								
Total	3,727,687.0	3,082,789.5	3,222,363.2	883,235.8	812,562.2	791,523.6	735,041.6	1,108,871.4
Broker-dealers	2,347,959.0	2,184,921.9	2,263,416.4	615,169.4	575,936.8	574,831.6	497,478.6	679,536.9
Spanish organised markets	836,831.1	855,948.9	909,992.9	247,928.9	220,796.9	239,719.8	201,547.3	270,037.2
Other Spanish markets	1,255,087.2	1,111,231.9	1,012,359.1	296,146.3	265,019.0	235,678.5	215,515.3	321,387.3
Foreign markets	256,040.7	217,741.1	341,064.4	71,094.2	90,120.9	99,433.3	80,416.0	88,112.4
Brokers	1,379,728.0	897,867.6	958,946.8	268,066.4	236,625.4	216,692.0	237,563.0	429,334.5
Spanish organised markets	6,067.6	6,237.8	17,314.9	6,567.9	5,131.7	4,714.1	901.2	912.9
Other Spanish markets	1,175,387.4	702,731.7	803,742.9	219,215.9	195,568.6	178,640.9	210,317.5	405,160.9
Foreign markets	198,273.0	188,898.1	137,889.0	42,282.6	35,925.1	33,337.0	26,344.3	23,260.7
EQUITY								
Total	804,328.3	630,896.1	1,213,388.9	137,077.5	358,803.5	330,078.7	387,429.2	512,419.7
Broker-dealers	660,312.8	600,442.4	1,194,473.3	131,816.5	354,079.3	326,053.1	382,524.4	503,328.1
Spanish organised markets	610,682.8	525,648.7	329,666.8	78,179.0	92,697.9	69,963.7	88,826.2	90,300.4
Other Spanish markets	3,178.2	839.1	1,771.0	148.3	235.0	446.3	941.4	1,650.4
Foreign markets	46,451.8	73,954.6	863,035.5	53,489.2	261,146.4	255,643.1	292,756.8	411,377.3
Brokers	144,015.5	30,453.7	18,915.6	5,261.0	4,724.2	4,025.6	4,904.8	9,091.6
Spanish organised markets	7,037.7	6,462.5	7,712.5	1,922.8	1,694.7	2,115.0	1,980.0	2,510.1
Other Spanish markets	12,052.0	1,328.5	1,006.8	250.4	252.7	241.5	262.2	454.0
Foreign markets	124,925.8	22,662.7	10,196.3	3,087.8	2,776.8	1,669.1	2,662.6	6,127.5

1 Period accumulated data. Quarterly.

Intermediation of derivative transactions^{1,2}

TABLE 2.4

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
Total	10,708,583.9	10,308,915.0	10,807,586.8	2,524,895.6	2,594,223.7	2,595,476.8	3,092,990.7	2,647,243.6
Broker-dealers	10,528,524.3	10,065,090.4	10,523,995.1	2,449,278.4	2,526,680.4	2,552,432.9	2,995,603.4	2,500,341.1
Spanish organised markets	5,330,761.9	5,457,270.1	5,058,147.9	1,253,396.9	1,139,191.0	1,267,019.9	1,398,540.1	1,125,366.5
Foreign organised markets	4,676,156.7	3,927,718.5	4,160,941.8	952,954.8	1,008,116.6	999,213.7	1,200,656.7	1,028,475.9
Non-organised markets	521,605.7	680,101.8	1,304,905.4	242,926.7	379,372.8	286,199.3	396,406.6	346,498.7
Brokers	180,059.6	243,824.6	283,591.7	75,617.2	67,543.3	43,043.9	97,387.3	146,902.5
Spanish organised markets	17,171.0	30,836.1	29,601.4	3,795.6	14,570.6	4,695.3	6,539.9	4,100.6
Foreign organised markets	48,043.8	105,915.8	116,038.0	34,491.2	24,127.6	21,661.2	35,758.0	59,555.4
Non-organised markets	114,844.8	107,072.7	137,952.3	37,330.4	28,845.1	16,687.4	55,089.4	83,246.5

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 applies. 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 management¹

TABLE 2.5

	2017	2018	2019	2019				2020
				I	II	III	IV	I
NUMBER OF PORTFOLIOS								
Total ²	12,601	16,172	25,389	17,468	19,524	21,935	25,389	32,814
Broker-dealers. Total	3,769	3,807	3,219	3,712	3,664	3,620	3,219	3,383
CIS ³	18	37	40	35	37	43	40	40
Other ⁴	3,751	3,770	3,179	3,677	3,627	3,577	3,179	3,343
Brokers. Total	8,831	12,364	22,169	13,756	15,860	18,315	22,169	29,431
CIS ³	89	83	79	83	80	79	79	78
Other ⁴	8,742	12,281	22,090	13,673	15,780	18,236	22,090	29,353
Portfolio management companies. ² Total	1	1	1	-	-	-	1	-
CIS ³	1	1	1	-	-	-	1	-
Other ⁴	0	0	0	-	-	-	0	-
ASSETS UNDER MANAGEMENT (thousand euro)								
Total ²	36,923,861	4,854,719	4,946,670	4,777,612	4,941,068	5,057,339	4,946,670	4,736,945
Broker-dealers. Total	33,958,038	2,216,956	2,266,997	2,340,424	2,407,541	2,484,996	2,266,997	2,221,520
CIS ³	344,474	838,379	1,059,718	860,229	921,876	1,020,180	1,059,718	1,038,540
Other ⁴	33,613,564	1,378,577	1,207,279	1,480,195	1,485,665	1,464,816	1,207,279	1,182,980
Brokers. Total	2,949,741	2,619,297	2,658,674	2,437,188	2,533,527	2,572,343	2,658,674	2,515,425
CIS ³	1,595,851	1,295,580	1,346,615	1,107,640	974,538	1,054,869	1,346,615	920,360
Other ⁴	1,353,890	1,323,717	1,312,059	1,329,548	1,558,989	1,517,474	1,312,059	1,595,065
Portfolio management companies. ² Total	16,082	18,466	20,999	-	-	-	20,999	-
CIS ³	16,082	18,466	20,999	-	-	-	20,999	-
Other ⁴	0	0	0	-	-	-	0	-

1 Data at the end of period. Quarterly.

2 Only public information about portfolio management companies is shown with the aim of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods, only data on broker-dealers and brokers 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

	2017	2018	2019	2019				2020
				I	II	III	IV	I
NUMBER OF CONTRACTS								
Total ³	20,170	23,149	26,561	23,947	24,479	25,762	26,561	29,158
Broker-dealers. Total	5,125	5,241	6,163	5,605	5,852	5,971	6,163	7,647
Retail clients	5,108	5,211	6,115	5,574	5,820	5,932	6,115	7,598
Professional clients	6	21	31	23	24	29	31	47
Eligible counterparties	11	9	17	8	8	10	17	2
Brokers. Total	15,045	17,908	20,398	18,342	18,627	19,791	20,398	21,511
Retail clients	14,881	17,654	20,125	18,093	18,363	19,439	20,125	21,221
Professional clients	132	199	229	202	211	310	229	249
Eligible counterparties	32	55	44	47	53	42	44	41
Portfolio management companies. ³ Total	0	0	0	-	-	-	0	-
Retail clients	0	0	0	-	-	-	0	-
Professional clients	0	0	0	-	-	-	0	-
Eligible counterparties	0	0	0	-	-	-	0	-
Pro memoria: commission received for financial advice⁴ (thousand euro)								
Total ⁴	16,473	35,287	37,583	3,878	14,337	30,581	37,583	8,139
Broker-dealers	5,555	9,562	23,400	1,152	7,599	21,118	23,400	1,455
Brokers	10,918	25,725	14,183	2,726	6,738	9,463	14,183	6,684
Portfolio management companies ⁴	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 with the aim of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods, only data on broker-dealers and brokers are shown.

