CNMV
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The CNMV publishes this Bulletin to spread research in order to contribute to the best knowledge of the stock markets and their regulation.

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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 Securities markets and their agents: Situation and outlook

Contents

List of exhibits

1 Executive summary

– The global and national macroeconomic and financial environment remains highly complex, as there is no clear decline in the number of COVID-19 infections. In fact, a second wave has taken hold in several countries and there is no specific time horizon for the launch of a vaccine. Therefore, we find ourselves in a scenario in which new partial lockdown measures are being announced on almost a daily basis in different areas, adding even more uncertainty to the path of economic recovery.

– GDP data for the first and second quarters of the year were released after the publication of our last bulletin. These figures reflect the severity of this crisis, with declines in all major economies of a magnitude not seen since World War II. Second quarter declines in GDP were over 10% in most economies, even reaching 20% in the hardest hit, including Spain's. Governments, central banks and other institutions have adopted various measures that seek to alleviate and minimise the effects of the crisis, but despite these efforts the most relevant forecasts point to a drop in GDP of close to 6% in the advanced economies as a whole for this year and 3.3% in emerging economies. There is, however, some unevenness within these groups.

– The international equity markets, which had experienced substantial price falls in March, at the height of the crisis, recovered significantly in subsequent quarters.[1] In Europe we see considerable disparities, with year-to-date performance ranging from the slight 0.2% fall posted by Germany's Dax 30 index to the loss of close to 26% of Spain's Ibex 35. Performance is much more favourable in the case of the US benchmark indices, which are even showing gains this year (25% for the technology-heavy Nasdaq index). The upward trend in most quoted prices over the last two quarters has fuelled debate about the possible mismatch between stock markets and economic fundamentals.

– In the international fixed income markets, yields on long-term debt assets, which had risen significantly in March and April, showed a clear downward trend in subsequent months, placing them at them at levels lower than at the start of the year. Yields on 10-year government debt ended the third quarter with negative values or close to zero in most European economies. Risk premiums applied in both the public and private sectors have also tended to decline in recent months, after the strong uptick experienced in April, although in this case they were still higher at the end of the quarter than the figures seen at the beginning of the year, especially for companies with the lowest credit ratings.

– In Spain, the latest activity and employment indicators reflect the severity of the crisis, with a 21.5% drop in GDP in the second quarter (the sharpest fall of all major European economies) and a decrease of 1,360,000 in the number of persons employed between January and June. The outlook for this year as a whole is unfavourable, as GDP is expected to fall by more than 12% and forecasts are subject to a very high degree of uncertainty. This uncertainty, which

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

has led many institutions to provide forecasts for different scenarios without identifying any of them as the most probable, is related, among other factors, to the duration of the pandemic, the effectiveness of the measures adopted to address it and changes in agents' consumption and savings patterns. In this context, the most significant challenges facing the Spanish economy involve keeping unemployment figures as low as possible and ensuring the sustainability of public finances.

– The crisis triggered by COVID-19 led to the fastest increase in the Spanish financial market stress indicator in a period of just a few weeks. This indicator, which at the closing date of our previous report (31 March) stood at 0.56 (in the high stress zone) continued to increase in the following weeks to reach a third new historical high at close to 0.65 in May. All segments experienced significant increases in stress, especially in the indicators related to price falls and volatilities, and there was also a significant increase in the degree of correlation between them. The latest stress indicator value is below 0.50 (medium risk zone), with the financial intermediaries (banks) segment showing the highest values.

– The Spanish equity markets, which in the second quarter had barely recovered the heavy losses experienced in the first months of the year, suffered further setbacks in the third quarter. These setbacks intensified as the uncertainties facing the Spanish economy grew, driven by the potential effects of a second wave of the pandemic. The Ibex 35 closed the quarter with losses of 7.1%, bringing the year-to-date loss to 29.7%, the biggest fall of all the major international indices, in a context of more normal levels of volatility and liquidity and a notable fall in trading volumes.

– In the Spanish fixed income markets, the decline in asset returns observed in the second quarter continued in the third and most of these yields – on both public debt and private fixed income – were lower than those seen at the beginning of the year. This development was due to the asset purchases made by the European Central Bank (ECB), which reduce the risk premiums on debt assets. The decline in debt yields extended to all terms, although it was more intense in the longer-dated segments, which favours a flattening of the interest rate curve. Debt issues of Spanish issuers also decreased in the third quarter compared with the second, but are showing significant growth in the year to date (16%, to €144 billion, counting both the issues registered with the CNMV and those carried out abroad) as many companies brought their issues forward to the second quarter of this year and increased their amount, taking advantage of the favourable market conditions to refinance at longer terms and lower cost, with the intention of building up sufficient resources to deal with the current crisis.

– Investment fund assets decreased by 5.6% in the first half of the year, to stand at €263 billion, due to the combined effect of the net redemptions in March (€5.5 billion) following the lockdown announcement in Spain, and the decrease in the value of the portfolio. Net redemptions, which were handled by fund managers without problems, did not occur in all categories of funds, but were concentrated in fixed income funds. After this period of turmoil, the most

representative figures for the collective investment sector once again showed some growth, although some uncertainty persists over the medium term. In this context, the work of the CNMV, as indicated in the last report of this series, focuses among other things on evaluating funds' exposure to relatively illiquid assets and assets with higher credit risk, as well as on ensuring that the management companies correctly value the assets of their portfolios. In this regard, the CNMV gave indications on the appropriateness in certain cases of valuing assets at the bid price or applying swing pricing schemes, techniques that have been adopted by a significant number of entities.

– Investment firms (IFs) posted substantial increases in pre-tax profit in the first half of the year, from €25 million in 2019 to €110 million in 2020. This performance, which was due to broker-dealers, can be explained by the inclusion of a large entity in the context of Brexit and by the better results reported by many companies, especially in terms of financial investments and net fees. The results reported by brokers were skewed by the liquidation of an entity with heavy losses. Stripping out data relative to this company, the segment would have posted a profit, albeit lower than that of 2019. The IF segment reported higher profits but also an increase in the number of loss-making entities, supporting the perception of sector polarisation. Lastly, the solvency of both broker-dealers and brokers remained satisfactory in relative terms.

– This report contains three monographic exhibits:

  • The first describes the most important characteristics of the recent partial reform of the Good Governance Code for listed companies, carried out to bring the corporate governance framework of Spanish companies into line with the highest international standards.

  • The second lists the five priority areas of work identified by the European Systemic Risk Board (ESRB), four of which are the subject of recommendations.

  • The third exhibit summarises a work carried out by the CNMV to assess the consequences that the recent ban on the creation or increase of net short positions adopted by the CNMV may have had on some key variables representing the shares of the companies concerned.

2 Macro-financial environment

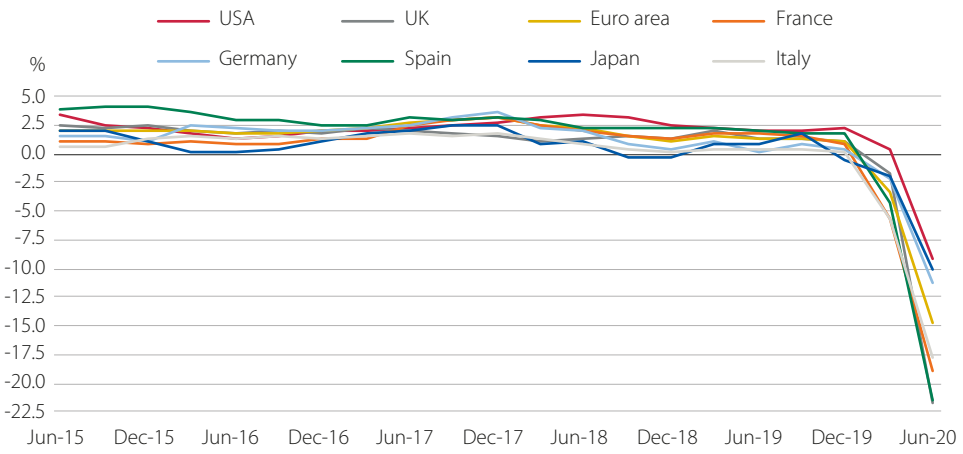
2.1 International economic and financial developments

The sharp falls in GDP in the first half of the year, which were sharper in European countries than in other regions, bear eloquent testimony to the economic impact of the spread of the coronavirus.

The sharp falls in the GDP of world economies in the first half of the year highlight the economic impact of the spread of the coronavirus. In this context of high uncertainty, most countries experienced slumps in economic growth, which were sharper in Europe. The GDP of the United States, one of the few countries in which a year-on-year increase was observed in the first quarter of the year (0.3%), fell by 9.1% in the second quarter compared with the same period of 2019.

However, the fall off in growth in the euro area stood out, with decreases in GDP of 3.2% and 14.7% in Q1 and Q2, respectively. The halt in activity during the months of lockdown caused by the health crisis – a measure that was generally implemented in the second half of the first quarter of the year – led to unprecedented declines in GDP in most economies, which were much sharper in the second quarter (see Figure 1).

Annual change in GDP FIGURE 1



Source: Thomson Datastream.

The falls in GDP in the second quarter of the year were over 10% in the major economies and even close to 20% in those hardest hit.

In the euro area economies, the year-on-year falls in GDP in the first quarter of the year ranged from 0.4% in the Netherlands to 5.7% in France, while in the second quarter these figures increased sharply to mark historical levels of 17.7% in Italy, 18.9% in France and 21.5% in Spain (the decrease in GDP in the Netherlands and Germany, while still considerable, at 9.2% and 11.3% respectively, was less than in these economies). In the United Kingdom, the impact of the coronavirus was compounded by the uncertainty surrounding Brexit, as no agreement for exiting the European Union has yet been reached. Thus, the year-on-year drop in GDP was 1.7% in the first quarter and 21.7% in the second, while in Japan it was 1.9% and 10.1% respectively. Since the health crisis started in China, the impact on China's GDP was greater in the first quarter, but the economy started to recover in the second quarter (year-on-year falls of 6.8% and 1.6%,[2] respectively).

In September, the Federal Reserve kept official interest rates unchanged in the range of 0.00-0.25%, following the announcement of the new lines of its monetary policy strategy.

The central banks of the major economies have adopted multiple measures in recent months to cope with the economic consequences of this crisis. These measures have translated into reductions in official interest rates and considerable increases in the amounts of asset purchase programmes, the types of instruments that can be acquired under which have also been expanded. Most of these measures were taken in March in response to the initial spread of the virus, although they remain in effect. At its last meeting in September, the US Federal Reserve kept its official rates in the range of 0-0.25% (after 2 rate cuts in March that placed them at the levels seen during the 2008-2015 financial crisis), indicating that it does not expect to make any

2 The information on China's GDP growth corresponds to year-to-date figures compared with the same period of the previous year.

changes until market conditions are aligned with its objectives of achieving maximum employment and inflation levels of over 2%. These statements are part of a new monetary policy strategy that has relaxed the inflation target in order to boost employment.[3] Following the meeting, the projections of the members of the Federal Open Market Committee were published. The majority of them expect these official rates to remain unchanged until 2024, suggesting that US interest rates will remain close to zero for more than three years. In addition, the Fed announced that it will increase its holdings of treasury bills and mortgage-backed securities at least at the current rate to keep the market running smoothly and support the flow of credit to households and businesses.

The ECB also resolved to keep its official interest rate and the size of its asset purchase programmes unchanged.

Along similar lines, at its September meeting the ECB did not make any monetary policy changes, but kept official interest rates unaltered (for main refinancing operations (MRO), the marginal lending facility and the deposit facility at 0%, 0.25% and -0.50% respectively), as well as the size of its asset purchase programmes.[4] The ECB did however announce at the end of September that from 1 January 2021 bonds with coupons linked to certain sustainability objectives will be eligible both as collateral for Eurosystem credit operations and for outright purchases for monetary policy purposes, provided they meet all other eligibility criteria.[5] The ECB stated that there is a great deal of uncertainty surrounding the strength of the recovery and that it depends directly on the evolution of the pandemic, defending its decision to maintain the measures implemented since March as these have contributed to economic recovery in the euro area and medium-term price stability.[6] However, the Governing Council has indicated that it is prepared to adjust these instruments if necessary to ensure that inflation moves towards the target of 2%.

The Bank of England kept its official interest rate unchanged at 0.1%, although it said the effects of introducing negative rates were being studied.

The Bank of England also kept its official interest rate unchanged at 0.1% after the cuts carried out in March. It also made no changes to its asset purchase programme (£745 billion). The most striking development as regards the Bank's future steps is its acknowledgement that it has assessed the effects of implementing negative interest rates if necessary.

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3 In late August the Federal Reserve announced a new monetary policy strategy, in which it outlined a robust update to its tools. It will set average inflation targets, allowing inflation to rise moderately above 2% for some time to compensate for periods when it has been below that threshold. In addition, it will maintain an accommodative policy to prevent employment from falling below the established maximum levels. This policy flexibility with respect to inflation is motivated by an intention to drive employment.

4 The ECB will continue to make purchases under the Pandemic Emergency Purchasing Programme (PEPP) until at least the end of June 2021 and, in any case, until the end of the coronavirus crisis (with an allocation of €1.35 trillion). It will also maintain net purchases in the Asset Purchase Programme (APP), at a monthly rate of €20 billion, together with additional purchases of assets for the amount of €120 billion on a temporary basis until the end of the year.

5 Coupons must be linked to performance targets related to one or more of the environmental objectives established in the EU Taxonomy Regulation or to one or more of the United Nations Sustainable Development Goals relating to climate change or environmental degradation.

6 Another measure taken at the end of April, and which will run until September 2021, is the exemption from certain credit quality requirements for marketable assets. The ECB accepts that credit institutions may use "junk" or high-yield bonds as collateral in their liquidity transactions if they met the required quality requirements (at least BBB-) until 7 April and their current rating has since been downgraded by one of the credit rating agencies as a result of the crisis, and as long as the new rating remains above a certain level.

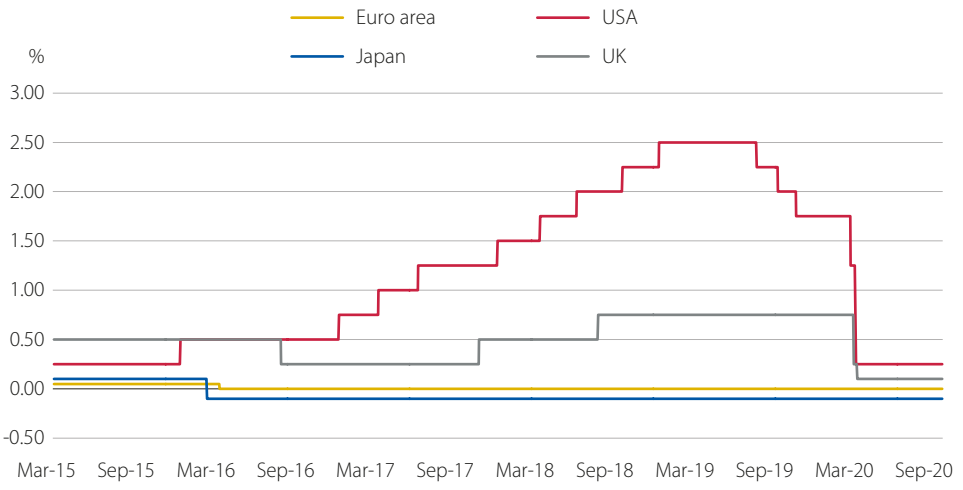
Lastly, the Bank of Japan has not changed its official interest rate, which has been the same since the beginning of 2016.

Lastly, at its most recent meeting, the Bank of Japan announced that it will keep its monetary policy unchanged, without altering the official interest rate of -0.10 in place since the beginning of 2016 or modifying its asset purchase programmes, considering for the time being, that no further stimulus measures are required to deal with the effects of the health crisis. The institution reported that although the Japanese economy is still in an unhealthy state, it has begun to gradually recover as business activity improves.

In the first three quarters of 2020 interest rates marked a downward trend in the main economies, with sharper falls in the second quarter, especially in the United States and the United Kingdom.

Short-term interest rate spreads between different advanced economies narrowed throughout the year as a result of the monetary policy measures adopted in response to the crisis caused by the coronavirus. Thus, in the first three quarters of 2020 interest rates followed a downward path in the main economies, especially in the United States and the United Kingdom, despite having tightened significantly at the start of the crisis. In the United States, where cuts in official rates have been more substantial, there was a cumulative fall of 168 bp in the 3-month interest rate compared with the beginning of the year, the decline being more marked in the second quarter (down by 115 bp compared with the first quarter) and less so in the third (8 bp). At the end of September this rate stood at 0.23%. Similarly in the United Kingdom short-term rates fell by 73 bp YTD, to 0.07% at the end of September, the sharpest drop being in the second quarter (45 bp). Meanwhile, in the euro area, although 3-month rates also saw cumulative falls in the year (11 bp), these were less significant than in the United States or the United Kingdom since they started out from a lower level and there were no changes in the official interest rate. In Japan, 3-month rates remained more stable than in the other economies, with a cumulative fall of 6 bp in the year to date.

Official interest rates FIGURE 2



Source: Thomson Datastream. Data to 30 September.

Sovereign bond yields declined slightly compared with the previous quarter in the euro area economies, while in the United States and United Kingdom they rose slightly…

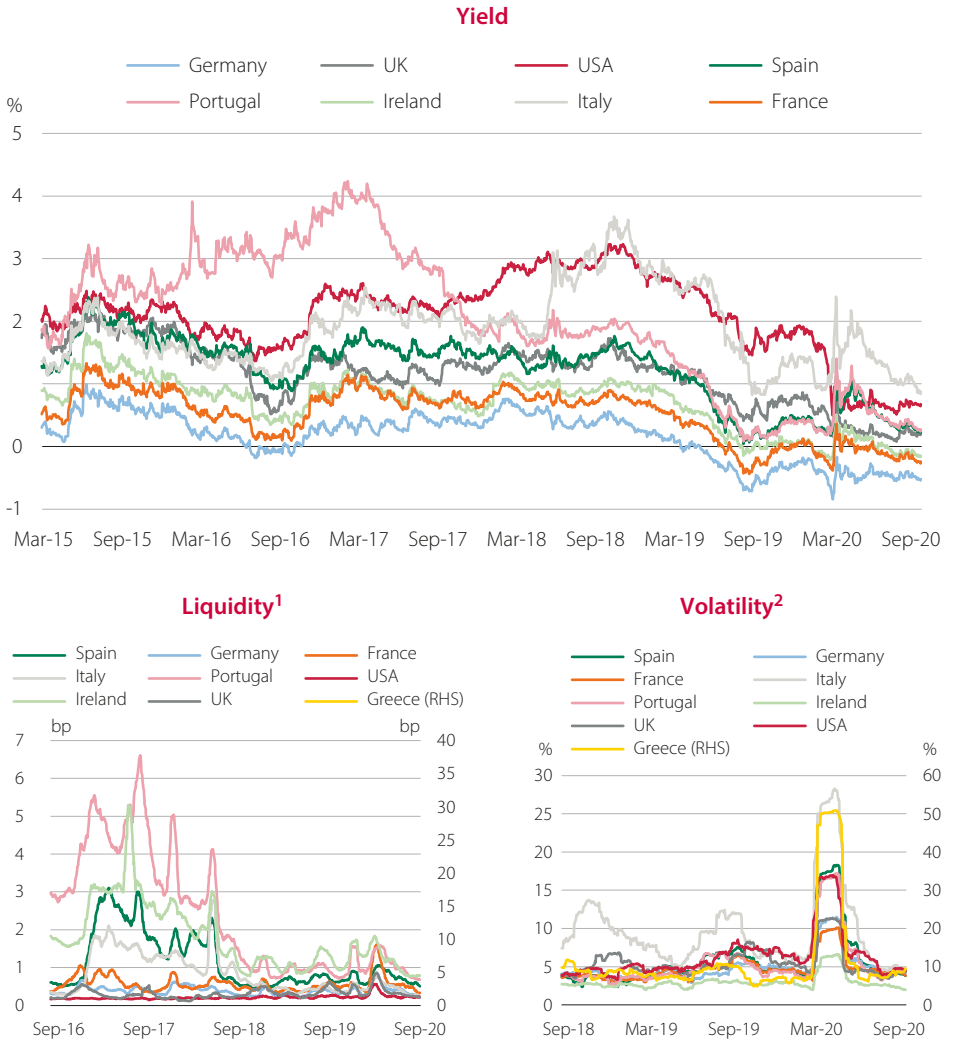
Movements in interest rates on long-term public debt were relatively uniform in the third quarter of the year, decreasing slightly in most developed countries as a result of the downturn in world economic activity. In general, a fall in sovereign bond yields was observed over the first nine months of the year in most countries, as periods of falling yields offset the stress episodes in the debt markets seen in March

and April. The only exceptions to this trend were the peripheral European countries in the first quarter, where this stress was more marked.

In the euro area, the decline in 10-year government bond yields in the third quarter ranged from 8 bp in the case of Germany to 46 bp in that of Italy (22 bp for Spain). In the year to date, the fall ranged from 18 bp for the Portuguese bond to 56 bp for the Italian bond (22 bp for the Spanish bond). The levels of debt yields thus remain very low, with the yield on 10-year government debt in negative territory at the end of September in Germany, France, Finland, Belgium, Austria, the Netherlands and Ireland; close to zero in Spain and Portugal, and close to 1% in Italy and Greece. The falls in sovereign bond yields in the United States and the United Kingdom were greater (123 bp compared with December 2019, to 0.68%, and 59 bp, to 0.23% respectively) (see Figure 3).

… which does not prevent the trend in long-term debt yields from being downward in the year to date, in many cases reaching new historical lows.

10-year sovereign bond market indicators FIGURE 3



Source: Bloomberg, Thomson Datastream and CNMV. Data to 30 September.

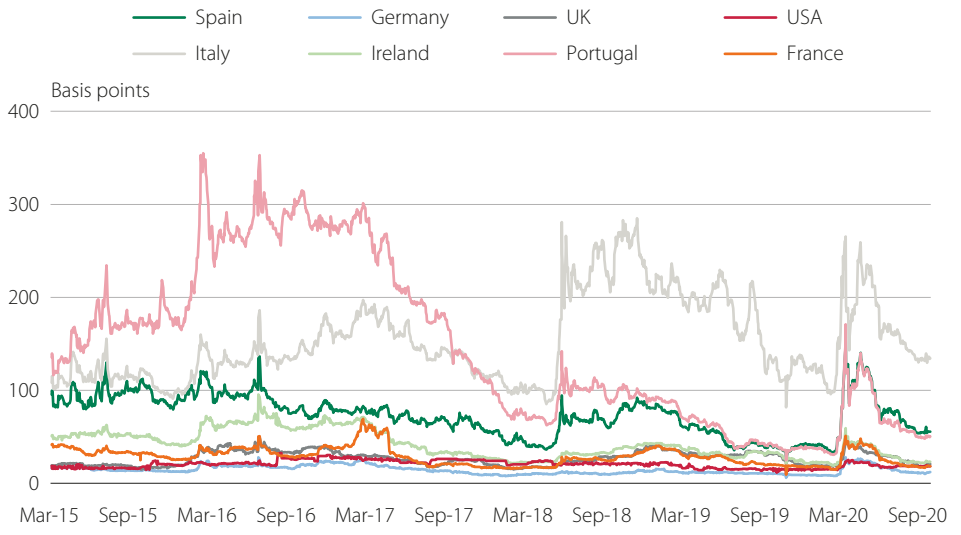
1 1-month average of the daily bid/ask spread of 10-year sovereign bond yields

2 Annualised standard deviation of daily changes in the prices of sovereign bonds over a 40-day period.

Sovereign credit risk premiums decreased during the third quarter of 2020, especially in the peripheral euro area countries…

Sovereign credit risk premiums in developed countries (measured through 5-year CDS) declined slightly during the third quarter, after increasing sharply in the first months of the year due to the spread of the coronavirus. The greatest reductions were seen in peripheral euro area countries, which had previously seen the largest rises as they were initially most affected by the pandemic. The sovereign credit risk premium decreased by 16 bp in Portugal, 24 bp in Spain and 36 bp in Italy. However, in general terms, the cumulative trend in the year to date in most regions is upward, as the decline in risk premiums in recent months has not been sufficient to return to pre-crisis levels (see Figure 4). Thus, increases in the peripheral euro area countries ranged between 12 bp in Portugal and 33 bp in Greece (in Spain the premium increased by 15 bp, to 56 bp), and were lower in countries such as Germany and the United States (3 bp and 5 bp respectively).

Credit risk premiums for sovereign debt (5-year CDS) FIGURE 4



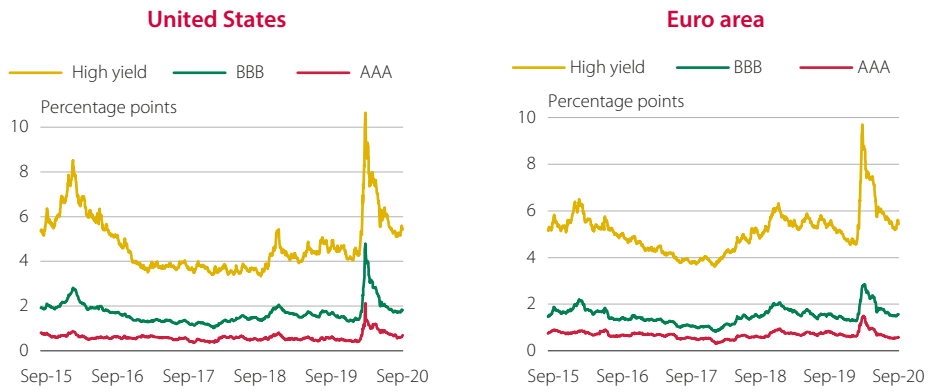
Source: Thomson Datastream. Data to 30 September.

… as did credit risk premiums for all bond segments, most notably in the United States. However, for both types of debt the cumulative year-to-date trend is upward.

In the private fixed income markets, the credit risk premiums of advanced economies have shown a trend similar to that of public debt so far in 2020, spiking when the crisis broke in the first quarter – especially in the high-yield segment – and falling in the following two quarters. The decline in risk premiums in the third quarter was more marked in the United States than in the euro area. In the US economy, a 90 bp decrease was observed, to 543 bp, in the high-yield segment, while premiums in the BBB and AAA tranches fell by 25 bp and 17 bp, to 182 bp and 70 bp respectively. In the euro area, the decrease in credit risk premiums on corporate debt was 62 bp in the high-yield segment, 27 bp in the BBB tranche and 16 bp in the investment grade tranche (standing at 544 bp, 156 bp and 56 bp respectively at the end of September). However, the initial increases were more marked than the subsequent declines and, as in the case of sovereign debt, for the year to date, credit risk premiums have accumulated increases in most debt segments (except for higher credit quality assets in the euro area). The increase was greatest for US high-yield debt (130 bp versus 70 bp in the euro area).

Private debt risk premiums.
Spread compared with 10-year sovereign debt[1]

FIGURE 5



Source: Thomson Datastream and CNMV. Data to 30 September.

1 In the euro area in relation to German sovereign debt.

Gross debt issues in the international markets in the second half of the year increased by 11.5% year-on-year, with trends differing from one sector to another.

Gross long-term debt issues in the international markets in the second half of the year (semi-annualised data for the third quarter) increased by 11.5% compared with the second half of 2019, to stand at US$6.6 trillion. Increases in issue amounts were observed in the non-financial private sector (25.3%) and in the public sector (15%), while in the financial private sector there was a decrease of 12.3%. By region, the 61.6% drop in issues in Japan stands out, negatively affected by sovereign issues.

Gross sovereign issues advanced by 15%, with upticks in the US and Europe and a sharp decline in Japan.

Gross sovereign issues increased to US$4.4 trillion (+15% compared with the second half of 2019), with trends differing among regions. Thus, the United States and Europe saw advances of 46.4% and 33.9% respectively, compared with the same period last year. In contrast, in Japan, gross sovereign issues fell dramatically, to US$91 billion (down by 83.2%).

The trend in the private sector was uneven among sub-sectors, with increases in the non-financial sector and decreases in the financial sector.

As regards private sector debt issues, the trend was uneven among sub-sectors, with increases in the non-financial sector and decreases in the financial sector. The rise in debt issues in the non-financial sector, with an aggregate half-yearly amount of US$1.2 trillion, was determined by the buoyancy of the United States and Japan (up by 44.4% and 36.9% respectively). The trend in these issues in the year to date is clearly upward, since in the first half of the year significant growth in issues was also observed (even in Europe) at a time when companies are taking advantage of low market rates to increase issues in anticipation of future needs and extend the terms of their debt. Gross debt issues by financial institutions went from US$1.1 trillion in the second half of 2019 to US$950 billion in 2020 (12.9% less); with the most notable declines seen in the United States and Europe (16.1% and 25% respectively). It should be noted that financial institutions have access to alternative sources of financing, most notably from central banks.

International gross fixed income issues

FIGURE 6

Source: Dealogic. Half-yearly data. The data for the second half of 2020 are until 30 September, but are shown in their half-yearly equivalences for comparative purposes.

Stock market performances were uneven in the third quarter among different regions and even within them, with the US and Japanese indices making gains…

In the equity markets, the main indices posted varying performances during the third quarter. US, Japanese and German indices made gains in the third quarter of the year, reflecting the slight improvement in expectations due to the progressive lifting of lockdown measures, although these gains were smaller than those of the second quarter, when they rebounded from the sharp falls seen in March. In contrast, the remaining European indices saw no gains in the third quarter, the declines in the UK's FTSE 100 and Spain's Ibex 35 indices being particularly notable (see Table 1).

Performance of the main stock market indices[1]

TABLE 1

%

	2016	2017	2018	2019	I 20	II 20	III 20	% of Dec-19
World								
MSCI World	5.3	20.1	-10.4	25.2	**-21.4**	**18.8**	**7.5**	**0.4**
Euro area								
Eurostoxx 50	0.7	6.5	-14.3	24.8	**-25.6**	**16.0**	**-1.3**	**-14.7**
Euronext 100	3.0	10.6	-11.2	24.9	**-25.0**	**13.8**	**-1.8**	**-16.2**
Dax 30	6.9	12.5	-18.3	25.5	**-25.0**	**23.9**	**3.7**	**-3.7**
Cac 40	4.9	9.3	-11.0	26.4	**-26.5**	**12.3**	**-2.7**	**-19.6**
Mib 30	-10.2	13.6	-16.1	28.3	**-27.5**	**13.6**	**-1.9**	**-19.1**
Ibex 35	-2.0	7.4	-15.0	11.8	**-28.9**	**6.6**	**-7.1**	**-29.7**
United Kingdom								
FTSE 100	14.4	7.6	-12.5	12.1	**-24.8**	**8.8**	**-4.9**	**-22.2**
United States								
Dow Jones	13.4	25.1	-5.6	22.3	**-23.2**	**17.8**	**7.6**	**-2.7**
S&P 500	9.5	19.4	-6.2	28.9	**-20.0**	**20.0**	**8.5**	**4.1**
Nasdaq Composite	7.5	28.2	-3.9	35.2	**-14.2**	**30.6**	**11.0**	**24.5**
Japan								
Nikkei 225	0.4	19.1	-12.1	18.2	**-20.0**	**17.8**	**4.0**	**-2.0**
Topix	-1.9	19.7	-17.8	15.2	**-18.5**	**11.1**	**4.3**	**-5.6**

Source: Thomson Datastream.

1 In local currency. Data to 30 September.

… and decreases in the European indices, with the exception of Germany's Dax 30, which stands out from the rest with gains of close to 4%.

An analysis by region reveals that the US stock market indices made the largest gains in the third quarter of the year, with the 11% rise in the technology-heavy Nasdaq index standing out, followed by the S&P 500, with a gain of 8.5%, and the Dow Jones, with 7.6%. The first two indices have made significant cumulative gains so far this year, especially the Nasdaq (+24.5%). Most of the European stock markets registered falls, ranging from 1.9% for the Mib 30 to 7.1% for the Ibex 35, showing a negative cumulative trend in the year (29.7% for the Spanish market, the biggest fall in Europe). Germany's Dax 30 is an exception among the European stock market indices, gaining 3.7% during the quarter and posting the smallest loss in value so far in 2020 (-3.7%). The UK's FTSE 100 fell by 4.9% in the third quarter of the year, bringing the year-to-date decline to 22.2%. The Japanese stock market indices gained around 4.0%, although they could not compensate for the losses seen in previous months, and therefore the year-to-date trend is negative, especially that of the Topix (5.6%).

Emerging stock markets performed relatively well in the third quarter.

The emerging stock markets performed relatively well in the third quarter of 2020, reflected in a 7.5% increase for the MSCI Emerging Markets equity index compared with the end of June. In line with stock markets in the advanced economies, these gains, which were less than those seen in the second quarter, were not enough to offset the losses of the early part of the year, so that the cumulative trend for the year to date is negative, with a few exceptions. One such exception is China, where the first cases of the virus were recorded and therefore lockdown was

lifted and activity resumed earlier than in other countries. The increase in quoted prices on China's equity markets in the second and third quarters (8.5% and 7.8% respectively) were sufficient to offset the initial fall (-9.8%). The other Asian indices strengthened in the third quarter (except for those of Indonesia, Hong Kong, Singapore, Thailand and the Philippines, which lost between 0.7% and 7.6%), with the gains made in South Korea, Taiwan and India standing out (10.4%, 7.7% and 9.4% respectively). In Latin America, Argentina's Merval index gained 58.7% in the second quarter and 6.7% in the third, although the cumulative trend for the year to date is negative (-1.0%). In Eastern Europe, performance in the third quarter was negative, with quoted prices falling in most countries (notably by 8.7% in Hungary).

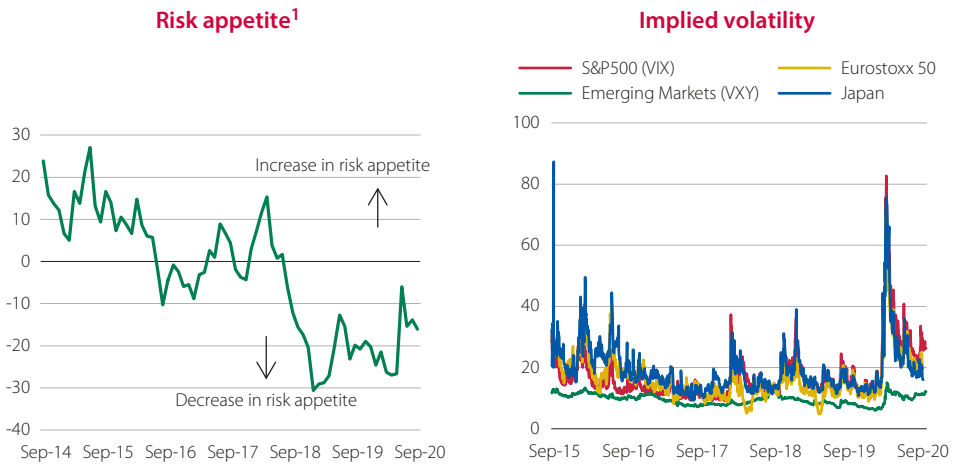
There may be some decoupling between share price performance and the real economy.

The share price increases seen in recent months have occurred in the context of a global recession of a scale not seen since World War II, the emergence of a second wave of coronavirus infections of varying intensity in different countries (and hence the implementation of partial lockdown measures) and several major sources of uncertainty, such as Brexit and the trade agreement between the United States and China. All these factors call into question the scale of the gains made by some indices, in what some analysts have identified as a decoupling between economic fundamentals and share prices. This perception is stronger in economies where stock markets have made gains in the year to date, but where at the same time GDP is expected to fall by close to 10% for the year.

Implied volatility metrics of the major stock market indices declined from April onwards and were more stable in the third quarter of the year.

Implied volatility metrics of the major stock market indices, which rose sharply in the first months of the year, decreased from April onwards and, in general, were more stable in the third quarter of 2020, marking slight increases in September (see right hand panel of Figure 7). The high degree of uncertainty in the current context means that volatility levels, even after falling significantly in recent months, remain on average at around 25%, above pre-crisis values, which were close to or below 15% in most indices.

Indicators relating to financial markets FIGURE 7



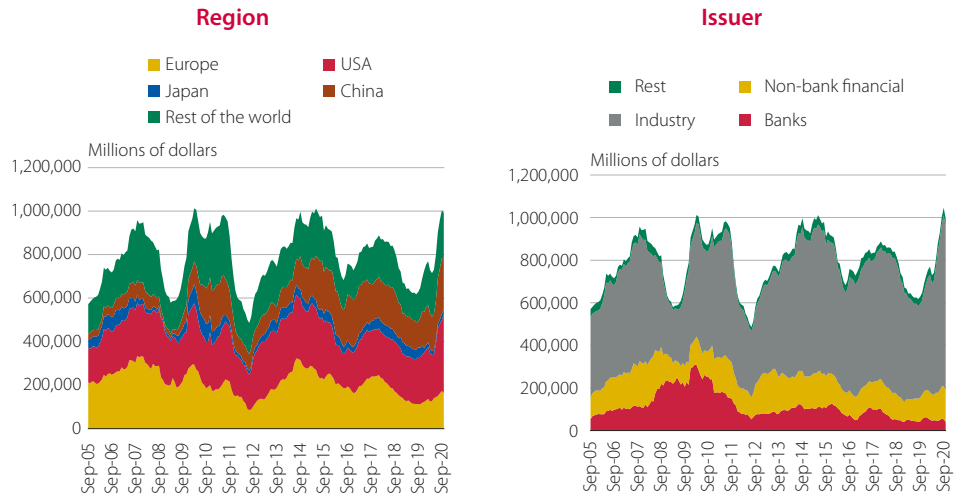
Source: Thomson Datastream and CNMV.

1 State Street indicator.

Equity issues on international financial markets increased significantly during the third quarter of 2020, reaching US$334 billion, nearly double the amount recorded in Q3 2019. Similarly, issues made in the last 12 months amounted to US$917.42 billion (well above the figure of US$628.39 billion for the 12 months to the end of September 2019). For the nine months to the end of September, increases were observed in all regions relative to the same period of the previous year, ranging between 31% in Japan and 78.4% in the United States. By sector, equity issues of industrial companies and the non-banking financial sector both increased (by 89.2% and 30.2% respectively). However, a 27.3% drop in issues of shares in the banking sector was observed.

The volume of equity issues increased significantly in the third quarter of 2020, with notable rises in most regions and sectors, except for banking.

International equity issues FIGURE 8



Source: Dealogic. Cumulative data for the 12 months to 30 September.

2.2 National economic and financial developments

In the second quarter of 2020, Spain's GDP saw its biggest ever year-on-year decline (-21.5%), due to the impact on activity of the lockdown measures, which were in place for practically the entire quarter. This fall was preceded by a milder decline in the previous quarter (-4.2%), as the measures affected only part of March. These figures were among the worst in the euro area, where GDP fell by 3.2% and 14.7% in the first and second quarters respectively, and the latter was also the worst figure in the historical series. The economic consequences of the spread of the coronavirus have been reflected in a slump in European growth, which has been more intense in countries such as Spain, where the economy is strongly linked to tourism and where the strict lockdown measures introduced to contain the spread of the virus, despite having been gradually lifted, started being reimposed in certain regions from the beginning of September.

Spain's GDP saw a year-on-year fall of 21.5% in the second quarter, much more than the 14.7% drop in the euro area as a whole.

Of the total drop in GDP in the second quarter (21.5%), 18.8 percentage points (pp) were due to the contribution of domestic demand and the remainder to the external sector. As regards the components of domestic demand, private consumption and gross fixed capital formation fell significantly (by 25.2% and 25.8%

The contribution of domestic demand to the fall in GDP was 18.8 pp, while that of the external sector was 2.7 pp.

respectively), on top of the falls seen in the first quarter (6.2% and 5.1% respectively, in contrast with the rises seen in 2019, which averaged 0.9% and 2.7% respectively). Public consumption grew by 3.1% in the second quarter, somewhat less than in the first (3.7%). The negative contribution of the external sector to growth was greater, moving from 0.3 pp to 2.7 pp In this sector, both exports and imports fell much more sharply in the second quarter of the year than in the first, the declines going from -5.6% to -38.1% in the case of exports and from -5.4% to -33.5% in that of imports.

Spain: Main macroeconomic variables TABLE 2

Annual % change

					EC[1]	
	2016	2017	2018	2019	2020	2021
GDP	**3.0**	**3.0**	**2.4**	**2.0**	**-10.9**	**7.1**
Private consumption	2.6	3.0	1.8	0.9	-10.7	8.9
Public consumption	1.0	1.0	2.6	2.3	5.8	-0.4
Gross fixed capital formation, of which:	2.4	6.8	6.1	2.7	-20.7	10.3
Construction	1.6	6.7	9.3	1.7	n/a	n/a
Capital goods and others	1.8	9.2	5.5	4.5	-23.0	12.0
Exports	5.4	5.5	2.3	2.3	-19.8	11.9
Imports	2.7	6.8	4.2	0.7	21.1	12.4
External sector (contribution to growth, pp)	1.0	-0.2	-0.5	0.6	-0.1	0.3
Employment[2]	**2.8**	**2.9**	**2.6**	**2.3**	**-8.7**	**6.1**
Unemployment rate	**19.6**	**17.2**	**15.3**	**14.1**	**18.9**	**17.0**
Consumer Price Index[3]	**-0.3**	**2.0**	**1.7**	**0.8**	**-0.1**	**0.9**
Current account balance (% of GDP)	**3.4**	**3.0**	**2.4**	**2.5**	**3.2**	**2.7**
Public administrations balance (% of GDP)	**-4.5**	**-3.1**	**-2.6**	**-2.0**	**-10.1**	**-6.7**
Public debt (% of GDP)	**99.2**	**98.6**	**97.4**	**95.5**	**115.6**	**113.7**
Net international investment position (% of GDP)	**71.0**	**68.0**	**79.2**	**58.7**	**n/a**	**n/a**

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

1 The European Commission forecasts correspond to spring 2020, with the exception of GDP and the CPI, which correspond to the summer forecasts.