4 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed during the year.

Aggregated income statement. Broker-dealers

TABLE 2.7

 Thousand euro¹

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
I. Interest income	21,377	73,969	38,125	12,446	27,328	38,125	-1,582	7,658
II. Net commission	402,154	296,037	279,650	118,404	201,925	279,650	73,729	92,473
Commission revenues	549,298	414,595	427,813	184,559	307,881	427,813	126,716	162,872
Brokering	217,601	160,320	164,606	65,962	115,073	164,606	68,269	87,971
Placement and underwriting	17,553	11,090	8,849	2,153	4,103	8,849	529	840
Securities deposit and recording	38,200	42,958	42,643	22,946	34,619	42,643	11,696	14,794
Portfolio management	49,720	13,505	15,102	6,163	9,249	15,102	2,782	3,625
Design and advice	16,406	21,135	34,751	12,469	29,275	34,751	4,543	5,533
Stock search and placement	1,500	543	1,302	16	1,058	1,302	237	237
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	83,354	55,483	53,506	27,276	40,195	53,506	12,533	16,398
Other	124,964	109,561	107,055	47,574	74,310	107,055	26,127	33,474
Commission expenses	147,144	118,558	148,163	66,155	105,956	148,163	52,987	70,399
III. Financial investment income	43,725	27,088	29,452	17,277	22,367	29,452	10,697	25,220
IV. Net exchange differences and other operating products and expenses	28,507	16,614	29,066	15,491	21,730	29,066	15,770	28,974
V. Gross income	495,763	413,708	376,293	163,618	273,350	376,293	98,614	154,325
VI. Operating income	145,364	85,837	55,978	16,219	38,755	55,978	27,315	50,831
VII. Earnings from continuous activities	120,683	91,771	54,528	18,179	40,421	54,528	23,965	45,077
VIII. Net earnings from the period	157,065	91,771	54,528	18,179	40,421	54,528	23,965	45,077

¹ Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed during the year.

² Available data: April 2020.

Results of proprietary trading. Broker-dealers

TABLE 2.8

Thousand euro¹

	2017	2018	2019	2019				2020
				I	II	III	IV	I
TOTAL								
Total	92,832	114,751	101,039	18,860	46,603	74,611	101,039	24,876
Money market assets and public debt	3,909	11,193	2,625	1,277	1,816	2,266	2,625	1,054
Other fixed-income securities	34,369	11,842	27,811	6,852	14,210	21,178	27,811	6,399
Domestic portfolio	20,941	8,304	13,186	3,149	5,680	8,873	13,186	2,581
Foreign portfolio	13,428	3,538	14,625	3,703	8,530	12,305	14,625	3,818
Equities	53,601	10,844	8,009	1,344	6,250	5,218	8,009	914
Domestic portfolio	11,494	9,901	7,006	971	3,542	4,265	7,006	1,250
Foreign portfolio	42,107	943	1,003	373	2,708	953	1,003	-336
Derivatives	-40,286	-1,167	-3,873	-1,026	-1,236	-1,911	-3,873	-321
Repurchase agreements	-288	-107	-3,492	-99	-934	-2,105	-3,492	-1,597
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	114	3,884	1,084	524	255	829	1,084	-303
Net exchange differences	4,353	283	118	41	-78	-24	118	68
Other operating products and expenses	24,154	16,330	28,949	7,943	15,571	21,755	28,949	15,703
Other transactions	12,906	61,649	39,808	2,004	10,749	27,405	39,808	2,959
INTEREST INCOME								
Total	21,377	73,968	38,127	1,536	12,445	27,327	38,127	-1,582
Money market assets and public debt	1,576	2,036	1,027	482	648	839	1,027	147
Other fixed-income securities	1,285	1,300	3,319	620	1,432	1,971	3,319	597
Domestic portfolio	415	124	734	36	67	113	734	341
Foreign portfolio	870	1,176	2,585	584	1,365	1,858	2,585	256
Equities	6,140	3,673	2,767	54	1,824	1,800	2,767	48
Domestic portfolio	3,047	2,892	2,456	42	924	1,564	2,456	30
Foreign portfolio	3,093	781	311	12	900	236	311	18
Repurchase agreements	-288	-107	-3,492	-99	-934	-2,105	-3,492	-1,597
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	114	3,884	1,084	524	255	829	1,084	-303
Other transactions	12,550	63,182	33,422	-45	9,220	23,993	33,422	-474
FINANCIAL INVESTMENT INCOME								
Total	43,725	27,088	29,451	8,593	17,278	22,366	29,451	10,699
Money market assets and public debt	2,333	9,157	1,598	795	1,168	1,427	1,598	907
Other fixed-income securities	33,084	10,542	24,492	6,232	12,778	19,207	24,492	5,802
Domestic portfolio	20,526	8,180	12,452	3,113	5,613	8,760	12,452	2,240
Foreign portfolio	12,558	2,362	12,040	3,119	7,165	10,447	12,040	3,562
Equities	47,461	7,171	5,242	1,290	4,426	3,418	5,242	866
Domestic portfolio	8,447	7,009	4,550	929	2,618	2,701	4,550	1,220
Foreign portfolio	39,014	162	692	361	1,808	717	692	-354
Derivatives	-40,286	-1,167	-3,873	-1,026	-1,236	-1,911	-3,873	-321
Other transactions	1,133	1,385	1,992	1,302	142	225	1,992	3,445
EXCHANGE DIFFERENCES AND OTHER ITEMS								
Total	27,730	13,695	33,461	8,731	16,880	24,918	33,461	15,759
Net exchange differences	4,353	283	118	41	-78	-24	118	68
Other operating products and expenses	24,154	16,330	28,949	7,943	15,571	21,755	28,949	15,703
Other transactions	-777	-2,918	4,394	747	1,387	3,187	4,394	-12

¹ Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed during the year.

Aggregated income statement. Brokers

TABLE 2.9

Thousand euro¹

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
I. Interest income	3,127	1,583	1,252	609	783	1,252	-4	34
II. Net commission	120,674	135,782	130,293	58,008	89,925	130,293	34,779	45,163
Commission revenues	142,771	156,624	150,842	66,889	103,815	150,842	40,524	52,422
Brokering	20,449	20,018	23,194	11,788	17,375	23,194	8,196	10,355
Placement and underwriting	3,427	1,120	580	208	580	580	979	1,126
Securities deposit and recording	903	824	879	421	649	879	216	283
Portfolio management	12,470	15,412	14,890	6,462	9,600	14,890	3,404	4,436
Design and advice	11,263	26,446	14,426	6,873	9,639	14,426	6,705	8,050
Stock search and placement	0	0	0	0	0	0	0	0
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	60,571	63,821	62,866	29,171	43,829	62,866	14,549	19,442
Other	33,689	28,983	34,008	11,967	22,143	34,008	6,475	8,729
Commission expenses	22,097	20,842	20,549	8,881	13,890	20,549	5,745	7,259
III. Financial investment income	1,133	-51	910	738	824	910	-7,366	-7,111
IV. Net exchange differences and other operating products and expenses	-1,680	-279	1,194	291	739	1,194	-198	-166
V. Gross income	123,254	137,035	133,648	59,646	92,271	133,648	27,211	37,920
VI. Operating income	17,024	12,031	9,284	7,071	8,749	9,284	-5,456	-5,479
VII. Earnings from continuous activities	11,620	7,459	6,163	6,404	8,107	6,163	-5,109	-4,874
VIII. Net earnings of the period	11,620	7,459	6,163	6,404	8,107	6,163	-5,109	-4,874

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed during the year.

2 Available data: April 2020.

Aggregated income statement. Portfolio management companies¹

TABLE 2.10

Thousand euro²

	2015	2016	2017	2018	2019
I. Interest income	399	83	23	6	5
II. Net commission	8,526	6,617	1,543	350	404
Commission revenues	13,064	6,617	1,543	350	404
Portfolio management	11,150	4,228	1,095	350	404
Design and advice	371	354	59	0	0
Other	1,544	2,035	390	0	0
Commission expenses	4,538	0	0	0	0
III. Financial investment income	-28	-1	6	-25	13
IV. Net exchange differences and other operating products and expenses	-234	-126	-52	-20	-20
V. Gross income	8,663	6,573	1,520	311	402
VI. Operating income	3,331	3,172	623	-2	52
VII. Earnings from continuous activities	2,335	2,222	439	-2	37
VIII. Net earnings of the period	2,335	2,222	439	-2	37

1 Only public information about portfolio management companies is shown with the aim 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 during the year.

Capital adequacy and capital ratio¹

TABLE 2.11

	2017	2018	2019	2019				2020
				I	II	III	IV	I
TOTAL²								
Total capital ratio ³	33.40	42.36	46.92	39.00	36.69	35.74	46.92	37.12
Own fund surplus (thousand euro)	803,793	915,383	1,165,707	919,676	919,410	901,336	1,165,707	1,098,259
Surplus (%) ⁴	317.54	429.49	486.52	387.56	358.66	346.78	486.52	364.03
No. of companies according to surplus percentage								
≤100%	18	20	23	23	21	24	23	25
>100-≤300%	23	29	31	28	28	26	31	27
>300-≤500%	14	10	10	9	9	10	10	12
>500%	18	15	13	16	19	20	13	13
BROKER-DEALERS								
Total capital ratio ³	34.28	45.16	49.63	41.02	38.02	36.95	49.63	39.06
Own fund surplus (thousand euro)	755,143	874,235	1,118,273	875,732	870,260	852,187	1,118,273	1,038,176
Surplus (%) ⁴	328.55	464.51	520.42	412.79	375.22	361.84	520.42	388.24
No. of companies according to surplus percentage								
≤100%	8	7	7	7	5	7	7	6
>100-≤300%	10	10	14	12	14	14	14	13
>300-≤500%	8	7	4	5	4	3	4	6
>500%	13	14	11	14	15	15	11	11
BROKERS								
Total capital ratio ³	24.69	21.17	23.34	21.98	24.11	24.11	23.34	22.02
Own fund surplus (thousand euro)	48,452	40,952	47,249	43,944	49,151	49,149	47,249	60,083
Surplus (%) ⁴	208.66	164.84	191.77	174.71	201.36	201.40	191.77	175.24
No. of companies according to surplus percentage								
≤100%	10	13	16	16	16	17	16	19
>100-≤300%	12	18	16	16	14	12	16	14
>300-≤500%	6	3	6	4	5	7	6	6
>500%	5	1	2	2	4	5	2	2
PORTFOLIO MANAGEMENT COMPANIES²								
Total capital ratio ³	30.70	29.68	25.72	-	-	-	25.72	-
Own fund surplus (thousand euro)	198	196	185	-	-	-	185	-
Surplus (%) ⁴	282.86	272.22	221.50	-	-	-	221.50	-
No. of companies according to surplus percentage								
≤100%	0	0	0	-	-	-	0	-
>100-≤300%	1	1	1	-	-	-	1	-
>300-≤500%	0	0	0	-	-	-	0	-
>500%	0	0	0	-	-	-	0	-

1 This table only includes the entities subject to reporting requirements according to 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.

2 Only public information about portfolio management companies is shown with the aim of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods, only data on broker-dealers and brokers 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.

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 taxes¹

TABLE 2.12

	2017	2018	2019	2019				2020
				I	II	III	IV	I
TOTAL²								
Average (%) ³	17.73	12.27	9.23	1.42	4.93	6.91	9.23	10.41
Number of companies according to annualised return								
Losses	20	40	32	41	36	39	32	44
0-≤15%	28	22	22	24	24	27	22	13
>15-≤45%	22	10	18	16	20	17	18	17
>45-≤75%	4	6	7	2	3	4	7	3
>75%	15	14	12	10	11	10	12	15
BROKER-DEALERS								
Average (%) ³	17.84	12.16	8.87	0.08	3.92	6.36	8.87	14.25
Number of companies according to annualised return								
Losses	7	18	13	19	18	19	13	17
0-≤15%	17	12	13	13	12	15	13	6
>15-≤45%	11	5	7	6	8	5	7	10
>45-≤75%	1	2	1	0	1	1	1	1
>75%	4	2	2	1	0	0	2	2
BROKERS								
Average (%) ³	16.49	13.24	12.05	13.40	14.55	11.80	12.05	-13.84
Number of companies according to annualised return								
Losses	13	21	19	22	18	20	19	27
0-≤15%	11	10	9	11	12	12	9	7
>15-≤45%	10	5	11	10	12	12	11	7
>45-≤75%	3	4	6	2	2	3	6	2
>75%	11	12	10	9	11	10	10	13
PORTFOLIO MANAGEMENT COMPANIES²								
Average (%) ⁴	20.65	-0.84	19.74	-	-	-	19.74	-
Number of companies according to annualised return								
Losses	0	1	0	-	-	-	0	-
0-≤15%	0	0	0	-	-	-	0	-
>15-≤45%	1	0	1	-	-	-	1	-
>45-≤75%	0	0	0	-	-	-	0	-
>75%	0	0	0	-	-	-	0	-

1 ROE has been calculated as:

$$ROE = \frac{\text{Earnings before taxes (annualized)}}{\text{Own funds}}$$

Own funds = Share capital + Paid-in surplus + Reserves – Own shares + Prior year profits and retained earnings – Interim dividend.