2 In terms of full-time equivalent jobs.

3 The European Commission forecasts are for the harmonised consumer price index.

4 The public assistance to credit institutions in 2016, 2017, 2018 and 2019 is included for an amount of 0.2%, 0.04%, 0.01% and 0.00% of GDP respectively.

n/a: [data] not available.

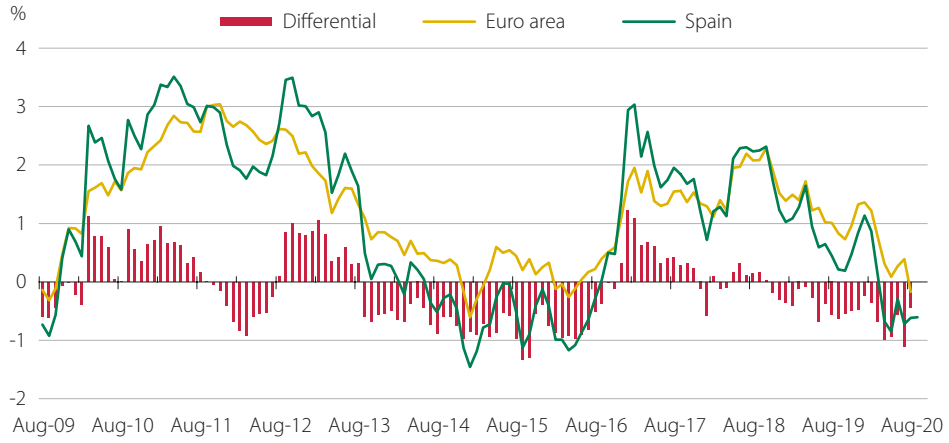
On the supply side, all sectors saw significant declines, except for the primary sector.

On the supply side, significant declines were observed in all sectors in the second quarter, except for the primary sector (agriculture, livestock, forestry and fisheries), the added value of which, having decreased by 0.2% in the first quarter, increased by 6.3% in the second. The construction sector marked the largest decline (27.5%), followed by industry (23.8%) and the services sector, with a fall of 21.3%. Within the services sector, the weak performance of the retail, transport and hospitality segments (-44.9%) stands out, these activities having been seriously affected by the restrictions imposed to contain the spread of the coronavirus.

While the inflation rate was positive at the start of the year (1.1% in January), it fell sharply in subsequent months to reach a low of -0.9% in May, from where, marking a somewhat erratic trend, it increased slightly (latest September figure: -0.4%). The downward performance in the first few months of the year was linked to the energy inflation rate, which has been in negative territory since February (hitting -18% in May). In subsequent months, this rate began to increase (although remaining negative) but contrasted with the decline in the core inflation rate (IPSEBENE), which excludes the most volatile elements of the index such as energy and fresh food and had remained stable at around 1.1% until June. During the summer months, this rate fell to 0.4% due to the effects of the crisis on the prices of some services. The inflation differential with the euro area decreased to -1 pp in April, but then increased slightly (to -0.4 pp).

The inflation rate has been in negative territory since March and hit a low of -0.9% in May, while the spread with respect to the euro area was -0.4 pp at the end of August

Harmonised CPI: Spain compared with the euro area as a whole (annual % change) FIGURE 9



Source: Thomson Datastream. Data to August for the euro area as a whole and to September for Spain

The present crisis and consequent slowdown in economic activity has led to a sharp drop in job creation, which grew on average by 2.3% in 2019, with a decline of 18.4% in the second quarter of 2020. According to the Active Population Survey (EPA), the number of persons in employment in the second quarter of the year fell by 1,360,000 from year-end 2019 and the unemployment rate, which at the end of last year was 13.8%, increased to 15.3%.[7] Unit labour costs increased significantly, at annual rates of 5.1% in the first quarter of the year and 7% in the second (2.5% on average in 2019), driven by decreases in apparent labour productivity (3.7% and 3.8% in Q1 and Q2 respectively), in addition to higher remuneration per employee (1.3% and 2.9% respectively).

The present crisis has triggered a sharp fall in employment, -18.4% in the second quarter.

7 The increase in the unemployment rate does not fully reflect the decrease in the number of persons in employment, since a substantial number of these have been considered as inactive for statistical reasons (between March and June the number of inactive workers increased by just over 1 million). Those affected by ERTE temporary layoff or furlough schemes are also not included in unemployment figures, since pursuant to Eurostat and International Labour Organization (ILO) methodology, they are considered to be employed. At the end of June, there were around 1.5 million workers in this situation.

The deficit of public administrations (excluding local authorities) increased to 6.54% of GDP between January and July, due to the impact of measures associated with the pandemic.

The deficit of public administrations (not including local authorities) to July stood at 6.54% of GDP, a figure that reflects the impact of the transactions carried out by these bodies as a whole in a context marked by the COVID-19 pandemic. Financing received from the government to ensure liquidity during the pandemic has allowed the autonomous regions to register a surplus of 0.27% of GDP. The deficit of the Social Security System eased to 0.35% of GDP on the back of transfers received from the government to cover the expense of benefits deriving from the crisis. Lastly, local authorities registered a deficit of 0.26% of GDP in the first half. Forecasts made by different institutions place this year's public deficit at over 10% of GDP and public debt at over 105%.

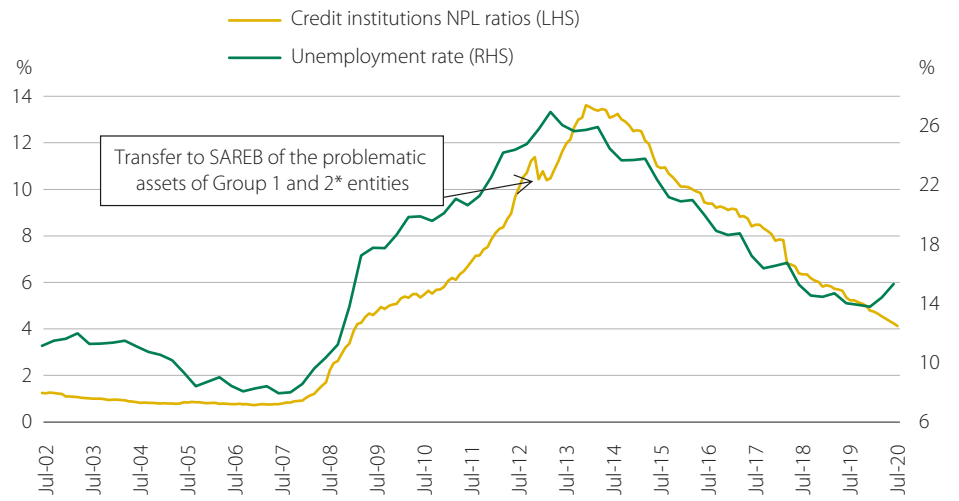
The NPL ratio remains at its lowest since 2009, although the trend is expected to reverse as the economic situation continues to deteriorate.

The banking sector, which has faced significant challenges in recent years, such as the extended period of low interest rates and the emergence of competitors in the provision of financial services in the form of Fintech and Bigtech companies, must now deal with the risks posed by the coronavirus crisis. While early on in the crisis there was a substantial increase in the flow of credit to companies, driven in part by the government secured loan programmes, in the medium term the severity of the economic crisis will determine the extent of the deterioration in these institutions' NPL ratio, which stood at 4.1% in July 2020 (compared with 4.8% in December 2019 and 5.2% in July of the previous year).

The aggregate profit and loss account of the banking sector reflected losses of €7.14 billion in the first half of the year.

In this context, Spanish credit institutions posted losses of €7.14 billion in the first half of the year, as against profits of €5.18 billion in the same period of 2019. Although the current environment of low interest rates continues to put downward pressure on net interest income (-2.9% in the first half), the losses reported in the first six months of the year were due mostly to the significant increase in impairment losses on financial and non-financial assets (from €1.64 billion to €5.86 billion, and from €261 million to €6.64 billion, respectively). Losses of this scale have not been observed in a six month period since June 2012.

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



Source: Bank of Spain and INE. Unemployment rate data up to June and delinquency ratio data up to July.

1 Of the active population.

* The transfers of Group 1 entities took place in December 2012 (€36.70 billion) and those of Group 2 in February 2013 (€14.09 billion).

Bank financing extended to businesses and households showed year-on-year growth of 2% in August (1.5% in August 2019), driven by the increase in financing granted to resident non-financial companies (4.2% in total), mainly through loans from credit institutions and off-balance sheet securitised loans. Financing extended to households fell steadily from March (-0.9% in August), mainly due to the decrease in loans for house purchases (-1.7%).

In August, bank financing extended to businesses and households increased by 2% year-on-year, driven by the increase in financing granted to non-financial companies.

The size of the banking sector, in terms of the aggregate volume of assets used in its activity in Spain, increased by 9.1% between December and July to €2.85 trillion (€2.61 trillion in 2019), largely due to the strong increase in lending. As regards sources of funding, the greatest increase was seen in loans from the Eurosystem, which between December and August grew by more than €120 billion. There was also a notable increase in deposit balances of the "OSR" (other resident sectors), which basically means businesses and households. The aggregate balance of these deposits increased by close to €65 million.

The size of the banking sector grew until July 2020, due to the sharp rise in loans extended.

Partial revision of the Good Governance Code for listed companies

EXHIBIT 1

In February 2015, after most of the recommendations contained in the 2006 Unified Code of Good Governance for Listed Companies had been incorporated into the Corporate Enterprises Act, the CNMV Board, taking as a reference the contributions of an expert committee created for the purpose, approved the Good Governance Code for Listed Companies.

Since then, this new Code has been used to supplement the provisions of the Corporate Enterprises Act with good governance recommendations to serve as a reference for Spanish listed companies, which have been reporting their levels of compliance in their annual corporate governance reports.

Four years later, it became clear that some of the Code recommendations needed to be amended to reflect the legal changes that had occurred since 2015 or to provide them with greater precision or clarity. In particular, the regular review of corporate governance reports helped to identify problems of interpretation that needed to be clarified to encourage greater compliance.

The objective was not to substantially amend the Code, but to carry out a partial revision, keeping the corporate governance framework for Spanish companies aligned with the highest international standards. The level of acceptance of the Code by listed companies is high, the level of compliance with its recommendations in 2019 was 85.7% and it is expected that this revision, the scope of which turned out to be somewhat greater than initially planned, will lead to improvements in companies' corporate governance practices.

From 15 January to 14 February 2020, the draft revision, of limited scope, of the Good Governance Code for Listed Companies was submitted to public consultation. This consultation phase aroused a great deal of interest and more than 40 written submissions were received with comments and contributions that were taken into account in the formulation of the final version of the amendments.

After analysing and evaluating the comments received, and in accordance with the authorisation granted under ECC Order 461/2013,[1] of 20 March, on 26 June 2020, the CNMV Board approved the partial revision of the Good Governance Code for Listed Companies.

Main amendments

The revision has affected in varying degrees the wording of 20 of the Code's 64 recommendations. Specifically, recommendations 2, 4, 6, 7, 8, 14, 15, 22, 24, 37, 39, 41, 42, 45, 53, 54, 55, 59, 62 and 64 have been amended, which has also involved a revision of the wording of principles 2, 4, 10, 19, 20 and 24.

The main amendments are as follows:

Recommendation 2. Listing of companies belonging to groups

In its previous wording, recommendation 2 was limited to cases in which both the shares of the company and those of its parent were listed. However, the conflict of interest that may arise between the group and companies that form it, particularly in the context of intragroup transactions, is a separate matter from whether or not the parent is also listed (and if so where). Where the listed company has shareholders that are external to the group, maximising the interest of the parent group is not always in the corporate interest of the listed subsidiary.

Therefore, the new text addresses not only cases where both group companies are listed, but applies to all cases where the listed company is controlled by another entity.

Recommendation 4. General communication policy

Companies must have a general policy regarding the communication of economic-financial and corporate information through such channels as they may consider appropriate (the media, social networks or other channels) that helps to maximise the dissemination and quality of information available to the market, investors and other stakeholders. This new recommendation highlights the importance of companies' communication policy for the market and the advisability of this policy's being designed in accordance with proper guidelines and controls established with the involvement of the board of directors.

Recommendation 7. Remote voting and attendance

The situation caused by COVID-19, coupled with the objective of fostering the long-term engagement of shareholders, has led to the amendment of recommendation 7 of the Code, which now advises that entities should have systems in place to enable shareholders to exercise their right to vote by means of data transmission and, at least for large-cap entities, set up mechanisms to allow the remote attendance and participation in general shareholders' meetings, to the extent that this is proportionate. Until now, only the broadcasting of general shareholders' meetings was recommended.

Recommendation 8. Annual financial statements

The text of the recommendation has been amended to highlight the fact that the objective to be pursued by the board of directors in formulating the annual financial statements is the correct application to the best of their knowledge of the accounting principles and criteria.

Recommendations 14 and 15. Gender diversity

Recommendations on gender diversity have been strengthened to promote the presence of women on boards of directors. Recommendation 15 indicates that female directors should represent at least 40% of members of boards of directors before the end of 2022. Prior to that date, this percentage may not be less than 30%.

Recommendation 14 proposes that companies encourage increases in the number of female senior managers, given that this is one of the most effective measures to strengthen gender diversity on boards of directors in the long term.

Recommendations 22 and 24. Cessation of directors

Recommendation 22 is amended so that, among other aspects, the board must assess any situation in which a director is involved in circumstances that could damage the company's credit or reputation, and, where appropriate, take action without waiting for an official court decision (such as an indictment or the opening of oral proceedings).

The criteria of transparency are also reinforced in recommendation 24 with regard to the cessation of directors whether through resignation or by resolution of the general shareholders' meeting, both through the annual corporate governance report and at the time of cessation.

Recommendation 37. Composition of the executive committee

This recommendation is one of the least complied with by listed companies. In 2019, the level of compliance with this recommendation was 30 percentage points lower than the Code average and no significant improvement has been observed in recent years.

Most of the entities that do not comply with this recommendation consider the executive committee to be a purely executive board-delegated body, and consequently its composition tends to be based on criteria of efficiency and knowledge of the internal functioning of the entity, and to be dominated by executive directors.

The objective of the recommendation is to offset the risk of the executive committee's functions being exercised with a different perspective from that of the board. With a view to making this compatible with giving companies more flexibility in terms of its composition, the new text recommends that at least two non-executive directors sit on the committee, at least one of whom should be an independent

director, as against the previous wording, which recommended that the composition of the committee in terms of the various categories of directors should be similar to that of the board itself.

Recommendations 39, 41, 42 and 45. Risks and non-financial information

Technical adjustments have been made to the wording to include the supervision of both financial and non-financial information, and control and management systems for financial and non-financial risk.

In recommendation 42, the scope of the channel for reporting irregularities (whistleblowing) has been expanded so that it can be used not only by employees but also by other persons related to the company, such as directors, shareholders, suppliers, contractors or subcontractors.

It is also recommended that this mechanism guarantee confidentiality and ensure that communications can be made anonymously.

Recommendations 53, 54 and 55. Sustainability

Some technical adjustments have been made and the term "corporate social responsibility" has been replaced by the broader and currently more commonly used term "sustainability" in relation to environmental, social and corporate governance (ESG) aspects.

Recommendation 59. Variable remuneration

The text has been changed to clarify that variable remuneration should only be paid to directors when it has been sufficiently verified that previously established performance or other conditions have been met. Companies that comply with this recommendation must disclose in their annual director remuneration reports the verification criteria that they apply.

Likewise, it is recommended that companies consider including reduction (*malus*) clauses deferring payment of a portion of variable remuneration and implying its total or partial loss if an event were to occur that would make this advisable.

Recommendation 62. Share-based remuneration

This recommendation is one of those that caused the greatest amount of uncertainty among listed companies when indicating whether they were compliant or not in their annual corporate governance reports. The new text clarifies the scope of the rule according to which, once shares or options or financial instruments arising from remuneration schemes have been allocated, executive directors are prohibited from transferring their ownership or exercising them as the case may be until a term of at least three years has elapsed.

The wording is also amended to clarify that it is not necessary to respect this requirement when the director has economic exposure to the variation in the price

of the shares for a market value equivalent to at least twice the amount of his or her fixed annual remuneration.

Recommendation 64. Severance pay

For the purposes of this recommendation, some entities have understood that payments made for termination of the contract entered into between the company and the executive director should include only the severance pay received. However, there are other remuneration items that are not part of the severance pay but have been accrued on the termination of the contractual relationship between the director with the company.

The amendment specifies that payments made for contractual termination, which may not together exceed two years' remuneration, may include any payments accrued or where the payment obligation arises as a consequence of or due to the termination of the contractual relationship between the director and the company, including amounts not previously vested from long-term savings schemes and amounts deriving from post-contractual non-competition agreements.

1 Order ECC/461/2013, of 20 March, determining the content and structure of the Annual Corporate Governance Report, the annual report on remuneration and other information instruments of listed public limited companies, savings banks and other entities that issue securities admitted to trading on official securities markets.

Financial investment decisions made by households continued to focus on more liquid assets as against fixed income and equities.

The most recent data on the financial position of households indicate a strong increase in the rate of saving, which in June stood at 11.2% of gross disposable income (GDI), almost double the figure at the end of 2019 (6.3%) and very close to the highs seen in 2010, early on in the European sovereign debt crisis (11.5%). This increase is attributed to "precautionary saving", which usually occurs in periods of high uncertainty about future income, as is the case today. Both the gross wealth and indebtedness rates showed declines in the first quarter of the year. This decrease was sharper in the former case, due to the fall in the value of financial assets. Therefore, in net terms, household wealth fell from 917% of GDI to 906%.

Household's rate of saving increased significantly in the first half of the year due to precautionary saving, while net wealth decreased due to the loss of value of financial assets.

Households' net investments amounted to 3.5% of GDP in the first quarter of the year,[8] slightly above the figure of 3.2% observed in 2019, maintaining the trend seen in previous years. In the current context of low interest rates and given the stock market turbulence in the initial phase of the crisis, there was divestment of 2.3% in fixed income securities and term deposits (compared with 1.7% in 2019), and also in shares and other equity stakes of 0.5% (1.3% in 2019). As in previous years, the most significant investment was in means of payment (5.1% of GDP).

Investment in investment funds decreased significantly in the past year, due to the high volume of redemptions in March.

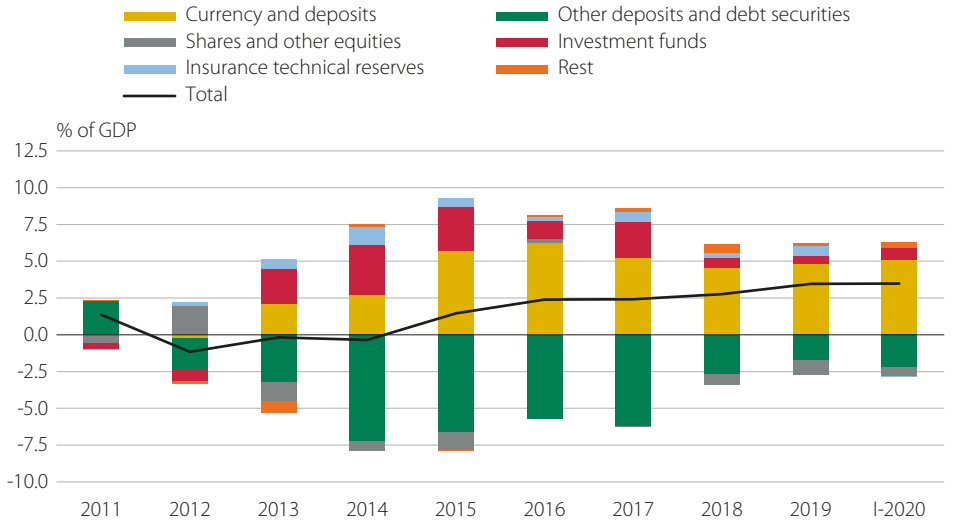
In terms of flows into investment funds, households invested 0.8% of GDP in the first quarter of 2020,[9] slightly above the 0.5% observed in 2019. However, this figure, which is significantly lower than the figure observed between 2013 and 2017 (around 2.5% of GDP), can be explained by the increase in

8 Cumulative data for four quarters, up to Q1 2020.

9 Cumulative data for four quarters, up to Q1 2020.

redemptions in the second half of March. As described in section 4.1, in the first quarter of this year investment funds saw redemptions of over €2 billion, concentrated mostly in the fixed income category, guaranteed equity funds and passive management funds. In the second quarter, a gradual recovery of investment in these products was observed, which resulted in aggregate net subscriptions of close to €150 million.

Households: net acquisitions of financial assets FIGURE 11



Source: Bank of Spain, *Financial statements*. Cumulative data for four quarters.

2.3 Outlook

The latest IMF forecasts predict a drop in world GDP of 4.4% for this year, 0.8 points less than in its previous forecast…

The latest forecasts published by the IMF in October, three months after its first assessment of the crisis, included an improvement in growth expectations for advanced economies this year (except for Spain, where the previous forecast was not improved) and a downward review of 0.2 pp for emerging markets. The IMF, which for the first time ever expects falls in GDP in all the regions it covers, has indicated that there is a great deal of uncertainty surrounding its forecasts, since they depend on the scale and duration of the pandemic, the effectiveness of the measures implemented to deal with it, and the consequences for consumer habits. It also warns of a sharp increase in social inequality due to the greater impact of the crisis on lower-income groups. Given the high degree of uncertainty, the IMF released, together with its base case forecasts, the results of two other scenarios: one more favourable, which posits a faster exit from the crisis, and the other more adverse, in which it takes longer and is more difficult to contain the virus.

… in which advanced economies would experience a decline in GDP of 5.8% and emerging economies of 3.3%. There is some disparity in both groups, as the crisis is not hitting all countries with the same intensity.

The published forecasts place the drop in world activity at 4.4% this year (0.8 pp less than in June) and growth of 5.2% in 2021. By economic area, the forecast for advanced economies is a decrease of 5.8% this year (an improvement of 2.3 pp compared with the June figure) and growth of 3.9% in 2021; for emerging markets, the expected fall this year is 3.3% (0.2 pp worse than in April) and growth of 6.0% in 2021. The IMF's adverse scenario would lead to a drop of 0.75 pp in GDP for this year and 3 pp for 2021 compared with the base case scenario. Figures also vary

considerably within these areas. Among the advanced economies, the variations presented by the United States, Germany, Japan and Canada would be the least negative (although still significantly so), while several economies in the euro area would record GDP declines of more than 10%. Forecast figures for the emerging economies are even more disparate, ranging from small growth of close to 2% expected for China, given its earlier exit from the crisis, to a fall in activity of close to 8% in Latin America and 10% in India.

A significant increase in the deficit and aggregate public debt is also expected…

In addition to these activity forecasts, the IMF has indicated that it expects advanced economies to show an aggregate increase in public debt of close to 20 pp, to 124.1% of GDP this year (it was 10.5 pp in the global financial crisis) and of 14.2 pp in the public deficit (4.9 pp in the global financial crisis). This increase partly reflects the measures implemented by the governments of different countries to address the crisis, which have taken the form of extensions, guarantees and public loans.

… in a context of great uncertainty related to different factors: the evolution of the pandemic itself, consumer habits, trade agreements, Brexit…

The risks surrounding these forecasts are significant due to the high degree of uncertainty, as discussed above. Indeed, many institutions have pointed out the limited scope of traditional forecasting models and are developing complementary methodologies that include among other innovative features high-frequency data to enable forecasts to be adjusted more rapidly. The most significant – downside – risks identified in this scenario relate to: i) the possibility that a second wave of infections will lead to new lockdown measures and, consequently, further deterioration in economic activity ; ii) possible changes in the consumption-saving pattern of agents, which is already significantly affected by the decrease in aggregate income and wealth, and iii) other major sources of uncertainty related to the negotiations on the trade agreement between the United States and China and the final form of Brexit, for instance. In the medium term, one of the greatest identified risk factors relates to the sustainability of public finances in many economies after the budgetary effort made during the crisis.

Gross Domestic Product

TABLE 3

Annual % change

					IMF[1]	
	2016	2017	2018	2019	2020	2021
Global	3.2	3.7	3.6	2.8	-4.4 (0.8)	5.2 (-0.2)
United States	1.5	2.2	2.9	2.2	-4.3 (3.7)	3.1 (-1.4)
Euro area	1.8	2.4	1.9	1.3	-8.3 (1.9)	5.2 (-0.8)
Germany	1.9	2.5	1.5	0.6	-6.0 (1.8)	4.2 (-1.2)
France	2.0	2.3	1.8	1.5	-9.8 (2.7)	6.0 (-1.3)
Italy	0.9	1.5	0.8	0.3	-10.6 (2.2)	5.2 (-1.1)
Spain	3.3	3.0	2.4	2.0	-12.8 (0.0)	7.2 (0.9)
United Kingdom	1.9	1.7	1.3	1.4	-9.8 (0.4)	5.9 (-0.4)
Japan	0.9	1.7	0.3	0.7	-5.3 (0.5)	2.3 (-0.1)
Emerging markets	4.4	4.7	4.5	3.7	-3.3 (-0.2)	6.0 (0.2)

Source: IMF.

1 In parentheses, the variation compared with the last published forecast (IMF, forecasts published in October 2020 with respect to June 2020).

According to the IMF, Spain's GDP will contract by almost 13% this year, unchanged from the June forecast, reflecting the greater impact of the crisis on the economy, as in other large European economies such as Italy or France.

For the Spanish economy, the IMF forecasts a drop in GDP of 12.8% for this year (keeping its June forecast unchanged), the largest fall among all euro area countries, followed by Italy and France (-10.6% and -9.8%, respectively). The expected recovery in 2021 is of 7.2% (almost 1 point above the June forecast and 3 points higher than in April), underpinned by funds received from the European Union's Recovery and Resilience Facility and the confidence generated by this. The Spanish economy is one of the most affected by the pandemic, as its productive model relies on services that have been hit particularly hard by the crisis. Based on these figures, the growth differential with the euro area as a whole would be negative this year (i.e. greater recession in Spain), but positive again next year.

The main risks for the Spanish economy are the same as those identified on an international scale, although the difficulty in recovering economic growth and the need to preserve the sustainability of public accounts stand out particularly.

The risks affecting the global economy also affect Spain. However, the country's greatest vulnerabilities are as follows: The first major challenge facing the Spanish economy is how to recover the economic growth rate that existed prior to the crisis and reduce the number of unemployed persons to a minimum. This problem is exacerbated by the second wave of coronavirus infection, which is leading to new partial lockdown measures in certain areas of the country. On a more positive note, Spain has been assigned funds of €140 billion from the "reconstruction fund", in the form of non-refundable grants and loans, which will be key to economic recovery. The second great challenge lies in the need to preserve the sustainability of public finances in a year in which public debt could rise above 120% of GDP and the deficit could be over 10%. This has led some rating agencies to address sovereign credit risk, putting their ratings of Spanish debt on "negative outlook" or in the case of some smaller agencies, lowering their ratings.

Recommendations of the European Systemic Risk Board in the context of the coronavirus crisis EXHIBIT 2

The European Systemic Risk Board (ESRB), which was created 2010 to prevent and mitigate systemic risk, has been working intensively since the outbreak of the coronavirus crisis. While recognising that the financial system is more resilient today than it was prior to the global financial crisis, the severity of the current situation reveals a need to focus on certain factors that will be key for allowing this system to continue to function without disruption. The Board of the ESRB stated in April[1] the importance of measures being implemented in a coordinated and timely manner by the authorities, while also pursuing synergies between fiscal, monetary and regulatory policies. To this end, the institution decided to focus its attention on five priority areas:

i) Implications for the financial system of guarantee schemes and other fiscal measures to protect the real economy.

ii) Market illiquidity and implications for asset managers and insurers.

iii) Impact of large-scale downgrades of corporate bonds on markets and entities across the financial system.

iv) System-wide restraints on dividend payments, share buybacks and other pay-outs.

v) Liquidity risks arising from margin calls.

As a result of the work carried out at different levels of this institution on these five areas, the ESRB has approved four recommendations, which are set out below:

i) **Recommendation (ESRB/2020/4) on liquidity risks in investment funds.**[2] This recommendation was published on 6 May. In the first few weeks of the crisis, a substantial increase in redemptions was observed in some investment funds, while liquidity conditions in the markets deteriorated significantly. Although this situation subsequently stabilised, the ESRB considered it appropriate to strengthen liquidity risk management in the face of potential future adverse shocks. In the past, the ESRB has highlighted the vulnerabilities that may arise in investment funds that establish very short redemption periods while at the same time investing in illiquid assets (liquidity mismatch) and, specifically on this occasion it has identified two investment fund segments that require special scrutiny in terms of financial stability: i) funds with significant exposure to corporate debt assets and ii) funds with significant exposures to the real estate sector.

The ESRB therefore recommends that the European Securities and Markets Authority (ESMA) carry out, in collaboration with the national competent authorities, a supervisory exercise focused on these funds to determine their preparedness to respond to potential future adverse shocks, whether in the form of significant increases in redemptions or uncertainty – and value the assets in their portfolios. The analysis and its conclusions must be reported to the ESRB.

ii) **Recommendation (ESRB/2020/6) on liquidity risks arising from margin calls.**[3] This recommendation was published on 25 May and is motivated by the fact that market shocks, such as sharp drops in asset prices and high levels of market volatility, translate into increases in variation margins and may also lead to significant initial margin calls on positions in cash, securities, commodities or derivatives in the operations of central counterparties (CCPs). If these variations are significant and occur in a short period of time, they may have major implications for the liquidity management of market participants, for their funding needs, and possibly even for their solvency. In the context of the crisis, many clearing members have seen their initial margins increase and some clearing members may have experienced liquidity constraints. However, no defaults have occurred in any CCPs established in the European Union. Looking ahead, the ability of market participants to cover margin calls will depend on future levels of volatility and the continuing resilience of their liquidity management.

Therefore, the ESRB has issued four recommendations for CCPs to ensure that their risk management and resilience remain strong and continue to protect market participants from losses due to default. Recommendations A and D are intended to ensure that sudden changes and effects relating to initial margins and collateral are limited and proportionate. Liquidity planning should be predictable and manageable to the extent possible, limiting unexpected and significant margin calls. The objective of recommendation B is to ensure that CCPs capture comprehensively in their liquidity stress testing any events that could lead them to experience a liquidity shortfall, with a view to incentivising them to improve the management of their reliance on liquidity service providers. Recommendation C is aimed at ensuring that CCPs, while maintaining their financial resilience, limit the asymmetry in the payment of variation margins collected intraday – and that they design their

margin frameworks and schedules so as to be predictable and avoid excessive liquidity constraints for clearing members that could lead to default events.

iii) **Recommendation (ESRB/2020/7) on restriction of distributions during the COVID-19 pandemic.**[4] This recommendation, which was published on 27 May, seeks to ensure that financial institutions maintain a sufficiently high amount of capital to mitigate systemic risk and contribute to economic recovery. To this end it is recommended that at least until 1 January 2021 relevant authorities request financial institutions under their supervisory remit to refrain from undertaking any of the following actions: i) making dividend distributions or giving an irrevocable commitment to make a dividend distribution, ii) buy-backs of ordinary shares and iii) creating an obligation to pay variable remuneration to a material risk taker, where any of these actions has the effect of reducing the quantity or quality of own funds at the EU group level. This recommendation extends to credit institutions, investment firms, insurance and reinsurance undertakings, and central counterparties.

The CNMV made the appropriate recommendation to the CCP under its supervision in July and notified the ESRB, while in the case of investment firms it was decided not to make the recommendation to them by virtue of the principle of proportionality and taking into account their low weight in the financial system as a whole.

iv) **Recommendation (ESRB/2020/8) on monitoring the financial stability implications of debt moratoria, and public guarantee schemes and other measures of a fiscal nature taken to protect the real economy in response to the COVID-19 pandemic.**[5] This recommendation, published on 27 May, seeks to assess, from the point of view of financial stability, the effectiveness of the measures adopted by Member States to protect non-financial corporations and households from the effects of the pandemic. Given the high degree of integration of EU Member State economies and possible spillovers of the various measures implemented by one Member State on the others, this approach is necessary at a European level.

This general recommendation is broken down into two parts. Recommendation A recommends that national macroprudential authorities monitor and assess the financial stability implications of COVID-19 related measures taken by their Member States to protect the real economy. In particular, it is recommended that they monitor the design features and uptake of the measures (types of financial support, beneficiaries, duration and information on the use of the measure) and the implications for financial stability (flow of credit to the real economy, solvency and indebtedness of the non-financial sector, and the soundness of financial institutions, etc.).

Recommendation B recommends that national macroprudential authorities regularly report to the ESRB the information necessary for the ESRB to monitor and assess the implications of the national measures, including the cross-border and cross-sectoral implications. The Spanish macroprudential authority AMCESFI submitted its first report to the ESRB last July, which the board will assess, together with the contributions of the other authorities, on an ongoing basis.

Only one of the five priority areas established by the ESRB in April, that relating to the effects of the downgrade of credit ratings, has not been the subject of a recommendation but remains as a subject of analysis, on which an initial publication has

been released in the form of a technical note.[6] This note contains a top-down analysis that attempts to quantify the impact of a mass bond downgrade scenario on the financial system. This hypothetical event could lead to significant price reductions in the affected assets and presumably could also lead to forced sales that would cause asset prices to fall further. The analysis focuses on corporate debt assets and considers two scenarios in which bonds are downgraded as well as three different behavioural scenarios regarding asset sales. The analysis shows that direct losses from downgrades could amount to between €150 billion and €200 billion, and that fire sale losses could add a further 20-30% to these. The latter would depend among other things on how much of their holdings institutions would have to sell and on market liquidity conditions at the time.

The CNMV has also embarked on a line of work seeking to assess the status of and trends in credit ratings of Spanish debt since March of this year, including a variety of assets and the financial and non-financial private and public sectors (see the article entitled "Credit ratings of Spanish debt assets since the beginning of the COVID-19 crisis" in this Bulletin).

1 https://www.esrb.europa.eu/news/pr/date/2020/html/esrb.pr200409~a26cc93c59.en.html
2 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation200514_ESRB_on_liquidity_risks_in_investment_funds~4a3972a25d.en.pdf?9903de66f9dbd6783563ae3a4f76febb
3 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation200608_on_liquidity_risks_arising_from_margin_calls~41c70f16b2.en.pdf?17da572cd7cae5ab20ae79f8786a19a7
4 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation200608_on_restriction_of_distributions_during_the_COVID-19_pandemic_2~f4cdad4ec1.en.pdf?472c0a13909b423693bdaea41c32af6b
5 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation200608_on_monitoring_financial_implications_of_fiscal_support_measures_in_response_to_the_COVID-19_pandemic_3~c745d54b59.en.pdf
6 https://www.esrb.europa.eu/pub/pdf/system_wide_scenario_analysis_large_scale_corporate_bond_downgrades.en.pdf

3 Domestic market performance

After the highs reached in the first half of May (close to 0.65), the Spanish financial market stress indicator has progressively decreased to levels below 0.49, the threshold that separates the high and medium stress levels.

The crisis triggered by COVID-19 led to the fastest increase in the Spanish financial market stress indicator[10] in a period of just a few weeks. This indicator, which at the closing date of our previous report (31 March) stood at 0.56, continued to increase in the following weeks to reach a third new historical high of close to 0.65 in the first half of May. The progressive increase in the indicator, which in February was

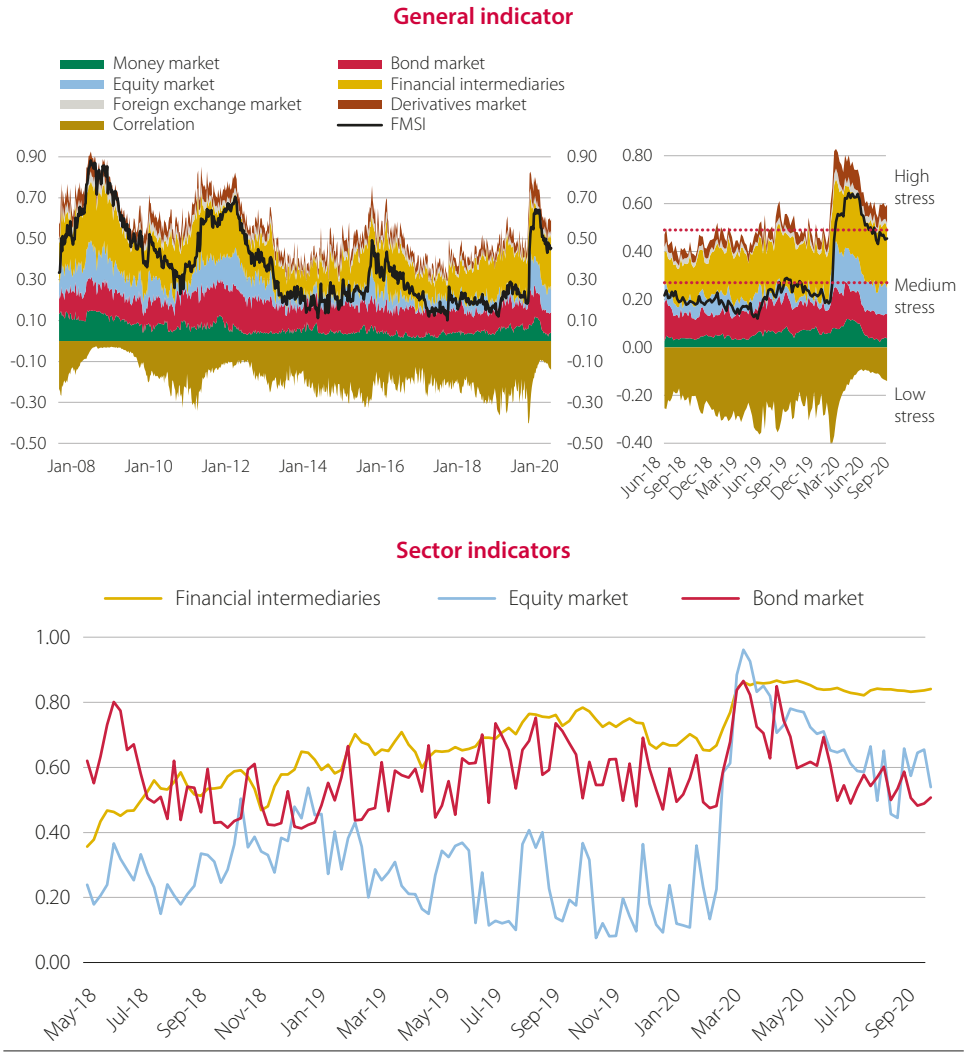
10 The stress indicator calculated by the CNMV provides a real-time measure of systemic risk in the Spanish financial system that ranges from zero to one. To do this, it evaluates stress in six segments of the financial system and makes an aggregate, obtaining a single figure that takes into account the correlation between these segments. Econometric estimates indicate that index values below 0.27 correspond to periods of low stress, while scores between 0.27 and 0.49 correspond to periods of medium stress, and values above 0.49 indicate periods of high stress. For further details on recent movements in this indicator and its components, see the quarterly publication of the *Financial Stability Note*, and the CNMV's statistical series (market stress indicators), available at http://www.cnmv.es/portal/Publicaciones/PublicacionesGN.aspx?id=51. For more information on the methodology of this indicator, see Cambón, M.I. and Estévez, L. (2016). "A Spanish Financial Market Stress Index (FMSI)". *Spanish Review of Financial Economics,* Vol. 14, No. 1, pp. 23-41 or as CNMV Working Paper No. 60 (http://www.cnmv.es/DocPortal/Publicaciones/MONOGRAFIAS/Monografia_60_en.pdf).

clearly below 0.20, was due to the rise in stress levels detected in the six segments assessed and the degree of correlation in the system (see Figure 12). The types of indicators that have suffered the greatest pressure in the context of the crisis relate to falls in asset prices and outbreaks of volatility, while the performance of the different risk premiums has been much more contained compared with other periods of stress. This relatively more favourable performance in the debt markets has prevented the general indicator from reaching the highs seen in the global financial crisis of 2008 or the sovereign debt crisis of 2012, when the risk premium applied to Spanish public debt peaked at 634 bp In this case, the measures implemented by the authorities, in particular the central bank, have prevented any substantial deterioration in risk premiums and liquidity conditions in the debt markets.

The stress levels of all individual indicators decreased except for financial intermediaries (banks), which were badly affected by the fall in their quoted prices. The correlation of the system remains high.

As shown in Figure 12, the individual indicators have marked a fluctuating but downward trend after the highs reached in May, with the general indicator declining gradually to levels just below 0.50, close to the threshold that separates the high and medium stress levels (0.49). At the date of this report (30 September), financial intermediaries (banks) were showing the greatest resistance to this fall, due to the sharp decline in their quoted prices and the increase in volatility indicators.

Spanish financial markets stress indicator FIGURE 12



Source: CNMV.

3.1 The stock markets

The Spanish equity markets began the second half with losses, which were consolidated in the third quarter due to the poor outlook and uncertainties for the country's economy, compounded by the effects of a second wave of the pandemic.

The Spanish equity markets, which had suffered sharp falls until April due to the coronavirus crisis, falls from which they had barely recovered in the second quarter, started the second half of the year with slight declines. These losses were consolidated as the third quarter progressed due to the poor outlook for the Spanish economy in a context of global economic uncertainty.[11] Added to the economic forecasts for Spain,[12] which are more unfavourable than for the rest of the large European economies, is the uncertainty as to how the second wave of the pandemic will spread over the next few months. This situation is forcing governments and local authorities to withdraw some of the measures implemented to reopen the economy adopted in recent months, which may negatively affect expectations of economic recovery and, consequently, the stock markets.

In this context, the Ibex 35 lost 7.1% in the third quarter of the year, accumulating a year-to-date loss of 29.7%, the biggest of all the major international indices…

The main Spanish stock market index ended the third quarter with a decline of 7.1%, underperforming other benchmark indices[13] along with the UK's FTSE 100. The Ibex 35, which had lost 28.9% in the first quarter of the year, the worst quarter in its history, saw a small recovery of 6.6% in the second before falling again, by 7.1%, in the third. This new decline has increased the decline in the year to date, and places the index at its lowest level since May, with a cumulative YTD loss of 29.7%, the biggest among the major international indices.