2 Only public information about portfolio management companies is shown, with the aim of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods, only data on broker-dealers and brokers are shown.

3 Average weighted by equity, %.

Financial advisory firms. Main figures¹

TABLE 2.13

Thousand euro

	2015	2016	2017	2018	2019
ASSETS UNDER ADVICE²					
Total	25,084,882	30,174,877	30,790,535	31,658,460	21,627,677
Retail clients	6,499,049	7,588,143	9,096,071	10,281,573	8,313,608
Rest of clients and entities	18,585,833	22,586,734	21,694,464	21,376,887	13,314,069
Professional	5,108,032	5,654,358	6,482,283	7,052,031	-
Other	13,477,801	16,932,376	15,212,181	14,324,856	-
COMMISSION INCOME³					
Total	57,231	52,534	65,802	62,168	56,128
Commission revenues	56,227	51,687	65,191	61,079	55,258
Other income	1,004	847	611	1,088	870
EQUITY					
Total	25,021	24,119	32,803	33,572	32,746
Share capital	5,881	6,834	8,039	6,894	5,522
Reserves and retained earnings	7,583	12,123	13,317	15,386	17,525
Income for the year ³	11,481	7,511	11,361	10,626	7,889
Other own funds	76	-2,349	86	666	1,809

1 Annual frequency since 2015 (CNMV Circular 3/2014, of 22 October).

2 Data at the end of each period. Since 2019, due to the entry into force of CNMV Circular 4/2018, there is no disaggregated information of non-retail clients.

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

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
Total financial CIS	4,564	4,386	4,233	4,324	4,290	4,233	4,182	4,163
Mutual funds	1,676	1,617	1,595	1,620	1,611	1,595	1,578	1,568
Investment companies	2,833	2,713	2,569	2,643	2,614	2,569	2,535	2,524
Funds of hedge funds	8	7	7	7	7	7	7	7
Hedge funds	47	49	62	54	58	62	62	64
Total real estate CIS	7	7	5	6	6	5	5	5
Real estate mutual funds	3	3	2	2	2	2	2	2
Real estate investment companies	4	4	3	4	4	3	3	3
Total foreign CIS marketed in Spain	1,013	1,024	1,033	1,020	1,017	1,033	1,035	1,036
Foreign funds marketed in Spain	455	429	399	403	392	399	402	399
Foreign companies marketed in Spain	558	595	634	617	625	634	633	637
Management companies	109	119	123	121	123	123	124	124
CIS depositories	54	37	36	36	36	36	36	36

1 Available data: May 2020.

Number of CIS investors and shareholders

TABLE 3.2

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
Total financial CIS ²	10,704,585	11,627,118	12,132,581	11,748,951	11,620,670	12,132,581	12,142,357	12,130,305
Mutual funds	10,283,312	11,213,482	11,734,029	11,347,628	11,221,151	11,734,029	11,746,642	11,736,001
Investment companies	421,273	413,636	398,552	401,323	399,519	398,552	395,715	394,304
Total real estate CIS ²	1,424	905	799	909	811	799	796	796
Real estate mutual funds	1,097	483	483	483	483	483	483	483
Real estate investment companies	327	422	316	426	328	316	313	313
Total foreign CIS marketed in Spain ^{3,4}	1,984,474	3,172,682	3,361,901	3,147,153	3,144,420	3,361,901	n/a	–
Foreign funds marketed in Spain	431,295	547,517	521,648	500,154	488,522	521,648	n/a	–
Foreign companies marketed in Spain	1,553,179	2,625,165	2,840,253	2,646,999	2,655,898	2,840,253	n/a	–

1 Available data: April 2020.

2 Investors and shareholders who invest in many sub-funds from the same CIS have only been taken into account once. For this reason, investors and shareholders may be different from those in Tables 3.6 and 3.7.

3 Only data on UCITS are included. Data on Exchange Traded Funds (ETFs) are not included until IV-2017. From I-2018 onwards, data are estimated.

4 On 1 January 2018 CNMV Circular 2/2017, of 25 October, entered into force, which has increased the entities subject to reporting requirements; therefore, data may not be comparable with previous information.

a Information about mutual funds and Investment companies contained in this section does not include hedge funds or funds of hedge funds. The information about hedge funds and funds of hedge funds is included in Table 3.12.

CIS total net assets

TABLE 3.3

Million euro

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
Total financial CIS	296,619.5	286,930.9	308,170.1	300,021.8	301,467.3	308,170.1	274,633.1	282,836.4
Mutual funds ²	265,194.8	259,095.0	279,377.4	270,916.0	273,100.7	279,377.4	250,126.3	257,197.2
Investment companies	31,424.7	27,835.9	28,792.7	29,105.8	28,366.6	28,792.7	24,506.9	25,639.2
Total real estate CIS	991.4	1,058.2	1,072.9	1,070.2	1,069.5	1,072.9	1,076.8	1,080.6
Real estate mutual funds	360.0	309.4	309.4	309.4	309.3	309.4	309.7	309.7
Real estate investment companies	631.4	748.8	763.5	760.8	760.2	763.5	767.1	770.9
Total foreign CIS marketed in Spain ^{3,4}	150,420.6	162,701.9	178,841.5	180,975.8	177,366.2	178,841.5	n/a	-
Foreign funds marketed in Spain	26,133.9	34,237.1	30,843.4	36,796.2	30,010.6	30,843.4	n/a	-
Foreign companies marketed in Spain	124,286.7	128,464.9	147,998.1	144,180.0	147,355.6	147,998.1	n/a	-

1 Available data: April 2020.

2 Mutual funds investment in financial mutual funds of the same management company reached €7,148.19 million in March 2020.

3 Only data on UCITS are included. Data on Exchange Traded Funds (ETFs) are not included until IV-2017. From I-2018 onwards, data are estimated.

4 On 1 January 2018 CNMV Circular 2/2017, of 25 October, entered into force, which has increased the entities subject to reporting requirements; therefore, data may not be comparable with previous information.