… a trend than can be explained by the greater relative weight in the index of the sectors most affected in Spain, banking and consumer services.

The drop in quoted prices put the Spanish indices back at their lowest levels since May and very close to the values reached in 2012 – at the time of the debt crisis in Europe – given that economic recovery in Spain is expected to be slow and that the outbreaks of infection will bring further harm to the sectors most affected so far this year, such as banking and tourism. These factors, and the fact that Spanish indices have a different composition compared with their European peers, as they have a greater weighting of companies in the financial and consumer services sectors (such as leisure, tourism and hospitality), in which recovery is expected to be slower, in addition to the significant presence of Spanish companies in Latin America, are the reasons why Spanish indices are showing the worst performance among the major international indices. The fall in quoted prices took place in a context of declining trading but in which some market liquidity indicators were also improving.

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11 The markets are also anxiously awaiting the outcomes of Brexit, the upcoming elections in the US and the trade negotiations between the US and China.

12 The Bank of Spain has released projections for the Spanish economy for 2020-2022, indicating that the short and medium-term economic outlook remains subject to a very high level of uncertainty. Therefore, it presents two scenarios: one which reflects more moderate outbreaks of the virus and another in which there is a higher degree of contagion. In the first scenario, the economy would see an annual average decline of 10.5% in 2020, and in the second this figure would rise to 12.6%. Further, the economic recovery forecast for 2021 would be 7.3% in the first scenario and 4.1% in the second, so that by the end of 2022 GDP would stand at 2 pp and 6 pp respectively below the pre-crisis level.

13 The major international indices performed unevenly in the third quarter, with gains in the US, Japanese and German indices ranging from 3.7% for Germany's Dax 30 to 11% for the US technology-heavy Nasdaq index. The largest losses were seen among European indices, ranging from 1.3% for the Eurostoxx 50 to 7.1% for the Ibex 35 (see section 2.1).

The fall in the general index contrasts with the rises in quoted prices on small and mid-cap indices, which contain a larger number of technology and pharmaceutical companies, which are performing better in the crisis.

The falls in the main Spanish market indices contrast with the stability in the prices of mid-cap companies (0.5%) and increases in small caps (7.8%) thanks to the presence of some companies in the renewable energy and pharmaceutical sectors, which are posting better relative performances. Likewise, the indices that are representative of Latin American securities quoted in euros, the FTSE Latibex All-Share and FTSE Latibex Top, made further losses (-7.3% and -3.2%, respectively) as a consequence of the depreciation of their currencies against the euro.[14]

Most sectors ended the quarter with falls, although the sharpest were concentrated in the banking, consumer services and oil sectors.

The vast majority of sectors ended the third quarter with falls, although the sharpest falls were again concentrated in sectors on which the impact of the renewed outbreaks and the economic crisis is worst, such as banking, tourism and oil companies. The biggest falls (see Table 4) were observed in the oil sector, with the main oil company (Repsol) still feeling the effects of low crude prices.[15] Further, and despite the announcement of the merger[16] between Bankia and Caixabank, which temporarily boosted banks' share prices, the banking sector lost more than 20% in the quarter against a backdrop of falling commercial activity and tighter margins, in addition to higher delinquencies and rising risk, which reduces the value of this sector in Spain compared with other European countries.[17] The consumer services sector also continued to fall, standouts being the heavy losses of the main airline (IAG), which is badly affected by the slump in activity, as well as of companies in the tourism sector.[18] This was compounded by the removal of both BBVA and Telefónica from the Eurostoxx 50[19] index at the end of September, which has pushed down the quoted price of both stocks and their corresponding sector indices, since both companies were removed from the portfolios of many international investors, investment funds and ETFs that replicate the main market indices.

Other sectors such as telecommunications and construction also registered significant declines.

The negative performance of the telecommunications and construction sectors also stood out as did, to a lesser extent, that of insurance. In the telecommunications sector, the main company (Telefónica) continues to see reduced margins due to the effects of competition, and has also been affected by the uncertainties surrounding its subsidiaries in Latin America, in addition to its exclusion from the Eurostoxx 50. Construction companies have been affected by the decline in capital investment, while insurers, like banks, are feeling the effects of low interest rates.

Companies presenting a positive performance included most notably producers of industrial goods and raw materials and food, real estate and textile companies.

On the positive side, companies producing industrial goods and raw materials stood out due to the resumption of industrial activity and their more cyclical nature, which will allow them to benefit from the future recovery process. Food companies also showed slight gains due to their countercyclical nature, as did real estate and textile

14 In the third quarter of the year, the euro strengthened by 7% against the Brazilian real, and by 0.2% against the Mexican peso.

15 The price of oil remained around $41 a barrel in the third quarter and oil futures for the next few months do not anticipate any increases.

16 Bankia and Caixabank announced talks about a possible merger in early September, which was approved by the boards of both banks in the second half of the month.

17 The capitalisation of Spanish banks, which had traditionally been the largest in Europe, has fallen to third place, behind French and Italian banks.

18 The main companies linked to the airline and tourism sectors have seen sharp falls so far this year: IAG (85%), Meliá (60%), NH Hotel Group (45%) and Aena (30%).

19 Both companies left the index, to which they had belonged since it was created, on 18 September, along with Société Générale, Fresenius and Orange.

companies, among which Inditex, the leader, stood out for its ability to adapt to the new competitive and technological environment.

The crisis has had a considerable impact on the capitalisation of Spanish companies and the value of the country's productive structure. The textile company Inditex remains the biggest Spanish company by capitalisation, but companies in the electricity sector have gained weight due to their defensive nature, due to the stability of their business and revenues, alongside technology firms such as Cellnex Telecom, to the detriment of banks, traditional telecommunications companies such as Telefónica and energy companies such as Repsol.

The effects of the crisis have significantly altered the capitalisation of companies and, consequently, the value of the country's productive structure.

Performance of Spanish stock market indices and sectors

TABLE 4

Indices	2017	2018	2019	IV 19[1]	I 20[1]	II 20[1]	III 20[1]	% vs Dec-19
Ibex 35	7.4	-15.0	11.8	3.3	-28.9	6.6	-7.1	-29.7
Madrid	7.6	-15.0	10.2	3.0	-29.4	6.4	-7.4	-30.4
Ibex Medium Cap	4.0	-13.7	8.4	11.1	-31.0	7.8	0.5	-25.3
Ibex Small Cap	31.4	-7.5	11.9	5.0	-24.6	17.5	7.8	-4.6
FTSE Latibex All-Share	9.0	10.3	16.3	7.8	-46.3	14.4	-7.3	-43.1
FTSE Latibex Top	7.3	14.8	15.3	8.4	-43.3	14.6	-3.2	-37.1
Sectors[2]								
Financial and real estate services	**10.5**	**-27.1**	**-27.1**	**4.3**	**-40.7**	**1.0**	**-19.8**	**-52.0**
Banking	10.6	-29.0	-29.0	3.8	-41.9	0.9	-20.6	-53.4
Insurance	0.1	-12.8	-12.8	-0.9	-36.4	4.8	-8.7	-39.1
Real estate and others	17.6	-26.1	-26.1	-1.3	-31.3	5.8	7.4	-22.0
Oil and energy	**3.9**	**6.1**	**6.1**	**-3.2**	**-13.9**	**10.6**	**-1.8**	**-6.5**
Oil	9.9	-4.5	-4.5	-2.9	-40.2	-6.6	-26.5	-58.9
Electricity and gas	2.0	8.9	8.9	-3.4	-7.7	12.9	1.0	5.3
Basic mats., industry & construction	**2.6**	**-8.6**	**-8.6**	**4.1**	**-30.5**	**11.5**	**-1.5**	**-23.7**
Construction	9.9	-3.4	-3.4	0.1	-29.2	11.3	-11.0	-29.9
Manufacture and assembly of capital goods	-19.3	-10.4	-10.4	15.9	-20.4	10.7	23.8	9.1
Minerals, metals and metal products processing	14.2	-25.3	-25.3	8.9	-38.7	13.8	3.5	-27.8
Engineering and others	-9.9	-21.3	-21.3	1.4	-44.3	-20.9	1.3	-31.9
Technology and telecommunications	**7.5**	**-5.5**	**-5.5**	**-0.3**	**-30.3**	**11.0**	**-9.7**	**-30.1**
Telecommunications and others	-5.1	-8.2	-8.2	-7.0	-23.8	13.3	-16.2	-27.7
Electronics and software	36.6	-0.1	-0.1	11.4	-40.1	6.6	1.9	-34.9
Consumer goods	**-2.1**	**-16.7**	**-16.7**	**11.3**	**-19.1**	**-0.3**	**-0.8**	**-20.0**
Textile, clothing and footwear	-10.4	-23.1	-23.1	10.7	-24.8	-0.4	0.9	-24.4
Food and drink	5.2	-8.4	-8.4	4.0	-2.1	9.8	1.6	9.2
Pharmaceutical products and biotechnology	14.6	-6.4	-6.4	13.9	-8.6	-3.6	-5.4	-16.0
Consumer services	**23.3**	**-19.7**	**-19.7**	**12.3**	**-50.2**	**8.8**	**-11.8**	**-52.2**
Motorways and car parks	-3.1	39.5	-34.7	2.4	-49.1	4.4	-17.7	-56.3
Transport and distribution	-15.7	32.3	-11.5	15.6	-52.5	12.5	-12.4	-53.2

Source: BME and Thomson Datastream.

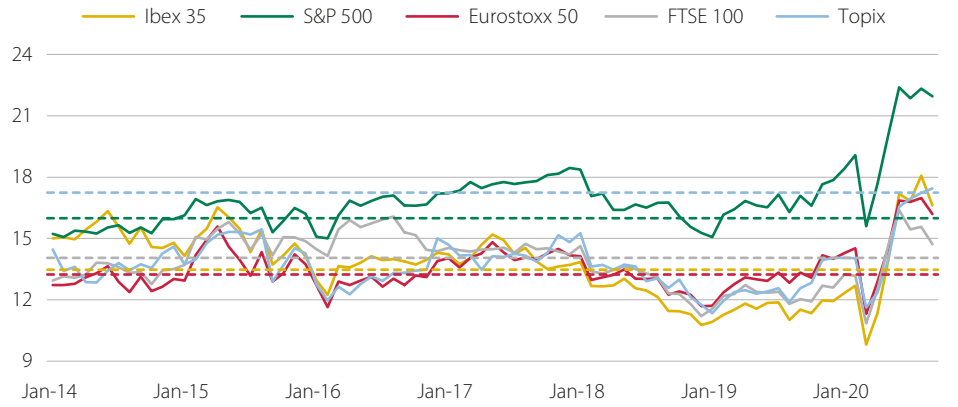
1 Variation compared with the previous quarter.

2 Sectors belonging to the IGBM (Madrid Stock Exchange General Index). The information corresponding to the most representative sub-sectors is displayed within each sector.

The fresh decline in quoted prices led to a fall in the forward PER, from 17.2 in June to 16.6 in September, remaining at high values above its historical average.

The fresh decline in prices, together with lower volatility in corporate profits expected for the coming months, led to a fall in forward price-earnings ratios in the third quarter. This ratio is expected to adjust further in the coming months as profit forecasts start to reflect the impact of the pandemic more accurately. The forward price-earnings ratio for the Ibex 35 fell from 17.2 in mid-June to 16.6 in September, although it peaked at 18.1 in August, its highest level since 2002. Figure 13 shows how the PERs of the major stock market indices around the world showed a similar performance in the quarter, albeit of varying intensity, placing the Spanish indicator higher than the values marked by other European indices. With the exception of the Japanese TOPIX index, the PERs of all the leading indices rose again above their average values in 2010-2020.

Price-earnings ratio[1] (PER) FIGURE 13



Source: Thomson Datastream. Data to 15 September.

1 With forecast profits for 12 months.

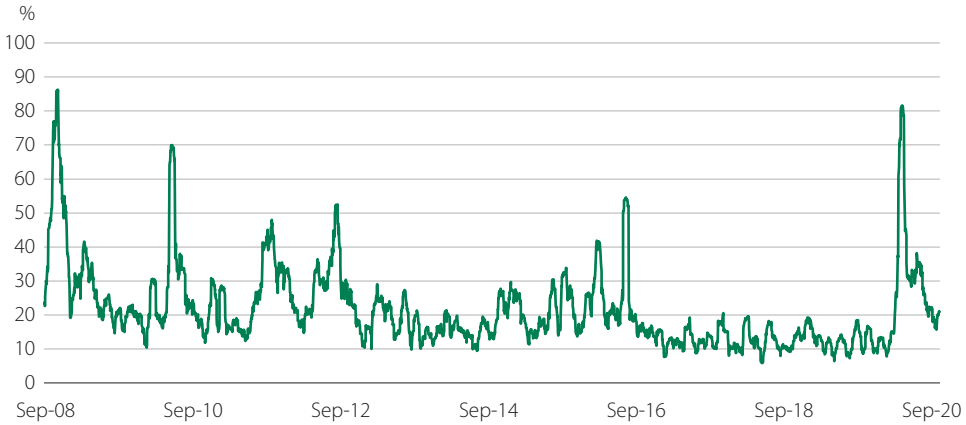
Volatility, which reached its highest level since the 2008 financial crisis in the first quarter, has progressively eased, to normalise in the third quarter.

The volatility of the Ibex 35, which had reached its highest level since the 2008 financial crisis in the first quarter, gradually eased off throughout the second quarter to normalise in the third, marking moderate average levels (22.18%),[20] which were still higher than the values registered before the crisis (see Figure 14). This downward performance tracked the trends marked by other international indices such as the Eurostoxx 50 (20.3% average in the quarter), although the declines were more pronounced for US indices.

20 Values were similar to those seen throughout 2016 (23.7%), although far above the historic low of close to 10% reached at year-end 2019.

Historical volatility of the Ibex 35

FIGURE 14



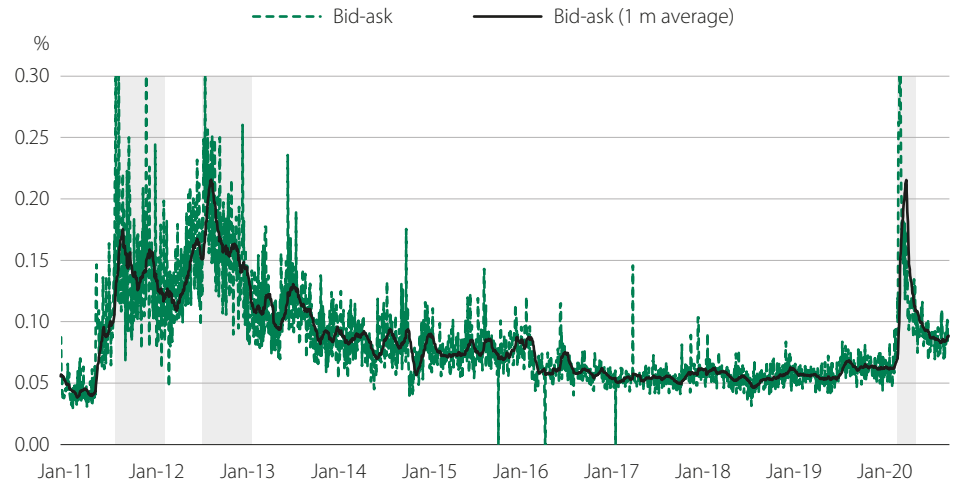
Source: Thomson Datastream and CNMV. The indicator is calculated as the annualised standard deviation of the daily price variations of the Ibex 35 over 21 days.

The liquidity conditions of the Ibex 35, measured through the bid-ask spread, which had deteriorated significantly in the first part of the year, reflecting the high market volatility and to a lesser extent the CNMV's restrictions on short-selling on a large number of securities, progressively improved from the latter part of the second quarter, moving slightly above pre-crisis values. The indicator marked an average of 0.086% in the third quarter of the year, below the figures of 0.107% and 0.111% seen in the first and second quarters, respectively, and below its historical average (0.091%). However, these values are still above the figures observed in recent years, close to 0.06% (see Figure 15).

The liquidity conditions measured using the bid-ask spread progressively improved to reach values slightly above pre-crisis levels (and below the historical average of 0.091% for the indicator).

Ibex 35 liquidity. Bid-ask spread

FIGURE 15

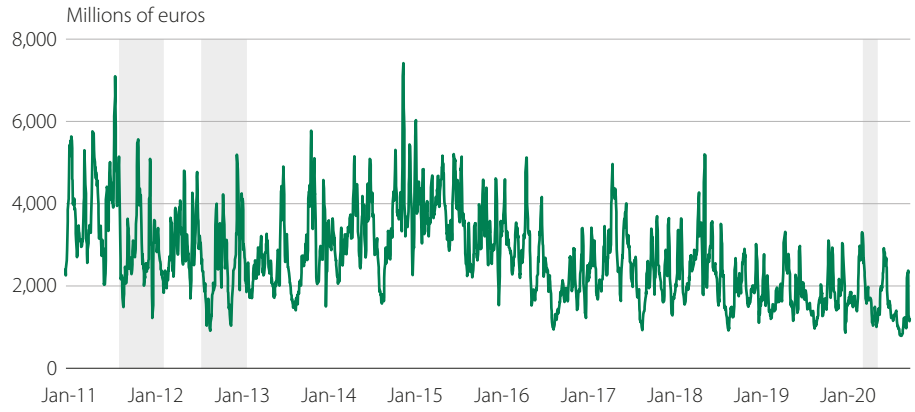


Source: Thomson Datastream and CNMV. Information on the bid-ask spread of the Ibex 35 and the average of the previous month is presented here. The vertical lines of the graph refer to the introduction of the precautionary prohibition on short-selling dated 11 August 2011, its subsequent lifting on 16 February 2012 (for financial institutions), the new prohibition of 23 July 2012 and its lifting on 1 February 2013, as well as the two most recent bans: the first for one day (13 March), which affected 69 entities, and the second, adopted a few days later and lifted on 18 May, which affected all entities.

In this context of further falls in prices, trading in Spanish securities reached its lowest level seen in one quarter in recent years, down 16.2% year-on-year.

In this environment of falling share prices, trading in Spanish equities fell significantly, to stand at just over €152 billion in the third quarter of the year, 16.2% less than in the same period of the previous year and the lowest volume in one quarter observed in the last five years. Thus, despite the temporary improvement in the first quarter, a downward trend in trading volumes can be observed, which does not occur in other European markets,[21] where trading remains buoyant and volumes are growing and where some trading models such as algorithmic and high-frequency trading[22] are becoming less popular due to the lower volatility levels. Cumulative trading in Spanish securities in the year to date stood at €583.4 billion, 2.2% less than in 2019. Average daily trading on the continuous market in the third quarter reached €1.25 billion (-18% year-on-year, the lowest in the past few years), below the figures seen in previous quarters (€1.20 billion in the first quarter and €1.75 billion in the second) and the €1.82 billion of the previous year.

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



Source: CNMV. The shaded areas of the graph refer to the introduction of the precautionary prohibition on short-selling dated 11 August 2011, its subsequent lifting on 16 February 2012 (for financial institutions), the new prohibition of 23 July 2012 and its lifting on 1 February 2013, as well as the two most recent bans: the first for one day (13 March), which affected 69 entities, and the second, adopted a few days later and lifted on 18 May, which affected all entities.

1 Moving average of five trading sessions.

The proportion of trading carried out through systematic internalisers remained at 15%…

Trading through systematic internalisers, which is not subject to market rules, accounted for a proportion of close to 15% of total trading of Spanish securities in the third quarter (total trading is defined as the sum of trading subject to market rules and trading carried out through systematic internalisers). This proportion has remained relatively stable in the range of 15-18% for almost two years.

… putting trading carried out through venues and competing markets other than the home market at 48.1% of the total, its highest value in the entire historical series.

Regarding the distribution of Spanish securities trading in the year, €312.25 billion corresponded to the Spanish regulated market and the rest were traded through other trading venues and competing markets. The amount traded through BME fell by 6.7% year-on-year in the first three quarters of the year, and its market share

21 According to data from the World Federation of Exchanges, trading up until August increased significantly on the main European and international stock markets: 33.9% on Euronext, 8.8% on the London Stock Exchange Group (London and Italy) and 38.5% on Deutsche Börse, 104.1% on the NYSE, 48.6% on the Nasdaq and 19.5% on the Japan Exchange Group.

22 High-frequency trading (HFT)

decreased further to reach a new historical low of 52.1%, one tenth of a point below the previous low seen in the first quarter. Therefore, despite the recovery observed in the second quarter, the relative importance of trading on the regulated market is showing a (fluctuating) downward trend while at the same time trading through other venues and competing markets is consolidating, with fluctuations comfortably above 40%. Further, the latter tend to take on more significance in periods of high volatility, which favour algorithmic and high-frequency trading, which is usually conducted to a greater extent through competing venues.

Cboe Global Markets continued to lead the trading of Spanish stocks abroad, with 80% of the total volume traded, and is gaining weight compared with BME.

The absolute value of Spanish shares traded through competing venues also fell in the quarter and in the year to date, although to a lesser extent than shares traded through BME. The standout was once again Cboe Global Markets (Cboe), which operates through two different order books, BATS and Chi-X, and which continued to gain weight. Trading was close to €59 billion in the quarter, which represents 80% of trades made abroad and nearly three quarters of trades carried out through BME. In addition, in contrast with previous quarters, when distribution shifted between the two books in favour of BATS, part of the trading was recovered by Chi-X. Among BME's other competing venues, the market share of Turquoise and all other operators remained largely unchanged at 6.3% and 13.7%, respectively, with declines in volumes similar to those in total trading in the quarter (see Table 5).

Trading in Spanish shares listed on Spanish stock exchanges[1]

TABLE 5

Millions of euros

	2016	2017	2018	2019	I 20	II 20	III 20
Total	**877,413.3**	**932,771.9**	**930,616.1**	**805,833.0**	**244,429.7**	**186,968.4**	**152,027.8**
Admitted to SIBE (electronic trading platform)	**877,402.7**	**932,763.1**	**930,607.1**	**805,826.6**	**244,428.6**	**186,967.8**	**152,027.6**
BME	631,107.2	633,385.7	579,810.4	460,267.4	126,698.3	106,928.9	78,626.0
Chi-X	117,419.4	117,899.2	106,869.7	80,678.9	22,954.9	13,130.9	13,529.9
Turquoise	51,051.8	44,720.1	42,833.4	30,550.6	7,954.3	5,019.6	4,607.6
BATS	44,839.8	75,411.6	171,491.3	176,093.6	62,025.5	51,263.8	45,202.7
Other	32,984.5	61,346.5	29,552.2	58,236.1	24,795.5	10,624.5	10,061.4
Open outcry	**7.5**	**8.1**	**8.2**	**6.2**	**1.1**	**0.6**	**0.2**
Madrid	3.2	1.8	0.8	0.8	0.1	0.0	0.0
Bilbao	0.0	0.0	0.0	2.1	0.0	0.0	0.0
Barcelona	4.1	6.3	7.4	3.2	1.0	0.6	0.2
Valencia	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Secondary market	**3.2**	**0.7**	**0.8**	**0.1**	**0.0**	**0.0**	**0.0**
Pro memoria							
Trading in foreign equities through BME	6,033.0	6,908.0	3,517.1	3,480.5	987.7	1,265.4	1,041.4
MAB	5,066.2	4,987.9	4,216.3	4,007.7	1,145.3	809.5	629.9
Latibex	156.7	130.8	151.6	136.6	29.2	24.5	16.4
ETFs	6,045.2	4,464.1	3,027.6	1,718.0	819.0	671.4	431.3
Total trading through BME	648,418.9	649,885.3	590,732.0	469,616.6	129,680.6	109,700.3	80,745.2
% total Spanish equities traded through BME	71.9	68.3	62.6	57.4	52.2	57.5	52.1

Source: Bloomberg and CNMV.

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

Capital increases with fund raising reached their highest levels since the third quarter of 2019, doubling the amount issued in the first half of the year. Capital increases under the scrip dividend format for the payment of dividends also grew.

Equity issues made in Spanish markets stood at €5,108.5 million in the third quarter, of which €4,024.6 million corresponded to capital increases to raise funds, the highest amount since the same quarter of 2019 and double the amount issued in the first half of the year (see Table 6). Capital increases were largely carried out with pre-emptive rights, and the remainder almost entirely under the scrip dividend method. The first option totalled €4 billion, the highest amount since the third quarter of 2017,[23] corresponding to a single capital increase carried out by Cellnex Telecom, while the second accounted for €1.08 billion, similar to the amount in the same quarter of 2019, which corresponded to the dividend payments made in July under this format by the main Spanish energy, telecommunications and construction companies. As was to be expected, the payment of dividends under the scrip dividend method has regained its appeal for companies because it allows them to partially uphold their dividend policies vis-à-vis shareholders and investors and, at the same time, shore up their balance sheets to deal with the impact of the pandemic.

As in 2019, there have been no IPOs so far this year.

Capital increases totalled around €7.3 billion in the first nine months of the year, compared with €5.67 billion in the same period of the previous year. Of this amount, 78% corresponded to increases with fund raising. In line with the first half of the year and in 2019, there were no initial public offerings in the quarter and the prolongation of uncertainty over the comings years makes it unlikely that there will be any transactions of this type in the near future.[24] MásMóvil Ibercom was the subject of a successful takeover bid, and the buyer announced that it intended to delist the company from the stock markets in the next few months.

Financial institutions, unable to pay dividends in the coming months on the recommendation of their financial supervisors, have announced their intention of resuming these payments in 2021.

The main banks have announced that they intend to restore dividend payments in cash next year, for which they will need the approval of the financial supervisor, which, together with the European Systemic Risk Board, has encouraged financial institutions and insurance companies to suspend dividend payments until January 2021.

23 In the third quarter of 2017, Banco de Santander carried out a capital increase of more than €7.1 billion.

24 There was, however, an increase in IPOs in the international markets, mostly related to technology companies. The Spanish market does not appear to be unaffected by this trend as, in early October, a company in the renewable energies sector indicated that it was preparing its flotation on the continuous market through a share offering aimed at qualified investors. If this transaction materialises, it would be the first IPO since December 2018, when Solarpack started trading.

Capital increases and public offerings

TABLE 6

	2017	2018	2019	IV 19	I 20	II 20	III 20
NUMBER OF ISSUERS[1]							
Total	**47**	**46**	**47**	**12**	**8**	**8**	**8**
Capital increases	45	45	47	12	8	8	8
Public offerings (for subscription of securities)	3	2	1	0	0	0	0
Initial public offerings (IPOs)	4	1	0	0	0	0	0
NUMBER OF ISSUES[1]							
Total	**91**	**81**	**52**	**15**	**8**	**8**	**8**
Capital increases	84	80	52	15	8	8	8
Public offerings (for subscription of securities)	4	2	1	0	0	0	0
Initial public offerings[2] (IPOs)	7	1	0	0	0	0	0
CASH AMOUNT[1] (millions of euros)							
Capital increases with fund raising	**25,787.7**	**7,389.9**	**8,240.6**	**4,132.9**	**174.9**	**1,518.4**	**4,024.6**
With pre-emptive rights	7,831.4	888.4	4,729.8	3,132.8	0.0	50.0	3,999.5
Without pre-emptive rights	956.2	200.1	10.0	0.0	0.0	0.0	0.0
Of which, increases	68.8	0.0	30.0	0.0	0.0	0.0	0.0
Accelerated book builds	821.8	1,999.1	500.0	500.0	0.0	750.0	0.0
Capital increases with non-monetary consideration[3]	8,469.3	2,999.7	2,034.2	0.0	12.5	0.0	0.0
Capital increases via debt conversion	1,648.8	388.7	354.9	341.1	162.4	0.0	0.0
Other	6,060.2	913.9	611.8	159.0	0.0	718.4	25.1
Scrip issues[4]	**3,807.3**	**3,939.7**	**1,565.4**	**2.6**	**396.4**	**93.5**	**1,083.9**
Of which, scrip dividends	3,807.3	3,915.2	1,564.1	1.3	396.4	93.5	1,083.9
Total capital increases	**29,595.0**	**11,329.6**	**9,806.0**	**4,135.5**	**571.3**	**1,611.9**	**5,108.5**
Public offerings	**2,944.5**	**733.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
***Pro memoria*: Transactions on MAB[5]**							
Number of issuers	13	8	12	4	5	3	1
Number of issues	15	12	17	4	6	3	1
Cash amount (millions of euros)	129.9	164.5	298.3	200.5	18.3	9.9	35.0
Capital increases	129.9	164.5	298.3	200.5	18.3	9.9	35.0
Of which, IPOs	17.1	0.0	229.4	196.3	0.1	0.0	0.0
Public share offerings	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: BME and CNMV.

1 Trades registered with the CNMV. Does not include data from MAB, ETF or Latibex.

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

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

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

5 Trades not registered with the CNMV.

Analysis of the effect of restrictions on short selling of Spanish shares between March and May 2020

EXHIBIT 3

The performance of international equity prices in recent months has been marked by the spread of COVID-19. The rapid development of the pandemic forced many countries to impose lockdown measures on their populations, which significantly disrupted their productive activity. In this context, the main stock market indices registered sharp declines in the first quarter of the year, especially during the month of March.

Specifically, on 12 March 2020, the European stock market indices experienced extraordinarily sharp falls. The Ibex 35 lost 14%, the highest loss in a single day in its 28-year history. In light of the situation, the CNMV resolved to prohibit short-selling during the day of 13 March of all liquid shares admitted to trading on the Spanish stock exchanges whose price had fallen by more than 10% in the previous session (12 March) and of all illiquid,[1] shares when this fall was greater than 20%. The ban affected 69 securities in total and was carried out pursuant to the provisions of Article 23 of Regulation (EU) No. 236/2012 of the European Parliament and of the Council, of 14 March.

After another session of sharp falls on 16 March, in accordance with Article 20 of the aforementioned Regulation, the CNMV prohibited, for one month, which was extended to two,[2] the creation or increase of net short positions on shares admitted to listing on Spanish trading venues for which the CNMV is the competent authority. On that date, the Ibex 35 lost a further 7.9%. The ban was carried out in response to the exceptional nature of the situation and the uncertainty in the market, which could have been boosting sales and encouraging a downward spiral. On the following day, the supervisory authorities equivalent to the CNMV in France, Italy, Belgium, Austria and Greece adopted similar measures.

The rule allows this measure to be adopted to preserve financial stability and investor confidence at times when there are turbulences that could result in disorderly price movements. However, it also affects the efficiency of the markets, in other words, a ban of this type can reduce the speed at which prices adjust to the available information and reduce the reliability of some liquidity measures such as the bid-ask spread or trading volumes. Therefore, the CNMV resolved to carry out a study[3] to determine the impact, in terms of market efficiency, of the restrictions on short-selling described above. Specifically, the impact on some liquidity measures (such as the bid-ask spread, trading volume and the Amihud ratio)[4] was analysed, as well as the impact on price performance and intraday volatility. The study also assessed whether the ban could have influenced the credit risk of financial and non-financial issuers whose securities are listed on equity markets. To do so, it tried to establish the relationship between the bans and the price of the 5-year CDS of various Spanish issuers.

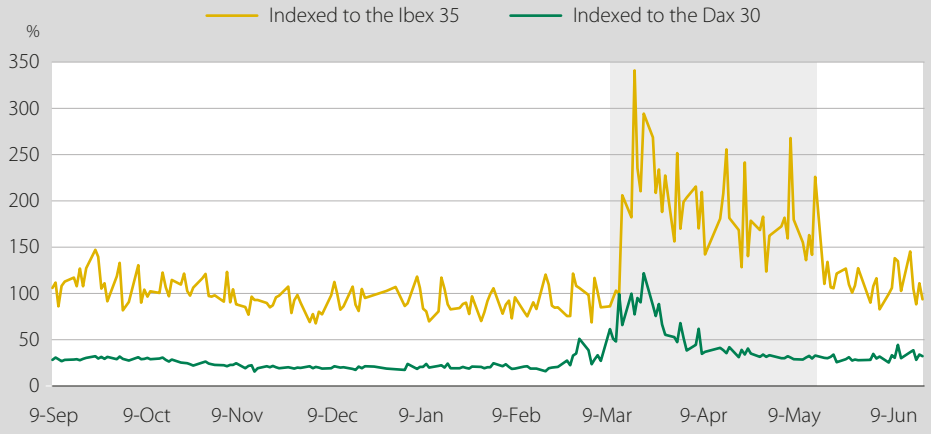
The first part of the analysis was based on establishing a comparison between the performance of Ibex 35 components and components from another index in a market where no restrictions were introduced, in this case Germany's Dax 30.

A study was made of variables related to the returns, volatilities and liquidity measures of the listed shares that made up the Ibex 35 and the Dax 30 between 9 September 2019 and 19 June 2020. This enabled sufficient data to be collected from sessions before and after the CNMV's adoption of the ban on creating or increasing net short positions. In a second part of the analysis, and for the same period, it was observed how these restrictions could influence the credit risk of issuers whose securities are subject to these restrictions, compared with the securities in the market in which they were not.

From the descriptive and econometric analyses carried out as part of the study, the following conclusions were obtained:

– The bid-ask spreads increased for shares listed on the Ibex 35 and Dax 30 alike in the first few days after the ban and then tended to narrow. In relative terms, the initial increase was sharper for Spanish securities and therefore, despite the subsequent decrease, pre-crisis values were only reached once the ban had been lifted. The recovery of the German securities was faster. The econometric analysis revealed that the securities included in the ban experienced a drop in liquidity compared with the unrestricted scenario, an impact which persisted when the ban was lifted, albeit to a lesser degree.

Daily bid-ask spread for the Spanish and German markets (index = 100 corresponds to 12/03/2020) FIGURE E3.1



Source: Thomson Datastream and own compilation by the authors. The shaded area indicates the period during which the CNMV prohibited the creation or the increase of short positions on shares admitted to listing on Spanish trading venues.

– Trading in Ibex 35 shares fell when the restrictions were imposed, standing at levels that were lower than in the pre-crisis period. However, it bounced back when the ban was lifted. Trading in components of the Dax 30 index during the ban decreased significantly after it was announced, and the trend was similar to that of the Ibex 35. Once the restrictions had been lifted, trading patterns were similar in both markets. The econometric analysis therefore concludes that the ban did not have a significant impact on trading of the securities to which it applied.

– The average Amihud measure increased during the period of the ban for securities traded on the Ibex 35 and the Dax 30. This suggests that both markets lost depth during that time, which could be attributed to the generalised turbulence. Based on the evolution over time during the ban, it can be observed that the components of the Ibex 35 lost more depth than those of the Dax 30. However, once it had been lifted, both markets gained depth, reaching levels similar to those seen before the restrictions were imposed. Further, the econometric analysis found no evidence that the ban had a negative effect on the Amihud measure of the securities it affected. The greater loss of depth recorded by the Spanish securities could be more a result of the higher country risk of these securities than the ban itself.

– For both equity indices, it was observed that volatility was higher during the prohibition than in the period immediately preceding it. Only in the last sessions, when the restrictions were no longer in force, did levels of volatility return to pre-crisis values. Volatility was not observed to have behaved differently under the ban than it would have behaved otherwise.

– There was also no evidence to suggest that it had any notable effect on the price performance of the shares listed on the Ibex 35 with respect to share prices on the Dax 30 index, or with respect to the situation before the ban.

– Lastly, credit spreads widened significantly in the days prior to the implementation of the ban. These spreads narrowed as the pandemic in Europe eased, although they were still greater than their pre-crisis levels. In this sense, German securities recovered to a greater extent than Spanish securities. The econometric analysis offered no evidence that the ban had any influence on the credit risk spreads of Spanish equity issuers either during the application period or after it was lifted.

In short, the analysis found no notable evidence of effects attributable to the ban on key variables, such as trading volumes, price trends, volatility or credit risk of the issuers concerned, identifying only a larger increase in bid-ask spreads (i.e. a certain loss of liquidity), which has since persisted to some extent.

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1 According to Commission Delegated Regulation (EU) No. 918/2012, of 5 July 2012.

2 The ban was initially implemented until 17 April, extendible for additional periods of no more than three months if necessary. In practice, extensions are made every month. In this case, the ban was in effect until 18 May, after the extension that began on 18 April.

3 The full study is available at: http://www.cnmv.es/DocPortal/Publicaciones/OTROS/Informe_ventas_en_corto_23072020.pdf

4 The Amihud illiquidity ratio is defined for each of the values considered as:

$\frac{1}{T}\sum_{t=1}^{T}\frac{|r_t|}{€V_t}$, where $|r_t|$ is daily returns in absolute value and $€V_t$ daily trading in euros. The ratio was calculated taking into account 5 sessions, therefore *t* is equal to 5. As a ratio measuring illiquidity, the higher its value, the less liquidity there is for that security. When the ratio has been calculated for an entire market, it is calculated as the simple average of the individual ratio of the securities listed on that market.

3.2 Fixed income markets

The tensions seen in the debt markets at the start of crisis subsequently dissipated as a result of the measures implemented by the ECB, which included a specific plan to alleviate the effects of the pandemic (Pandemic Emergency Purchase Programme, or PEPP).

The debt markets, which had seen temporary tensions in risk premiums of public and private debt of the most vulnerable states and companies in March, saw how the falling yields on these assets observed in the second quarter continued into the third, with the majority ending the quarter at lower levels than at the start of the year. This development was due to the extraordinary measures adopted by central banks, which were ratified in subsequent months. As mentioned in Section 2.1, these measures include abundant purchases of both public and private debt and financing for banks on favourable terms,[25] in addition to maintaining official interest rates at low levels for a prolonged period.

In this context, interest rates on public and private debt, in addition to risk premiums, generally decreased in the third quarter of the year.

In this context, as in other large European countries, interest rates on Spanish debt, both public and corporate, fell slightly during the third quarter. These declines were somewhat greater in southern European countries, where the impact of the ECB purchases is larger. Thus the Spanish sovereign bond yield fell by 22 bp in the quarter while the risk premium was reduced by 16 bp, to 77 bp, which is still higher than the figure of 65 bp seen at the start of the year. The positive effect of the economic reactivation funds set up by the European Union also contributed to this performance.

Despite the abundant liquidity, fixed income issues fell in the third quarter compared with the previous quarter, as companies had already built up sufficient funds in previous months.

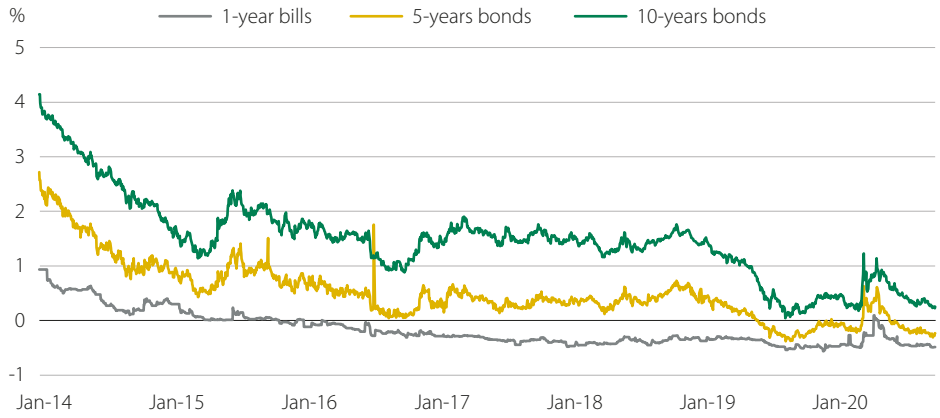
Despite the abundant liquidity and greater ease of placing debt thanks to the ECB purchases, fixed income issues made by Spanish issuers registered with the CNMV decreased in the third quarter compared with the second, but continued to increase significantly in year-on-year terms (+40% in the year to date). Many companies had already built up sufficient funds in the second quarter to deal with the uncertainty and the economic crisis, taking advantage of market conditions to refinance their debt at longer terms and at a lower cost.

The yield on treasury bills decreased slightly, once again approaching a historical low…

The yields on short-term private fixed income and public debt saw different performances in the third quarter, with small declines and increases, respectively. Short-term government debt rates are approaching their historical lows and heading towards a sixth consecutive year of negative values for the entire length of the curve, under the ECB's ultra-expansive monetary policy, which includes purchases of securities with a minimum residual maturity of 70 days. At the end of September, the secondary market yield on 3, 6 and 12 month treasury bills was -0.51%, -0.46% and -0.49%, respectively, the lowest level in the year so far, and in line with 2019 closing values. These rates were close to the rate set by the ECB for its marginal deposit facility (-0.50%), with which they are usually aligned and from which they had moved away for much of the first half of the year. Additionally, all treasury auctions on the primary market were still awarded at negative rates and the last one in September saw values of -0.50% for all terms of the curve, in line with the previous auction.

25 The ECB awarded €174.46 billion to 388 entities in the 3-year liquidity auction in September, which is 86% less than the record amount awarded at the June auction (€1.31 billion).

Interest rates on Spanish public debt FIGURE 17



Source: Thomson Datastream.

… while issues of short-term private fixed income increased slightly.

In the case of short-term private fixed income, the behaviour was different, with values that were higher than those of the previous quarter, as occurred in the second quarter. Thus while short-term commercial paper may benefit from the guarantees of the Official Credit Institute (ICO), which would contribute to reducing their issue interest rates, and from the ECB purchases in the primary market, in practice only a small number of issuers meet the conditions to benefit from the guarantee programme[26] of the former or fall within the range of eligible issuers[27] for the asset purchases of the latter. Spanish market data show that in September the issue yields on commercial paper in the primary market ranged from 0.39% for the 3-month instrument to 1.02% for 12-month paper (see Table 7).

The ECB's different asset purchase programmes have caused declines in the long-term returns on government debt assets…

Interest rates on public and private medium- and long-term debt showed a similar trend throughout the quarter, falling slightly on the back of the Pandemic Emergency Purchase Programme (PEPP), under which assets of public and private issuers[28] may be acquired, in addition to the previous Asset Purchase Programme (APP), which is still in force.[29] In the area of public debt, these purchases, which account

26 Beneficiaries of issues of commercial paper on the MARF guaranteed by the ICO guarantee programme included: El Corte Inglés, Sacyr, Hotusa, Pryconsa, Vocento, Amper, Tubacex, Aedas Homes and Grupo Pikolin. The maximum amount of the guarantees will cover 70% of the commercial paper issue, which will have a maximum maturity of 24 months and be available until 30 September, with the following conditions for awarding them: having registered a commercial paper issue programme on the MARF before 23 April, the company's registered office being located in Spain and the funds obtained not being available for paying dividends.

27 The ECB can acquire short-term debt under its PEPP programme and this debt may include commercial paper issued by some Spanish companies such as Endesa, Iberdrola, Repsol, Telefónica, Red Eléctrica, Ferrovial, Naturgy, Abertis, Aena, ACS, Amadeus, Cellnex, Colonial, ACS and Viesgo. To be eligible, these assets must have a minimum credit rating of BBB- from Standard & Poor's, Fitch or DBRS, or Baa3 from Moody's.

28 The emergency programme, which started in March, accumulated purchases amounting to €571.31 billion up until 2 October. These corresponded mostly to public debt, followed by corporate commercial paper and bonds. Commercial paper was mostly acquired in the primary market (85%), as was around 45% of corporate debt. Purchases of Spanish public debt under this programme totalled €61.03 billion at the end of September, around 12% of total purchases of public assets.

29 Up until August, the ECB had acquired public debt for a net amount of €2.38 trillion, of which €280.70 billion corresponded to Spanish instruments.

for around 30% of Spanish debt, put downward pressure on rates and tended to offset the unfavourable news relating to its credit ratings.[30] Thus the yields on 3, 5 and 10 year Spanish government debt stood at -0.43%, -0.24% and 0.25%, respectively, at the end of September (see Table 8), and negative values up to 7 year terms were observed for the first time in the year, while the 10 year rate was at its lowest since March.

Short-term interest rates[1] TABLE 7

%

	Dec-17	Dec-18	Dec-19	Dec-19	Mar-20	Jun-20	Sep-20
Treasury bills							
3 months	-0.62	-0.50	-0.58	-0.58	-0.28	-0.48	-0.51
6 months	-0.45	-0.41	-0.47	-0.47	-0.24	-0.45	-0.46
12 months	-0.42	-0.33	-0.48	-0.48	-0.28	-0.45	-0.49
Corporate commercial paper[2]							
3 months	0.39	0.24	0.20	0.19	0.19	0.36	0.39
6 months	0.26	0.19	0.52	0.52	0.23	0.52	0.69
12 months	0.19	0.07	0.71	0.71	0.58	0.71	1.02

Source: Thomson Datastream and CNMV.

1 Monthly average of daily data.

2 Issue interest rates.

… and also on private fixed income assets, although returns are more varied in the second group, as not all issues are eligible.

Private fixed income saw a similar performance, with small decreases in all terms of the curve, putting yields at historical lows. Most of the large corporate debt issuers have benefited from the ECB debt purchase measure, which includes a specific corporate debt purchase programme,[31] which was recently expanded to include purchases of this type of debt through the new PEPP programme.[32] However, it should be noted that this shows more varied returns,[33] because not all issuers have issues that are included in the range of eligible assets.[34] At the end of September, yields on 3, 5 and 10 year private debt stood at 0.12%, 0.06% and 0.64% respectively, implying a risk premium of between 30 and 55 bp compared with public debt assets. Further, companies continue to see downgrades in their credit ratings[35] or downward revisions of their outlook as a result of the risks facing their activities.[36]

30 For example, at the end of September, when Standard & Poor's announced it was changing its rating outlook for Spain to negative as a result of the pandemic.

31 Up until 18 September, the Corporate Sector Purchase Programme (CSPP) accumulated a volume of purchases amounting to €233.07 billion, of which more than 21% was acquired in the primary market.

32 At the end of July, the ECB had accumulated corporate bonds for the amount of €17.62 billion and commercial paper for a value of €34.85 billion acquired under this programme.

33 The sample used to estimate interest rates is based on a wide range of assets with different levels of risk that includes covered bonds, investment grade rated bonds, high-yield bonds and even debt with no credit rating.

34 The ECB requires a minimum investment grade rating for its purchases.

35 These notably include companies such as Amadeus, IAG, NH Hoteles, Gestamp, Codere, DIA and Madrileña Red de Gas.

36 According to the analysis published in this Bulletin about trends in credit ratings of Spanish companies between March and June this year, there has been a notable increase in the amount of debt in the lowest

Medium- and long-term bond yields

TABLE 8

%

	Dec-17	Dec-18	Dec-19	Dec-19	Mar-20	Jun-19	Sep-20
Public fixed income							
3 years	-0.09	-0.04	-0.29	-0.29	0.02	-0.28	-0.43
5 years	0.31	0.43	-0.06	-0.06	0.26	-0.11	-0.24
10 years	1.46	1.43	0.45	0.45	0.68	0.47	0.25
Private fixed income							
3 years	0.44	0.67	0.20	0.20	0.48	0.19	0.12
5 years	0.41	0.55	0.23	0.23	0.65	0.40	0.06
10 years	1.16	1.52	0.79	0.79	1.49	0.77	0.64

Source: Thomson Datastream, Reuters and CNMV.

The sovereign risk premium continued to decline in the third quarter, approaching the levels seen at the start of the year thanks to the ECB debt purchase programmes…

The sovereign risk premium – measured as the difference in yield between the Spanish and the German 10-year sovereign bonds – started the quarter at 93 bp, and subsequently decreased progressively to close the period at around 77 bp As with yields on debt assets, the ECB's purchases of public debt and the announcement of economic reactivation funds for the European Union further eased the pressure on risk premiums and they returned to levels seen at the start of the year. Further, the risk premium estimated using the CDS of the Spanish sovereign bond (the market for which is less liquid than that of its underlying, the Spanish bond) closed the quarter at around 55 bp, implying a sharper reduction than for the risk premium assessed as the difference in returns. In the short term, the performance of the sovereign risk premium – like that of the risk premiums applied for large Spanish issuers – will continue to be shaped by the support provided by the ECB through its purchase programmes, although in the medium term it could be conditioned by economic trends and the budgetary and fiscal policy measures adopted.

… which also favoured the risk premiums of private sector companies…

The risk premiums of the private sub-sectors of the economy followed a similar path to public debt, although the reductions were somewhat more moderate for both financial institutions and non-financial companies. The right hand panel of Figure 18 shows how the average CDS of financial institutions stood at 93 bp at the end of September, 12 bp lower than at the beginning of the quarter, but well above the 65 bp seen at the start of the year; while for non-financial companies, the average risk premium was 68 bp on the same date, compared with 52 bp at the end of 2019.

… both financial…

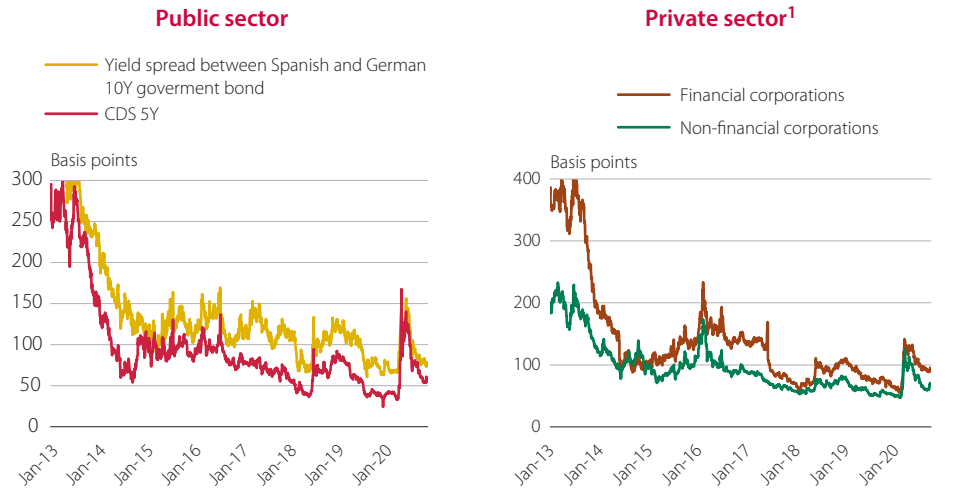
For financial institutions, the decrease in risk premiums was due, as for sovereign debt, to the scale of the ECB's asset purchases, which, in addition to the PEPP programme,[37] includes specific programmes for securities issued by banks, such as

investment grade categories (BBB and BBB-). According to this report, the balance of BBB debt among all Spanish issuers, including the public administration service, rose from €149 billion to €165 billion, and the balance of BBB- debt increased from €55 billion to €79 billion.

37 At the end of July, the ECB had accumulated covered bonds amounting to €3.13 billion acquired under this programme.

covered bonds and securitisation bonds or asset-backed securities[38] (CBPP3 and ABSPP, respectively). In the coming months, financial institutions face a scenario of increasing uncertainty and risk caused by the sharp drop in economic activity, which may affect the risk premiums of these issuers. This scenario puts even more downward pressure on banks' net interest income and could lead to a spike in NPLs, although the latter trend could be mitigated by the low interest rates.

Risk premium of Spanish issuers FIGURE 18



Source: Thomson Datastream and CNMV.

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

… and non-financial companies.

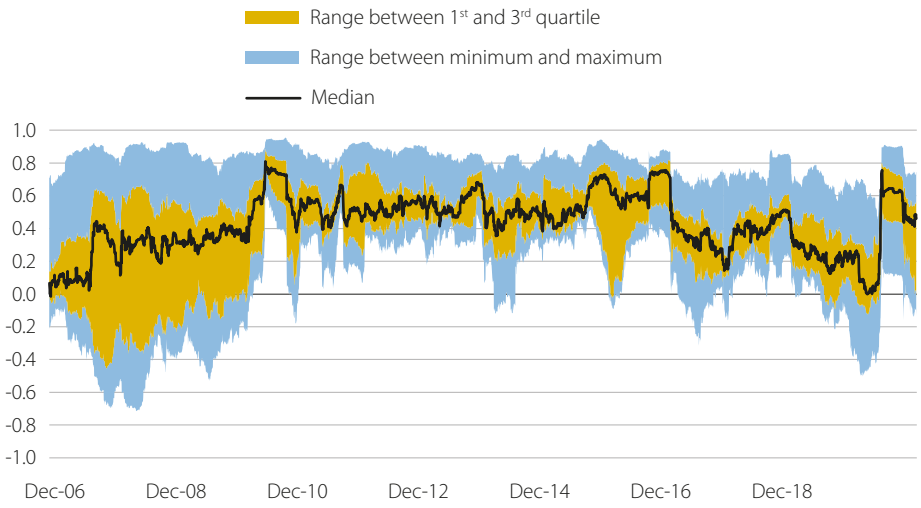
In the case of non-financial companies, the decline in risk premiums was similar, although they remain well above the levels observed at the started of the year. Thus although these companies also benefit from the positive effects of the ECB's corporate debt purchases and increased facilities for obtaining financing at low cost, the risk premiums applied reflect the deterioration of their businesses and the uncertainties surrounding their future performance, as well as the foreseeable increase in their finance costs due to higher credit risk.

The correlation between asset prices, which had increased sharply in the first quarter of the year, subsequently declined due to the different performance of share prices (downward) and debt prices (upward).

The correlation between prices of the different classes of financial assets (which due to the crisis had risen sharply in the first quarter of the year, to reach their highest values since the second half of 2016) eased further in the third quarter, following on from the second (see Figure 19). The decrease was caused by the different performance of debt and credit asset prices compared with shares, resulting from the ECB support programmes. Thus the uncertainties and risks arising from the crisis, which translated into generalised price falls, continue to affect equity assets, while other asset prices are rising due to the support measures provided by the monetary authority.

38 To 25 September, the covered bond purchase programme had accumulated purchases totalling €287.74 billion, of which more than 37% were acquired in the primary market. Further, the asset-backed securities programme had accumulated on the same date purchases for a total of €29.26 billion, of which more than 52% were acquired in the primary market.

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



Source: Thomson Datastream and CNMV.

1 The correlation indicator between asset classes includes pairs of correlations calculated using daily data in three-month windows. The asset classes are sovereign debt, private fixed income of financial and non-financial companies and securities traded on the Ibex 35 of financial institutions, utilities and companies from other sectors. A high correlation between the different classes of Spanish assets would indicate the possible existence of herding behaviour by investors. This situation could cause high volatility during stress periods. However, diversification would offer fewer advantages given that in this context it would be more difficult to avoid exposure to sources of systemic risk.

2 Since 7 June 2017 the CDS of the 5-year senior debt of Banco Popular has been excluded from the calculation of ROI on the asset class corresponding to financial fixed income.

After rising strongly in the second quarter, debt issues stagnated in the third quarter.

Fixed income issues registered with the CNMV in the third quarter of 2020 amounted to €20.73 billion, almost half of the figure registered in the previous quarter and 3.8% more than in the same period of 2019. In the year as a whole, these issues totalled €77.37 billion (well above the €55.15 billion in 2019) thanks to the buoyancy observed in the first half of the year. During this period, there was a substantial rise in corporate issues, which grew by 61% compared with the same period in 2019, with the aim of increasing their funds and refinancing debt at longer terms, on concerns that financial conditions could be harsher in the future. In the first half, issues carried out abroad also increased, although to a lesser extent (by 7.1%, to €58.12 billion), leading to a substantial reduction in the difference between the volume of issues made abroad and those registered with the CNMV.

The largest increases were in issues of asset-backed securities.

With regard to the composition of issues made in the third quarter, the largest rise was observed in issues of regional covered bonds, asset-backed securities, and, to a much lesser extent, commercial paper. Issues of other assets dropped off significantly, particularly covered bonds and internationalisation bonds. The trend in covered bonds was conditioned by the balance of outstanding mortgage loans, which has declined to its lowest level in recent years;[39] while internationalisation bonds are very specific types of assets that are issued on a one-off basis. A volume of €4.4 billion was registered in regional covered bonds, which together with the €4.75 billion of the

39 Based on data from the Bank of Spain, until July the balance of mortgage loans to households fell by 1.7% year-on-year, to stand at €512.59 billion.

previous quarter, place issues of these assets at their highest level since 2015. Issues of asset-backed securities, which can be used as collateral to obtain financing in the ECB's liquidity auctions, totalled close to €8.2 billion. One of these corresponded to the FADE (Fund for the Amortisation of the Electricity Deficit) and the remainder to three securitisation programmes run by two financial institutions, of which barely €80 million were STS (single, transparent and standardised) securitisations.

Gross fixed income issues registered with the CNMV

TABLE 9

					2020		
	2016	2017	2018	2019	I	II	III[1]
NOMINAL AMOUNT (millions of euros)	**139,028**	**109,487**	**101,296**	**90,161**	**20,203**	**35,840**	**20,731**
Covered bonds	31,643	29,824	26,575	22,933	6,250	10,100	1,160
Regional covered bonds	7,250	350	2,800	1,300	0	4,750	4,400
Non-convertible medium- and long-term bonds	40,170	30,006	35,836	29,602	6,159	1,885	373
Convertible/exchangeable medium- and long-term bonds	0	0	0	0	0	0	0
Asset-backed securities	35,505	29,415	18,145	18,741	3,066	5,060	8,193
Corporate commercial paper[2]	22,960	17,911	15,089	15,085	4,728	7,780	5,605
Asset-backed	1,880	1,800	240	0	0	0	0
Other commercial paper	21,080	16,111	14,849	15,085	4,728	7,780	5,605
Other fixed income issues	1,500	981	0	1,500	0	6,266	0
Preference shares	0	1,000	2,850	1,000	0	0	1,000
***Pro memoria*:**							
Subordinated issues	4,279	6,505	4,923	3,214	861	516	2,020
Guaranteed issues	421	0	0	0	0	0	0

					2020		
Issues carried out abroad by Spanish issuers	**2016**	**2017**	**2018**	**2019**	**I**	**II**	**III[1]**
NOMINAL AMOUNT (millions of euros)	**58,587**	**84,760**	**89,358**	**100,321**	**26,098**	**30,377**	**8,915**
Long term	31,655	61,095	38,425	53,234	14,384	16,579	3,733
Preference shares	1,200	5,844	2,000	3,070	1,500	0	350
Subordinated bonds	2,333	5,399	2,250	1,755	0	0	0
Medium- and long-term bonds	28,122	49,852	34,175	48,409	12,884	16,579	3,383
Asset-backed securities	0	0	0	0	0	0	0
Short term	26,932	23,665	50,933	47,087	11,714	13,798	5,182
Commercial paper	26,932	23,665	50,933	47,087	11,714	13,798	5,182
Asset-backed securities	0	0	0	0	0	0	0

***Pro memoria*: Gross issues by subsidiaries of Spanish companies resident in the rest of the world**

					2020		
	2016	2017	2018	2019	I	II	III[3]
NOMINAL AMOUNT (millions of euros)	**56,674**	**66,790**	**91,446**	**92,284**	**18,315**	**20,216**	**6,582**
Financial institutions	11,427	19,742	43,234	57,391	14,152	10,757	4,141
Non-financial companies	45,247	47,585	48,212	34,893	4,163	9,459	2,442

Source: CNMV and Bank of Spain.

1 Data until 30 September.

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

3 Data up to 31August.

Issues made on the MARF have fallen 11% so far this year, to €6.57 billion.

Issues made on the Alternative Fixed Income Market (MARF) stood at €1.93 billion in the third quarter, bringing the accumulated figure for the year to €6.57 trillion, 11% lower than between January and September 2019. Most of the issues in the third quarter corresponded to commercial paper issues (96% of the total amount) made by more than 30 companies, including El Corte Inglés, Sacyr and Gestamp.

Growth in issues made abroad slowed, and activity was concentrated in long-term issues.

Debt issues carried out by Spanish issuers abroad, which had increased by more than 7% during the first half, subsequently slowed, putting the aggregate amount up until August at €67.03 billion, 3.5% less than in the same period of the previous year. This decrease was based on the lower issues of medium- and long-term bonds, which went from €38 billion in 2019 to €35 billion in 2020. Issues of commercial paper rose by around 2% compared with the previous year, to over €32 billion. Debt issues made by subsidiaries of Spanish companies in the rest of the world fell by 24%, to €51 billion, of which just over one third corresponded to non-financial companies and the remainder to banks.

Trading in Spanish venues in the first nine months of the year decreased in SEND, but increased in the OTFs.

In regard to Spanish trading venues, trading on the Electronic Debt Negotiation System (SEND) dropped 6% in the first 9 months of the year, to €126.6 billion. 79.3% of this amount corresponded to Spanish public debt and 20.6% to foreign debt. Trading through the two organised trading facilities (OTFs) authorised by the CNMV at the beginning of 2018 – CAPI and CIMD – totalled €154.47 billion in the third quarter, of which almost €132 billion (more than 85%) corresponded to Spanish public debt. For the year to date, trading in these systems was €481.21 billion, almost 25% more than in the same period of 2019.

4 Market agents

4.1 Investment vehicles

Financial CIS

Investment funds

Investment fund assets decreased by 5.6% in the first half of 2020 due to the large redemptions in March (€5.5 billion), following the lockdown announcement in Spain and the decrease in the value of the portfolio.

The assets of the investment funds decreased by 5.6% during the first half of 2020, to €263.62 billion due to the difficulties experienced by the sector following the lockdown announcement in Spain in mid-March. The drop in fund assets was due both to the increase in net redemptions made by unitholders, in a context of great uncertainty, and the fall in value of the portfolio assets due to the instability of the financial markets. In regard to subscriptions and redemptions, it should be noted that the rise in net redemptions occurred only in the first quarter, particularly in the month of March, when they totalled around €5.5 billion (between January and February there had been positive net subscriptions of €3.5 billion). Approximately half

of these net redemptions affected fixed income funds.[40] The weighted average return of the funds was -4.26% throughout the six-month period, showing a different performance in the two quarters, in line with the performance of the financial markets. Thus in the first quarter of 2020, the return on investment funds was -9.3%, compared with 5.6% in the second.

Net investment funds subscriptions

TABLE 10

Millions of euros

					2019		2020	
	2017	2018	2019	1H2020	III	IV	I	II
Total investment funds	**21,325.0**	**7,841.8**	**2,467.5**	**-1,958.3**	**295.6**	**2,247.9**	**-2,103.9**	**145.6**
Fixed income[1]	-3,638.0	-2,766.0	10,732.6	-1,792.8	4,352.6	914.1	-3,186.6	1,393.8
Mixed fixed income[2]	2,890.5	-1,063.7	-1,506.1	3,388.8	-949.3	1,618.4	3,742.5	-353.7
Mixed equity[3]	5,498.6	2,485.9	3,288.8	418.0	-0.8	693.1	411.2	6.8
Euro equity[4]	2,549.7	1,848.7	-3,588.2	-1,202.8	-518.3	-466.0	-836.8	-366.0
International equity[5]	4,514.0	3,864.1	4,113.8	1,380.2	2,843.5	1,492.7	1,735.7	-355.5
Guaranteed fixed income	-3,262.6	-575.8	-282.6	-305.1	-126.2	-278.9	-261.3	-43.8
Guaranteed equity[6]	-309.5	-667.2	-1,857.0	-1,526.7	-745.2	-1,078.6	-1,313.7	-213.0
Global funds	13,405.9	9,448.9	-2,553.9	-828.1	-3,325.4	495.4	-574.7	-253.4
Passive management[7]	-4,585.0	-2,790.4	-3,026.8	-362.2	-780.1	-1,295.8	-1,099.7	737.5
Absolute return	4,287.3	-1,899.6	-2,852.9	-1,127.6	-454.9	153.5	-720.6	-407.0

Source: CNMV.

1 Until I-19 it includes the following categories (CNMV Circular 3/2011): euro fixed income, global fixed income, money market and short-term money market. From II-19 onwards it includes the following categories (Circular 1/2019): short-term public debt constant net asset value MMF, short-term low volatility net asset value MMF, short-term variable net asset value MMF, standard variable net asset value MMF, euro fixed income and short-term euro fixed income.

2 It includes euro mixed fixed income and international mixed fixed income.

3 It includes euro mixed equity and international mixed equity.

4 It includes euro equity.

5 It includes international equity.

6 It includes: guaranteed equity and partial guarantee.

7 Until I-19 it includes passively managed CIS (CNMV Circular 3/2011). From II-19 onwards it includes the following categories (Circular 1/2019): passively managed CIS, CIS that replicate an index and CIS with a specific non-guaranteed target return.

40 In this context, the main tasks undertaken by the CNMV related to the liquidity conditions of the assets in the funds' portfolios and the trends in redemptions in each entity, while remaining in constant contact with management companies to monitor the situation and remind them both of their obligations and of the liquidity management tools available. In this regard, the CNMV issued indications on the advisability in certain cases of valuing assets at the bid price or applying swing pricing schemes. As regards the macroprudential tools available, it is worth noting the inclusion, by virtue of Royal Decree-Law 11/2020, of 31 March, adopting urgent complementary measures in the social and economic area to deal with COVID-19, of a new tool consisting of the possibility of establishing prior notice periods for redemptions without these being subject to the requirements that are normally applicable regarding term, minimum amount and being provided for in the management regulations. These terms can be established by the manager or by the CNMV itself. For more details on the measures implemented by the CNMV for CIS during the crisis, see exhibit "Actions undertaken by the CNMV to address the COVID-19 crisis" published in the *CNMV Bulletin* for the first quarter of this year.

The categories with the highest redemptions were fixed income funds and guaranteed equity funds, while the highest subscriptions were in mixed fixed income funds and international equity funds.

A breakdown by category shows that fixed income funds saw the highest level of net redemptions in the six-month period (€1.79 billion), which were concentrated in the second half of March, as mentioned above. Table 10 shows how these funds attracted net subscriptions of almost €1.4 billion in the following months (April-June). Net redemptions were also relatively high in guaranteed equity funds in the six-month period, at €1.53 billion, but this trend was not a new trend as it had been observed for several years. Euro equity funds and global funds experienced net redemptions of €1.20 billion and €1.13 billion in the six-month period, with fund outflows in both quarters. In contrast, mixed fixed income funds recorded the highest net subscriptions (€3.39 billion in the six month period), following inflows of funds in this category of over €3.7 billion between January and March. International equity funds saw net subscriptions of €1.38 billion, due at least in part to the additions to this category (see Tables 10 and 11).

The fund portfolio posted negative returns in the first quarter and positive returns in the second for all categories. Categories with a higher equity component showed the worst performance.

The return on the fund portfolio in the first half of 2020 was negative in all categories except for guaranteed fixed income, with a return of 0.25%. Returns were negative in all categories in the first quarter and positive in the second. The pure equity categories registered the worst performance in the six-month period due to the falls in quoted prices experienced during the period: -19.94% in the euro equity category and -10.47% in global equities (-28.48% and -23.11% in the first quarter). Mixed fund categories marked a slightly less negative performance: -5.24% for mixed equity and -6.59% for global funds.

The number of funds declined further between January and June of this year to stand at 1,692, driven by the losses in guaranteed equity funds, passive management and global funds. In contrast, the number of international equity funds increased.

The number of funds continued to decline in the first half of the year, with 18 fewer institutions, to stand at 1,692. This marks the continuation of a trend that began in 2013, although the rate of decrease is currently slower. Guaranteed equity funds saw the largest fall, in line with the trend marked in recent years, with 10 fewer vehicles, followed by the passive management and global fund categories, which lost eight funds each. In contrast, the large numbers of subscriptions to international equity funds in recent years took place alongside an increase in the number of vehicles, with 12 new institutions.

Investment funds. Key figures*

TABLE 11

	2017	2018	2019	1H2020	2019 III	2019 IV	2020 I	2020 II
Total investment funds (number)	**1,741**	**1,725**	**1,710**	**1,692**	**1,723**	**1,710**	**1,697**	**1,692**
Fixed income[1]	290	279	281	283	283	281	283	283
Mixed fixed income[2]	155	168	173	175	171	173	173	175
Mixed equity[3]	176	184	185	186	186	185	187	186
Euro equity[4]	111	113	113	110	113	113	112	110
International equity[5]	211	236	263	275	257	263	272	275
Guaranteed fixed income	79	67	66	63	66	66	66	63
Guaranteed equity[6]	188	163	155	145	159	155	147	145
Global funds	225	242	255	247	252	255	254	247
Passive management[7]	202	172	133	125	148	133	119	125
Absolute return	104	99	84	81	86	84	82	81
Assets (millions of euros)								
Total investment funds	**265,194.8**	**259,095.0**	**279,377.4**	**263,619.4**	**273,100.7**	**279,377.4**	**250,126.3**	**263,619.4**
Fixed income[1]	70,563.9	66,889.3	78,583.2	76,179.4	77,871.1	78,583.2	73,475.8	76,179.4
Mixed fixed income[2]	43,407.0	40,471.0	40,819.9	42,581.8	38,959.2	40,819.9	41,312.7	42,581.8
Mixed equity[3]	22,386.7	23,256.0	28,775.8	27,511.7	27,613.4	28,775.8	25,829.7	27,511.7
Euro equity[4]	12,203.2	12,177.7	10,145.1	7,027.7	10,034.3	10,145.1	6,618.2	7,027.7
International equity[5]	24,064.6	24,404.9	34,078.9	31,757.0	30,447.0	34,078.9	27,636.0	31,757.0
Guaranteed fixed income	5,456.7	4,887.4	4,809.3	4,517.4	5,143.1	4,809.3	4,505.2	4,517.4
Guaranteed equity[6]	15,417.5	14,556.0	13,229.1	11,626.5	14,395.0	13,229.1	11,684.0	11,626.5
Global funds	35,511.5	42,137.2	43,041.9	39,071.8	41,702.5	43,041.9	37,120.7	39,071.8
Passive management[7]	19,477.8	16,138.6	14,073.8	13,054.6	15,355.0	14,073.8	11,708.7	13,054.6
Absolute return	16,705.9	14,172.5	11,818.3	10,289.6	11,577.6	11,818.3	10,233.0	10,289.6
Unitholders								
Total investment funds	**10,287,454**	**11,217,569**	**11,739,183**	**11,944,057**	**11,227,036**	**11,739,183**	**11,751,437**	**11,944,057**
Fixed income[1]	2,627,547	2,709,547	3,668,324	3,793,867	3,376,056	3,668,324	3,660,775	3,793,867
Mixed fixed income[2]	1,197,523	1,188,157	1,087,881	1,204,871	1,044,836	1,087,881	1,203,900	1,204,871
Mixed equity[3]	584,408	624,290	707,159	715,404	695,444	707,159	707,919	715,404
Euro equity[4]	710,928	831,115	598,901	500,778	553,832	598,901	532,060	500,778
International equity[5]	1,865,367	2,225,366	2,655,123	2,775,877	2,512,222	2,655,123	2,732,902	2,775,877
Guaranteed fixed income	190,075	165,913	154,980	145,787	161,392	154,980	148,317	145,787
Guaranteed equity[6]	527,533	494,660	428,470	383,372	461,897	428,470	391,235	383,372
Global funds	1,086,937	1,501,730	1,359,915	1,376,316	1,291,172	1,359,915	1,355,885	1,376,316
Passive management[7]	638,966	543,192	429,428	435,035	474,947	429,428	396,398	435,035
Absolute return	858,170	930,641	646,042	609,793	652,278	646,042	619,085	609,793
Return[8] (%)								
Total investment funds	**2.42**	**-4.89**	**7.12**	**-4.26**	**0.71**	**1.57**	**-9.30**	**5.56**
Fixed income[1]	-0.13	-1.44	1.38	-0.65	0.42	-0.26	-2.43	1.82
Mixed fixed income[2]	1.10	-4.27	4.75	-3.29	0.69	0.59	-6.97	3.96
Mixed equity[3]	3.23	-6.45	9.25	-5.24	0.97	1.68	-11.06	6.54
Euro equity[4]	11.16	-13.01	14.27	-19.94	-1.13	5.95	-28.48	11.94
International equity[5]	8.75	-12.34	22.18	-10.48	1.37	6.91	-23.11	16.43
Guaranteed fixed income	0.72	0.09	3.98	0.25	1.39	-1.07	-0.94	1.20
Guaranteed equity[6]	1.61	-1.33	3.62	-0.54	1.42	-0.63	-1.86	1.35
Global funds	4.46	-5.69	8.45	-6.59	0.77	2.04	-12.00	6.15
Passive management[7]	2.13	-3.16	7.45	-4.26	0.96	1.28	-9.29	5.54
Absolute return	1.44	-4.81	3.94	-3.19	0.35	0.75	-7.50	4.66

Source: CNMV. * Information on funds that have submitted confidential statements (does not therefore include funds in the process of dissolution or liquidation).

1 Until I-19 it includes the following categories (CNMV Circular 3/2011): euro fixed income, global fixed income, money market and short-term money market. From II-19 onwards it includes the following categories (Circular 1/2019): short-term public debt constant net asset value MMF, short-term low volatility net asset value MMF, short-term variable net asset value MMF, standard variable net asset value MMF, euro fixed income and short-term euro fixed income.

2 It includes euro mixed fixed income and global mixed fixed income.

3 It includes euro mixed equity and global mixed equity.

4 It includes: euro equity.

5 It includes: global equities.

6 It includes: guaranteed equity and partial guarantee.

7 Until I-19 it includes passively managed CIS (CNMV Circular 3/2011). From II-19 onwards it includes the following categories (Circular 1/2019): passively managed CIS, CIS that replicate an index and CIS with a specific non-guaranteed target return.

8 Annual return for 2017, 2018 and 2019. Quarterly return not annualised for quarterly data.

The number of unitholders exceeded 11.9 million at the end of the six-month period, increasing particularly in the categories in which the number of funds increased.

Unlike the trend in assets and the number of funds, the number of unitholders grew by 1.7% between January and June, making a total of 11.9 million at the end of the six-month period. It should be noted that the same unitholder is counted for each contract held in different funds, so that the registered increase could be partially explained by diversification into a greater number of funds. The fixed income and international equity fund categories saw the largest increases in unitholders (125,000 and 121,000, respectively), followed by mixed fixed income funds, with 117,000 more unitholders, in all cases in line with the increase in the number of funds. In contrast, the number of unitholders in the euro equity, absolute return and guaranteed equity fund categories decreased (by 98,000, 36,000 and 54,000, respectively).

In July 2020, assets and the number of unitholders both increased, while the number of funds decreased by 24.

According to provisional data for July, the main figures for investment funds are slightly positive, continuing the recovery observed in the second quarter. Investment fund assets grew by 0.58% to over €265 billion at the end of July and the number of unitholders rose by 2.24%, to stand at 12.21 million. Meanwhile, the number of funds fell substantially, with 24 fewer vehicles.

The percentage of assets with reduced liquidity in the private fixed income portfolios of investment funds fell significantly during the first half of 2020, reaching their lowest levels of recent years…
… with decreases in all fixed income asset categories.

In terms of liquidity conditions, the weight of assets with reduced liquidity, which had fluctuated between 7% and 9% of the private fixed income portfolio of investment funds for several years, decreased in June to 5.1% of the portfolio. At the end of the first half of the year, the total volume of assets considered to be of reduced liquidity was €2.79 billion, representing 1.1% of total assets under management.

Looking at the different categories of fixed income assets, a slight decrease in the weight of assets with reduced liquidity can be observed across the board in the whole six-month period (see Table 12). The largest decline in the weight of assets with reduced liquidity took place in the category of fixed income assets rated below AA, in absolute terms (€666 million from December 2019 to June 2020), falling from 6.7% of the portfolio of these assets to 4.3%. The securitisation category continued to account for the largest share of assets with reduced liquidity, although it also declined to 63.9%. These assets, however, have very little weight in fund portfolios.

Estimated liquidity of IF assets

TABLE 12

	Reduced liquidity investments[1]					
	Millions of euros			% of total volume of asset type		
Asset type	Dec-19	Mar-20	Jun-20	Dec-19	Mar-20	Jun-20
Financial fixed income with AAA/AA rating	72	11	6	5.6	1.2	0.6
Financial fixed income with a rating below AA	1,844	1,395	1,178	6.7	5.3	4.3
Non-financial fixed income	1,339	1,115	1,146	6.2	5.1	4.5
Securitisations (asset-backed securities)	630	483	455	75.1	66.0	63.6
AAA securitisations	14	13	140	35.6	34.3	83.9
Other securitisations	616	470	315	77.0	67.7	57.4
Total	**3,885**	**3,003**	**2,785**	**7.6**	**6.0**	**5.1**
% of IF assets	**1.39**	**1.20**	**1.06**	–	–	–

Source: CNMV.

1 Reduced liquidity assets are considered to be private sector fixed income assets with a maturity greater than one year for which there is no representative number of intermediaries willing to buy and sell them with a normal market spread.

Open-ended collective investment schemes (SICAV)

As in the last four years, the number of SICAVs registered with the CNMV decreased in the first half of 2020, with 52 deregistrations in the six month period and only one registration. Thus at the end of June there were a total of 2,518 registered SICAVs compared with 2,569 in December 2019 and 3,368 in 2016. Most of the deregistrations (37) were the result of liquidation processes, six were absorbed in merger processes, one was withdrawn and eight were transformed into other types of entities, six into S.Ls (private limited liability companies) and two into S.As (public limited companies). The decrease in the number of entities was also reflected in the number of shareholders, which dropped by 3.3% to 385,359. Virtually all SICAVs (over 99% of the total), were listed on the Alternative Stock Market (MAB).

The number of SICAVs registered with the CNMV declined further between January and June 2020, with 52 deregistrations and only one registration, to stand at 2,518…

The assets of these CIS reduced by 8.9%, from €28.79 billion at year-end 2019 to €26.23 billion at the end of June 2020. 2.7 pp of the decrease was due to share buybacks made by SICAVs themselves and by the SICAVs that had been deregistered, while most of it, the remaining 6.2 pp, was due to the negative performance of the vehicles, which tracked the performance of the financial markets. Average assets per SICAV decreased from €11.2 million in 2019 to €10.4 million in the first half of 2020.

… which, together with their weaker performance, led to a decrease in assets of 8.9%.

Hedge funds

Hedge funds continue to have a very low weight in collective investment in Spain as they account for less than 1% of total assets. This collective investment segment consists of two types of vehicles, depending on whether they invest in assets directly (hedge funds) or through other hedge funds (funds of hedge funds). In both cases, the vehicles can be set up as funds or as companies.

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

Aggregate assets of these institutions declined by 4.1% during the first five months of the year, to stand at €3.26 billion at the end of May. Hedge funds saw a decrease of 4.7%, to €2.7 billion, while funds of hedge funds marked a much smaller decline, with assets down by just over €7 million to stand at €460 million.

… saw a 4.1% decrease in assets between January and May, mainly in the pure hedge fund segment.

Trends in portfolio returns were in line with the performance of the markets, especially the equity markets, and were positive for all categories: while hedge funds posted a return of -8.2% to May, funds of hedge funds showed a return of -1.1%. As in investment funds, the better performance in the second quarter of the year (April and May in this case) did not offset the larger losses seen in the first 3 months.

Trends in portfolio returns were negative, in line with the fall in the prices of equity assets.

The total number of these vehicles registered with the CNMV in June 2020 was 72, three more than at the end of 2019. Table 13 reflects how this increase occurred in hedge funds (from 62 to 65, with five registrations and two deregistrations – all hedge funds), while funds of hedge funds remained unchanged at seven (constant since 2018). Of the latter, six have the legal form of a fund (three of which have been in liquidation for more than four years), and one is set up as a corporate enterprise. In May, this company had equity of €271.1 million, an amount similar to that of all six funds of hedge funds.

The number of entities at the end of June was 72, three more than in December 2019, with five registrations and two deregistrations of pure hedge funds. There were no movements in the other entities.

The number of unitholders and shareholders increased by 4.8% (due to registrations in the pure hedge funds category).

Despite the decrease in assets, the total number of unitholders and shareholders of these institutions increased by 4.8% in the first five months of 2020, with a total of 10,910 at the end of May. This increase was seen entirely in the hedge funds sub-segment, which marked a rise of 6.7%, to 8,053, since in the funds of hedge funds segment there was virtually no movement, ending May with 2,857 unitholders (2 fewer than in December). These movements are almost completely due to the three registrations (net) in the hedge funds segment.

Key figures of hedge funds and funds of hedge funds TABLE 13

				2019			2020	
	2017	2018	2019	1H2020	III	IV	I	II[1]
FUNDS OF HEDGE FUNDS								
Number	8	7	7	7	7	7	7	7
Unitholders	3,596	2,804	2,859	2,857	2,861	2,859	2,855	2,857
Assets (millions of euros)	468.7	468.8	565.9	559.9	562.4	566.7	546.8	559.9
Return (%)	-1.66	-1.28	5.07	-1.10	1.10	0.83	-3.49	2.48
HEDGE FUNDS								
Number	47	49	62	65	58	62	62	65
Unitholders	3,656	4,444	7,548	8,053	6,451	7,548	8,025	8,053
Assets (millions of euros)	2,298.2	2,262.2	2,832.4	2,700.1	2,467.1	2,832.4	2,523.3	2,700.1
Return (%)	7.84	-6.47	10.35	-8.23	0.22	3.94	-13.75	6.40

Source: CNMV.

1 Data until May, except the number of entities which is until June.

Real estate CIS

Despite the improvement of the construction and real estate sector, the figures for real estate CIS continued to decline due to the transfer of business to SOCIMIs.

The construction and real estate sectors were two of the most affected by the financial crisis that began in 2008, which caused real estate collective investment schemes to decline steadily and significantly. However, despite the improvement seen in this sector since 2015, the key figures for real estate CIS continued to perform negatively. One of the main reasons is that real estate investment in Spain is being channelled mainly through SOCIMIs[41] (listed real estate investment companies, similar to REITs). These entities are listed in a specific segment of the BME Growth market (formerly MAB), which has been extremely buoyant throughout the last three or four years, and appears to be stabilising: at the end of June there were a total of 77 registered SOCIMIs, the same figure as at the end of 2019.

Real estate investment funds have marked the worst performance, with only two left since 2018, both of which are in the process of liquidation.

In contrast, real estate investment funds have seen large numbers of redemptions in recent years, leading them to start liquidation processes, with their consequent deregistration in most cases. Thus, from a high of ten real estate investment funds in mid-2007, with assets of around €9 billion, these had declined to just two (both in the process of liquidation) at the end of 2018, which were still registered in the

41 SOCIMIs are listed public companies whose corporate object, like that of real estate funds and companies, is either investment in real estate for subsequent lease or indirect investment through the purchase of shares or equity stakes in other SOCIMIs or similar foreign entities (REITs).

CNMV in mid-2020, with figures remaining very stable since then. At 30 June 2020, these two funds had assets of €310 million and 483 unitholders.

Unlike real estate investment funds, real estate investment companies saw a rise in assets in the first six months of 2020, as they had in previous years, of 17.3%, to €897.2 million, although this volume is not significant for Spanish CIS a whole. Around two thirds of this increase was due to the positive returns obtained during the period,[42] while the remaining third was due to net subscriptions made by unitholders. There were still three real estate investment companies in the first half of this year, one of which was in the process of liquidation.

However, real estate investment companies also saw a significant rise in assets (17.3%), although this volume is not significant for Spanish CIS a whole.