Asset allocation of mutual funds

TABLE 3.4

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
Asset	265,194.8	259,095.0	279,377.4	268,363.8	270,916.0	273,100.7	279,377.4	250,126.3
Portfolio investment	244,598.0	241,016.2	256,750.7	247,325.5	251,189.1	251,719.1	256,750.7	225,972.0
Domestic securities	83,032.1	74,486.1	66,520.4	74,823.9	73,843.0	69,542.8	66,520.4	55,616.4
Debt securities	55,389.1	50,537.5	44,637.7	50,908.9	51,611.7	47,670.3	44,637.7	38,960.2
Shares	10,911.7	10,868.4	9,047.9	10,718.9	9,788.0	9,258.3	9,047.9	5,696.7
Collective Investment Schemes	7,625.9	6,984.9	8,581.9	7,591.5	7,690.2	7,982.2	8,581.9	7,729.5
Deposits in credit institutions	8,657.1	5,854.8	4,004.8	5,358.8	4,493.0	4,375.5	4,004.8	3,103.6
Derivatives	441.4	235.4	243.2	240.1	254.7	251.3	243.2	114.8
Other	6.8	5.2	4.9	5.7	5.4	5.2	4.9	11.7
Foreign securities	161,556.6	166,522.5	190,224.5	172,494.1	177,336.6	182,169.4	190,224.5	170,350.5
Debt securities	67,794.0	74,079.1	83,817.5	74,020.9	77,987.5	82,625.8	83,817.5	82,667.6
Shares	27,081.8	26,660.8	33,115.9	27,351.1	26,943.6	30,924.1	33,115.9	25,407.5
Collective Investment Schemes	66,099.9	65,624.3	73,054.4	70,906.7	72,134.2	68,328.8	73,054.4	62,442.1
Deposits in credit institutions	74.7	21.1	4.5	24.2	29.9	14.7	4.5	4.5
Derivatives	504.7	136.0	231.3	190.0	240.4	275.0	231.3	-172.1
Other	1.4	1.2	0.9	1.1	1.0	1.0	0.9	0.9
Doubtful assets and matured investments	9.3	7.6	5.8	7.5	9.5	6.9	5.8	5.0
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	19,988.5	16,897.1	21,735.1	19,929.6	18,625.3	20,954.7	21,735.1	21,319.0
Net balance (Debtors - Creditors)	608.3	1,181.7	891.6	1,108.7	1,101.6	426.9	891.6	2,835.3

Asset allocation of investment companies

TABLE 3.5

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
Asset	31,424.7	27,835.9	28,792.7	29,260.4	29,105.8	28,366.6	28,792.7	24,506.9
Portfolio investment	28,804.9	24,840.8	25,940.3	25,815.5	25,773.8	25,140.6	25,940.3	21,490.8
Domestic securities	6,229.4	5,031.5	4,588.3	5,027.8	4,828.1	4,621.3	4,588.3	3,622.1
Debt securities	1,653.8	1,433.8	1,217.1	1,369.5	1,346.1	1,265.2	1,217.1	1,155.8
Shares	2,674.5	2,193.7	1,982.8	2,224.3	2,077.3	1,992.2	1,982.8	1,440.5
Collective Investment Schemes	1,625.9	1,193.8	1,232.2	1,239.3	1,217.6	1,178.6	1,232.2	892.6
Deposits in credit institutions	236.2	164.3	98.6	148.2	152.7	134.6	98.6	79.8
Derivatives	-0.6	-0.2	0.8	-1.1	-16.9	-2.1	0.8	-3.0
Other	39.7	46.2	56.8	47.5	51.2	52.9	56.8	56.5
Foreign securities	22,566.2	19,803.8	21,348.2	20,782.3	20,940.9	20,512.8	21,348.2	17,864.4
Debt securities	4,396.6	4,241.6	4,617.7	4,430.9	4,495.4	4,469.0	4,617.7	4,030.2
Shares	6,987.8	5,979.1	6,133.8	6,297.4	6,188.7	5,975.1	6,133.8	4,998.1
Collective Investment Schemes	11,153.5	9,540.9	10,549.0	10,010.0	10,205.1	10,023.7	10,549.0	8,781.9
Deposits in credit institutions	0.0	0.0	1.1	1.1	1.1	1.1	1.1	0.0
Derivatives	19.3	27.6	34.1	27.2	36.6	27.6	34.1	41.9
Other	8.9	14.5	12.5	15.7	14.1	16.3	12.5	12.3
Doubtful assets and matured investments	9.3	5.6	3.8	5.4	4.8	6.4	3.8	4.3
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Cash	2,421.7	2,731.9	2,659.8	3,235.0	3,121.1	2,926.1	2,659.8	2,707.5
Net balance (Debtors - Creditors)	197.5	262.6	192.1	209.4	210.3	299.4	192.1	308.0

Financial mutual funds: number, investors and total net assets by category^{1,2}

TABLE 3.6

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ³
NO. OF FUNDS								
Total financial mutual funds	1,741	1,725	1,710	1,737	1,723	1,710	1,697	1,697
Fixed income ⁴	290	279	281	283	283	281	283	284
Mixed fixed income ⁵	155	168	173	173	171	173	173	173
Mixed equity ⁶	176	184	185	191	186	185	187	187
Euro equity	111	113	113	114	113	113	112	112
Foreign equity	211	236	263	253	257	263	272	275
Guaranteed fixed income	79	67	66	66	66	66	66	67
Guaranteed equity ⁷	188	163	155	164	159	155	147	146
Global funds	225	242	255	240	252	255	254	251
Passive management ⁸	202	172	133	161	148	133	119	118
Absolute return	104	99	84	90	86	84	82	82
INVESTORS								
Total financial mutual funds	10,287,454	11,217,569	11,739,183	11,350,779	11,227,036	11,739,183	11,751,437	11,740,756
Fixed income ⁴	2,627,547	2,709,547	3,668,324	3,279,530	3,376,056	3,668,324	3,660,775	3,668,400
Mixed fixed income ⁵	1,197,523	1,188,157	1,087,881	1,124,303	1,044,836	1,087,881	1,203,900	1,201,923
Mixed equity ⁶	584,408	624,290	707,159	695,823	695,444	707,159	707,919	716,874
Euro equity	710,928	831,115	598,901	564,406	553,832	598,901	532,060	504,400
Foreign equity	1,865,367	2,225,366	2,655,123	2,301,171	2,512,222	2,655,123	2,732,902	2,740,902
Guaranteed fixed income	190,075	165,913	154,980	164,034	161,392	154,980	148,317	147,679
Guaranteed equity ⁷	527,533	494,660	428,470	491,969	461,897	428,470	391,235	388,956
Global funds	1,086,937	1,501,730	1,359,915	1,553,357	1,291,172	1,359,915	1,355,885	1,353,515
Passive management ⁸	638,966	543,192	429,428	503,369	474,947	429,428	396,398	397,797
Absolute return	858,170	930,641	646,042	669,857	652,278	646,042	619,085	617,352
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	265,194.8	259,095.0	279,377.4	270,916.0	273,100.7	279,377.4	250,126.3	257,197.2
Fixed income ⁴	70,563.9	66,889.3	78,583.2	73,202.8	77,871.1	78,583.2	73,475.8	74,523.6
Mixed fixed income ⁵	43,407.0	40,471.0	40,819.9	39,643.5	38,959.2	40,819.9	41,312.7	41,984.8
Mixed equity ⁶	22,386.7	23,256.0	28,775.8	27,350.1	27,613.4	28,775.8	25,829.7	26,785.6
Euro equity	12,203.2	12,177.7	10,145.1	10,676.8	10,034.3	10,145.1	6,618.2	6,948.4
Foreign equity	24,064.6	24,404.9	34,078.9	27,262.4	30,447.0	34,078.9	27,636.0	30,318.5
Guaranteed fixed income	5,456.7	4,887.4	4,809.3	5,197.8	5,143.1	4,809.3	4,505.2	4,486.3
Guaranteed equity ⁷	15,417.5	14,556.0	13,229.1	14,938.2	14,395.0	13,229.1	11,684.0	11,607.5
Global funds	35,511.5	42,137.2	43,041.9	44,669.4	41,702.5	43,041.9	37,120.7	38,294.0
Passive management ⁸	19,477.8	16,138.6	14,073.8	15,983.2	15,355.0	14,073.8	11,708.7	11,925.4
Absolute return	16,705.9	14,172.5	11,818.3	11,988.8	11,577.6	11,818.3	10,233.0	10,320.8

1 Sub-funds which have sent reports to the CNMV excluding those in process of dissolution or liquidation.

2 Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

3 Available data: April 2020.

4 Until I-2019 it includes: fixed income euro, foreign fixed income, monetary market funds and short-term monetary market funds. From II-2019 it includes: short-term euro fixed income, euro fixed income, foreign fixed income, public debt constant net asset value short-term money market funds (MMFs), low volatility net asset value short-term MMFs, variable net asset value short-term MMFs and variable net asset value standard MMFs.