Foreign CIS marketed in Spain

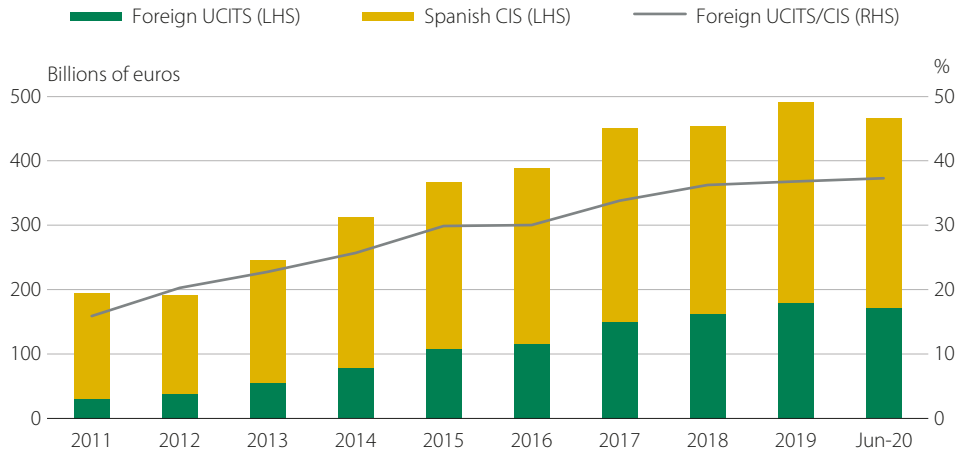
The volume of foreign CIS marketed in Spain dropped slightly between January and June this year, for the first time since these vehicles were first registered with the CNMV. Between 2008 and 2019 they increased tenfold, from €18 billion to nearly €180 billion. However, falls took place only in the first quarter of the year, when assets decreased by 6.2%, and part of this loss was recovered in the second quarter, with a rise 2.4%, to stand at €171.88 billion. This decline in the first 3 months was partly the consequence of the poor performance of the financial markets, especially the equity markets.

Assets of foreign CIS fell by 3.9% in the first half of the year, after several years of uninterrupted growth…

As shown in Figure 20, the strong growth rate marked in recent years led to a sharp increase in the weight of foreign CIS in total CIS marketed in Spain, moving from around 10% at the beginning of the financial crisis to over 36% in 2019. In the early months of 2020, despite the drop in investment volumes, this percentage increased slightly to 36.9%, as the drop in the assets of Spanish CIS was larger than in those of foreign CIS.

… although in percentage terms there was a slight increase in the weight of these institutions as a portion of total assets of CIS marketed in Spain, to 36.9%.

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



Source: CNMV.

1 With the entry into force of CNMV Circular 2/2017, of 25 October, the number of entities required to submit statistical information has increased and therefore the data may not be comparable with the information published up to December 2017.

42 More than half of the gains on the portfolios of real estate investment companies was due the returns of a single entity, which were obtained mainly from the share premium in a capital increase.

The number of foreign CIS registered with the CNMV increased by nine in January-June 2020, to a total of 1,042 vehicles (402 funds and 633 companies).

In line with the trend of recent years, the number of foreign CIS registered with the CNMV grew by nine in the first half of 2020, to close the period with a total of 1,042 undertakings of this type (402 funds and 633 companies). This increase occurred both in investment companies, with six more institutions, and funds, with three more, after the latter had fallen significantly in 2019 (30 fewer). By country of origin, as in previous years, most of the registrations corresponded to vehicles from Luxembourg, with seven more, up to 469, while in other jurisdictions there was hardly any movement.

Outlook

Although figures for CIS have stabilised and are even showing some growth, after the tensions in March, the medium-term outlook is uncertain.

Although most recent available data appear to indicate that the collective investment industry has stabilised since the turbulence experienced in March, and some of its key figures show growth, it is reasonable to assume that the short- and medium-term outlook will be somewhat uncertain. This is due to not knowing how the pandemic will develop, whether the continuously changing measures being implemented will work, and ultimately its impact on the real economy. Further economic slowdown could translate into a need for liquidity among the more financially vulnerable households, with the consequent divestment of assets, including investment funds. Precautionary saving among households is also increasing: in the second quarter of the year the rate of saving stood at 31.1% of gross disposable income and at 11.2% on an annualised basis, which could prompt further acquisitions of financial assets. The net balance of the two effects is difficult to forecast at this time.

4.2 Provision of investment services

The provision of investment services can be carried out by various types of entities, mainly credit institutions, which receive almost 90% of the income generated by this business.

Credit institutions are the main providers of investment services and they are where most of the income generated by this activity is concentrated. Based on data from year-end 2019, credit institutions receive around 90% of their total fees from the provision of investment services. This percentage has increased in recent years partly as a result of the absorption by several banking entities of broker-dealers and brokers that belonged to the same banking group.

Broker-dealers and brokers are second in the ranking, followed by financial advisory firms and portfolio management companies, that perform specific services.

Broker-dealers and brokers still account for a fairly substantial weight, especially in the transmission and execution of orders, which, as described later in this section, represent more than 90% of their fee income, even though they offer a wide range of services. In addition to these entities, financial advisory firms and portfolio management companies (EAF and SGC in the respective Spanish abbreviations) provide specific investment services.

The CNMV supervises broker-dealers and brokers, financial advisory firms and portfolio management companies. For credit institutions authorised to provide investment services, the CNMV only supervises their compliance with the rules of conduct.

Entities in this sector, the prudential and regulatory supervision of which is carried out by the CNMV, are broker-dealers and brokers, portfolio management companies and financial advisory firms. For credit institutions that are authorised to provide investment services, the CNMV also performs supervisory work regarding compliance with the rules of conduct in the market and in relation to clients. In this section we look closely at the performance of the activity in the sector and the economic and financial situation of the entities. As different entities report information to the CNMV at different times, in the reports for the first quarter of the year, which

contain data from the end of the previous year, an analysis of all institutions is made,[43] while reports for the third quarter assess the performance of broker-dealers and brokers in the first half of the year. Therefore, this document presents the results of broker-dealers and brokers for January-June 2020.

It should be noted that in 2019, there were 112 credit institutions registered with the CNMV to provide investment services. Likewise, the aggregate fees received for the provision of securities services and marketing of CIS stood at €3.81 billion (2.1% less than in 2018), of which €1.58 billion corresponded to the provision of investment services, a rise of 4.8% compared with the previous year. The financial advisory firms sector saw a contraction in 2019, due to the decrease in the number of companies, which went from 158 to 140 in one year, and to the 32.4% fall in the volume of assets under advisory services, to stand at €21.39 billion. This asset management service resulted in fee income of €56 million.

In 2019, credit institutions authorised by the CNMV received fees of €3.81 billion for the provision of securities services and the marketing of CIS, 2.1% less than in 2018.

As explained in the report published in the first half, the information usually submitted on the provision of investment services in Spain will vary according to the type of entity providing the service. However, from a less formal point of view (according to the business model), based on 2019 figures it is estimated that just over 70% of the business relating to the provision of investment services in Spain (including the management of CIS and measured through fee income) is performed by traditional commercial banks or their group companies, while the remainder is performed by financial institutions specialising in the provision of investment services and with no links to the commercial banks.

An analysis of the entities that provide investment services according to their business model reveals that 70% of the income related to this activity is received by traditional commercial banks or their group companies.

Broker-dealers and brokers

In the first half of 2020, the activity of broker-dealers and brokers increased significantly, apparently bucking the downward trend seen in recent years which was due both to increasing competition from credit institutions in the provision of financial services and to the loss of part of the trading of Spanish stock exchanges to other trading venues abroad. Aggregate profit before tax came to around €110 million in the first six months of 2020 compared with just over €24.6 million in the same period of the previous year. However, two factors must be taken into account in assessing this significant increase. Firstly, these are profits for the first half of the year only, so it would be necessary to wait for full year figures to confirm whether there is a change in trend, or whether on the contrary the results are due to one-off factors associated, for instance, with the pandemic. Secondly, the results are influenced by the strong performance of one broker-dealer which transferred part of its business (mainly processing and execution of customer orders) to Spain because of Brexit.

In the first half of 2020, broker-dealers and brokers saw an increase in activity: aggregate profit before tax came to €110 million, four times the figure obtained in the same period of 2019.

Profit increased only in broker-dealers, while brokers went from reporting an aggregate profit in the first half of 2019 to losses in the same period of 2020. More than half of this loss was due to a single entity, Esfera Capital, Agencia de Valores, S.A., which the CNMV decided to place in administration ("intervención") in March, after the entity itself reported an equity mismatch deriving from an incident related to

Performance was uneven among entities, with broker-dealers seeing increased profits, while brokers reported falls.

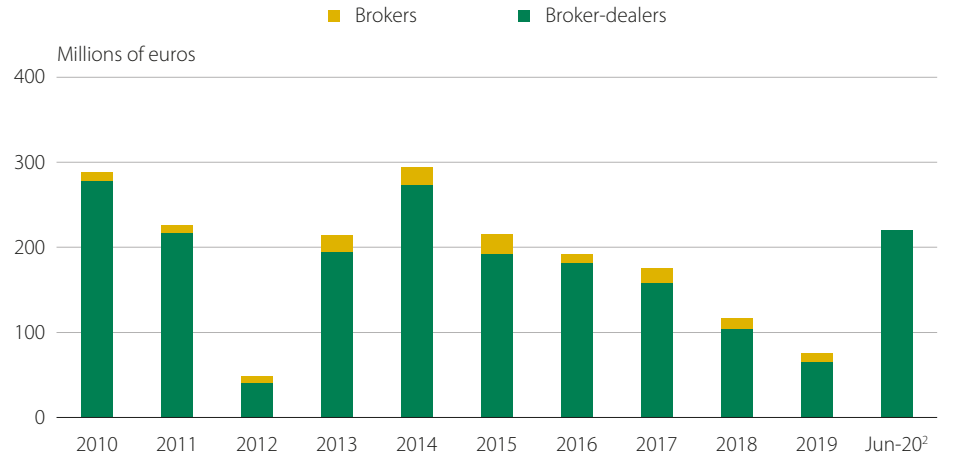
43 There is no sub-heading for portfolio companies, a sub-sector that currently has only one registered, as this segment is insignificant compared with the others.

the management of the derivatives positions of a small number of clients. The entity is currently in the process of liquidation.

At the end of June, a total of 93 broker-dealers and brokers were registered with the CNMV, two fewer than at the end of 2019.

At the end of June 2020, a total of 93 broker-dealers and brokers were registered with the CNMV, two fewer than at the end of 2019, following four registrations and six deregistrations. Two of the registrations corresponded to the creation of new entities (a broker-dealer and a broker), and the other two were entities created following the transformation of another type of vehicle.[44] Four of the six deregistrations were due to absorption by a bank that was already the sole shareholder of the entity (in all cases). After the lengthy and far-reaching adjustment process that began with the financial crisis was interrupted in 2019, another adjustment process deriving from the current crisis cannot be ruled out.

Aggregate profit (loss) of investment firms before tax[1] FIGURE 21



Source: CNMV.

1 Except financial advisory firms and portfolio management companies.

2 Annualised data.

Most Spanish entities that provide services in the rest of the European Union do so under the freedom to provide services regime (50) and only 6 operate through branches.

As in previous years, the number of foreign entities that provide investment services in Spain grew in the first six months of 2020, both under the freedom to provide services regime, which increased from 3,020 to 3,036, and through branches, from 65 to 66 (about half of these were based in the United Kingdom). Further, and as usual, most Spanish entities that provided services in the rest of the European Union did so under the freedom to provide services regime, specifically 50, and only 6 maintained branches in other countries, in both cases the same figure as at year-end 2019.

Broker-dealers reported a significant increase in profits to €110 million driven in particular by income from financial investments and fees received.

As seen in Table 14, broker-dealers saw an increase in aggregate profit before tax of nearly €97 million, to €110 million, in the first half of the year. As mentioned above, this was largely due to the contribution of one single entity, although several companies reported strong profit growth. In fact, around 60% of the entities belonging to this sector reported an increase in profits. In aggregate terms, all items contributed to this performance, but more particularly financial investments, which grew by more

44 Specifically, one entity that had previously been a financial advisory firm was registered as a broker and one broker changed its legal status to that of broker-dealer.

than 300% to over €70 million, and net fees, which amounted to over €140 million, €22 million more than in January-June 2019. The rise in net fees was due to the greater increase in fees received (€62 million) than in fees paid (€40 million; see Table 14).

Within revenues from the provision of services to third parties, fees for processing and executing orders accounted for most of the increase, growing by 83.2% compared with the first half of 2019, to over €120 million. Most of this increase was due to the contribution of the company referred to above which transferred part of its activity to Spain because of Brexit. Without the contribution of this company, fees would also have increased, albeit much more moderately (18.3%). Fees received from all other activities registered decreases, of varying degrees, with the drop in fees for investment advisory services standing out (down by 63%, after posting strong growth in 2019, when they doubled). Fees paid increased substantially, specifically by 60.9%, to €106 million.

Fees for processing and executing orders drove the overall increase, growing by 83.2% to €120 million.

Aggregate profit and loss account (Jun-20)

TABLE 14

Thousands of euros

	Broker-dealers			Brokers		
	Jun-19	Jun-20	% change	Jun-19	Jun-20	% change
1. Net interest income	12,446	12,589	1.1	609	551	-9.5
2. Net fees	118,404	140,318	18.5	58,008	65,697	13.3
2.1. Fees received	184,559	246,775	33.7	66,889	75,912	13.5
2.1.1. Processing and execution of orders	65,962	120,852	83.2	11,788	14,004	18.8
2.1.2. Issue placement and underwriting	2,153	1,270	-41.0	208	1,172	463.5
2.1.3. Deposit and book-entry of securities	22,946	21,646	-5.7	421	417	-1.0
2.1.4. Portfolio management	6,163	5,513	-10.5	6,462	6,648	2.9
2.1.5. Investment advice	7,599	2,809	-63.0	6,738	10,948	62.5
2.1.6. Search and placement of packages	16	358	2,137.5	0	0	-
2.1.7. Market credit transactions	0	0	-	0	0	-
2.1.8. Marketing of CIS	27,276	24,390	-10.6	29,171	29,299	0.4
2.1.9. Other	52,444	69,936	33.4	12,102	13,423	10.9
2.2. Fees paid	66,155	106,457	60.9	8,881	10,215	15.0
3. Gains/(losses) on financial investments	17,277	70,866	310.2	738	-6,788	-
4. Net exchange differences	-79	8,055	-	25	-13	-
5. Other operating income and expense	15,570	43,893	181.9	266	-403	-
GROSS MARGIN	**163,618**	**275,721**	**68.5**	**59,646**	**59,044**	**-1.0**
6. Operating expenses	144,913	163,336	12.7	52,294	61,153	16.9
7. Depreciation, amortisation and other charges	2,239	5,116	128.5	309	1,490	382.2
8. Net losses due to impairment of financial assets	248	-468	-	-28	4	-
OPERATING PROFIT/(LOSS)	**16,219**	**107,737**	**564.3**	**7,071**	**-3,604**	**-**
9. Other gains and losses	1,038	2,315	123.0	343	3,467	910.8
PROFIT/(LOSS) BEFORE TAX	**17,257**	**110,052**	**537.7**	**7,414**	**-137**	**-**
10. Income tax	-922	13,523	-	1,010	1,410	39.6
PROFIT/(LOSS) FROM CONTINUING OPERATIONS	**18,179**	**96,529**	**431.0**	**6,404**	**-1,547**	**-**
11. Profit/(loss) from discontinued operations	0	0	-	0	0	-
NET PROFIT/(LOSS) FOR THE YEAR	**18,179**	**96,529**	**431.0**	**6,404**	**-1,547**	**-**

Source: CNMV.

As in previous years, a small number of companies generated most of the profits in this sector.

On the other hand, broker-dealers' operating expenses increased by 12.7%, with the two sub-headings of this item both growing, particularly personnel expenses, which increased by 15.3%. The lower increase in expenses compared with revenues led to a significant rise in operating income, which grew fivefold from €16.2 million in the first half of 2019 to €107.7 million in the same period of 2020. Profit before tax rose by a similar percentage to €110 million due to "other income" of €2.3 million. As in recent years, a small number of companies generated most of the profits in this sub-sector, a trend that has also been increasing. Specifically, only two broker-dealers accounted for 43.5% of the total profits of companies reporting a profit, while four accounted for 68.5%.

Brokers, which cannot carry out investment activities on their own account, and which in recent years have tended to specialise in investment services other than processing and executing orders…

Broker-dealers receive income mainly from the provision of services to third parties, since they cannot carry out investment activities on their own account. Some brokers derive the bulk of their income from order processing and execution, a percentage that has reduced over the years, but most of them have tended to specialise in certain services such as marketing CIS or portfolio management. Independent entities predominate in this sub-sector (52 out of a total of 55, two more than in December 2019).

… posted profit before tax of €5.9 million, 21% less than in the first half of 2019 (excluding one entity in the process of liquidation).

Brokers' aggregate pre-tax profits fell into negative territory, to a total of €0.13 million. The deterioration was almost entirely due to one broker, Esfera Capital, Agencia de Valores, SA., which recorded losses of €6 million and which, as already mentioned, is in the process of liquidation. Excluding this entity, profit would still have decreased by 21.0%, but there would have been a profit before tax of €5.9 million. This decline of around €1.5 million was due to the rise in costs exceeding the increase in income.

Fee income increased as a whole by 14.2%, to €75 million.

Due to the potential distortion caused by the entity in the process of liquidation, its figures have been excluded in the analysis of the profit and loss account. Under fee income, which grew by 14.2% overall to more than €75 million, the most notable increases were in income from the processing and execution of orders (23.6%) and from fees for investment advice (62.5%), although admittedly the latter had fallen significantly in 2019. The remaining fee categories did not show large variations: fees from the marketing of CIS, for example, the largest category, hardly grew at all (0.4%).

The higher increase in operating expenses compared with fee income brought the net operating profit down to €2.5 million.

The increase in brokers' fee income occurred in parallel with the rise in fees paid to third parties, which grew by 15.3%. As a consequence of the performance of fee income, the aggregate gross margin increased by 9.6% to €64.8 million. Meanwhile, operating expenses increased by 17.3% compared with the same period in 2019, with personnel expenses up by 20.3%. The combination of lower income growth compared with the increase in operating expenses brought net operating profit to €2.5 million, a decrease of almost €4.5 million compared with January-June 2019.

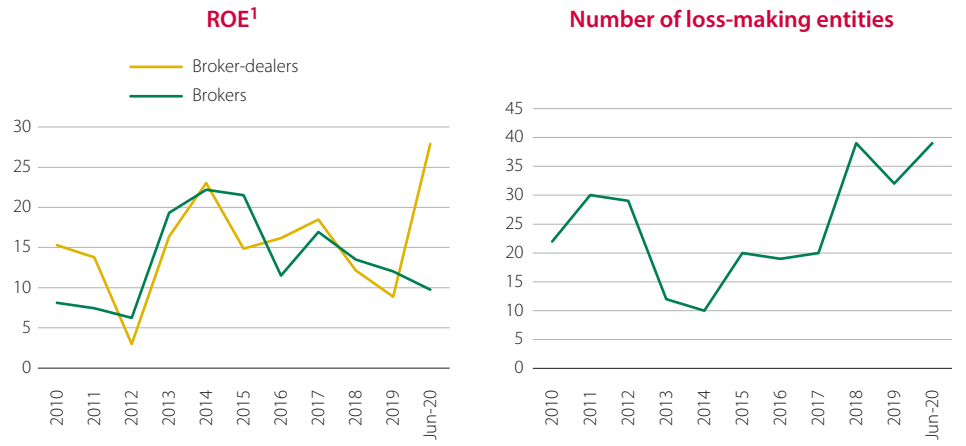
The higher profits reported by investment firms led to a notable rise in ROE.

The pre-tax return on equity (ROE) of the sector marked a substantial increase during the first half of the year, from 9.2% to 25.5%, driven by the strong earnings trend. As occurred with profits, the increase in ROE applied only to broker-dealers (up almost 20 pp, to 27.9%). Brokers saw a decline in ROE from 12.1% to 9.8%[45] (see left hand panel of Figure 22).

45 Excluding the entity in the process of liquidation.

ROE before tax of investment firms and number of loss-making entities

FIGURE 22



Source: CNMV.

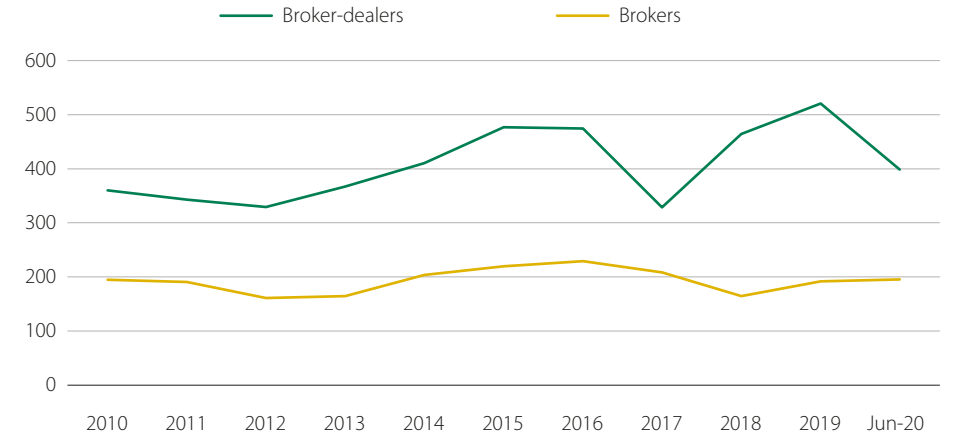
1 ROE calculated using profit before tax.

The increase in the sector's profits did not prevent a decrease in the number of loss-making entities. In June 2020, 15 broker-dealers and 24 brokers reported negative pre-tax earnings, two and five more, respectively, than at the end of 2019. Accumulated losses practically halved for broker-dealers, to €12.8 million, and tripled for brokers, to €14.2 million. As a reminder, one single broker posted losses of €6 million.

The increase in sector profits was accompanied by a rise in the number of loss-making entities, although the volume of losses reported by broker-dealers was halved.

Capital adequacy of investment firms (capital surplus vs requirements)

FIGURE 23



Source: CNMV.

The sector as a whole continued to exhibit high relative solvency levels in the first half of 2020, despite the substantial fall seen from the end of the previous year: at the end of June the capital surplus was 3.8 times higher than the capital requirement compared with 4.9 at the end of 2019. In absolute terms, this buffer is too small to be significant. This margin was higher in broker-dealers than in brokers, as for the former the aggregate capital surplus was around 4.0 (5.2 in 2019), while for the latter it remained at 1.9, a value similar to the figure seen six months earlier (see Figure 23).

Solvency levels in the sector remained high in the first half of 2020 and higher for broker-dealers than brokers.

Outlook

The medium-term outlook for financial intermediaries is more uncertain in the context of the crisis triggered by the coronavirus, which could lead to a new restructuring process in the sector.

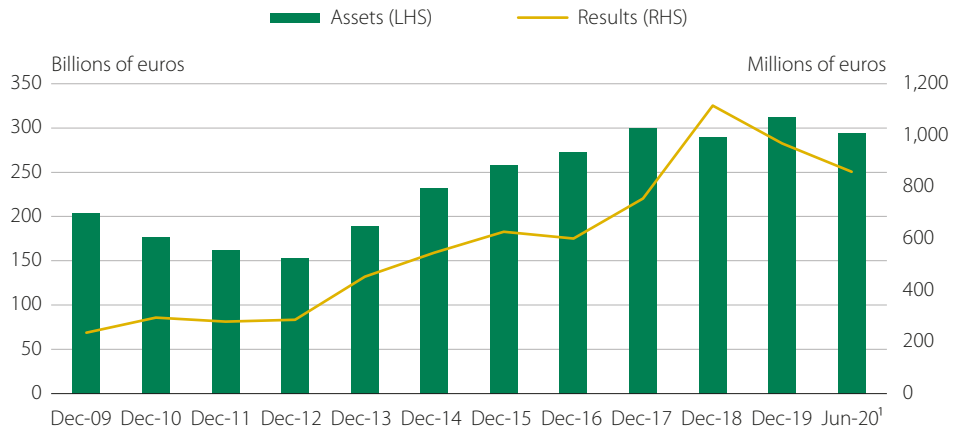
The outlook for non-bank financial intermediaries has been uncertain for several years due to two main factors. Firstly, there has been an increase in competition in the provision of investment services, which has led to a change in the business model of dealer-brokers and brokers, in that their main traditional business, intermediation in the securities markets, tends to have less and less weight, while marketing and management activities, and advisory services to third parties, are increasingly important. Secondly, the shift of some of the trading in Spanish securities to non-traditional trading venues has also influenced this reduction in fees from processing and executing orders. In addition to these factors, the crisis triggered by the coronavirus has raised even greater uncertainty for the sector in recent months. For the time being, based on first-half earnings, it would not appear that the situation of these entities has worsened, and in some cases and business segments it could even have had a favourable impact. However, it remains to be seen whether the crisis will lead to a restructuring process as occurred after the previous financial crisis, which resulted in a notable decrease in the number of entities.

4.3 CIS management companies

The number of CIS management companies remained largely unchanged in the first six months of the year, with one registration, while assets under management fell by 5.9%, to €294 billion.

At the end of the first half of 2020, there were a total of 124 CIS management companies registered with the CNMV, one more than at the end of 2019, after one registration and no deregistrations during the period. This 3-year upward trend has enabled the sector to return to figures seen prior to the restructuring process which lasted several years. The assets managed by these companies closed June with a decrease of 5.9%, to stand slightly below €294 billion, after a year of substantial growth (see Figure 24). Around 85% of this decrease originated in the transferable securities investment fund segment, where assets, as we have already seen, were negatively affected by the redemptions made in March and impairment of the investment portfolio.

CIS management companies: assets under management and profit before tax FIGURE 24



Source: CNMV.

1 Annualised data.

In line with the decrease in assets managed by these institutions, their aggregate profit before tax fell by 7.2% in the first half of the year compared with the same period in 2019, to €434.9 million (see Figure 24). This decline was due mainly to the fall in the main source of income of CIS management companies, namely CIS management fees, which in June accounted for 87% of total fees received by these entities. Income from these fees fell from €2.55 billion in the first half of 2019 to €2.44 billion in the same period of 2020 (in annualised terms), mainly due to the reduction in assets under management as the average CIS management fee was virtually unchanged (moving from 0.84% to 0.83%, see Table 15).

Profit of these entities fell by 7.2% in the first half of 2020 compared with the same period of the previous year, with CIS management fees – the main component – dropping to €2.44 billion.

Discretionary portfolio management and venture capital firm management are the next most important activities in generating revenue for CISMCs. In both cases, the fees received from these activities grew strongly, although they remain largely insignificant in relation to total fees received by these entities (6.9% and 2.2%, respectively). In the first half of 2020, portfolio management fees increased by 7.4%, to €97.8 million, while management fees received from venture capital entities were up by 29.5%, to €32.2 million.

Portfolio management and venture capital firms, which are the next most important activities in generating revenue for CIS management companies, grew strongly.

As shown in Table 15, the ratio between fee expenses for marketing funds and fee income from CIS management activities has remained stable in the last two years, after falling slightly for several years until 2017, and dropping very sharply in 2018. The drop in 2018 was the result of the entry into force of the MiFID II regulation, which imposes strict conditions on kickbacks of fees from the manager to the marketer, which are also subject to strict transparency requirements. The percentage of fees rebated to marketers fell from 64.6% of CIS management fees in 2012 to 50.9% in June 2020.

The percentage of CIS management fees rebated to marketers remained stable in the first half of the year, following a significant reduction in recent years, a trend that was accentuated after the entry into force of MiFID II.

The decline in aggregate profits was reflected in the aggregate return on equity (ROE), which fell from 88.0% in June 2019 to 79.4% in the same month of 2020. The number of loss-making companies increased from 26 to 37 and the volume of these losses went from €4.4 million to €5.6 million.

In line with the reduction in profits, return on equity (ROE) decreased to 79.4% and the number of loss-making entities increased to 37.

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

TABLE 15

Millions of euros

	Assets under management	Revenue from CIS management fees	Average CIS management fee (%)	Fee ratio (%)[1]
2012	152,959	1,416	0.93	64.62
2013	189,433	1,594	0.84	61.94
2014	232,232	2,004	0.85	61.80
2015	258,201	2,442	0.95	63.68
2016	272,906	2,347	0.86	61.67
2017	299,974	2,647	0.88	58.68
2018	290,364	2,649	0.91	51.24
2019	312,235	2,638	0.84	49.75
Jun-20[2]	293,968	2,441	0.83	50.95

Source: CNMV.

1 Ratio of fees paid for the marketing of funds to revenue from CIS management fees.

2 The data on fee income and the average management fee are annualised.

4.4 Other intermediaries: venture capital

The venture capital sector grew strongly in 2019…

In the first eight months of 2020, the expansion taking place in the venture capital sector in recent years continued, with large numbers of new vehicles registered with the CNMV. The number of registrations increased by 63 (55 investment vehicles and 8 management companies), with 80 registrations and 17 deregistrations.

… particularly affecting traditional venture capital undertakings, both funds and companies.

Traditional venture capital firms,[46] which still account for the largest number by far, saw 50 registrations and nine deregistrations, making for a total of 226 venture capital funds and 173 venture capital companies at the end of August. SME venture capital firms registered few movements between January and August, with only one registration and one deregistration, so there were still the same number of vehicles as at 31 December 2019: 10 funds and 19 companies . Five European venture capital funds (EuVECA) were registered, bringing the total to 25, and two of the five European social entrepreneurship funds (EuSEF) existing in 2019 were deregistered (the first was registered in 2018).[47]

Closed-ended collective investment entities, which enjoy high flexibility in their investment policy, also experienced a significant increase in the number of registered vehicles.

As in the previous two years, closed-ended collective investment schemes were also buoyant in the first eight months of 2020, with 13 registrations and only two deregistrations in the period. At 31 August, there were a total of 57 vehicles of this type, of which 29 were funds and 28 were companies. It should be mentioned that this type of collective investment scheme enjoys high flexibility both in its investment policy and in terms of compliance with investment ratios, which are more restrictive in the case of venture capital firms.

In 2019, the assets of the venture capital firms increased by 24.2%, to €13 billion (66% for funds and 34% for companies).

Throughout 2019, the assets of venture capital firms increased by 24.2%, reaching €13 billion. This growth was seen both in venture capital funds, with an increase in assets of 27.4% to €8.63 billion, and venture capital companies, with an increase in assets of 18.6% to €4.41 billion (see Table 16).

Investment in venture capital funds increased, particularly investment by public administrations and non-financial companies.

Venture capital funds (including traditional and newly created funds, in this case SME, European funds and European social enterprise funds) saw a slight change in the relative importance of investors in 2019 in favour of natural persons, in line with the trend observed in 2018. However, investors with the largest holdings were still foreign entities and the public administrations, with €1.30 billion and €1.29 billion respectively. These were followed by natural persons, who, as mentioned above, increased their investment to €1.13 billion (31.9% more than in 2018). Despite this increase, natural persons still have a minority holding in the assets of venture capital funds: 13.1% compared with 86.9% for legal persons. The investment made by non-financial companies also stands out (up by 44.2% to €1.09 billion).

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46 Traditional firms are understood as being types of firms existing prior to the entry into force of Law 22/2014 of 12 November governing venture capital firms, other closed-ended collective investment schemes and closed-ended investment scheme management companies, amending Law 35/2003 of 4 November on Collective Investment Schemes.

47 EuVECA and EuSEF (FCRE and FESE respectively in Spanish) are entities governed by Regulations (EU) Nos. 345/2013 and 346/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds and European social entrepreneurship funds respectively.

Movements in the venture capital firm register in 2020

TABLE 16

	Situation at 31/12/2019	Registrations	Deregistrations	Situation at 31/08/2020
Entities				
Venture capital funds	210	21	5	226
SME venture capital funds	10	1	1	10
European venture capital funds (EuVECA)	20	5	0	25
European social entrepreneurship funds	5	0	2	3
Venture capital companies	148	29	4	173
SME venture capital companies	19	0	0	19
Total venture capital firms	**412**	**56**	**12**	**456**
Closed-ended collective investment funds	20	10	1	29
Closed-ended collective investment companies	26	3	1	28
Total closed-ended collective investment entities	**46**	**13**	**2**	**57**
Closed-ended investment scheme management companies (SGEIC)[1]	**106**	**11**	**3**	**114**

Source: CNMV.

1 This term now applies both to the old venture capital firm management companies (SGECR) and to the new closed-ended investment scheme management companies.

Non-financial companies and other financial companies remained the two main types of investors in venture capital companies.

Venture capital companies specialising in SMEs also saw an increase in the relative importance of natural persons (66.5%, to €744 million), although they continued to hold a minority share of the capital, as for funds: 16.9% compared with 83.1% for legal persons. Non-financial companies and other financial companies remained the two largest types of investors, with a joint holding of 65.3% of the total capital of venture capital companies (58.7% in 2018), after increasing their investment by 26.1% and 38.6%, respectively.

According to preliminary data from ASCRI, investment in the venture capital sector contracted by 67% in the first half of the year, due to the absence of megadeals. However, the number of transactions remained at figures similar to 2019.

Preliminary data for the first half of 2020 provided by the Spanish Venture Capital & Private Equity Association (ASCRI) reflect a slowdown in investment volumes of 67%, to €1.43 billion. However, activity remained buoyant despite the current situation (344 transactions took place, a figure similar to the first half of 2019). The sharp drop in investment volumes was therefore due to the absence of megadeals (transactions of over €100 million). Most of the transactions (309) corresponded to investments of less than €5 million.

By type of investor, the buoyant activity of international funds stood out, with 69.3% of the total volume invested, and by project development phase, venture capital accounted for 297 of the 344 transactions carried out in the period.

International funds continued to show great interest in the Spanish market and accounted for 79 transactions for an amount of €993.4 million, representing 69.3% of the total investment volume. Private Spanish investors carried out 208 transactions, while Spanish public funds accounted for the remaining 57. In terms of the project development phase, investment in buy-outs should be highlighted,[48] accounting for just over 26% of the total volume invested (€375.4 million in 13 transactions).

48 Leveraged transactions (investments in mature companies in which external debt is used, in addition to equity, to acquire stakes) whose investors belong to the company itself.

Venture capital (the seed and start-up phases), for its part, remained very active throughout the first six months of the year, accounting for 297 transactions, with an investment volume of €307.2 million. The volume of fundraising by private Spanish operators increased by 36.4%, to €990 million, compared with the same period of 2019, in most cases completing processes that had already started in that year.

Venture capital firms: assets by investor type

TABLE 17

Millions of euros

	VC funds		VC companies	
	2018[1]	2019[1]	2018[2]	2019[2]
Natural persons				
Residents	813.26	1,074.54	399.51	738.79
Non-residents	41.81	53.56	47.57	5.45
Legal persons				
Banks	174.82	175.55	136.35	112.35
Savings banks	35.18	90.48	13.88	11.56
Pension funds	588.07	729.17	20.18	11.69
Insurance companies	437.11	613.43	87.20	85.15
Broker-dealers and brokers	7.34	0.63	0.06	0.00
Collective investment schemes	431.79	484.18	5.46	7.77
Spanish venture capital firms	289.58	301.20	29.81	42.45
Foreign venture capital firms	338.26	406.98	161.61	165.09
Public administration service	989.64	1,290.91	412.98	176.99
Sovereign wealth funds	12.47	3.42	6.08	4.90
Other financial companies	414.36	770.17	1,030.57	1,428.52
Non-financial companies	757.05	1,091.52	1,149.79	1,450.13
Foreign firms	1,138.30	1,302.00	62.41	56.08
Other	306.64	245.01	154.12	110.34
TOTAL	**6,777.93**	**8,632.75**	**3,717.58**	**4,407.26**

Source: CNMV.

1 Includes SME VC funds, EuVECA and EuSEF.

2 Includes SME VCFs.

II Reports and analysis

Changes in credit ratings of Spanish debt assets since the onset of the COVID-19 crisis

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Summary

– The coronavirus crisis that took hold at the beginning of this year triggered an abrupt slowdown in economic activity and consequently in that of many companies and sectors. Governments and central banks have implemented numerous support measures in an attempt to mitigate the liquidity and solvency problems facing companies as a result of the crisis. However, the scale of the economic slowdown has raised doubts about the solvency of those hardest hit and, hence, their credit risk. Depending on the duration and severity of the crisis, it is possible that over time companies' credit ratings will be downgraded to reflect their higher credit risk. If these downgrades were to be numerous, the consequences for other entities and for the financial system as a whole could be particularly damaging. Among other things there could be significant asset sales, downward price spirals, various contagion phenomena among entities, higher financing costs, etc.

– This article looks at the credit ratings of Spanish debt assets at the beginning of the crisis and movements over the following months with a view to ascertaining whether significant deterioration is taking place. In the study, all debt instruments issued by Spanish issuers (public or private) are considered Spanish debt, regardless of whether the issue was carried out in Spain or abroad. For purposes of comparison, an analysis of movements in the ratings of private issuers in a sample of other European countries has also been included.

– From the study, it can be concluded that most Spanish debt assets enjoy high credit quality (even excluding issues made by public administrations), since they are in the investment grade category. On average, 96.6% of the amount outstanding of these assets belongs to this group, and this figure has changed very little in recent months. However, there is some concern over the increase in the amount, in both absolute and relative terms, of debt rated BBB-, which is the lowest level in the investment grade category above the high yield asset group, which is considered high risk. The amount outstanding of these instruments increased from €149 billion in March to €165 billion in June.

– Furthermore, the amount of assets rated BBB-, just one notch above the high-risk category, went from €55 billion to €79 billion in the same period. The rise in the amount outstanding of assets rated BBB was caused by downgrades in the ratings of issuers belonging to all sectors considered (public, financial and non-financial), and no across-the-board cuts have been observed for companies belonging to any particular sector. The only observation is that in the non-financial sector the relatively few credit rating downgrades tended to be concentrated in companies linked to transport and tourism, sectors that have been hit particularly hard by the crisis.

– At the European level, the exercise undertaken, which was based exclusively on private corporate debt of financial and non-financial issuers, showed similar results. In a context of increasing debt, the following trends were noted: i) the proportion of high quality assets with respect to the total remains stable; a figure that is generally very high (88% on average), although there are significant differences among countries, and ii) there is a deterioration in credit

ratings in the high credit quality group, which translates into a significant increase in the balance of outstanding debt rated BBB (€191 billion between March and June) and BBB- (€42.3 billion in the same period). By countries, private debt in France, Germany and the United Kingdom has higher average credit ratings than that of Italy, Spain and other smaller economies such as Ireland, Belgium or Luxembourg. By sector, the credit ratings of both financial and non-financial institutions have been downgraded, but there have been no across-the-board cuts as yet. The value of debt instruments termed "fallen angels" (debt that loses its investment grade status and becomes high risk) totalled €35.5 billion, distributed among financial institutions, mainly Italian, and non-financial companies from different sectors (including steel, real estate, hotels and airlines).

1 Rationale for the study

Credit ratings are possibly the most important indicators of the credit risk of a financial instrument or its issuer, and are widely used by financial market participants. Despite their relevance, the general analysis performed by international financial institutions and organisations of the causes of the last global financial crisis revealed an over reliance on these ratings by financial institutions, regulatory and supervisory bodies and the public in general, and a decision was taken to try to scale back their excessive use or over-reliance on them. Some progress has been made in this direction over the past few years, although it appears that the use of credit ratings in regulation remains high.[1]

The crisis caused by COVID-19 has once again brought companies' credit ratings and their changes over time into the spotlight, since the sharp slowdown in economic activity on an international scale triggered by the pandemic will necessarily be accompanied by a substantial deterioration of the credit risk of many of these companies, and, hence, their ratings. Mass downgrades of the credit ratings of assets or their issuers can have highly adverse effects on many market agents and, ultimately, negative implications for financial stability if contagion among agents becomes out of control.

The implications of a possible scenario of significant credit rating downgrades are diverse and derive from different sources:

– Firstly, these downgrades would lead to a significant drop in the price of the assets affected by the rating change, which would affect the direct holders of these instruments. Some might decide to sell the assets on the financial markets, which would push prices down even further.

1 See, for example, *Report from the Commission to the European Parliament and the Council on alternative tools to external credit ratings, the state of the credit rating market, competition and governance in the credit rating industry, the state of the structured finance instruments rating market and on the feasibility of a European Credit Rating Agency*, published in October 2016. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016DC0664&from=en

– They could also affect transactions that require collateral. If the collateral provided loses value, more collateral or margin calls could be needed. In an extreme case, this would require the sale of other assets and lead to a second round of price falls (spillover effect).

– An additional indirect source of contagion could occur among agents with common exposure to the assets affected by the credit rating downgrade or with exposure to assets that have the same characteristics as those affected (e.g. belonging to the same sector).

– It should also be noted that some asset holders, e.g. investment funds or even the Eurosystem, may have a mandate to invest in certain types of assets depending on their credit rating. If an investment fund is required to hold investment grade debt assets in its portfolio and some of these assets are downgraded to high yield, the investment fund will have to sell these assets, exacerbating the aforementioned impact of the asset sales (and the fall in prices). Assets that are downgraded from investment grade to the high-risk category are known as "fallen angels".

– The downgrade of an issuer's credit rating will, in general terms, lead to a significant increase in its funding costs, especially via the financial markets, and may lead to a relative increase in reliance on bank financing.

– Lastly, if there are too many downgrades, the high yield market may not be able to absorb such a large volume of debt.

The European Systemic Risk Board has identified, in the context of the COVID-19 crisis, five priority areas that may be important to safeguard the financial stability of the European Union.[2] One of these relates to the possible procyclical impact of this process of credit rating downgrades on the markets and entities in the financial system. Measures undertaken in this area include a top-down study to quantify the repercussions of mass downgrades of credit ratings of private sector companies (the exercise does not include public debt) on the financial system. In different scenarios of rating downgrades and sales made by agents, the analysis shows that the initial losses deriving from these downgrades could range between €150 billion and €200 billion, plus an additional 20% to 30% from consequent asset sales. It can also be seen that investment funds and insurers have a considerable number of exposures in common, which strengthens the feedback loop between these types of entities.[3]

In the regulatory sphere, the main topics of debate are possible over-reliance on credit ratings in regulation, the suitability of the methodologies used by agencies in the context of the crisis and the procyclicality of ratings and its associated effects. It is too early to forecast any conclusions on these issues, although it should be noted that some supervisors and central banks have taken measures designed to mitigate the procyclical effects of rating downgrades.[4]

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2 https://www.esrb.europa.eu/news/pr/date/2020/html/esrb.pr200409~a26cc93c59.en.html

3 https://www.esrb.europa.eu/pub/pdf/system_wide_scenario_analysis_large_scale_corporate_bond_downgrades.en.pdf

4 At the European level, many supervisory authorities have urged financial institutions to preserve their capital positions and delay the distribution of dividends, which strengthens their ability to deal with

In this context it is appropriate to carry out an initial analysis of the credit ratings of Spanish debt assets[5] in the first few months of the crisis. This analysis does not look at the impact on issuers or holders of the assets, or on the markets, but seeks to discover whether there is significant deterioration in the credit risk of these instruments. To this end, this article describes movements in the ratings of these assets between March and June this year, as part of a line of work that will be repeated with some degree of frequency, considering the importance of the subject. In particular, we quantify the absolute and relative volumes of assets belonging to the various credit categories, paying special attention to the group of assets in the lowest investment grade category, which are at risk of moving down into the high yield asset pool if there are significant downgrades. The analysis identifies the entities, types of asset and sectors most affected by rating downgrades in recent months. It also includes a preliminary quantification of the movements in the ratings assigned to European private corporate debt, for purposes of contextualising the analysis within the European framework.