5 Mixed euro fixed income and foreign mixed fixed income.

6 Mixed euro equity and foreign mixed equity.

7 Guaranteed equity and partial guarantee.

8 Until I-2019 it includes: passive management CIS. From II-2019 it includes: passive management CIS, index-tracking CIS and non-guaranteed specific return target CIS.

Financial mutual funds: Detail of investors and total net assets by types

TABLE 3.7

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ¹
INVESTORS								
Total financial mutual funds	10,287,454	11,217,569	11,739,183	11,350,779	11,227,026	11,739,183	11,751,437	11,740,756
Natural persons	10,080,255	11,008,977	11,534,957	11,145,137	11,024,532	11,534,957	11,551,161	11,540,106
Residents	9,994,395	10,917,387	11,440,086	11,051,925	10,931,913	11,440,086	11,456,061	11,444,978
Non-residents	85,860	91,590	94,871	93,212	92,619	94,871	95,100	95,128
Legal persons	207,199	208,592	204,226	205,642	202,494	204,226	200,276	200,650
Credit institutions	515	655	1928	649	638	1928	1415	1434
Other resident institutions	205,804	207,073	201,408	204,084	200,945	201,408	198,000	198,364
Non-resident institutions	880	864	890	909	911	890	861	852
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	265,194.8	259,095.0	279,377.4	270,916.0	273,100.7	279,377.4	250,126.3	257,197.2
Natural persons	218,429.6	215,785.0	231,434.8	225,612.8	227,293.8	231,434.8	207,225.4	213,187.8
Residents	215,290.8	212,758.3	228,214.4	222,417.1	224,066.0	228,214.4	204,390.5	210,272.3
Non-residents	3,138.8	3,026.7	3,220.4	3,195.7	3,227.8	3,220.4	2,834.9	2,915.5
Legal persons	46,765.1	43,310.0	47,942.6	45,303.2	45,806.9	47,942.6	42,900.8	44,009.4
Credit institutions	342.2	384.1	523.7	358.0	321.5	523.7	412.4	428.1
Other resident institutions	45,518.8	41,967.9	46,628.9	44,069.5	44,662.0	46,628.9	41,913.2	43,021.1
Non-resident institutions	904.1	957.9	790.0	875.8	823.4	790.0	575.2	560.2

1 Available data: April 2020.

Subscriptions and redemptions of financial mutual funds by category^{1, 2}

TABLE 3.8

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
SUBSCRIPTIONS								
Total financial mutual funds	151,586.4	130,577.0	156,702.7	28,564.6	35,971.0	32,555.6	34,009.0	40,155.8
Fixed income	59,088.5	53,165.8	91,050.8	15,237.7	19,188.6	15,125.4	15,896.8	17,098.9
Mixed fixed income	20,513.3	14,823.4	14,154.1	2,760.4	3,396.7	3,373.1	4,623.9	7,341.1
Mixed equity	10,452.2	10,406.8	11,156.0	1,454.2	4,411.4	1,624.4	3,665.9	3,238.3
Euro equity	9,452.9	7,024.3	2,998.4	1,045.0	672.9	511.4	769.0	714.8
Foreign equity	14,866.5	13,265.2	16,864.0	2,263.4	3,305.0	7,452.2	3,843.4	5,649.8
Guaranteed fixed income	986.9	796.0	854.1	507.6	301.5	36.7	8.4	45.5
Guaranteed equity	2,413.1	2,116.8	898.2	411.8	395.5	68.6	22.4	15.4
Global funds	21,571.9	20,455.3	12,713.7	3,373.1	3,416.6	2,296.0	3,628.0	4,395.4
Passive management	2,374.0	3,014.3	2,261.9	1,025.7	383.0	376.4	476.8	928.1
Absolute return	9,867.1	5,493.3	3,751.5	485.7	499.9	1,691.4	1,074.5	728.4
REDEMPTIONS								
Total financial mutual funds	130,248.0	122,669.5	154,273.0	28,990.0	35,660.4	32,262.7	31,757.6	42,240.3
Fixed income	62,087.2	55,823.7	80,046.4	12,244.8	16,719.5	10,531.1	14,948.6	18,569.8
Mixed fixed income	18,011.6	16,685.2	16,004.2	3,285.9	5,360.9	4,307.6	3,049.7	5,333.4
Mixed equity	4,942.6	7,344.0	7,943.7	1,629.8	1,792.4	1,551.0	2,970.6	2,962.3
Euro equity	6,908.0	5,246.8	6,540.2	2,381.9	1,899.1	1,024.1	1,235.0	1,536.8
Foreign equity	10,363.6	9,476.0	12,963.1	2,451.9	3,466.6	4,691.8	2,352.9	3,911.7
Guaranteed fixed income	3,876.9	1,202.9	1,136.7	409.2	277.3	162.9	287.3	306.9
Guaranteed equity	3,001.5	2,582.6	2,739.2	440.1	381.1	816.4	1,101.5	1,302.8
Global funds	8,587.6	11,301.6	15,133.7	3,173.8	3,124.3	5,702.2	3,133.4	4,841.6
Passive management	6,954.8	5,776.3	5,272.0	1,312.0	1,063.1	1,139.0	1,757.8	2,027.1
Absolute return	5,488.2	7,230.5	6,493.7	1,660.6	1,575.9	2,336.3	920.8	1,447.8

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^{1,2}**

TABLE 3.9

Million euro

	2017	2018	2019	2019				2020
				I	II	III	IV	I
NET SUBSCRIPTIONS/REDEMPTIONS								
Total financial mutual funds	21,325.0	7,841.8	2,467.5	-402.3	326.2	295.6	2,247.9	-2,103.9
Fixed income	-3,638.0	-2,766.0	10,732.6	2,996.7	2,469.2	4,352.6	914.1	-3,186.6
Mixed fixed income	2,890.5	-1,063.7	-1,506.1	-543.8	-1,631.4	-949.3	1,618.4	3,742.5
Mixed equity	5,498.6	2,485.9	3,288.8	-27.3	2,623.8	-0.8	693.1	411.2
Euro equity	2,549.7	1,848.7	-3,588.2	-1,331.1	-1,272.8	-518.3	-466.0	-836.8
Foreign equity	4,514.0	3,864.1	4,113.8	-183.5	-38.9	2,843.5	1,492.7	1,735.7
Guaranteed fixed income	-3,262.6	-575.8	-282.6	98.3	24.2	-126.2	-278.9	-261.3
Guaranteed equity	-309.5	-667.2	-1,857.0	-28.5	-4.7	-745.2	-1,078.6	-1,313.7
Global funds	13,405.9	9,448.9	-2,553.9	182.9	93.2	-3,325.4	495.4	-574.7
Passive management	-4,585.0	-2,790.4	-3,026.8	-270.6	-680.3	-780.1	-1,295.8	-1,099.7
Absolute return	4,287.3	-1,899.6	-2,852.9	-1,295.4	-1,256.1	-454.9	153.5	-720.6
RETURN ON ASSETS								
Total financial mutual funds	6,022.6	-13,919.3	18,002.8	9,677.3	2,229.8	1,898.4	4,197.3	-27,140.2
Fixed income	-24.1	-908.5	961.9	505.3	342.6	316.0	-202.0	-1,920.7
Mixed fixed income	451.4	-1,865.1	1,866.9	1,055.2	296.2	267.5	248.0	-3,245.8
Mixed equity	577.8	-1,616.6	2,231.0	1,236.3	261.2	264.1	469.4	-3,357.3
Euro equity	987.8	-1,871.2	1,556.4	998.1	105.4	-124.2	577.1	-2,690.2
Foreign equity	1,872.3	-3,522.6	5,561.1	2,867.1	213.7	341.1	2,139.2	-8,178.5
Guaranteed fixed income	39.4	6.6	204.4	79.9	107.9	71.5	-54.9	-42.8
Guaranteed equity	251.3	-194.2	530.0	197.3	218.0	202.0	-87.3	-231.3
Global funds	1,190.3	-2,602.1	3,460.8	1,901.9	355.3	359.1	844.5	-5,345.9
Passive management	472.9	-537.5	1,133.2	532.5	266.7	157.6	176.4	-1,262.9
Absolute return	203.4	-796.6	498.7	304.3	63.5	43.7	87.2	-864.8

1 Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

2 A change of category is treated as a redemption in the original category and a subscription in the final one. For this reason, and the adjustments due to de-registrations in the quarter, the net subscription/refund data may be different from those in Table 3.8.

Return on assets in financial mutual funds. Breakdown by category¹

TABLE 3.10

% of daily average total net assets

	2017	2018	2019	2019				2020
				I	II	III	IV	I
MANAGEMENT YIELDS								
Total financial mutual funds	3.41	-4.19	7.67	3.92	1.08	0.95	1.77	-9.97
Fixed income	0.59	-0.79	1.83	0.88	0.61	0.55	-0.14	-2.51
Mixed fixed income	2.22	-3.25	5.75	2.86	1.01	0.95	0.87	-7.45
Mixed equity	4.36	-5.46	9.79	5.48	1.33	1.32	2.03	-11.72
Euro equity	11.14	-11.98	16.01	8.42	1.44	-0.81	6.20	-30.64
Foreign equity	10.80	-11.89	21.00	11.43	1.21	1.55	7.10	-25.56
Guaranteed fixed income	1.14	0.56	4.52	1.77	2.21	1.50	-1.01	-0.91
Guaranteed equity	2.18	-0.80	4.20	1.50	1.61	1.54	-0.56	-1.89
Global funds	5.39	-5.11	9.24	4.67	1.09	1.15	2.32	-12.79
Passive management	2.81	-2.55	7.88	3.44	1.81	1.15	1.36	-9.93
Absolute return	2.32	-4.01	4.93	2.42	0.74	0.59	0.98	-7.58
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	0.91	0.86	0.85	0.21	0.21	0.21	0.21	0.20
Fixed income	0.54	0.45	0.44	0.11	0.11	0.11	0.11	0.10
Mixed fixed income	1.05	0.96	0.92	0.23	0.22	0.23	0.23	0.21
Mixed equity	1.34	1.26	1.29	0.31	0.32	0.32	0.33	0.31
Euro equity	1.71	1.47	1.49	0.37	0.37	0.37	0.38	0.36
Foreign equity	1.69	1.41	1.41	0.38	0.35	0.34	0.35	0.32
Guaranteed fixed income	0.48	0.38	0.36	0.09	0.09	0.09	0.09	0.09
Guaranteed equity	0.58	0.53	0.47	0.12	0.12	0.11	0.11	0.11
Global funds	1.07	0.98	1.03	0.25	0.25	0.26	0.27	0.26
Passive management	0.52	0.48	0.42	0.11	0.11	0.10	0.10	0.10
Absolute return	0.91	0.79	0.81	0.19	0.20	0.20	0.21	0.20
EXPENSES. DEPOSITORY FEE								
Total financial mutual funds	0.08	0.07	0.07	0.02	0.02	0.02	0.02	0.02
Fixed income	0.07	0.06	0.06	0.02	0.02	0.02	0.02	0.02
Mixed fixed income	0.09	0.08	0.08	0.02	0.02	0.02	0.02	0.02
Mixed equity	0.10	0.10	0.10	0.02	0.02	0.02	0.02	0.02
Euro equity	0.11	0.10	0.10	0.02	0.03	0.03	0.02	0.02
Foreign equity	0.10	0.09	0.09	0.02	0.02	0.02	0.02	0.02
Guaranteed fixed income	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01
Guaranteed equity	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01
Global funds	0.09	0.08	0.08	0.02	0.02	0.02	0.02	0.02
Passive management	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01
Absolute return	0.07	0.06	0.06	0.01	0.02	0.02	0.02	0.02

¹ Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Quarterly return of mutual funds. Breakdown by category¹

TABLE 3.11

In %

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
Total financial mutual funds	2.42	-4.89	7.12	0.83	0.71	1.57	-9.30	3.01
Fixed income	-0.13	-1.44	1.38	0.47	0.42	-0.26	-2.43	0.85
Mixed fixed income	1.10	-4.27	4.75	0.75	0.69	0.59	-6.97	2.11
Mixed equity	3.23	-6.45	9.25	1.03	0.97	1.68	-11.06	3.62
Euro equity	11.16	-13.01	14.27	0.82	-1.13	5.95	-28.48	5.44
Foreign equity	8.75	-12.34	22.18	0.79	1.37	6.91	-23.11	9.78
Guaranteed fixed income	0.72	0.09	3.98	2.12	1.39	-1.07	-0.94	-0.03
Guaranteed equity	1.61	-1.33	3.62	1.42	1.42	-0.63	-1.86	-0.03
Global funds	4.46	-5.69	8.45	0.82	0.77	2.04	-12.00	3.90
Passive management	2.13	-3.16	7.45	1.66	0.96	1.28	-9.29	2.09
Absolute return	1.44	-4.81	3.94	0.54	0.35	0.75	-7.50	2.46

¹ Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

² Available data: April 2020.