2 Analysis of credit ratings of Spanish debt

2.1 Methodology and data coverage

An analysis was performed of all outstanding debt securities issued by Spanish entities in Spain and in the international markets.[6] Information was obtained on the issuer, the issuer's institutional sector and the type of instrument. To assign ratings, the list of outstanding issues of fixed income securities with an ISIN code was combined with the information obtained from the database of a commercial supplier[7] on the rating given to each asset by the international rating agencies Fitch, Moody's and Standard & Poor's. To assign a single rating for each issue, a standard scale was established that links the ratings used by each agency (see Table 1), with a series of criteria.[8]

The analysis was carried out using the outstanding fixed income issues at the end of the months included in the study (from March to June of this year). There were 3,434 issues for which information was available in the initial study period (31

possible large-scale rating downgrades. The European Central Bank (ECB) has also shown greater flexibility with respect to ratings in areas involving collateral and in its corporate debt purchase programme.

5 For the purposes of this study, Spanish debt is considered to be debt issued by an issuer of Spanish nationality or an entity that belongs to a group whose parent company is Spanish, even if the issues are made abroad.

6 Data provided by the Securities Market Unit of the Bank of Spain's Statistics Department.

7 Bloomberg.

8 i) Where the rating assigned by all three reference agencies was the same, this rating was used.
ii) Where the ratings assigned by the reference agencies were not the same, the most recent rating was used.
iii) Where the ratings assigned by the reference agencies were not the same and the rating dates were the same, a hierarchy was established among the agencies (1st Standard & Poor's, 2nd Moody's and 3rd Fitch).
iv) If a specific issue did not have a rating assigned in Bloomberg but there was another rating for the same type of asset of the same issuer, the rating of the latter was used.
v) If there was no rating in the Bloomberg database or if the issue was not rated by any of the three agencies, it was labelled "No data".

March), although this fell to 3,325 at 30 June. Most of the issues had an associated ISIN code: 3,388 in March (99.8% of total outstanding debt) and 3,314 in June (99.5% of total outstanding debt).

The decrease in the number of outstanding issues registered between March and June was consistent with a considerable increase in total rated outstanding debt, which went from €1,685,262 million in March (94.8% of total debt with ISIN) to €1,777,151 million (95% of total debt with ISIN) in June. The increase in net issues in the quarter, which was not evenly spread among sectors (issues made by the public administrations stood out), reflects the strong liquidity requirements in the context of the crisis and companies taking advantage of low interest rates. At the onset of the crisis, these requirements were reflected to a larger extent in short-term assets (commercial paper), with average terms of issues subsequently increasing substantially. Furthermore, this increase in debt occurred in tandem with much greater use of bank borrowing, encouraged by the various support measures implemented by the authorities, bank borrowing also being the main source of financing for small and medium-sized enterprises.

Ratings scale and correspondence with CNMV ratings TABLE 1

Fitch	Moody's	Standard & Poor's	CNMV rating
AAA	Aaa	AAA	**AAA**
AA+	Aa1	AA+	**AA**
AA	Aa2	AA	**AA**
AA-	Aa3	AA-	**AA**
A+	A1	A+	**A**
A	A2	A	**A**
A-	A3	A-	**A**
BBB+	Baa1	BBB+	**BBB**
BBB	Baa2	BBB	**BBB**
BBB-	Baa3	BBB-	**BBB**
BB+	Ba1	BB+	**BB**
BB	Ba2	BB	**BB**
BB-	Ba3	BB-	**BB**
B+	B1	B+	**B**
B	B2	B	**B**
B-	B3	B-	**B**
CCC	Caa1	CCC+	**CCC**
CC	Caa2	CCC	**CC**
C	Caa3	CCC-	**C**
DDD	Ca	R	**D**
DD	C	SD	**D**
	D	D	**D**
NR	NR	NR	**No data**

Source: CNMV.

As reflected in Table 2, the Spanish fixed income issues analysed were mostly in the investment grade category (rating of BBB or higher), as these represented on average 96.6% of the total number of rated issues. This percentage remained fairly stable during the study period. It should be noted that the rating with the highest volume of outstanding debt was A (average of 70.4% of all rated outstanding debt during the period), since it included government debt issues,[9] both short and long-term (€1,020,561 and €1,084,614 million in March and June respectively).[10]

Amount outstanding of rated Spanish fixed income securities TABLE 2

	31 March	30 April	31 May	30 June
Rating	**1,685,262**	**1,704,265**	**1,733,536**	**1,777,151**
AAA	12,179	11,976	11,791	11,685
AA	276,236	286,334	285,846	292,270
A	1,189,536	1,199,218	1,222,644	1,248,205
BBB	148,936	148,064	153,281	164,487
BB	35,107	35,192	36,377	36,240
B	11,383	11,051	10,766	11,691
CCC	4,897	4,894	5,329	4,988
CC	3,011	3,563	3,313	3,129
C	2,338	2,337	2,560	2,229
D	1,637	1,637	1,630	2,227
Pro memoria				
BBB	**148,936**	**148,064**	**153,281**	**164,487**
BBB+	28,245	28,385	31,909	40,088
BBB	65,942	65,023	68,285	45,720
BBB-	54,749	54,656	53,087	78,679
No rating data	**92,994**	**91,133**	**91,458**	**93,148**

Source: Bank of Spain, Bloomberg and CNMV. Nominal data in millions of euros.

Although the relative weight of investment grade issues remained stable, in absolute terms an interesting increase in the amounts involved was observed. The increase in the amount outstanding of investment grade securities (almost €92 billion) was triggered by the rise in securities rated A (close to €59 billion and mainly due to the aforementioned public sector issues), AA (due to issues made by credit institutions such as Banco Santander and Bankinter), at just over €16 billion, and BBB with a further €15.5 billion.

It was important to carry out a more detailed analysis of issues rated BBB given the possible repercussions of potential downgrades to the high yield category on the financial system, as described in Rationale section. The amount outstanding of these issues increased from €148.9 billion in March to €165 billion in June, its relative

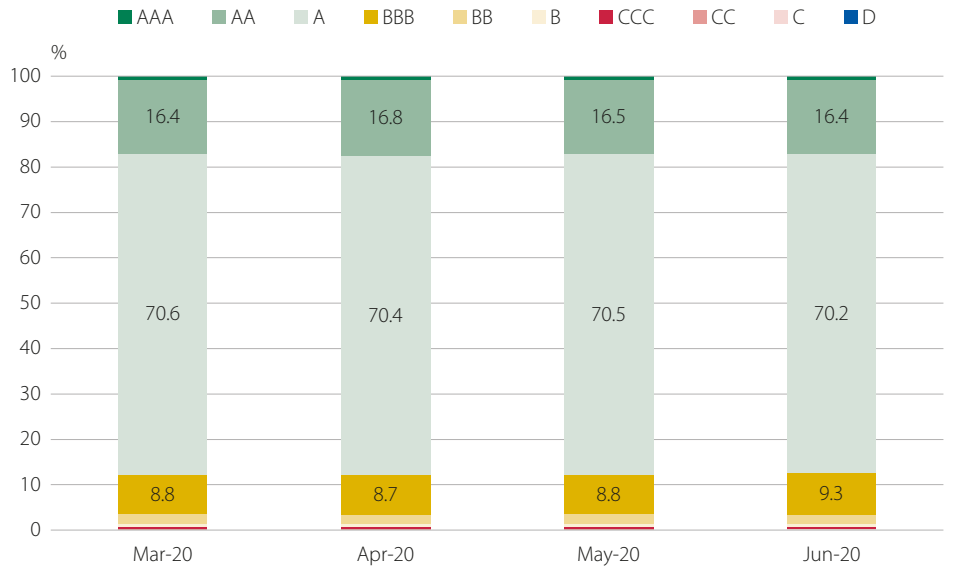
9 The ratings of government debt issues can be found at https://www.tesoro.es/en/deuda-publica/calificacion-crediticia.

10 These issues represented an average of 86% of debt with this rating during the period.

weight in the total increasing slightly to 9.3% (see Figure 1). Within this group, the amount outstanding of issues in the lowest BBB rating category (BBB- for Fitch and Standard & Poor's, Baa3 for Moody's), one notch above high yield, increased by 43.7% between March and June, from €54,748 million (3.2% of the total rated, and 36.8% of the amount outstanding of debt rated BBB) to €78,679 million (4.4% and 47.8% respectively). The increase in outstanding debt rated BBB- in these months (close to €24 billion, see Figure 2) was due to downgrades in the credit ratings of various assets issued by some autonomous regions such as Madrid and La Rioja, by financial sector institutions (BBVA) and companies in the non-financial sector (Amadeus and Autopista del Sol Concesionaria Española), in addition to new issues assigned this rating.

Ratings of Spanish fixed income securities (% of outstanding debt balance)

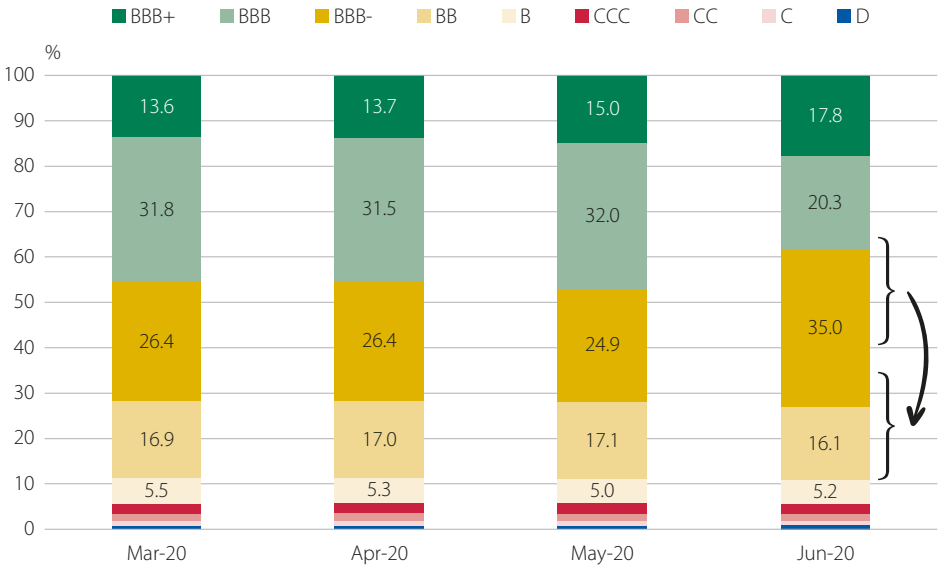
FIGURE 1



Source: Bank of Spain, Bloomberg and CNMV.

It is important to mention that as a result of these movements, the size of the amount outstanding of issues with rating of BBB exceeded that of high yield issues (€78,679 million and €60,504 million respectively). This is important because in the event of a mass downgrade of credit ratings the high yield debt market could have difficulty absorbing the downgraded BBB- debt. However, this matter could be less significant if we consider the reference debt market as being on a European scale rather than strictly domestic.

Spanish fixed income securities rated BBB or lower (% of outstanding debt balance) FIGURE 2



Source: Bank of Spain, Bloomberg and CNMV.

2.2 Analysis by sector

As shown in Table 3, the public administrations accounted for the largest volume of outstanding issues. Specifically, just over 63% of the total, a percentage that increased slightly during the study period as public sector issues were stepped up due to the crisis. The amount outstanding of issues of financial companies represented just under a third of the total, having fallen slightly between March and June, and that of issues of non-financial companies seems to have remained at around 5.7% of the total amount outstanding.

The analysis of sovereign debt asset ratings reveals that the majority of issues had a BBB rating or higher, and this percentage increased from 99.6% in March to 99.7% in June. The remainder corresponds to issues of medium- and long-term bonds of certain autonomous regions. The most noteworthy change here was the significant increase in the amount outstanding of debt rated BBB-, from €1,571 million in March to €16.7 billion in June. This was due to Standard & Poor's downgrade in June of the Madrid autonomous region's €15,037 million issue of bonds. The last rating revision of government debt made by a major rating agency was in September 2019, by Standard & Poor's (Moody's and Fitch had done so in the first quarter of 2018). The scale of the crisis and challenges posed for public finances have already prompted several rating agencies to issue communications. Two agencies (Scope Ratings[11] and Standard & Poor's)[12] have put government debt on negative outlook, and a Spanish agency, Axesor,[13] has downgraded its rating from A to A-. In Europe,

11 The announcement was made on 21 August (https://www.scoperatings.com).

12 The announcement was made on 18 September (https://www.standardandpoors.com).

13 The announcement was made on 28 September (https://www.axesor-rating.com).

the downgrading of Italian public debt made in April, in the context of the crisis,[14] stands out.

Amount outstanding of rated Spanish fixed income securities, by sector TABLE 3

	Mar-20	Apr-20	May-20	Jun-20
Sectors	**1,685,262**	**1,704,265**	**1,733,536**	**1,777,151**
Public administrations	**1,072,116**	**1,082,383**	**1,105,293**	**1,136,100**
Central government	1,035,299	1,045,100	1,067,422	1,098,232
Autonomous regions	36,732	37,198	37,786	37,784
Local authorities	85	85	85	85
Financial companies	**519,319**	**527,098**	**530,224**	**540,266**
Monetary institutions[1]	354,437	361,874	365,557	373,605
Non-monetary institutions[2]	164,882	165,224	164,667	166,661
Non-financial companies	**93,827**	**94,785**	**98,019**	**100,785**
Pro memoria				
No rating data	**92,994**	**91,133**	**91,458**	**93,148**
Public administrations	**3,155**	**3,168**	**3,253**	**3,447**
Central government	0	0	0	0
Autonomous regions	2,433	2,447	2,532	2,726
Local authorities	721	721	721	721
Financial companies	**67,841**	**68,202**	**67,202**	**68,477**
Monetary institutions	26,144	26,664	25,669	27,008
Non-monetary institutions	41,697	41,538	41,532	41,470
Non-financial companies	**21,998**	**19,764**	**21,004**	**21,224**

Source: Bank of Spain, Bloomberg and CNMV. Nominal data in millions of euros.

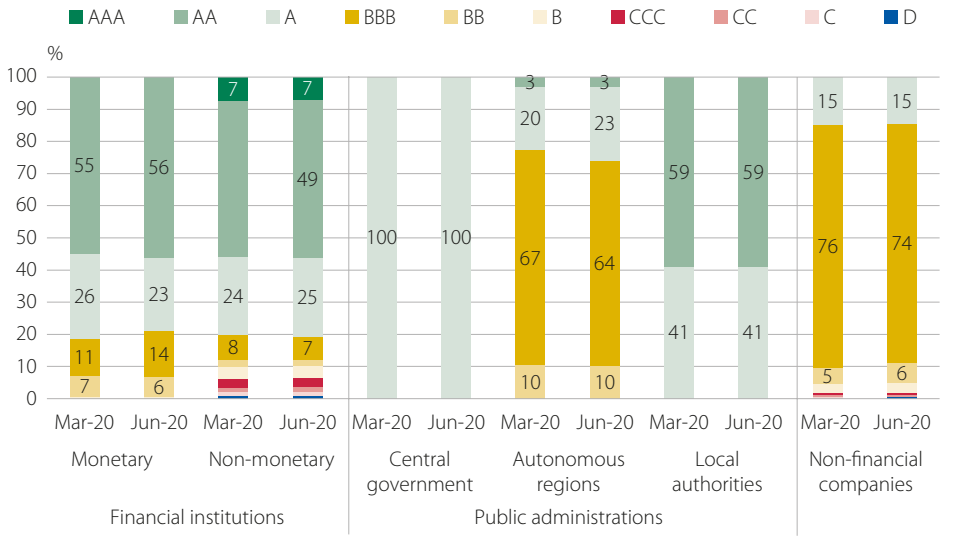
1 Monetary financial institutions are deposit companies (with the exception of the central bank).

2 Non-monetary financial institutions basically comprise IFs, securitisation funds, insurance companies and pension funds.

Among financial institutions, the majority of debt was also rated BBB or higher, but the proportion was lower than for public debt, standing at 93.1% on average during the study period. By type of institution, assets with these ratings held by monetary financial institutions (mainly deposit entities) went from 92.8% to 93.3%, and from 87.9% to 87.8% for non-financial institutions (IFs, asset securitisation funds and insurers, among others).

14 Fitch downgraded Italy's credit rating in April from BBB to BBB-, with a stable outlook, S&P affirmed its rating at BBB, with a negative outlook, pending the development of the coronavirus crisis; and Moody's has warned that it could downgrade its rating from Baa3, which would put the Italian sovereign bond in the high yield category.

Rating by issuer sector (% of outstanding debt balance) FIGURE 3



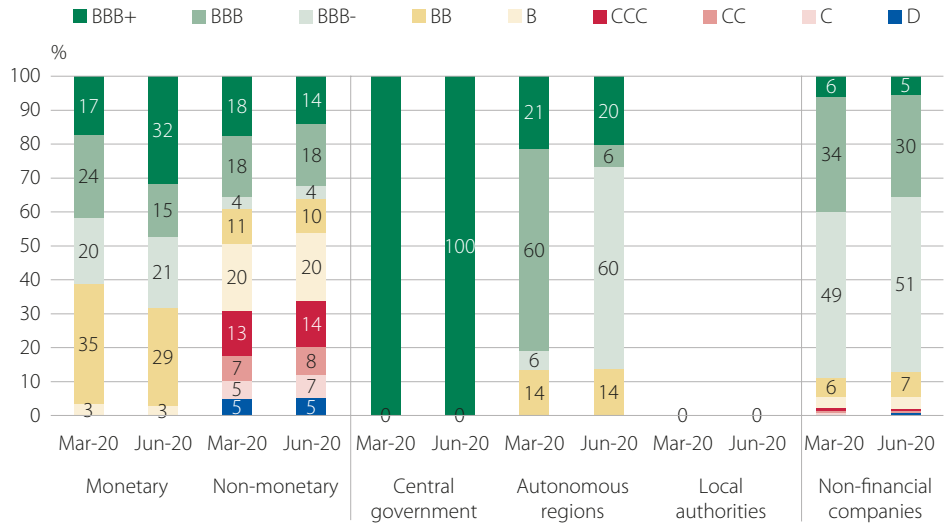
Source: Bank of Spain, Bloomberg and CNMV.

In the particular case of fixed income assets classified as BBB- in the rated financial sector as a whole, an increase from €14 billion (2.7% of the total rated outstanding debt balance) to €17.8 billion was observed, which accounts for 3.3% of the total balance of rated fixed income debt in the market. The changes in ratings affecting debt in the BBB category were associated mainly with monetary financial institutions and, specifically, with Fitch's review of several BBVA issues in June. Following this review, various bond series saw their ratings cut from A to BBB + (for a value of €8.69 billion, representing 2.3% of the total rated debt in this sector) and from BBB to BBB- (for a value of €1,268 million, 0.3% of the total for the sector). Similarly, the rating of a number of the bank's subordinated bonds was downgraded from BBB to BBB- for a value of €2,587 million (0.7% of total rated debt in this sector) and one issue with an outstanding nominal amount of €75 million moved into the high yield category, having been downgraded to BB from BBB-.

Additionally, issues of non-financial companies rated BBB or higher went from representing 90.4% of the outstanding rated debt balance in March to 88.9% in June, while issues with an original rating of BBB stood at 41.7% and 43.8%, respectively. Although most of the debt issued by these companies is high quality, it is necessary to point out that a very considerable portion has been assigned the worst rating in this category (see Figure 4). Debt rated BBB accounted for almost three quarters of the total debt of this sector (€74,857,000 million). Therefore, an episode of across-the-board downgrades of credit ratings could be significant for non-financial companies, given the large volume of debt that is just one notch above the high yield category (€39,083 million in March and €44.122 million in June).

Issues rated BBB or lower by issuer sector (% of outstanding debt balance)

FIGURE 4



Source: Bank of Spain, Bloomberg and CNMV.

The increase in the volume of outstanding fixed income debt rated BBB- cannot be explained by new issues, but was entirely due to the rating downgrades of medium- and long-term bonds issued by Amadeus, for an outstanding nominal amount of €3.25 billion (3.2% of the amount outstanding of rated debt in the non-financial sector in June) and of preferred shares of this company's issuing company for an amount of €1 billion (0.9%). Further, the downgrades of various IAG bonds from BBB- to BB made by both Moody's and Standard & Poor's in May meant that these fixed income assets issued by the company moved into the speculative category, against a backdrop of a tourism sector seriously affected by the COVID-19 crisis (€1.5 billion, 1.5% of the amount outstanding of rated debt in the sector). Other companies that saw the ratings of several of their issues cut within the high yield category were NH Hoteles (bonds for an amount of €357 million from BB to B) and DIA (bonds for an amount of €600 million from C to D).

2.3 Analysis by type of instrument

The analysis by type of instrument revealed that long-term government bonds make up the largest group, accounting for around 45% of total rated debt during the study period, although this figure decreased slightly over time. Other issues by public administrations, such as government bonds or treasury bills, accounted for a much smaller portion of the total (11.1% and 4.4% on average, respectively), but marked a slight upward trend. Among other types of debt, the increase in the amount outstanding of bonds (close to €12 billion) and mortgage-backed securities (just over €13 billion) stood out, although the relative weight of these instruments in total rated debt remained stable at around 13% and 12%, respectively. The amount outstanding of securitisation bonds rose by barely €1.4 billion, as a result of which their proportion of the total fell slightly (from 9.1% to 8.7%).

Amount outstanding of rated Spanish fixed income securities by type of asset

TABLE 4

	Mar-20	Apr-20	May-20	Jun-20
Asset type	**1,685,262**	**1,704,265**	**1,733,536**	**1,777,151**
Long-term bonds	17,837	19,563	20,171	20,295
Medium-term bonds	222,390	222,147	229,528	234,298
Long-term government bonds	770,913	769,166	778,912	797,541
Medium-term government bonds	180,509	188,069	195,259	205,409
Treasury bills	68,889	72,877	78,263	81,414
Securitisation bonds	153,776	154,175	153,176	155,178
Mortgage-backed securities	200,397	210,202	213,098	213,672
Public sector covered bonds	17,762	17,562	14,862	19,112
Subordinated long-term bonds	20,730	20,306	20,237	20,225
Preferred shares	32,058	30,199	30,029	30,006
Commercial paper	0	0	0	0
Pro memoria				
No rating data	**92,994**	**91,133**	**91,458**	**93,148**
Long-term bonds	5,418	4,993	5,137	5,067
Medium-term bonds	47,193	46,706	46,666	46,502
Long-term government bonds	0	0	0	0
Medium-term government bonds	0	0	0	0
Treasury bills	0	0	0	0
Securitisation bonds	2,591	2,410	2,394	2,359
Mortgage-backed securities	1,868	1,861	1,849	1,849
Public sector covered bonds	0	0	0	0
Subordinated long-term bonds	2,137	2,137	2,140	2,140
Preferred shares	3,187	2,812	2,812	2,812
Commercial paper	30,601	30,216	30,461	32,420

Source: Bank of Spain, Bloomberg and CNMV. Nominal data in millions of euros.

The analysis of ratings by asset type[15] focused on instruments that were not issued by the government, since, as shown in Figure 5, the ratings of those issued by the government have not been revised in the last few months and remain A-rated.

Medium- and long-term bonds (excluding those issued by the government and assessed separately, as mentioned), together accounted for around 15% of the total debt balance. The proportion of these assets rated BBB or higher (investment grade) increased from 97.1% to 97.7% for long-term bonds and fell slightly from 93.0% to 92.4% for medium-term bonds. Overall, there was an increase in the amount of high-quality debt, but this was concentrated in the lowest notch (BBB) (see Figure 5). Specifically, the amount outstanding of this type of asset with an original rating of

15 The analysis did not include commercial paper, which accounts for 1.8% of the total outstanding nominal amount.

BBB- rose significantly from March to June, from €49,719 million to €70,057 million (see Figure 6), representing an increase from 21% to 28% of total debt of these instruments.[16]

Rating by asset type (% of outstanding debt balance) FIGURE 5

Source: Bank of Spain, Bloomberg and CNMV.

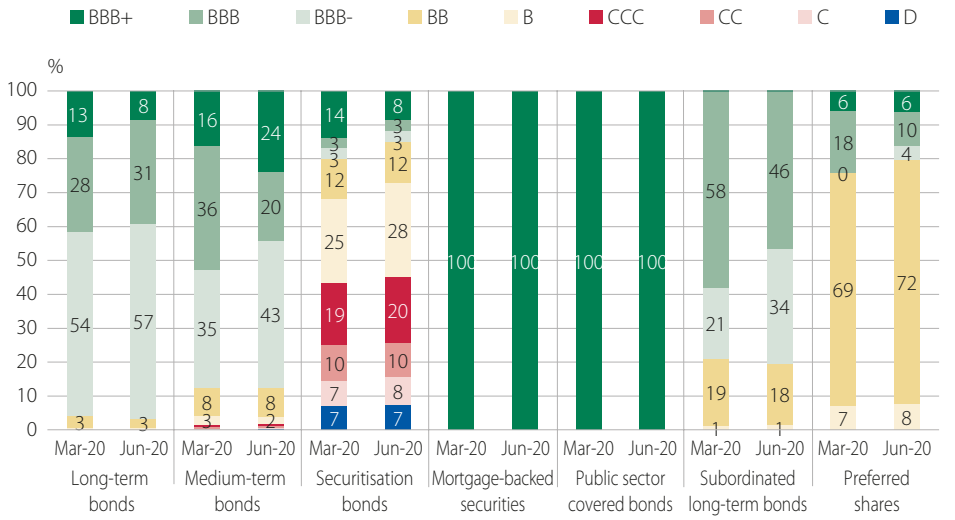
With regard to the different types of securitisation assets, the percentage of the amount outstanding of debt rated BBB or higher was notably high. However, it should be noted that in the particular case of securitisation bonds, the proportion of high yield assets (below BBB), at around 12%, was the highest among all the types of debt assets considered,[17] which is to be expected given the different tranches of bond issues affected by the risk inherent in the asset portfolios subject to securitisation (see Figure 5). In the high yield bond category, an increase in the weight of debt rated B and CCC was observed. In the investment grade securitisation bonds

16 The increase in the amount outstanding associated with the downgrade of ratings to BBB- was due to the aforementioned downgrades of issues of the Madrid autonomous region (€15 billion), Amadeus (€4 billion) and BBVA (€4 billion),

17 Except for subordinated bonds and preferred shares, which are less relevant in quantitative terms.

category (88% of the total), instruments with an original rating of BBB- (which went from €682 million in March to €763 million in June) accounted for barely 0.5% of the total of this category throughout the period. Therefore, for these assets, there was no evidence of credit rating downgrades to lower asset categories within the investment grade group. Further, all mortgage-backed securities and public sector covered bonds outstanding on the reference dates were rated BBB or higher and there were no issues originally rated BBB- in either case.

Issues rated BBB or lower by asset type (% of outstanding debt balance) FIGURE 6



Source: Bank of Spain, Bloomberg and CNMV

Other types of fixed income assets that are less relevant in quantitative terms, such as subordinated bonds and preferred shares (which accounted for 1.2% and 1.9% of the total amount outstanding respectively in March) marked an uneven performance. For subordinated bonds, the volume of outstanding debt rated BBB or higher remained relatively stable in the study period, at slightly above €16 billion, and there was an increase in debt rated BBB- (from €4,347 million in March to €6.859 million in June). Therefore, some degree of stability was observed in credit ratings of these assets in the broader categories (investment grade vs. high yield), although it should be pointed out that in the investment grade category the best rating obtained was BBB, and furthermore the weight of the lowest rated assets (BBB-) also increased.

For preferred shares, debt rated BBB or higher went from €12,680 million in March to €10,707 million in June. In other words, the already reduced proportion of investment grade debt fell even further, from 39.6% of the total of these instruments to 35.7%. There were no outstanding issues of preferred shares rated BBB- in March, and only two issues made by Amadeus for a total of €1 billion in June. The amount outstanding of high yield debt of these instruments remained stable, but increased significantly in relative terms (from 60.4% to 64.3%) due to BB rated debt (see Figures 5 and 6) .

3 Analysis of credit ratings of European debt

3.1 Methodology and data obtained

As mentioned at the beginning of this article, the European Systemic Risk Board has identified as a priority area, in the context of the COVID-19 crisis, the possible procyclical impact on European Union markets and financial institutions of credit rating downgrades. In line with the measures implemented in this area, the CNMV will publish regular updates of an analysis of European debt assets[18] which, due to their characteristics, are not classified as securitisation assets, and are issued by private sector companies (excluding debt issued by public institutions).

For this study, information on the amount outstanding was obtained from the data provider Dealogic, in addition to information on the country and sector of the issuer of the fixed income assets at ISIN level, and, in the same way as the credit ratings for Spanish debt were analysed, the list of outstanding issues was combined with information from the database of the same provider on the rating assigned to each asset by international rating agencies Fitch, Moody's and Standard & Poor's, following the criteria established in Section 2.1 of this article, "Methodology and data coverage".

The amount outstanding of rated European fixed income debt[19] corresponded to a volume of €3.90 trillion in June, 4.6% more than in March (€3.73 trillion), which partly reflects the need to raise funds to tackle the COVID-19 crisis. Of the nine countries studied, medium- and long-term bonds issued by UK companies accounted for 28.8% of the total on average, followed by instruments issued by companies based in France and Germany (23.0% and 17.7% on average respectively). The issues analysed in Spain, represented an average of 7.9% of the total debt outstanding, the same figure as in Italy.

As reflected in Table 5, the European fixed income issues analysed were mostly in the investment grade category (rating of BBB or higher), as these represented on average 88% of the total number of issues for which a rating was obtained. This percentage remained stable in the study period, but the shift observed towards the lower notches (within the investment grade category) should be noted, a trend that, as we have already seen, was also observed in some types of Spanish debt. Thus the balance of debt rated BBB rose from €1.41 trillion in March to €1.61 trillion in June (almost €200 billion more), leading to an increase in its relative weight in high quality debt from 37.8% to 41.3%. Furthermore, the amount outstanding of debt rated BBB- reached €346 billion in June (€300 billion in March), accounting for 8.9% of

18 The analysis includes the following countries: Spain, France, United Kingdom, Germany, Italy, Luxembourg, Netherlands, Belgium and Ireland.

19 The number of ISINs for which Bloomberg rating data were obtained stood at 9,070, increasing to 9,144 issues outstanding at 30 June. No rating data were obtained for 4,508 ISINs in March and 4,470 in June, with an amount outstanding of €429 billion and €443 billion respectively (11% of the total amount outstanding obtained from Dealogic).

the amount outstanding of rated debt in June (8.0% in March). During the period, ratings downgraded to BBB- amounted to €72 billion.[20]

High yield debt also increased between March and June in absolute terms (mainly due to B rated debt), reaching €470 billion, up by 5.5% compared with March. In relative terms, it continued to account for 12% of the total outstanding debt analysed in the period. During the quarter, there were several downgrades of assets from investment grade to high yield, for an amount of €38 billion, as discussed later.

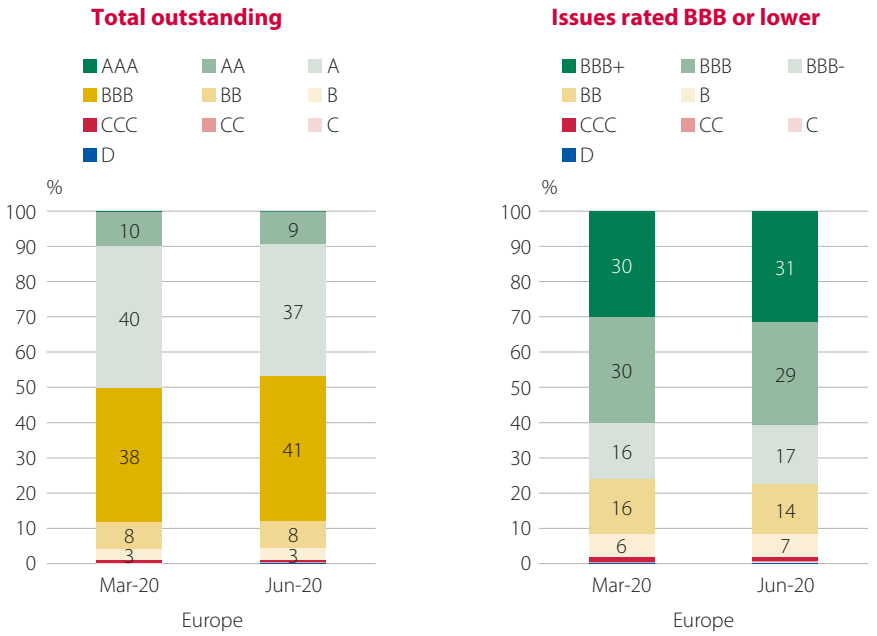
Amount outstanding of rated European fixed income securities TABLE 5

	31 March	30 June
Rating	**3,726,229**	**3,898,221**
AAA	7,214	7,099
AA	355,177	352,207
A	1,508,903	1,460,950
BBB	1,410,020	1,608,416
BB	289,114	292,383
B	117,005	136,331
CCC	27,784	25,696
CC	6,857	6,218
C	1,059	5,938
D	3,097	2,982
Pro memoria		
BBB	**1,410,020**	**1,608,416**
BBB+	557,088	650,641
BBB	553,118	611,765
BBB-	299,813	346,010
No rating data	**429,109**	**443,464**

Source: Dealogic, Bloomberg and CNMV. Nominal data in millions of euros.

20 Other movements that fuelled the increase in debt rated BBB- (€46 billion) were: i) rating upgrades from BB category to this notch for the amount of €24 billion and net issues of €28 billion, ii) downgrades from BBB- to BB amounting to €36 billion, and upgrades from BBB- to higher notches for an amount of €33 billion. Lastly, ratings between March to June were not obtained for €9 billion of outstanding debt rated BBB-.

Ratings of European fixed income securities (% of outstanding debt balance) FIGURE 7



Source: Dealogic, Bloomberg and CNMV.

3.2 Analysis by country

Liquidity needs in the context of the COVID-19 crisis and the scenario of low interest rates also drove debt issues in other European countries in the second quarter of the year. This situation, together with the generalised fall in GDP in the various countries in the sample, has increased the relative importance of private debt in the economy. Thus total outstanding debt with an analysed rating went from 29.1% of the combined GDP of these economies in March to 31.5% in June.[21] By country, the highest ratio was observed in the United Kingdom (51%), followed by the Netherlands (47%) and France (37%), while in Italy and Ireland it stood at 17% and 12% respectively. In Spain, the percentage of GDP represented by this debt rose from 24% to 26%.

As mentioned in the previous section, most of the European fixed income instruments analysed were in the investment grade category. On average during the study period, 88% of the total issues for which information was obtained had a rating of BBB- or higher (€3.28 trillion and €3.43 trillion in March and June, respectively). However, this percentage was uneven across countries, highlighting compelling differences in the credit quality of debt issuers in Europe. In some cases, such as Italy and Ireland, the relative weight of high-quality debt accounted for only 65.2% and 54.5% of total corporate debt, respectively, while in others such as France, Germany, the United Kingdom and Belgium this percentage exceeded 90%. In Spain, the proportion of debt considered to be high quality was also sizeable, standing on average at 85.5% of the total of close to €300 billion.

21 The GDP of the nine countries as a whole, at current prices, (calculated as the sum of the GDP for the last four quarters) amounted to €12.8 trillion in March and €12.4 trillion in June.

A more detailed analysis of credit ratings in the high-quality debt category allows us to add some nuances to our previous statements. As shown in Figure 8, there were countries such as Spain with a very high proportion of high-quality debt assets, but these were concentrated in the lowest notch of this rating category (BBB). In fact, Spanish debt rated BBB as a percentage of total corporate debt was higher than 54%, similar to Italy or Ireland.

Movements in the amount of this type of debt were also uneven among the different countries during the quarter. In Italy, where, as discussed later, numerous financial institutions have seen their ratings downgraded, and in Luxembourg, due to the case of ArcelorMittal,[22] the amount outstanding of high-quality debt decreased between March and June. In contrast, it increased in the United Kingdom and France. In the United Kingdom, the rise was 6.5% (for an amount of €61.4 billion), to over €1 trillion, increasing from 88.8% to 90.0% of the total; in France the increase was 5.0% (€39.90 billion), to €844 billion (93.8% and 93.9% of the total outstanding in March and June, respectively). Spanish fixed income assets in this category also increased from €251 billion in March to €265 billion in June (85.4% and 85.7% of rated outstanding debt).

Amount outstanding of rated European fixed income securities by country TABLE 6

	Spain		France		Germany		United Kingdom		Italy	
	Mar-20	Jun-20	Mar-20	Jun-20	Mar-20	Jun-20	Mar-20	Jun-20	Mar-20	Jun-20
Rating	**294,281**	**309,942**	**857,968**	**898,816**	**655,198**	**689,028**	**1,070,365**	**1,125,107**	**291,010**	**299,077**
AAA	0	0	1,464	1,439	1,413	1,323	3,302	3,302	30	30
AA	3,174	2,424	163,711	170,258	15,947	16,500	46,564	33,923	0	0
A	96,741	83,491	368,658	380,021	335,798	343,724	494,133	492,485	48,013	45,390
BBB	151,291	179,561	270,530	292,573	246,723	260,224	406,667	482,350	148,363	142,719
BB	34,689	36,079	27,656	28,626	37,629	44,232	70,968	58,741	81,110	84,570
B	5,978	5,978	17,984	18,208	14,735	18,275	37,867	40,827	8,689	22,065
CCC	1,826	1,053	7,765	5,815	1,055	2,852	7,477	7,664	3,554	3,804
CC	582	582	200	825	600	600	1,928	3,583	0	0
C	0	774	0	1,050	0	0	759	1,496	300	0
D	0	0	0	0	1,298	1,298	700	735	950	500
Pro memoria										
BBB	**151,291**	**179,561**	**270,530**	**292,573**	**246,723**	**260,224**	**406,667**	**482,350**	**148,363**	**142,719**
BBB+	46,336	66,933	143,387	122,592	119,903	115,736	141,889	178,146	25,079	26,117
BBB	56,831	55,489	88,089	124,405	78,095	92,955	198,469	231,154	81,821	44,982
BBB-	48,123	57,139	39,054	45,576	48,724	51,533	66,309	73,049	41,462	71,620
No rating data	**38,365**	**38,211**	**118,135**	**124,138**	**60,220**	**52,807**	**125,438**	**125,146**	**36,803**	**40,143**

Source: Dealogic, Bloomberg and CNMV. Nominal data in millions of euros.

22 In Luxembourg, investment grade rated debt issued by companies stood at 70.1% in March, falling to only 29.9% due to the downgrade of the rating of steel company ArcelorMittal from BBB- to BB. The amount of this company's issues affected by the rating downgrade was €8 billion in June (40% of the rated debt analysed for this country).

Amount outstanding of rated European fixed income securities by country (*continuation*)

TABLE 6

	Luxembourg		Netherlands		Belgium		Ireland	
	Mar-20	Jun-20	Mar-20	Jun-20	Mar-20	Jun-20	Mar-20	Jun-20
Rating	**20,362**	**20,664**	**375,746**	**383,833**	**117,947**	**125,310**	**43,355**	**46,444**
AAA	0	0	905	905	75	75	25	25
AA	0	0	121,278	124,361	4,241	4,741	263	0
A	1,345	1,345	97,784	102,121	65,673	11,863	759	509
BBB	12,921	4,827	106,966	116,783	43,941	104,614	22,619	24,766
BB	5,496	13,892	16,349	12,375	3,450	3,450	11,765	10,417
B	0	0	25,607	24,806	567	567	5,578	5,605
CCC	0	0	6,106	1,733	0	0	0	2,776
CC	600	300	600	0	0	0	2,346	328
C	0	0	0	600	0	0	0	2,018
D	0	300	150	150	0	0	0	0
Pro memoria								
BBB	**12,921**	**4,827**	**106,966**	**116,783**	**43,941**	**104,614**	**22,619**	**24,766**
BBB+	1,500	1,500	39,967	41,655	26,494	83,283	12,531	14,679
BBB	1,233	2,133	24,846	35,328	14,895	16,479	8,838	8,838
BBB-	10,188	1,194	42,153	39,800	2,551	4,851	1,249	1,249
No rating data	**4,790**	**5,488**	**22,608**	**31,899**	**17,599**	**17,820**	**5,152**	**7,813**

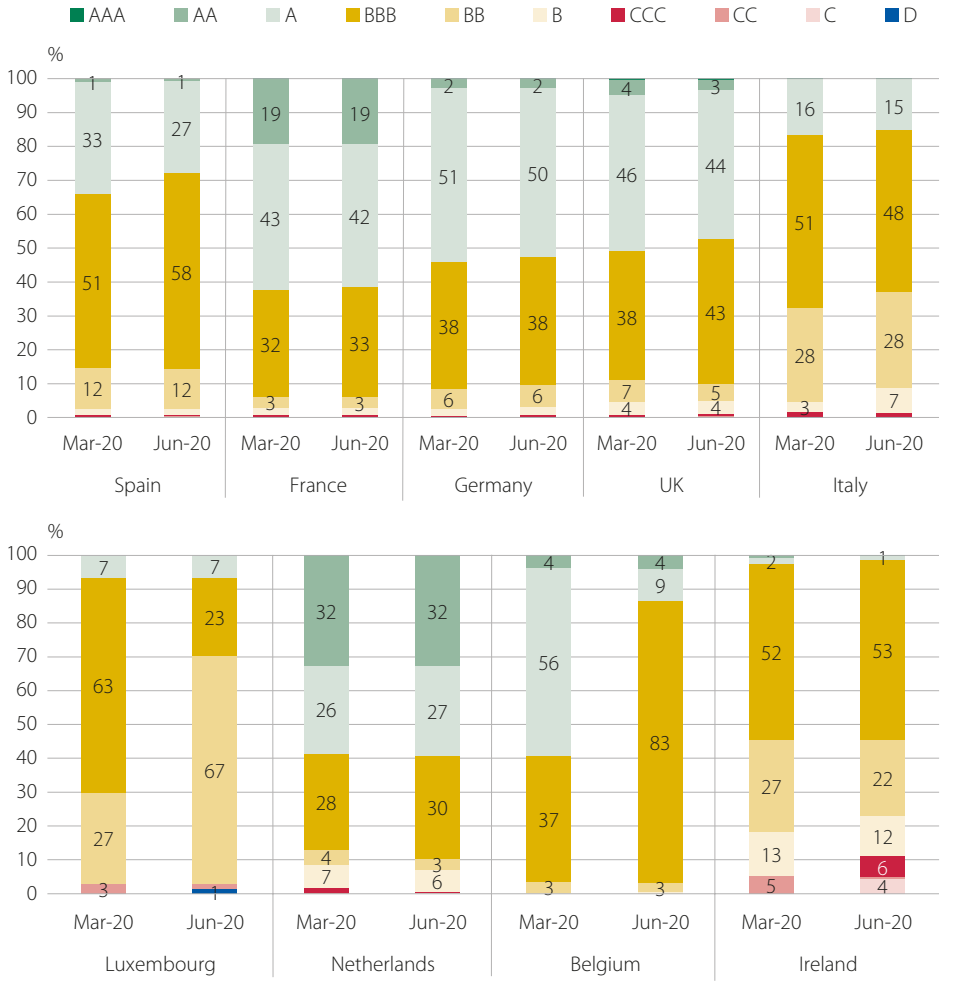
Source: Dealogic, Bloomberg and CNMV. Nominal data in millions of euros.

In the investment grade debt category, only the balance of BBB rated assets increased,[23] by 14.1%, or nearly €200 billion, confirming the rising trend in this type of debt, as described above. By country, the largest increases occurred in Spain, the United Kingdom and Belgium. In Belgium, the rise of 138% was especially significant, as the amount outstanding went from €44 billion in March to almost €105 billion in June. This trend was mainly due to the downgrade from A to BBB+ of the multinational drink and brewing company AB InBev (downgrade of outstanding medium- and long-term bonds amounting to €53.5 billion). In the United Kingdom and Spain the increase was 19% in both cases, from €407 billion to €482 billion and from €151 billion to €180.0 billion, respectively.[24]

23 The total amount outstanding of AAA, AA and A rated debt decreased by 2.7% (€1.87 trillion in March to €1.82 trillion in June).

24 There were ratings downgrades from A for various issues made by BBVA and Banco Santander, totalling €16 billion.

Rating by European issuer country (% of outstanding debt balance) FIGURE 8



Source: Bank of Spain, Bloomberg and CNMV.

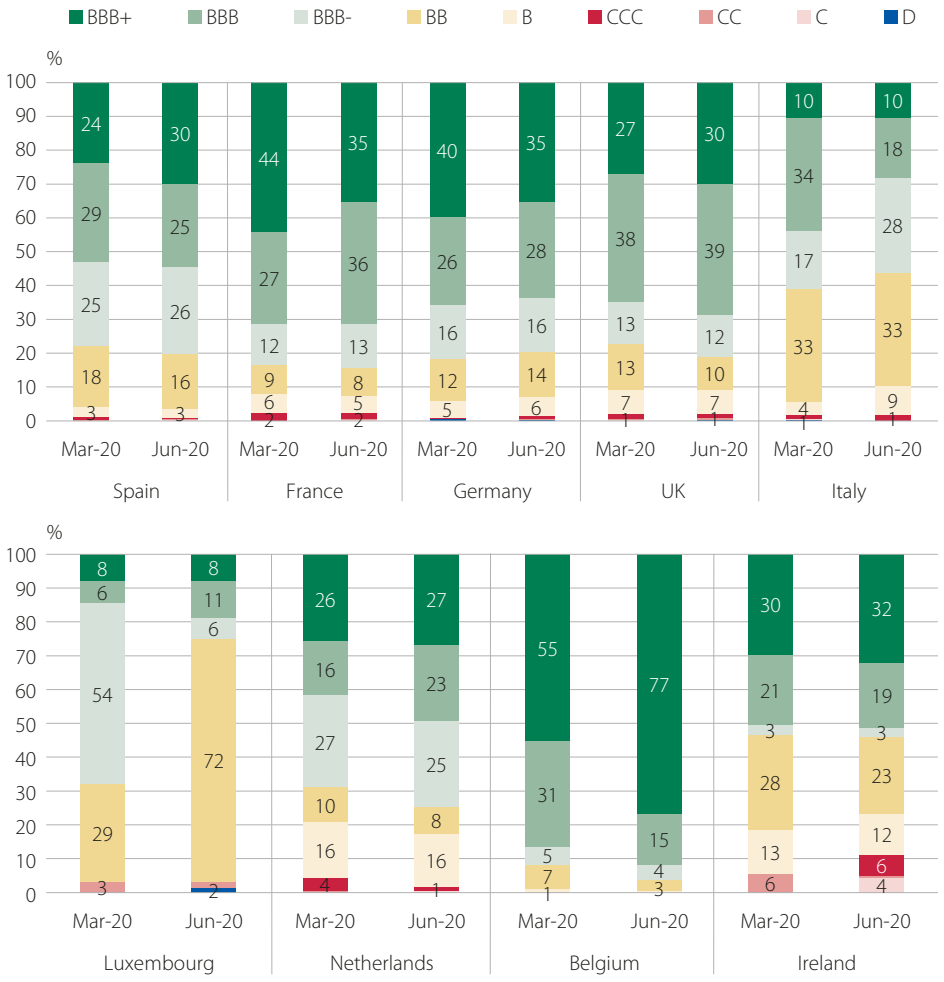
Of particular interest was the trend in European fixed income assets rated BBB-, the amount outstanding of which increased by €46 billion from March to June (from 8.0% of total rated outstanding debt to 8.9%). Italian companies marked the largest rise in debt rated BBB-, from €41 billion in March to almost €72 billion in June (from 14.2% of total rated outstanding debt in March to 23.9% in June), mainly due to the downgrade from BBB of several financial institutions such as Unicredit, Intesa San Paolo and insurer Generali. The outstanding volume of debt rated BBB- also rose in France, the United Kingdom, Belgium and Spain. The largest increase in relative terms was in Spain, where this debt went from 16.4% of the total in March to 18.4% in June,[25] on the back of issues made by numerous companies and downgrades in the ratings of others such as BBVA and Amadeus.

With regard to high yield debt, the greatest increase in the amount outstanding was observed in Luxembourg, due to the aforementioned case of ArcelorMittal, and in Italy, where the financial sector was hardest hit, the amount outstanding climbed

25 In France, the percentage was approximately 5% on average during the period, compared to 6.5% in the United Kingdom and around 3% in Belgium.

from €95 billion to €111 billion (from 32.5% to 37.1% between March and June) (see Figure 9). In the United Kingdom and the Netherlands, the opposite was the case, as the outstanding volume of high yield fixed income assets decreased between March and June, from 11.2% to 10.0% (€120 billion to €113 billion), and from 11.2% to 10.4% (€49 billion to €40 billion) respectively. In Spain, this figure rose slightly, from €43 billion to €44.5 billion, remaining close to 14.5% of the total at both dates.

Issues rated BBB or lower by European country (% of outstanding debt balance) FIGURE 9



Source: Bank of Spain, Bloomberg and CNMV.

3.3 Analysis by sector

This section looks at the trend in the amount outstanding of debt in Europe and its credit ratings, distinguishing between the financial sector and the non-financial sector. As shown in Table 7, the amount outstanding of fixed income assets in both sectors increased in the study period as a consequence of the greater financing needs of companies due to the crisis and as they took advantage of good market conditions (low interest rates). The total amount outstanding of rated European debt analysed increased by 6.3% for non-financial companies (from €2.03 trillion in March to €2.16 trillion in June) and by 2.6% for financial institutions (from €1.69 trillion to €1.73 trillion).

Amount outstanding of rated European fixed income securities by sector TABLE 7

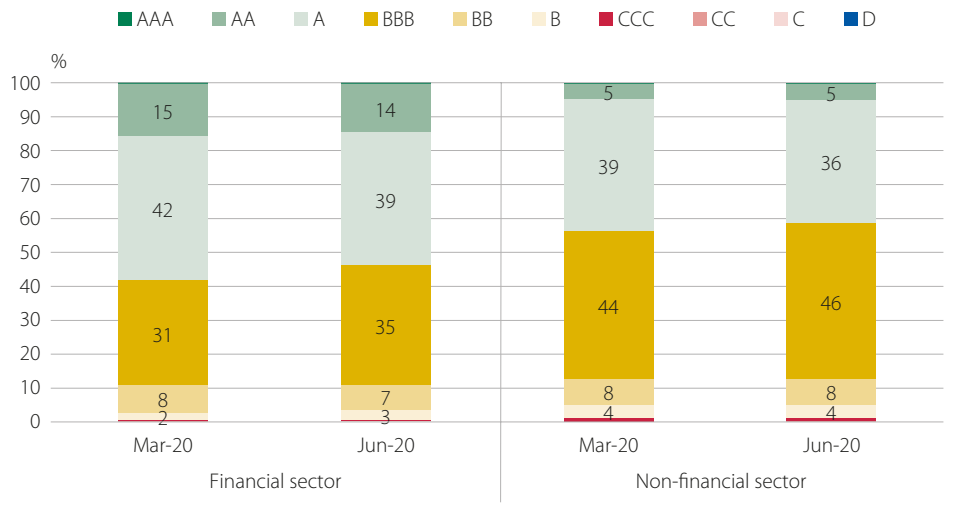
	Financial sector		Non-financial sector	
	Mar-20	Jun-20	Mar-20	Jun-20
Rating	**1,691,239**	**1,734,827**	**2,034,991**	**2,163,394**
AAA	4,368	4,253	2,846	2,846
AA	261,782	245,358	93,395	106,849
A	717,062	682,285	791,841	778,665
BBB	522,817	609,837	887,202	998,579
BB	136,214	127,814	152,899	164,569
B	35,287	50,815	81,718	85,516
CCC	8,564	7,679	19,220	18,018
CC	3,310	3,424	3,547	2,795
C	386	1,329	673	4,609
D	1,448	2,033	1,650	950
Pro memoria				
BBB	**522,817**	**609,837**	**887,202**	**998,579**
BBB+	173,382	216,472	383,706	434,169
BBB	227,518	234,836	325,601	376,929
BBB-	121,918	158,529	177,895	187,481
No rating data	**231,865**	**232,325**	**197,244**	**211,139**

Source: Dealogic, Bloomberg and CNMV. Nominal data in millions of euros.

A first analysis of European debt by financial and non-financial sectors showed that during the reference period, the amount outstanding of assets classified as investment grade and high yield marked a similar performance. In the financial sector, investment grade debt remained stable at 87% of total rated debt in the period from March to June (the remaining 13% was high yield) and non-financial sector debt also saw little change, holding at 89% (11% high yield). As mentioned in previous sections, it was also observed that despite this stability, there was a restructuring of assets within the high-quality debt category, with a shift towards the lowest credit rating (BBB). This was also observed on a sector level, as the proportion of financial institutions' debt rated BBB went from 31% to 35% of total debt and from 44% to 46% for non-financial institutions between March and June (see Figure 10).

The specific analysis of debt assets rated BBB-, a notch above high yield, disclosed the following sector patterns. In the financial sector, this type of debt increased by 30%, from €122 billion to €159 billion, from 7.2% of rated outstanding debt in the sector in March to 9.1% in June. There were downgrades from higher notches for an amount of €57.6 billion, mainly affecting Italian financial institutions such as Banca Intesa San Paolo, Unicredit Banca and insurer Generali (€45.9 billion in total), Spanish bank, BBVA, (€5.5 billion) and, to a lesser extent, other financial institutions in the United Kingdom, France, Germany, Belgium and the Netherlands (€6.2 billion in total).

Rating by issuer sector (% of outstanding European debt balance) FIGURE 10



Source: Dealogic, Bloomberg and CNMV.

In the non-financial sector, the increase in the amount outstanding of debt rated BBB- was smaller (5.4%), from €178 billion to €187 billion between March and June, and its weight during the period remained at 8.7%. The ratings of debt issued by different companies in the non-financial sector were downgraded to the lowest investment grade category, for a combined amount of €14.4 billion. These companies included Engie and Infra Foch in France (€6.2 billion), Rolls Royce, EasyJet and Intercontinental Hotels in the United Kingdom (€4.3 billion) and Amadeus and Telefónica in Spain (€2.7 billion). The rating of only one issue made by the UK company IHS Markit was upgraded (from BB to BBB-), with an amount outstanding of €587 million.

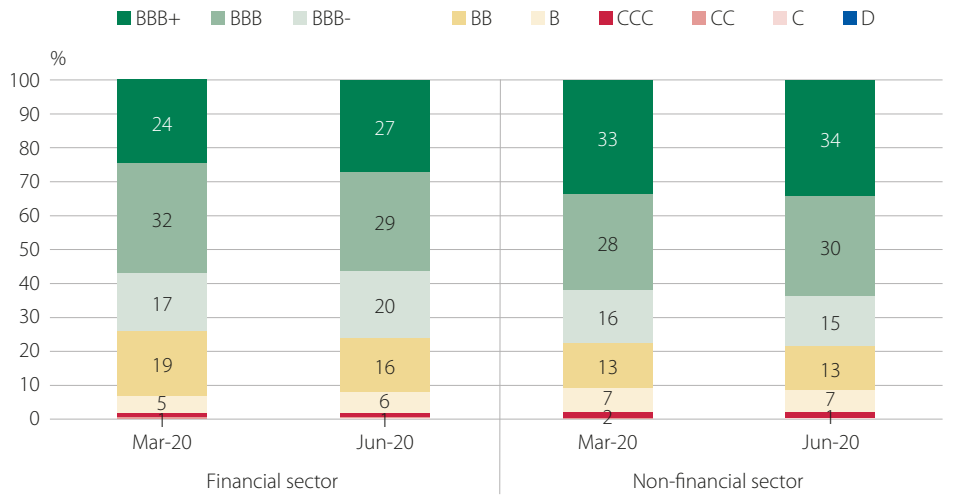
In the high yield debt category, the outstanding volume issued by financial institutions grew by 4.3%, to €193 billion. During the study period, fixed income assets with a value of €22.8 billion were downgraded from investment grade to high yield, with standouts including the downgrades of issues made by Italian companies such as Unicredit, Ubi Banca, Mediobanca and Unipol Gruppo (€15.1 billion), issues made by the German entity Commerzbank (€3 billion), assets issued by French companies such as Société Générale (€2.3 billion), bonds of Nationwide in the United Kingdom (€1.5 billion) and two issues made by BBVA in Spain (€450 million).

It is also interesting to note that the ratings of certain issues made by European financial institutions were upgraded from BB (in the high yield category) to BBB-, for an amount of €23.7 billion. These included assets of British banks Barclays, Standard Chartered Bank and NatWest (€20 billion), Dutch bank ABN Amro (€2 billion) and, in Spain, two issues of Banco Santander (€1.6 billion).

Among non-financial institutions, the amount outstanding of high yield debt stood at €276 billion in June (6.4% more than in March), surpassing the figure for financial institutions. The downgrades from investment grade totalled €15.4 billion, and standouts included the aforementioned issues of ArcelorMittal in Luxembourg (€8 billion), issues of the German media company Bertelsmann, real estate company ADO Properties and Schaeffler industrial group (€2.9 billion combined). In Spain,

two issues made by the Repsol group were downgraded from BBB- to BB (€2 billion), and in the United Kingdom, real estate company, Intu Properties, and airline IAG saw their ratings cut to BB (€2.5 billion).

Issues rated BBB or lower by issuer sector (% of outstanding European debt balance) FIGURE 11



Source: Dealogic, Bloomberg and CNMV.

4 Conclusions

This article describes the trends in credit ratings of Spanish debt assets as a whole from the outbreak of the crisis in March until June of this year, in addition to movements in private debt assets in a set of European countries in order to identify any similarities and differences.

The rationale of this study stems from the need to establish the extent to which the decline in economic activity is translating into a deterioration in the credit quality of issuers and, hence, of their credit ratings (their most direct reflection). At the beginning of any crisis, liquidity problems of varying importance tend to emerge, and if these continue over time, they may lead to solvency issues, and consequently the possibility of defaults. While on an international scale, authorities, governments and central banks are implementing different far-reaching measures to address these liquidity and solvency problems, the severity of the economic situation is causing difficulties for many companies and some are showing an objective increase in their risk of default.

The consequences of this rise in credit risk are diverse and affect not only the holders of the assets that are subject to default, but also other market participants that may be directly or indirectly involved. In the event that there is a mass downgrade of credit ratings (a phenomenon that does not necessarily entail default), the prices of the downgraded assets would fall, and this would affect the direct holders of these instruments. The loss of value of collateral and margins would also be an undesired effect. Certain market participants, such as investment funds, could be forced to sell

part of their portfolios if the assets no longer meet the requirements established by the fund (e.g. if the assets are no longer in the investment grade category). Ultimately, downgrades could have a negative impact in terms of financial stability, as recently acknowledged by the European Systemic Risk Board, which has identified this possibility as a priority to be monitored in the context of the crisis.

The analysis of Spanish and European debt assets shows that downgrades of the credit ratings of certain issues and issuers are starting to appear that are some cause for concern, although they cannot be considered significant. The proportion of high quality debt (investment grade) remained high during the study period, but a clear restructuring was observed in this category, with a shift towards the lower rating categories (BBB and BBB-). Currently, the downgrades are not concentrated in any specific sector, although the largest number of companies assigned lower ratings are in sectors especially affected by the crisis (hotels, airlines, real estate and banks). An emerging trend can be observed, which does not yet pose a significant risk. However, if it were to continue over time, it could have a serious impact on the economy. Therefore, it is necessary to perform periodic assessments of the credit quality of issuers in our environment.

Determinants of directors' remuneration in Spain

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Executive summary

This article studies the determinants of the level and structure of directors' remuneration, distinguishing between top executive directors and other executive, proprietary and independent directors. For this purpose, a sample of 6,391 observations of directors from Spanish listed companies for the period 2014-2018 was used.

The study takes into account both the variables of the company itself and the director (which would be the only ones relevant to establish remuneration in a bargaining environment unaffected by agency conflict), and those relating to the ownership structure and quality of corporate governance, which are relevant when asymmetric information and other contractual problems allow directors to exert undue influence on their remuneration. In order to identify the effect of each of these variables, we carry out an econometric analysis which largely controls for problems of endogeneity and correlations between the variables of interest and any variables that may have been omitted.

Results show that remuneration basically reflects companies' hiring needs, taking account of the characteristics of each particular relationship between a company and a director (hereinafter referred to as a "director-company pair"). However, once all these characteristics have been factored in, there remains a part of the remuneration that does not respond to efficiency criteria, but reflects agency conflict between directors and shareholders. This agency conflict as reflected in remuneration relates to supervision and control mechanisms such as the ownership structure and quality of governance, which are manifested in the structure of the board of directors. As regards ownership structure it can be observed that concentration of ownership in the hands of the largest shareholder reduces the amount of remuneration and the proportion of share- and option-based remuneration when top executives are not part of the family that exercises control. With regard to board structure, the finding that inspires the most optimism is that the presence of independent directors on active boards with frequent meetings and on committees specifically tasked with setting remuneration significantly reduces agency conflict and helps shift remuneration towards lower levels and with a higher proportion in the form of shares and share options.

1 Introduction

Directors' remuneration has always been a controversial issue in both corporate and academic circles and a topic of public debate, attracting considerable media interest.[1] By making wage inequalities more evident, the financial crisis heightened the perception

1 Recent articles in this area include "How CEO pay in America got out of whack". *The Economist*, 11 July 2020. Available at: https://www.economist.com/business/2020/07/11/how-ceo-pay-in-america-got-out-of-whack;
"Executive remuneration is really an embarrassment of riches". *The Times*, 21 August 2019. Available at: https://www.thetimes.co.uk/article/executive-pay-really-is-an-embarrassment-of-riches-7hndpc30s.

that executive remuneration had spiralled out of control.[2] This controversy is expected to intensify once again as a result of the economic crisis associated with the COVID-19 pandemic.[3] And the debate is a long way from being settled, even among experts. In the academic field, where the subject has been studied widely over the past 30 years, there are two opposing views. On the one hand, it could be that the high remuneration levels observed are efficient and simply reflect the contractual need to pay for talent that is scarce in a globalised and high-risk environment (Fahlenbrach and Stulz, 2011; Giannetti, 2011). On the other hand, it is reasonable to suspect that there are inefficiencies in the allocation of remuneration, due to the power exercised by senior executives, which enables them to unduly influence the setting of their remuneration in such a way that they attain salary levels that are not economically justified (Bebchuk and Fried, 2005; Jensen, Murphy and Wruck, 2004).

The abundant empirical literature (summarised by Frydman and Jenter, 2010) focuses mainly on the United States and has tried to identify the factors that make remuneration efficient (i.e., it serves as an incentive to improve the company's profits in the interest of its shareholders), or inefficient (i.e., it serves to reward executives financially without improving their performance).[4] The basic idea of all these studies is to measure the extent to which remuneration depends on factors that reflect agency conflict and the power of executives within the company, which seems to imply that the remuneration observed is inefficient and unjustified.

In this study, we look at the determinants of remuneration paid to members of boards of directors in Spain, distinguishing between top executives (CEOs and executive chairmen) and other executive, proprietary and independent directors.

For the purposes of the study, the economic and financial characteristics of each director-company pair are taken as a starting point. In an optimal or efficient contracting model, with symmetric information and identical bargaining power, the remuneration should be fully determined by these characteristics, such as the size of the company and the director's experience, which reflect the complexity of the work to be performed by the director and his or her ability to perform these tasks. However, if we accept the existence of contracting problems, such as asymmetric information or unequal power exercised by the parties at the time of setting the remuneration, this opens the door to the existence of agency conflicts that make remuneration inefficient. Therefore, it is also important to consider the following as determinants of remuneration: i) the ownership structure, which largely determines the bargaining power and supervisory capacity within the company, and ii) the structure of the board of directors, which

2 As explained by Professor Lucian Bebchuk in his post on the World Bank blog "Executive Pay and the Financial Crisis" on 31 January 2012. Available at: https://blogs.worldbank.org/allaboutfinance/executive-pay-and-the-financial-crisis

3 This debate seems to have already started. See "Los sueldos de los ejecutivos del Ibex se topan con la realidad del coronavirus" (Ibex executives' salaries brought down to earth by the coronavirus). *El Correo*, 24 May 2020. Available at: https://www.elcorreo.com/economia/empresas/sueldos-ibex-coronavirus-20200524110856-ntrc.html; and "European companies were more keen to cut dividends than executive pay". *Financial Times*, 9 September 2020. Available at: https://www.ft.com/content/297edcaf-447b-4b89-b729-db8683699c44.

4 Bebchuk, Fried and Walker (2002) state that: "[e]xecutive compensation has long attracted a great deal of attention from academics, the media, Congress, and the public at large" and they add: "the rise of academic work on the subject […] has outpaced even the growth rate of executive compensation".

in addition to influencing its supervisory capacity, plays a key role in mitigating problems deriving from asymmetric information and in curbing opportunism among directors in regard to their pay. The starting assumption of this work is that these additional factors, which have already been identified as important in studies carried out in other jurisdictions, will also be relevant for Spain, especially if the relatively concentrated ownership structure of Spanish companies is taken into account. In this context, it is important to identify the additional contribution of corporate governance standards once the impact of the ownership structure has been factored in.

The findings clearly show that the remuneration observed basically reflects companies' hiring needs, taking account of the characteristics of the relationship between each particular director and his or her company. However, once all these characteristics have been factored in, there remains a part of the remuneration that does not respond to efficiency criteria, but reflects agency conflict between directors and shareholders. A closer look at the mechanisms that can contribute to or reduce this agency conflict suggests that the concentration of ownership and the increased direct supervision that this entails can to some extent replace the need to offer high remuneration with a substantial variable component as an incentive. Although controlling shareholders can also, in some cases, use their influence to obtain salary supplements when they act as directors. But perhaps the finding that inspires the most optimism is that the presence of independent directors on active boards that hold frequent meetings and on committees tasked specifically with setting remuneration can significantly reduce agency conflict and shift remuneration towards lower levels and with a higher proportion in the form of shares and share options.

The rest of the article is structured as follows: Section 2 reviews the legal and financial literature used to build our assumptions. We first present the optimal contracting model, in which remuneration is determined by the economic characteristics of the company and of the human capital of the directors. We then go on to analyse the literature that studies the extent to which the ownership structure of the company affects the level of remuneration and lastly we deal with the literature that looks into the influence of good corporate governance practices in reducing agency conflict and inefficiencies in the remuneration of directors. Section 3 presents the empirical study carried out, explaining the procedure followed to construct our sample, the methodology applied and the variables selected. In Section 4, we discuss the empirical results that indicate the main determinants of director remuneration in Spain. Section 5 contains some brief conclusions.

2 Review of the literature and formation of assumptions

2.1 Remuneration and economic-financial characteristics of the company and directors

Given the complexity of the problem of optimal setting of remuneration, it is necessary to start by analysing it in a simplified contracting environment, which,

while somewhat artificial, allows us to identify the basic factors that must inevitably always influence remuneration. The various problems that emerge in a more realistic contracting model can then gradually be added to this environment. Therefore, our first approximation excludes the contracting problems caused by asymmetric information, unequal bargaining power, and exogenous factors such as taxes. In this ideal contracting environment, it can be shown that agency conflicts can be fully resolved by setting remuneration based solely on the economic characteristics of the company and the director's management abilities (Hart, 1995).

Therefore the amount of total remuneration would be expected to depend positively on variables reflecting the complexity of the work to be carried out by the director, such as size and growth opportunities (Smith and Watts, 1992). Additionally, the professionalism and reputation of the executive, which would lead to expectations of better results, would also be a reason for higher remuneration (Acharya, Gabarro & Volpin, 2014; Graham, Li & Qiu, 2012).

Remuneration levels aside, whenever there is a conflict of interest between executives and shareholders, it is necessary to use variable remuneration (Jensen and Murphy, 2010). Even in this simplified contracting model, determining the appropriate variable portion of remuneration is a difficult task. Executives are risk-averse and their main investment consists of their human capital, the value of which depends on the company's results and, therefore, they will demand higher total remuneration when part of this remuneration is variable. This implies that the use of variable remuneration will be linked to higher levels of total remuneration and depend negatively on the volatility of the company's results, as reflected in the principal-agent models of Holmstrom and Milgrom (1987) and the empirical evidence of Aggarwal and Samwick (1999), among others.

Therefore, our first working assumption is that directors' remuneration, both in terms of the amount and the variable component established, will basically depend on the characteristics of the company and of the director.

However, it is well known that in practice the conditions ensuring optimal contracting are often absent. In an environment characterised by asymmetric information, unequal bargaining power and market imperfections, the remuneration offered to directors will never fully resolve the agency conflict between directors and shareholders. Therefore, in practice higher than optimal total remuneration will be observed, and furthermore the portion of variable remuneration could be lower or even in some circumstances higher than the optimum (Jensen, Murphy and Wruck, 2004). For example, executives with the power to influence their remuneration are more likely to accept a higher proportion of variable remuneration when they expect good results, so higher profits could induce executives to accept a higher proportion of variable remuneration (Palia, 2001).

How does this affect the empirical assumptions? In the first place, the existence of these imperfections and deviations from optimum levels of remuneration suggest that only part of the remuneration can be explained by reference to the variables characteristic of the company and the executive, leaving a large portion unexplained, which can be taken as our second working assumption. It is also to be expected that,

in practice, remuneration will depend on additional variables that reflect the existence of control mechanisms to prevent agency conflict, such as the concentration of ownership or the efficiency of corporate governance, as discussed hereunder.

2.2 Remuneration and ownership structure

In complex contracting environments, one of the most important mechanisms for controlling agency conflict, and therefore for determining executive remuneration, is the ownership structure of the company (Grossman and Hart, 1986; Hart and Moore, 1990). As discussed later in detail, the theoretical predictions relating to the presence of significant shareholders in the ownership of the company are clear, indicating a reduction in agency conflict thanks to shareholders' supervision of the executive, and the portion of variable remuneration and the total amount may be lower (Pagano and Röell, 1998). However, most of the empirical studies that look at directors' pay use data from US firms, which mostly have dispersed ownership structures. There is a lack of empirical research on remuneration trends in controlled companies. Therefore, it is of interest to provide evidence that clarifies whether the presence of controlling shareholders affects the remuneration of executives and eliminates agency conflict, and also whether the presence of these shareholders creates new or different corporate governance issues.

Theoretical models used to study this problem are based on the premise that the greater directors' control over the company, the worse the agency problems. Excessive remuneration has long been seen as a reflection of agency conflict between directors and shareholders in companies with dispersed ownership structures. As the shareholdings of these companies are fragmented and dispersed, problems of collective influence arise in the supervision and disciplining of directors. This lack of vigilance on the part of shareholders allows executives to have a decisive influence on how their remuneration is set up, and to extract value from the company for their own benefit at the expense of the shareholders. From this perspective, the literature has pointed to the controlling shareholders as instruments for the internal supervision of directors, which would help to curb increases in remuneration and make variable remuneration less necessary (Gilson and Gordon, 2003; Shleifer and Vishny, 1997). The argument holds that the presence of shareholders with an incentive to supervise directors would reduce agency conflict between shareholders and directors and, consequently, lead to a moderation in remuneration to a level and structure that maximises shareholder value.

This view has been corroborated by empirical literature. For example, Core, Holthausen and Larcker (1999) find that the remuneration of the chief executive officer (CEO) of the company is lower when there is a significant shareholder who owns at least 5% of the capital. Along the same lines, Bertrand and Mullainathan (2000) point out that in companies with no significant shareholders owning at least 5% of the capital, remuneration is more closely linked to profits generated by external factors than to the commitment and work of the executives. The problem with the studies using US data is that they do not necessarily refer to companies with controlling shareholders, but rather significant shareholders who do not exercise control, and whose interests are consequently more aligned with those of external investors or the market. In considering controlling shareholders and significant shareholders who do not exercise

control as equal, there may be a risk of overestimating the supervision exercised by controlling shareholders over executives. As stated by Haid and Yurtoglu (2006), other studies carried out in countries with concentrated ownership, which reach similar conclusions, throw up other issues, such as not differentiating between professional executives and executives who are also controlling shareholders.

In any case, empirical evidence suggests that it is not just the mere presence of a significant shareholder that helps contain agency conflict between shareholders and directors, but also the percentage of the significant shareholding. In other words, the greater the concentration of ownership, the greater the incentive for shareholders to supervise and the less the capacity of executives to use their remuneration as a means of extracting rent (Cyert, Kang, and Kumar, 2002; Elston and Goldberg, 2003; Li and Srinivasan, 2011, and for a sample of Spanish companies, Crespi-Caldera and Pascual-Fuster, 2015).

Although these studies are more successful in isolating the effect of the true influence of significant shareholders, there is the problem, as Cronqvist and Fahlenbrach (2009) point out, that concentrated ownership takes highly varied forms. Controlling shareholders may be founders, second or third generation members of family companies, individual or company controlling blocks, etc. The ability of these different types of shareholders to supervise directors or directly manage the company may differ widely. This is important for establishing precisely where there is control and how easy it is to extract private gain.

Even so literature is now being published that directly questions the premise that it is controlling shareholders' interest and within their power to set executive remuneration at a level that maximises shareholder value. Kastiel (2015) suggests that remuneration practices in controlled companies may have their own pathologies, which would indicate that minority shareholders cannot always rely on controlling shareholders to efficiently supervise directors' pay. He argues that controlling shareholders may overpay executives to obtain their loyalty and align them with their interests, which are not always the same as the interests of the company. Or that family businesses may depend too heavily on the criteria of company executives and lose disciplinary power over them, a situation that would worsen in subsequent generations.

This assumption has been tested in various countries where concentrated ownership exists. Hamdani and Yafeh (2013), in a study based on data from Israel, find that institutional investors tend to oppose the remuneration proposals of executives in controlled companies, which shows, according to the authors, that the issue of remuneration has not been resolved and is clearly a concern for investors in controlled companies. Along the same lines, Barontini and Bozzi (2011), in a study based on data from Italian companies, conclude that for the executives receiving the largest amounts of remuneration in their sample, the excess pay over the average is negatively correlated with the company's future performance. The explanation offered by the authors is that the over payment serves to buy the loyalty of the executives to the controlling shareholders and leads them to support transactions that will benefit the controlling shareholders but are not favourable to minority shareholders, and are reflected in poorer performance by the company. Following the same line of argument, Gallego and Larrain (2012), in a study based on data from Brazil and Chile, find that professional CEOs who are not family members in controlled

companies earn 30% more than in non-controlled companies. The premium cannot be explained by the company's characteristics, observable management skills (e.g., education or experience), or the CEO's remuneration in a previous job. In fact, this situation occurs mainly in family firms with low levels of supervision by controlling shareholders (which would worsen agency conflict between directors and shareholders), particularly in companies with absent founders and when subsequent generations are involved. In other words, when the controlling shareholders do not really have the capacity to supervise, executive remuneration may reflect greater agency conflict than in companies with dispersed ownership.

Lastly, another branch of this literature specifically studies the remuneration of executives who are controlling shareholders. This involves a clear conflict of interest that is resolved by legal systems in different ways. It is interesting to note that in many legal systems this particular conflict receives the same treatment as related party transactions. In other words, it is subject to approval mechanisms that are based on the abstention of the shareholder involved in the conflict of interest. In the most demanding regulations, the remuneration of majority shareholders as company executives is subject to veto by minority shareholders. Fried, Kamar and Yafeh (2020), in an empirical study for Israel, show that the inclusion of minority veto rights has been effective in reducing the risk of minority shareholder expropriation in these cases.

In view of these different findings, our assumptions were expanded to include variables that reflect the ownership structure of the company, with the expectation that: i) greater concentration of ownership would be reflected in lower remuneration and less need for variable remuneration; ii) different controlling shareholders, especially families, would have different degrees of influence on remuneration, and iii) the characteristics of the remuneration might differ when the controlling shareholder was also a director and received remuneration as such.

2.3 Remuneration and good governance

Traditionally, boards of directors were representative bodies that were expected to support executives and company relations through their reputation and external contacts. However, since the 1990s, this vision has been replaced by another that puts boards at the centre of the supervision of executives and controlling shareholders, in favour of external investors, and this is currently considered good corporate governance. Therefore, most laws and regulators recommend that companies establish the composition of the board and the procedures for approving its remuneration, in order to reduce conflicts of interest between directors and controlling shareholders. The ultimate objective of these measures is to reduce agency costs and thereby increase the value of the company.

It seems obvious that such basic characteristics of the board as its size and how often it meets will influence its effectiveness (Yermack, 1996; Jenter, Schmid and Urban, 2018).

However, how to establish its composition so that it is more effective, an issue that has been widely studied in recent decades, is a more complex issue. Fama and

Jensen (1983) warned of the inefficiencies of US companies owing to several factors that favour the power and influence on the board of directors of the CEO (executive chairman or managing director in Spain). The CEO has a great deal of power to set the agenda and establish the information that is provided to directors. There are several reasons for this: there may be a great many board meetings, the culture of non-confrontation makes it easier for the CEO to achieve his or her objectives with little opposition. Furthermore, the situation can be exacerbated if the functions of CEO and chairman of the board fall to the same person. Different theoretical models find that the effectiveness of board decisions depends on its structure, composition and characteristics. However, the results of these models show that there is no single composition that is optimal for all companies, as although a more independent board has more incentives to reduce agency conflict, it will receive less cooperation and help from executives and will suffer problems of information that will make it less efficient (Hermalin and Weisbach, 1998; Raheja, 2005; Adams and Ferreira, 2007; Harris and Raviv, 2008). Possibly for this reason, the empirical evidence on the effectiveness of boards of directors, as discussed below, is far from conclusive (Adams, Hermalin, and Weisbach, 2010; Hermalin, and Weisbach, 2003).

Initially, the empirical literature on corporate governance focused on studying the relationship between the board's independence and the company's earnings. However, contradictory findings were obtained. Some studies found no relationship between the two (Baysinger and Butler, 1985; Hermalin and Weisbach, 1991; Bhagat and Black, 2002); others found a positive relationship (Shivdasani and Yermack, 1999; Coles, Naveen and Naveen, 2008; Nguyen and Nielsen, 2010; Guo and Masulis, 2015), while another group observed a negative relationship (Yermack, 1996; Agrawal and Knoeber, 1996; Rosenstein and Wyatt, 1997; Klein, 1998). This lack of conclusive findings is in fact consistent with the theoretical literature already cited, according to which different companies choose different levels of board independence as best suit them, and an independent board of directors may not add (or may even destroy) value for the company. There is also the additional problem that when seeking to apply these theories to the data, it is difficult to measure the skills and experience of the directors, beyond their classification as independent or non-independent (Baldenius, Melumad and Meng, 2014).

Despite the lack of clear predictions in the theoretical and empirical literature, the fact of the matter is that the legal systems of most countries have proposed increasing the proportion of independent directors as a key measure to reduce the influence of executives on the board in conflicts of interest and, in particular, when determining remuneration. Independent directors are entrusted with supervising board decisions that affect the interests of the executive directors and, where appropriate, the controlling shareholders. Since remuneration is perhaps the classic case of directors' conflict of interest, the legal systems or securities market authorities have entrusted this task to committees responsible for nominations and remuneration, which are required to be made up entirely or mostly of independent directors. Clearly, how well the nomination and remuneration committee works will depend critically on the quality of its independent directors. And in each jurisdiction this quality depends on the regulations establishing the criteria for the selection of independent directors. Unfortunately, these criteria are not always the most appropriate, as they are often limited to requiring that there be no economic or family ties,

rather than requiring professional quality or laying down rules on incentives. With regard to the problem of incentives, it seems clear that independence will be compromised and remuneration will be less efficient if executive directors have the power to appoint and dismiss independent directors at their convenience, directly or indirectly.

Therefore, assuming that the boards are nominally independent, it is important to look at more subtle features that influence the task of supervision, because these affect incentives and intrinsic motivation. In particular, for independent directors, problems arising in relation to their term of office and membership of different boards have been studied.

If independent directors have long terms of office this can jeopardise the efficiency of the supervision process. In fact, independence tends to be *worn away* through personal interaction and long terms of office make it more likely that some data will not be captured. Several studies highlight that social and business relationships between directors have a negative impact on their ability to act in the interests of shareholders and to remain independent (Velasco, 2004). It is also easy to predict that these social and business relationships that detract from their independence will strengthen over time (Nili, 2016). There is also evidence to suggest that networking among independent directors and executives weakens the intensity of the board's supervisory function (Hwang and Seoyoung, 2009). Consequently, the terms of office of independent directors in a company should be limited to relatively short periods to preserve their supervisory capacities. The most demanding regulations, such as those of the United Kingdom and France, limit this term of office to nine years. In most countries, a maximum term of nine to twelve years is recommended. In Spain, the maximum recommended term is 13 years.

To analyse simultaneous membership of several boards, it is necessary to make a distinction among different scenarios. In the first place we have the so-called "busy" directors, who provide their services to several unrelated listed companies at the same time. In principle, this could be taken as a sign of their excellence. And indeed, empirical studies show that reputable independent directors may be asked to serve on several boards. The downside is that they will then have less time to devote to each company and the quality of their supervisory role could be compromised (Hallock, 1997; Core, Holthausen and Larcker, 1999; Fich and Shivdasani, 2006; Devos, Prevost and Puthenpurackal, 2009; Falato, Kadyrzhanova and Lel, 2014). In addition, concern for their reputation can also negatively affect their supervisory work, leading them to resign when companies start to show problems that could tarnish their reputation. Fich and Shivdasani (2007) and Dou (2017) find that independent directors may have more interest in safeguarding their good reputation than in helping to manage companies in a weak financial situation.

Secondly, there is the phenomenon of interlocking directorships, where two companies each invite a director from the other to sit on their board, so that there are two or more directors shared by both companies. The theory behind this practice is that these directors can act as a coordination mechanism to allow companies to share information and carry out concerted actions that increase their ability to influence others (Mizruchi and Schwartz, 1992), which could imply collusion. But as far as the

companies are concerned, this power of coordination makes these directors especially valuable, and they are therefore expected to receive higher remuneration.

Lastly, there are directors who, while working for only one listed company, sit on the boards of unlisted companies that form part of the listed company's group. While this enables them to apply the knowledge acquired in the parent company to decision-making in its subsidiaries, it can lead to problems of excessive influence by the parent company on the subsidiaries and (more in relation to this study) this situation compromises the director's independence by increasing his or her ties to the company that he or she is supposed to be supervising.

An important but little studied issue related to corporate governance and remuneration is the structure of independent directors' own incentives to carry out their supervisory work. The basic idea is that independent directors, in order to be independent, should not depend on the remuneration they receive from the company; in other words, this should not be their main source of income. Furthermore, their remuneration should be fixed and unrelated to the company's earnings, so that any incentives will be purely reputational. However, some studies (Adams and Ferreira, 2008; Yermak, 2008) point out that even small monetary rewards can be motivating for independent directors. To investigate this claim, we have extended our study beyond the scope of executive directors, to analyse whether the remuneration received by independent and proprietary directors responds to criteria aligned with those that determine the remuneration of executive directors.