Hedge funds and funds of hedge funds

TABLE 3.12

	2017	2018	2019	2019				2020
				I	II	III	IV	I ¹
HEDGE FUNDS								
Investors/shareholders	3,656	4,444	7,548	5,937	5,846	6,451	7,548	7,980
Total net assets (million euro)	2,298.2	2,262.2	2,832.4	2,395.0	2,321.5	2,467.1	2,832.4	2,848.20
Subscriptions (million euro)	663.9	500.7	1,290.0	106.7	139.6	208.3	835.4	163.2
Redemptions (million euro)	607.2	320.4	937.0	71.4	225.7	68.7	570.7	40.9
Net subscriptions/redemptions (million euro)	56.7	180.3	353.0	35.3	-86.2	139.6	264.8	122.3
Return on assets (million euro)	149.4	-153.8	217.2	97.5	12.6	6.0	100.6	-106.5
Returns (%)	7.84	-6.47	10.35	5.56	0.36	0.22	3.94	-3.93
Management yields (%) ²	9.51	-5.46	9.94	4.42	0.83	0.49	4.03	-3.58
Management fees (%) ²	2.59	1.70	1.19	0.48	0.25	0.23	0.25	0.15
Financial expenses (%) ²	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
FUNDS OF HEDGE FUNDS								
Investors/shareholders	3,596	2,804	2,859	2,847	2,850	2,861	2,859	2,856
Total net assets (million euro)	468.7	468.8	565.9	506.9	513.7	562.4	565.9	569.8
Subscriptions (million euro)	205.4	7.2	72.3	29.9	0.2	42.2	0.0	-
Redemptions (million euro)	22.1	0.6	0.3	0.2	0.2	0.1	-0.4	-
Net subscriptions/redemptions (million euro)	183.4	6.6	71.4	29.7	0.0	42.2	-0.4	-
Return on assets (million euro)	-8.3	-6.5	25.7	8.6	6.8	6.5	3.8	-
Returns (%)	-1.66	-1.28	5.07	1.86	1.34	1.10	0.68	0.92
Management yields (%) ³	-0.24	-3.04	6.32	2.20	1.64	1.61	0.98	-
Management fees (%) ³	1.45	1.64	1.61	0.48	0.39	0.39	0.36	-
Depository fees (%) ³	0.06	0.06	0.06	0.01	0.02	0.02	0.02	-

1 Available data: February 2020.

2 % of monthly average total net assets.

3 % of daily average total net assets.

Management companies. Number of portfolios and assets under management

TABLE 3.13

	2017	2018	2019	2019				2020
				II	III	IV	I	II ¹
NUMBER OF PORTFOLIOS²								
Mutual funds	1,676	1,617	1,595	1,620	1,611	1,595	1,578	1,571
Investment companies	2,824	2,713	2,560	2,634	2,605	2,560	2,530	2,523
Funds of hedge funds	8	7	7	7	7	7	7	7
Hedge funds	47	49	62	54	58	62	62	64
Real estate mutual funds	3	3	2	2	2	2	2	2
Real estate investment companies	4	4	3	4	4	3	3	3
ASSETS UNDER MANAGEMENT (million euro)								
Mutual funds	265,194.8	259,095.0	279,377.4	270,916.0	273,100.7	279,377.4	250,126.3	257,197.2
Investment companies	31,021.1	27,479.7	28,385.5	28,712.6	27,984.6	28,385.5	24,220.8	25,327.4
Funds of hedge funds ³	468.7	468.8	565.9	513.7	562.5	565.9	569.8	-
Hedge funds ³	2,298.2	2,262.2	2,832.4	2,321.5	2,461.7	2,832.4	2,848.2	-
Real estate mutual funds	360.0	309.4	309.4	309.4	309.3	309.4	309.7	309.7
Real estate investment companies	631.5	748.8	763.5	760.8	760.2	763.5	767.1	770.9

1 Available data: April 2020.

2 Data source: Registers of Collective Investment Schemes.

3 Available data: February 2020.

Foreign Collective Investment Schemes marketed in Spain¹

TABLE 3.14

	2017	2018	2019	2019				2020
				I	II	III	IV	I
INVESTMENT VOLUME^{2,3} (million euro)								
Total	150,420.6	162,335.0	178,841.5	181,381.8	179,976.2	177,664.7	178,841.5	n/a
Mutual funds	26,133.9	34,209.6	30,843.4	35,984.1	33,322.4	30,207.0	30,843.4	n/a
Investment companies	124,286.7	128,125.5	147,998.1	145,397.7	146,653.8	147,457.7	147,998.1	n/a
INVESTORS/SHAREHOLDERS²								
Total	1,984,474	3,173,245	3,361,901	3,214,413	3,117,731	3,145,703	3,361,901	n/a
Mutual funds	431,295	547,826	521,648	529,920	496,837	488,584	521,648	n/a
Investment companies	1,553,179	2,625,419	2,840,253	2,684,493	2,620,894	2,657,119	2,840,253	n/a
NUMBER OF SCHEMES⁴								
Total	1,013	1,024	1,033	1,000	1,020	1,017	1,033	1,035
Mutual funds	455	429	399	396	403	392	399	402
Investment companies	558	595	634	604	617	625	634	633
COUNTRY⁴								
Luxembourg	429	447	462	455	457	461	462	463
France	292	263	222	233	234	221	222	222
Ireland	184	200	220	200	211	216	220	219
Germany	35	42	48	43	46	47	48	49
UK	33	27	23	25	25	24	23	23
The Netherlands	2	2	4	2	2	4	4	4
Austria	21	24	30	23	25	25	30	31
Belgium	5	5	5	5	5	4	5	5
Denmark	1	1	1	1	1	1	1	1
Finland	8	9	11	9	10	10	11	11
Liechtenstein	3	4	4	4	4	4	4	4

1 Only includes data on UCITS. On 1 January 2018 CNMV Circular 2/2017, of 25 October, entered into force, which has increased the entities subject to reporting requirements; therefore, data may not be comparable with previous information

2 Data on Exchange Traded Funds (ETFs) are not included until IV-2017. From I-2018 onwards, data are estimated.

3 Investment volume: participations or shares owned by the investors/shareholders at the end of the period valued at that time.

4 UCITS (funds and societies) registered at the CNMV.

Real estate investment schemes¹

TABLE 3.15

	2017	2018	2019	2019			2020	
				II	III	IV	I	II ²
REAL ESTATE MUTUAL FUNDS								
Number	3	2	2	2	2	2	2	2
Investors	1,097	483	483	483	483	483	483	483
Assets (million euro)	360.0	309.4	309.4	309.4	309.3	309.4	309.7	309.7
Return on assets (%)	-2.60	0.24	-0.02	0.00	-0.01	0.02	0.09	0.01
REAL ESTATE INVESTMENT COMPANIES								
Number	4	4	3	4	4	3	3	3
Shareholders	327	422	316	426	328	316	313	313
Assets (million euro)	631.5	748.8	763.5	760.8	760.2	763.5	767.1	770.9

1 Real estate investment schemes which have sent reports to the CNMV, excluding those in process of dissolution or liquidation.

2 Available data: April 2020.