This section has discussed the extensive literature on corporate governance and board quality and remuneration. To carry out the empirical study, the following assumptions can be derived from this discussion: i) the structure of the board (in terms of its size, frequency of meetings and independence) will influence the level and structure of the remuneration received by directors; ii) additional characteristics, beyond independence, such as the directors' term of office and membership of multiple boards, may have a negative impact on the quality of their supervisory role in relation to the amount and composition of their pay, and iii) the specific structure of the committee charged with setting remuneration may have an additional impact.

In the following sections, the empirical strategy used to study all the assumptions set down in this section and our findings will be explained.

3 Sample, variables and methodology

3.1 Sample

The sample used was an incomplete data panel containing 6,391 observations of director-Spanish listed company pairs for the period 2013-2018. To construct the sample, 827 company-year observations for 2013-2018 were taken from the annual corporate governance reports that listed Spanish companies must submit to the CNMV.

These data were then crossed with the economic and financial data from the annual financial statements available in Osiris.[5] This resulted in the loss of six company-year observations.

The next step was to link the resulting data with Compustat Global stock data, which resulted in the loss of a further 74 observations.

This information was then added to the data on ownership structure from Osiris, reducing the sample by another 23 observations.

Lastly, all company-year data were combined with the individual remuneration data for directors from the annual reports on director remuneration (IARC) submitted by the companies to the CNMV. As a result, 146 company-year observations were lost.

The result of this process was a database containing 578 company-year observations for 137 different companies and a total of 6,391 director-company-year observations.

3.2 Methodology

In econometric terms, the base assumption or null hypothesis in this work is that remuneration is negotiated in an optimal manner depending on the economic and financial characteristics of the company and the capacity of the director. If this assumption of optimal contracting were real, then remuneration should be explicable by the economic determinants of the company and the director's own characteristics alone. However, two alternative (but not mutually exclusive) assumptions would be feasible if the variables of ownership and good governance were found to also have an effect.

The first alternative assumption would be that, although optimal contracting is presumed to exist, several key characteristics of the economic model have been ignored, and that these are captured by the variables of ownership and good governance, which they also influence. In other words, there would be a problem of endogeneity, since some variables would have been omitted. For example, firms with the best growth prospects would be paired with the more talented executive directors and, would possibly also be best placed to attract independent directors. Therefore, if growth expectations are not included in the variables of the economic model, a high percentage of independent directors may be found to have a positive correlation with remuneration, but this would not be a direct effect, rather an indirect relationship due to poor model specification.

The second assumption would explain that the variables of ownership and structure of the board have an influence because the company's contracting is not optimal. From this point of view, the key lies in the conflict of interest, which is not resolved through remuneration but is increased or reduced by certain characteristics of ownership or corporate governance, which would ultimately affect remuneration.

5 Osiris is the database marketed by Bureau van Dijk containing the financial and stock market data of listed companies worldwide.

To compare and contrast these alternative assumptions and all the different hypotheses, the following regression model is proposed, where the dependent variable measures the remuneration received by a board member, *i*, of company *j*, in a given year *t*, and the explanatory variables are the values in year *t-1* of a set of *n* economic variables of company *j*, *m* variables of the director *i*, *p* variables of the ownership of company *j* and *q* variables that reflect the corporate governance of *j*:

$$Remuneration\ of\ director_{i,j,t} = \alpha + \sum_n \beta_{j,n} * economic\ v.\ of\ company_{j,t-1} +$$

$$+ \sum_m \beta_{i,m} * v.\ of\ director_{i,t-1} + \sum_p \beta_{j,p} * ownership\ v._{j,t-1} +$$

$$+ \sum_q \beta_{j,q} * corporate\ governance\ v._{j,t-1} + \varepsilon_{i,j,t} \qquad (1)$$

To avoid, as far as possible, problems of endogeneity and thus rule out this assumption, estimates are made with a time lag, whereby remuneration in year *t* is explained on the basis of the observable characteristics in year *t-1*. Furthermore, given the incomplete panel structure of the sample, the effect caused by any omitted variable that is invariant and particular to each company or director can be eliminated by performing an intragroup estimate that corrects for these fixed effects in each company. Although this intragroup or *fixed effects* regression is the most appropriate for these panel data, in the study of the determinants of remuneration for top executives, a problem of sample size emerges (630 observations available), which reduces the precision and efficiency of the estimates due to the loss of degrees of freedom inherent to the intragroup estimate. To address this problem, in the study of remuneration paid to top executives, two alternative estimates were made: one of generalised least squares and one of ordinary least squares. The random effects or generalised least squares or *random effects* estimate is a linear combination of intragroup and intergroup estimators, and also corrects for the heteroscedasticity produced by individual effects. This estimate is efficient according to the hypothesis that the fixed effects are not correlated with the independent variables included in the regression, but it is not robust and produces biased estimators if the data show heteroscedasticity in the errors that differs from that caused by the fixed effects. The ordinary least squares estimate with heteroscedasticity robust errors according to the White method (1980), while not efficient, is capable of correcting heteroscedasticity in the errors that is not caused by fixed effects. Therefore, when the coefficients of the estimates for random effects or ordinary least squares do not differ significantly from those of the estimates for fixed effects, the results of these alternative estimates are used, since they are more efficient due to their lower loss of degrees of freedom. However, when there is a significant difference in the coefficients, the results of the fixed effects regression are used, since, despite the loss of degrees of freedom and precision, it is the only one to show consistent and unbiased results. The Hausman test is used to contrast the equality of the coefficients of the fixed effects regression with those of the estimates for random effects and ordinary least squares respectively.

3.3 Variables used

The definitions and descriptive statistics of the different variables used to estimate the econometric model are described below. When studying the descriptive statistics of these variables, it is important to bear in mind that, since remuneration in year *t* is based on the characteristics observed in year *t-1*, the observations of the

dependent variables of remuneration range from 2014 to 2018, while the observations of the explanatory independent variables range from 2013 to 2017.

3.3.1 Remuneration variables

Table 1 shows the different components of remuneration which are available in the annual reports on director remuneration submitted by companies to the CNMV. A detailed description of these different components is shown in the appendix. Further, when analysing these components, it is important to bear in mind that although the reports present the remuneration received by each director from the reporting company and from other companies in the group separately, we have opted to aggregate these amounts to reflect the total remuneration received by the director from the listed company and its group of subsidiaries, since any relationship with these entities may influence the director's decisions.[6]

The fixed remuneration of top executives (a category that includes both CEOs and executive chairmen) and other executive directors is substantially higher than that of proprietary and independent directors, since executive directors are assigned a salary for their executive duties, while the *fixed* payment component refers only to the non-variable amounts received for membership of the board. On the other hand, attendance fees, which are paid for attending board meetings, and the amounts paid for committee membership are similar for executive and non-executive directors, and indeed slightly more generous for independent directors (possibly because most committees require a minimum percentage of independent directors).

Components of remuneration TABLE 1

Thousands of euros

	Average				Average by type of director		
	Top exec.	Stand. dev.	Min.	Max.	Other exec.	Proprietary	Independent
Salary	609.50	722.64	0.00	9,429.17	408.07	3.82	2.82
Fixed	134.95	328.29	0.00	6,484.83	79.07	60.86	75.50
Attendance fees	17.45	34.12	0.00	401.50	18.82	17.85	21.26
Committees	13.19	52.89	0.00	553.03	13.76	13.28	28.68
Severance pay	62.45	700.74	0.00	14,248.00	15.27	0.93	0.04
Pension plans	318.31	2,507.45	0.00	57,129.92	155.98	0.19	1.01
Other items	228.02	2,449.07	0.00	49,131.61	56.70	4.02	9.56
variable_st	534.32	929.69	0.00	9,724.25	366.99	2.74	2.92
variable_lt	146.17	1,113.99	0.00	25,902.88	64.21	0.08	0.00
options_ and_shares	265.31	1,031.21	0.00	11,301.00	147.54	0.76	6.49
Observations	**673**				**394**	**2,193**	**3,131**

6 Approximately 10% of directors receive remuneration from the group. This is more frequent among executive directors, but is also observed in other types of directors. In more than half of all cases where remuneration is received from the group, this remuneration is less than 30% of that received from the listed company, but there are a significant number of cases in which remuneration received from the group equals or exceeds the payments received directly from the company reporting the remuneration.

Although severance payments do not appear to be important, it should be noted that they are only included in reports at the time they are paid. For this reason, the sample includes only payments received by executives who are asked to step down during the period and not those agreed on in the event dismissal. Contributions made by the company to pension plans are reflected for each year and, as can be seen, are a substantial part of executive directors' remuneration. Another substantial portion of executive directors' remuneration is included under "other items", which refer mainly to payments in kind. This first breakdown shows us that remuneration that is considered to be "fixed" can be split into many different components.

The variable remuneration received by executive directors in accordance with results is considerably lower than the fixed component. In this regard the small amount of long-term variable remuneration received by executive directors is striking, and it is relevant because it determines the incentives for executives in relation to the future performance of the company. Additionally, the portion of variable remuneration that is based on shares and share options, which we will call *market-based remuneration*, has very little weight.[7] Curiously, the table shows that there are independent directors who receive variable remuneration. A study of the data suggests that this is partly because in some cases the fixed component of their salary is paid in shares, and in other cases because some executive directors are reclassified as independent when cease to perform executive duties but they retain a variable part of their remuneration.

In Table 2 all these variables are aggregated into five groups. The *total_rem* variable is the sum of fixed plus variable remuneration. The *fixed_rem* variable includes the fixed salary, attendance fees, remuneration for committee membership, severance pay, pension plans and other items. Short-term and long-term variable remuneration is aggregated and measured both in terms of its amount (*variable_rem*) and by the percentage it represents of total remuneration (*variable_rem%*). Lastly, *market_rem%* measures variable remuneration in the form of shares and share options as a percentage of total remuneration. The table shows how these variables have changed over time, which, comparing the annual averages, does not reflect a clear trend. Total remuneration rose in 2015, but fell in 2016 and increased again in 2017. This occurred both for the remuneration received by executive directors and by all other directors.

7 This observation coincides with that of Gómez (2019) using a very similar sample of data from annual reports on director remuneration.

Movements in remuneration over the period

TABLE 2

Thousands of euros

						Annual averages				
	Obs.	Average	Stand. dev.	Min.	Max.	2014	2015	2016	2017	2018
Top executive										
total_rem	673	2,267.22	4,536.46	0.00	60,966.87	1,750.63	2,758.53	2,071.49	2,600.40	2,108.43
fixed_rem	673	1,321.42	3,739.02	0.00	58,960.85	1,008.51	1,780.82	1,191.42	1,207.15	1,370.81
variable_rem	673	945.80	1,971.35	0.00	28,033.82	742.13	977.72	880.07	1,393.25	737.61
variable_rem%	663	28.61	25.17	0.00	95.12	27.09	27.76	27.75	32.13	28.26
market_rem%	663	4.73	13.74	0.00	91.94	3.71	4.81	6.43	8.30	0.63
Other executive directors										
total_rem	394	1,311.13	3,587.26	0.00	56,858.89	874.84	2,136.65	1,108.58	1,313.80	998.75
fixed_rem	394	732.39	1,589.23	0.00	23,393.18	558.26	1,056.69	695.43	636.87	683.67
variable_rem	394	578.74	3,065.85	0.00	56,858.89	316.58	1,079.96	413.14	676.93	315.08
variable_rem%	385	21.96	22.55	0.00	100.00	21.46	21.49	19.58	26.22	20.66
market_rem%	385	3.76	11.38	0.00	93.36	3.28	3.93	3.64	7.11	0.05
Proprietary										
total_rem	2,193	103.62	135.70	0.00	1,525.82	87.09	103.71	107.90	103.99	114.47
fixed_rem	2,193	100.03	129.46	0.00	1,467.48	80.70	98.29	105.69	100.73	113.75
variable_rem	2,193	3.59	30.18	0.00	700.00	6.38	5.42	2.22	3.26	0.72
variable_rem%	1,922	4.04	15.58	0.00	100.00	6.53	5.58	3.95	3.04	0.96
market_rem%	1,922	0.33	3.28	0.00	50.00	0.49	0.40	0.29	0.50	0.00
Independent										
total_rem	3,131	148.24	247.29	0.00	5,927.19	137.45	157.20	152.07	148.91	143.17
fixed_rem	3,131	138.83	195.47	0.00	3,534.42	125.33	142.21	138.54	142.83	141.08
variable_rem	3,131	9.41	122.77	0.00	3,685.00	12.12	14.99	13.53	6.08	2.09
variable_rem%	3,023	3.24	14.35	0.00	100.00	4.88	4.23	3.28	2.96	1.58
market_rem%	3,023	0.82	5.98	0.00	95.07	1.07	0.94	1.07	1.14	0.00

Lastly, Table 3 illustrates the correlations among the five remuneration variables used in the analysis. As could be expected, there is significant correlation among all these variables, indicating that executive directors receiving the largest amounts of total remuneration are those that receive the highest fixed remuneration, but also those receiving the highest percentage of their remuneration in variable form and in the form of shares and share options.

Correlations among remuneration variables TABLE 3

	total_rem	*fixed_rem*	*variable_rem*	*variable_rem%*	*market_rem%*
total_rem	1				
fixed_rem	0.8365***	1			
	(0.000)				
variable_rem	0.7103***	0.2085***	1		
	(0.000)	(0.000)			
variable_rem%	0.3191***	0.1298***	0.4023***	1	
	(0.000)	(0.000)	(0.000)		
market_rem%	0.2675***	0.0838***	0.3694***	0.444***	1
	(0.000)	(0.000)	(0.000)	(0.000)	

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

3.3.2 Economic characteristics of companies

Table 4 shows the descriptive statistics of the economic variables related to the companies in the sample. The theoretical agency models (Rosen, 1982) and empirical evidence from literature referred to above (Smith and Watts, 1992; Core, Holthausen and Larcker, 1999) indicate that more complex companies with better investment prospects will demand higher-level directors and therefore, on balance, they will pay higher salaries. To capture complexity, the *asset* variable is used (total assets of the company in millions of euros, although bearing in mind the non-normal distribution of this variable, its logarithm is used for estimates). The *growth opportunities* variable is calculated as market capitalisation as a portion of total assets (Tobin's Q). Although the company's sector affiliation also reflects its growth opportunities, this is not included as it is a fixed variable throughout the entire period and is captured in the estimates through fixed effects. However, *indebtedness* (total debt as a portion of total assets) is included. This varies over time and is more difficult to analyse, since it captures both the complexity and the risk of insolvency and financial restrictions faced by the company.

The agency model implies that the level of variable and total remuneration must increase in tandem with the company's performance and decrease with its level of risk (Core, 2000). Return and risk are measured through economic return, *ROA*, and standard deviations in the last five years (*sdROA*), and also through the market return of the company's shares, *MR* (corrected for dividends, buybacks and splits), and standard deviations during the last 12 months (*sdMR*). Lastly, the *liquidity* variable is also included, to indicate the liquidity of the company's shares, as lower liquidity implies a higher risk for a director who agrees to receive a greater proportion of his or her remuneration in the form of shares or share options.

Characteristics of the sample companies

TABLE 4

						Annual averages				
	Obs.	Average	Stand. dev.	Min.	Max.	2013	2014	2015	2016	2017
assets (millions of euros)	577	32,700	142,000	2	1,440,000	32,300	32,500	33,700	32,000	32,700
indebtedness (%)	572	65.94	29.16	5.14	168.39	68.23	67.33	65.48	64.32	64.66
investment_op	563	0.81	1.02	0.00	5.24	0.69	0.70	0.79	0.89	0.97
ROA (%)	572	2.87	9.76	.33.06	35.86	1.05	2.86	2.70	3.87	3.68
MR (%)	576	0.16	0.48	.0.80	2.30	42.59	-2.88	8.67	16.55	15.07
sdROA	573	5.71	7.87	0.13	42.68	4.29	5.08	6.07	6.31	6.61
sdMR	578	0.10	0.08	0.00	0.47	11.23	8.96	10.01	9.98	8.50
liquidity ratio	578	89.89	107.21	0.00	676.80	92.25	87.11	86.04	103.88	80.26

Observing the descriptive statistics of these variables, we see that the average company in the sample is large, has a high level of indebtedness and is a mature company with few growth opportunities and rather low levels of performance during the period. These variables do not change much over time, except in the case of market returns, which, as is to be expected, fluctuate a great deal during the period.

Table 5 shows the correlations among the economic variables, which tend to correspond in a predictable manner. However, it is important to note that the correlations are not so great as to prevent the simultaneous inclusion of these variables in the regression model.

Correlations among characteristics of the companies

TABLE 5

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) *assets*	1							
(2) *indebtedness* (%)	0.1854*** (0.000)	1						
(3) *investment_op*	-0.3283*** (0.000)	-0.3247*** (0.000)	1					
(4) *ROA* (%)	0.0533 (0.2033)	-0.421*** (0.000)	0.3841*** (0.000)	1				
(5) *MR* (%)	-0.0309 (0.4598)	-0.1164** (0.0054)	0.0912** (0.0308)	0.1137** (0.0066)	1			
(6) *sdROA*	-0.4519*** (0.000)	0.201*** (0.000)	0.2099*** (0.000)	-0.0659 (0.1168)	-0.0183 (0.6619)	1		
(7) *sdMR*	-0.1855*** (0.000)	0.2588*** (0.000)	-0.1646*** (0.0001)	-0.1882*** (0.000)	0.2318*** (0.000)	0.2797*** (0.000)	1	
(8) *liquidity ratio*	0.2709*** (0.000)	0.3518*** (0.000)	-0.1756*** (0.000)	-0.1141** (0.0063)	-0.0007 (0.9873)	0.099 (0.0182)	0.1354** (0.0011)	1

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

3.3.3 Characteristics of directors

Table 6 shows the percentage of directors by category, distinguishing between top executives (which include CEOs and executive chairmen), other executive directors, proprietary directors, independent directors and others.

Percentages of directors by type TABLE 6

	Total	2014	2015	2016	2017	2018
Top executive	0.11	0.11	0.11	0.10	0.10	0.11
Other executive directors	0.06	0.07	0.06	0.06	0.07	0.05
Proprietary directors and other	0.34	0.39	0.36	0.33	0.32	0.33
Independent	0.49	0.43	0.47	0.50	0.52	0.52
Observations	**6,391**	**1,070**	**1,302**	**1,331**	**1,329**	**1,359**

In alignment with trends in good corporate governance, independent directors represent around 50% of the total number of directors, and the trend observed during the period studied is of an increase in the percentage of independent directors and a fall in that of proprietary directors. While this cannot be seen from the table, it is also interesting to note that 7% of the top executives are also proprietary directors (although by being included in the category of chief executive they are excluded from the proprietary category).

The information available on this subject is limited. However, two characteristic variables of directors are also included that will influence their remuneration. The *seniority* variable measures the number of years that the director has been in office and the *num_boards* variable indicates the number of boards of which he or she is a member. Seniority would be expected to have a positive influence on total remuneration, either because the relationship between the company and the director has already proved to be positive and has shown good results, or because it is expected that the director's power and influence on the board will increase over time. Similarly, the number of boards to which the director belongs would be an indicator of his or her perceived quality and a positive correlation with remuneration would be expected.

Seniority and number of boards of which directors in the sample are members TABLE 7

						Average of the different types of directors			
	Obs.	Average	Stand. dev.	Min.	Max.	Top executive	Other executive directors	Proprietary directors and other	Independent
seniority	6,351	6.52	6.98	0	31	9.37	7.88	6.72	5.59
num_boards	6,391	1.28	0.62	1	4	1.18	1.14	1.24	1.35

The descriptive statistics for these variables in Table 7 show a high rate of seniority taking the CEOs of the S&P500 index of large-cap companies as a reference, which in 2017 was 7.2 years on average.[8] It is interesting to note that, as might be expected, independent directors have the lowest seniority and are most likely to belong to more than one board of directors. However, for independent directors, the analysis of these variables is more complicated, since it is understood that independence is *lost over* time and, consequently, good governance codes usually include recommendations for the maximum length of time these directors should remain on a company's board (in Spain it is 13 years, compared with nine years in the United Kingdom). It can also be a problem if an independent director sits on a large number of boards, since his or her dedication to the company will be part-time and membership of multiple boards can reduce the attention given to the company and turn him or her into a "busy director". Additionally, given that the appointment of independent directors may be influenced by executive directors or controlling shareholders, directors may be invited to sit on multiple boards if they prove to be cooperative directors, which could call their independence into question. Table 8 shows details of the descriptive statistics for independent directors. It can be observed that more than 25% of independent directors have been in the company for more than eight years, and more than 25% serve on two or more boards. These data suggest that the pool of independent directors in Spain is still small. In addition, the problem of the seniority of independent directors becomes worse if we consider than there are 81 cases in the sample where independent directors are classified as "other" at some point in time, and 14 cases where they are reclassified as "proprietary directors". This indicates that in some cases independent directors may remain on a company's board for a prolonged period, once their term of office is over, having been reclassified to another category. This practice is highly problematic because, although in the second stage the independent director is recognised as non-independent, the possibility and expectations of holding the position of director for an indefinite period restrict the incentive to act independently during his or her initial stage as an independent director.[9] From this perspective, staying on the board could be seen as a reward for having cooperated or shown affinity with executive directors and controlling shareholders during their time as an independent director.

Seniority and number of boards of which independent directors in the sample are members TABLE 8

					Percentiles					
	Obs.	Average	Stand. dev.	Min.	P 10%	P 25%	Median	P 75%	P 90%	Max.
seniority	3,120	5.59	5.98	0	0	1	3	8	13	31
num_boards	3,131	1.35	0.66	1	1	1	1	2	3	4

8 Study by the consulting firm Equilar referenced in the Harvard Law School Forum on Corporate Governance. Available at: https://corpgov.law.harvard.edu/2018/02/12/ceo-tenure-rates/#:~:text=In%20the%20past%20five%20years,at%20the%20end%20of % 202017.

9 Interestingly, there are also 46 cases of executive directors, proprietary directors and other directors who are later reclassified as independent in the same company. We have verified that this does not occur only in our data sample, but is a practice that is also observed in the data existing for directors of large US companies in the Execucom database.

Lastly, it should be noted that the seniority variable and board membership variable have a correlation of close to zero, so that the simultaneous inclusion of both variables in our estimates does not present a problem.

3.3.4 Ownership structure

Table 9 shows different variables to capture the ownership structure of the sample of companies. The variables included are the total percentage of shares (direct and indirect ownership) of the main shareholder (*1st_shldr%*), the total percentage held by the largest three and five shareholders (*top3_shldr%* and *top5_shldr%*), the percentage of controlled companies (*%controlled*) and, for the sub-sample of controlled companies, the total percentage of shares held by the controlling shareholder (*%control_shldr*). These variables should be negatively correlated with total remuneration, since the presence of large shareholders capable of actively supervising directors reduces agency conflict within the company, makes the use of variable remuneration less necessary, and limits the power of executive directors.

The table clearly shows that ownership is significantly concentrated and, on average, the largest five shareholders control the company. There are more than 20% of controlled companies, in which the main shareholder has an average stake of 58%. Furthermore, these percentages remain stable throughout the period.

Ownership structure of the sample companies TABLE 9

						Annual averages			
	Obs.	Average	Stand. dev.	Min.	Max.	2013	2014	2015	2016	2017
1st_shldr%	578	30.21	21.96	6	98.93	30.69	30.41	29.78	30.28	29.96
top3_shldr%	578	45.54	23.23	8	100.00	47.43	45.93	45.62	45.14	43.78
top5_shldr%	578	52.06	23.33	10	100.00	55.12	53.26	52.83	50.86	48.60
%controlled	578	28.37	45.12	0	100.00	29.63	28.95	26.50	27.73	29.17
%control_shldr	152	58.68	18.03	0	98.93	57.39	61.75	57.46	59.97	56.75

In addition to measuring the percentage stake held by the main shareholder, it is important to determine who this shareholder is, as this can influence their ability or incentive to resolve agency conflict. Families present two clear characteristics when they are the main shareholder of a company. First of all, they are free of agency conflict. This is because the family invests and manages its own capital, whereas if the main shareholder is another company, an investment fund or a public entity, there is necessarily a second level of agency: the company, the fund or the public entity is in turn managed by agents of the shareholders, investors or taxpayers who will receive the profits of the investee company. Second, in order to maintain a significant equity stake, they cannot diversify their investment portfolios. Both these characteristics imply that families can be expected to be those that invest most in supervising executives and reducing agency conflict. Table 10 identifies the main shareholders, which in more than 33% of the cases in our sample are individuals or families, followed by companies. Banks, investment funds and financial and insurance companies account for a smaller number, while public entities are the main

shareholder in a marginal number of cases. Although these percentages fluctuate over the period, no clear trend can be discerned.

Percentage of companies by type of main shareholder TABLE 10

	2013-2017	2013	2014	2015	2016	2017
Family	33.69	33.65	23.64	32.74	36.44	41.18
Company	27.13	23.08	31.82	26.55	29.66	24.37
Bank	16.13	20.19	18.18	17.70	11.86	13.45
Investment fund	10.11	6.73	10.91	10.61	12.71	9.24
Financial inst. or insurer	8.51	9.61	9.09	8.84	7.63	7.56
Public authority	4.08	6.73	5.45	3.54	1.69	3.36
Other	0.36	0.00	0.91	0.00	0.00	0.84
Observations	**564**	**104**	**110**	**113**	**118**	**119**

Table 11 shows the correlations among ownership structure variables, and it can be clearly seen that all the variables that capture the ownership structure are highly and significantly correlated. Therefore, to avoid problems of collinearity, they should not be included simultaneously in multivariate estimates and, in regressions, the ownership structure should be summarised using the percentage ownership of the main shareholder (*1st_shldr%*) and an indicative variable (*family*), which indicates whether the main shareholder is a family or not.

Correlations among ownership structure variables TABLE 11

	1st_shldr%	*top3_shldr%*	*top5_shldr%*	*%controlled*	*%control_shldr*
1st_shldr%	1				
top3_shldr%	0.8802*** (0.000)	1			
top5_shldr%	0.7823*** (0.000)	0.9712*** (0.000)	1		
%controlled	0.8308*** (0.000)	0.6732*** (0.000)	0.5609*** (0.000)	1	
%control_shldr	0.6035*** (0.000)	0.4015*** (0.000)	0.3556*** (0.000)	0.9415*** (0.000)	1

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

3.3.5 Characteristics of boards of directors

Table 12 contains four groups of variables to capture the key characteristics of the board for determining remuneration.

The first group refers to the basic structure of the board and includes the number of directors (*num_directors*), the number of board meetings held during the year (*num_meetings*) and board composition by the ratio of different types of director (*r_executive, r_proprietary, r_independent, r_other*). Both the theoretical and the

empirical literature concur that very large boards are ineffective. Therefore, beyond a certain threshold, a greater number of directors would be expected to hinder the supervisory work of the board, increase the power of executive directors and result in higher remuneration for these directors. Conversely, a larger number of meetings would indicate a more intensive supervisory effort and, although there is no clear consensus in the empirical literature, theoretically, a board with a large percentage of highly reputable independent directors would be expected to exercise greater supervision and reduce the total amount of remuneration.

The second group includes additional variables to reflect the quality of the boards. These are: i) the average seniority of the director (*average_seniority*); ii) the ratio of directors shared with other companies (*r_interlocked*), i.e., "interlocked directors", who appear when two companies share and exchange directors, with one director from each entity joining the board of the other, and directors may be shared with several different companies; iii) the ratio of directors with a seat on more than one board (*r_busy*), and iv) the ratio of directors that sit on the board of one or more group companies in addition to serving in the listed company (*r_group_board*). In general, high values in all these variables will tend to increase the influence of the executive directors on the board and hinder their supervisory work, which would allow these directors to obtain a higher remuneration.

The third group of variables more directly reflects the influence of executives on the board, measuring alternative sources of remuneration that executives obtain from the company other than their remuneration. Included here are two variables indicative of related party transactions between the company and the executive directors (*rel_trans_executives*) and the existence of measures to protect against potentially hostile takeovers, which would imply additional remuneration for executives (*protection measures*).

The fourth and last group includes variables related to the remuneration committee. In most of the companies in our sample, the nomination and remuneration committee has the task of establishing remuneration, but 8% of the companies have a specific remuneration committee and this appears to be a growing trend, in alignment with the recommendations of the good governance code, which encourages companies with a higher capitalisation to have two separate committees: one to attend to nominations and the other to remuneration. For this reason, an indicative variable is included to show whether or not there is a specific remuneration committee (*remuneration_com*). Furthermore, regardless of the committee responsible, the number of members (*num_directors_nandr_com*), the frequency of their meetings (*num_meetings_nandr_com*) and their composition (*r_exec_nandrc, r_prop_and_other_nandrc, r_indep_nandrc*) are measured.

Table 13 completes our description of the variables used, showing the correlations among all these variables which, while in many cases significant, do not present values that are so high as to cause a problem of collinearity in our estimates.

Board characteristics

TABLE 12

	Obs.	Average	Stand. dev.	Min.	Max.	Annual averages 2013	2014	2015	2016	2017
num_directors	578	10.29	3.61	3	21	10.84	10.21	10.24	10.18	10.03
num_meetings	578	10.65	4.19	1	42	10.28	10.58	10.87	10.62	10.84
r_executive	578	0.17	0.11	0	0.67	0.18	0.17	0.16	0.16	0.17
r_proprietary	578	0.35	0.22	0	0.90	0.39	0.37	0.34	0.33	0.31
r_independent	578	0.41	0.17	0	1	0.37	0.39	0.42	0.44	0.44
r_other	578	0.07	0.10	0	0.7	0.06	0.07	0.07	0.07	0.08
avg_seniority	578	6.59	3.95	0	20.5	7.94	6.67	6.11	6.14	6.21
r_interlocked	578	0	0.14	0	1.09	0.09	0.04	0.07	0.06	0.07
r_busy	578	0	0.19	0	0.73	0.21	0.21	0.23	0.25	0.24
r_group_boards	578	0.22	0.21	0	1	0.24	0.22	0.21	0.22	0.22
rel_trans_executives	578	0.39	0.49	0	1	0.40	0.37	0.43	0.39	0.36
protection measures	578	0.74	0.44	0	1	0.66	0.66	0.77	0.80	0.78
remuneration_com	578	0.08	0.27	0	1	0.02	0.05	0.11	0.10	0.10
num_directors_nandr_com	578	3.63	1.32	0	10	3.52	3.50	3.68	3.72	3.69
num_meetings_nandr_com	578	5.22	3.88	0	28	4.86	4.89	5.22	5.38	5.71
r_exec_nandrc	550	0.02	0.08	0	0.67	0.05	0.03	0.00	0.01	0.00
r_prop_and_other_randrc	550	0.34	0.23	0	1	0.38	0.35	0.33	0.33	0.32
r_indep_nandrc	550	0.64	0.23	0	1	0.57	0.62	0.67	0.67	0.68
Observations						**108**	**114**	**117**	**119**	**120**

Correlations among board characteristics

TABLE 13

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) *num_directors*	1																	
(2) *num_meetings*	0.1082**	1																
	(0.0093)																	
(3) *r_executive*	-0.1306**	-0.1429***	1															
	(0.0016)	(0.0006)																
(4) *r_proprietary*	0.2311***	-0.0111	-0.4742***	1														
	(0.000)	(0.7896)	(0.000)															
(5) *r_independent*	-0.1675***	0.1182**	-0.0844**	-0.7065***	1													
	(0.0001)	(0.0044)	(0.0424)	(0.000)														
(6) *r_other*	-0.0636	-0.0147	0.0263	-0.41***	-0.0861**	1												
	(0.1268)	(0.7238)	(0.5278)	(0.000)	(0.0386)													
(7) *avg_seniority*	0.1197**	-0.2164***	0.1175**	0.0451	-0.2327***	0.1651***	1											
	(0.0039)	(0.000)	(0.0047)	(0.2791)	(0.000)	(0.000)												
(8) *r_interlocked*	0.2692***	0.044	-0.0707*	0.1368***	-0.0479	-0.1326**	-0.0609	1										
	(0.000)	(0.2905)	(0.0895)	(0.001)	(0.2504)	(0.0014)	(0.1435)											
(9) *r_busy*	0.3359***	0.0959**	-0.1914***	-0.077*	0.225***	0.0004	-0.0863**	0.4535***	1									
	(0.000)	(0.0211)	(0.000)	(0.0644)	(0.000)	(0.9925)	(0.038)	(0.000)										
(10) *r_group_boards*	0.1292**	-0.042	0.4026***	-0.0486	-0.2433***	0.0608	0.2429***	-0.0785*	-0.1159**	1								
	(0.0019)	(0.3139)	(0.000)	(0.2429)	(0.000)	(0.1444)	(0.000)	(0.0593)	(0.0053)									
(11) *rel_trans_executive*	-0.0129	-0.0242	0.0953**	0.0614	-0.1042**	-0.0633	-0.031	-0.0532	-0.1801***	0.0312	1							
	(0.7566)	(0.5614)	(0.0219)	(0.1404)	(0.0122)	(0.1283)	(0.4573)	(0.2011)	(0.000)	(0.4535)								
(12) *protection measures*	0.2476***	0.2094***	-0.1133**	0.0152	0.0761*	-0.0333	-0.0901**	0.1761***	0.2429***	-0.1194**	-0.0137	1						
	(0.000)	(0.000)	(0.0064)	(0.7159)	(0.0675)	(0.4248)	(0.0303)	(0.000)	(0.000)	(0.0041)	(0.7418)							
(13) *remuneration_com*	0.2543***	0.1849***	0.0446	-0.2286***	0.2308***	0.0484	-0.0233	0.0907**	0.208***	-0.0604	-0.1251**	0.0865**	1					
	(0.000)	(0.000)	(0.2844)	(0.000)	(0.000)	(0.2454)	(0.5757)	(0.0292)	(0.000)	(0.1469)	(0.0026)	(0.0376)						
(14) *num_directors_nandr_com*	0.474***	0.111**	-0.1309**	0.1117**	-0.0082	-0.0775*	0.061	0.1984***	0.2807***	0.0745*	-0.0332	0.2321***	0.1415***	1				
	(0.000)	(0.0076)	(0.0016)	(0.0072)	(0.844)	(0.0627)	(0.1432)	(0.000)	(0.000)	(0.0734)	(0.4257)	(0.000)	(0.0006)					
(15) *num_meeting_nandr_com*	0.4141***	0.4564***	-0.0824**	-0.0191	0.1422***	-0.1074**	-0.1093**	0.171***	0.2764***	0.0564	-0.1382***	0.273***	0.3044***	0.3686***	1			
	(0.000)	(0.000)	(0.0477)	(0.6472)	(0.0006)	(0.0098)	(0.0086)	(0.000)	(0.000)	(0.1758)	(0.0009)	(0.000)	(0.000)	(0.000)				
(16) *r_exec_nandrc*	-0.1116**	-0.0919**	0.3931***	-0.1478***	-0.1136**	0.0822*	0.0483	-0.0902**	-0.185***	0.1686***	-0.0034	-0.2113***	-0.062	-0.0288	-0.0965**	1		
	(0.0088)	(0.0312)	(0.000)	(0.0005)	(0.0076)	(0.0539)	(0.2583)	(0.0345)	(0.000)	(0.0001)	(0.9366)	(0.000)	(0.1462)	(0.5004)	(0.0235)			
(17) *r_prop_and_other_nandrc*	0.2311***	0.0648	-0.2661***	0.5913***	-0.6094***	0.0457	0.0749*	0.1421***	-0.0463	0.0672	0.0247	0.1057**	-0.1226**	0.3232***	0.0224	-0.1152**	1	
	(0.000)	(0.129)	(0.000)	(0.000)	(0.000)	(0.2844)	(0.0791)	(0.0008)	(0.2788)	(0.1152)	(0.564)	(0.0131)	(0.004)	(0.000)	(0.6001)	(0.0068)		
(18) *r_indep_nandrc*	-0.1881***	-0.032	0.1258**	-0.5286***	0.636***	-0.0730*	-0.09**	-0.1083**	0.1088**	-0.1237**	-0.023	-0.031	0.1414***	-0.3067***	0.0112	-0.2304***	-0.9401***	1
	(0.000)	(0.4545)	(0.0031)	(0.000)	(0.000)	(0.0871)	(0.0349)	(0.0111)	(0.0106)	(0.0037)	(0.5906)	(0.468)	(0.0009)	(0.000)	(0.7934)	(0.000)	(0.000)	

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

4 Results of the estimate

This section presents the results of the explanatory regressions of the determinants of directors' remuneration in Spain. Consistent with the methodology presented in the previous section, the results are displayed sequentially. The variables that would be significant in a context of optimal contracting are introduced first. Ownership structure and corporate governance characteristics are then added, which are significant in imperfect bargaining environments where it is not possible to fully resolve the agency conflict with the remuneration agreed and, therefore, significant shareholders and the board structure can influence how these conflicts are resolved and determine the remuneration paid. In each heading, the determinants of the different components of remuneration (fixed remuneration, percentage of variable remuneration and percentage of remuneration in the form of shares and share options) are analysed separately, both in relation to the top executives and the rest of the members of the board of directors.

4.1 Relationship between remuneration and company and director characteristics

Tables 14 and 15 show, respectively, the correlation coefficients of the different remuneration variables with the characteristics of the company (Table 14) and of the director (Table 15).

Correlations among economic variables and remuneration TABLE 14

	total_rem	*fixed_rem*	*variable_rem*	*variable_rem%*	*market_rem%*
assets	0.1658***	0.1515***	0.1014***	-0.0674***	0.082***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
indebtedness (%)	0.0338**	0.0353**	0.0155	-0.0855***	0.0342**
	(0.0072)	(0.005)	(0.2178)	(0.000)	(0.0085)
investment_op	-0.0336**	-0.0397**	-0.0089	0.1116***	-0.0068
	(0.0078)	(0.0016)	(0.482)	(0.000)	(0.6023)
ROA (%)	0.0043	-0.0073	0.017	0.1404***	0.015
	(0.7342)	(0.5613)	(0.1763)	(0.000)	(0.2481)
MR (%)	-0.0234*	-0.0243*	-0.0105	0.0523***	-0.0121
	(0.0621)	(0.0526)	(0.4007)	(0.0001)	(0.3482)
sdROA	-0.0602***	-0.0531***	-0.0392**	-0.0675***	-0.0443***
	(0.000)	(0.000)	(0.0018)	(0.000)	(0.0006)
sdMR	-0.0306**	-0.0287**	-0.0178	-0.0377**	-0.0231*
	(0.0143)	(0.0219)	(0.1538)	(0.0035)	(0.0734)
liquidity ratio	0.0554***	0.0623***	0.0189	-0.0463***	0.1013***
	(0.000)	(0.000)	(0.1307)	(0.0003)	(0.000)

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Correlations among characteristics of the directors and remuneration TABLE 15

	total_rem	*fixed_rem*	*variable_rem*	*variable_rem%*	*market_rem%*
seniority	0.0854***	0.076***	0.0547***	0.1773***	0.016
	(0.000)	(0.000)	(0.000)	(0.000)	(-0.2183)
num_boards	-0.003	0.007	-0.014	-0.0801***	-0.031
	(-0.828)	(-0.5637)	(-0.2587)	(0.000)	(-0.0175)

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

In this univariate analysis, significant correlations are observed between the explanatory variables and the remuneration variables. Specifically, the size, indebtedness and investment opportunities, variability of returns and liquidity of the company, and the seniority of the director are correlated with the remuneration amount, as well as with the proportion of variable remuneration. It is also interesting to note that variable and fixed remuneration appear to relate in the same way to the explanatory variables, while for variable remuneration some significant coefficient signs, such as size, are contrary to those observed for total and fixed remuneration. Some correlation coefficients present the expected sign. Thus, for example, both size and seniority are positively correlated with fixed and variable remuneration; the level of risk (measured with the *sdROA* and *sdMR* variables) is negatively correlated with both total remuneration and the percentage of variable remuneration, and return (measured using the *ROA* and *MR* variables) is positively correlated with the percentage of variable remuneration. However, other coefficients present the opposite sign to that predicted by the theory. Specifically, growth opportunities show a clear negative correlation with remuneration, when the theory would indicate that greater complexity in executive directors' work in growth environments would require higher remuneration. This specific case can be interpreted as a clear example of the limitations of univariate analysis. To the extent that growth opportunities are negatively correlated with the company size, the correlation between remuneration and growth opportunities is negative because it reflects the effect of the size, which is ignored when calculating the direct and isolated correlation between remuneration and growth opportunities. This same problem, applied to different variables, could bias other coefficients, making them not significant.

A multivariate analysis using the methodology explained in the previous section is then performed. For each remuneration variable for top executives, three alternative regressions are carried out: intragroup or fixed effects (FE), generalised least squares or random effects (RE) and ordinary least squares with robust errors (OLS). A Hausman test to assess the equality of coefficients between the FE and the RE estimate and between the FE and the OLS estimate is then performed. When the Hausman test does not reject the equality of coefficients, the RE or OLS regression is used, as these are more efficient. When the equality of coefficients is rejected, the FE regression is selected, as it is the only one with unbiased coefficient values. Although the main text shows only the most efficient regression, Tables A3, A4 and A5 of the appendix show all these estimates and the results of the Hausman test, which draws attention to one of them specifically. For other directors, only the FE regression is performed, since the high number of observations guarantees the efficiency of this estimate. Dependent variables include the amount of the fixed remuneration, the percentage of variable remuneration as a portion of the total and the percentage

of market-based remuneration (shares and share options received during the year). The results of the analysis for total variable remuneration are set down in tables A6 and A7 of the appendix, since, as suggested by the univariate analysis, they are very similar to the results for fixed remuneration.

Relationship among remuneration and company and director characteristics TABLE 16

	(1)	(2)	(3)	(4)	(5)	(6)
	fixed_rem		*variable_rem%*		*market_rem%*	
	RE Top exec.	**FE Directors**	**RE Top exec.**	**FE Directors**	**RE Top exec.**	**FE Directors**
assets	0.2937***	0.2380***	3.0077***	-0.9911	1.2793***	1.1227***
	(0.0221)	(0.0415)	(0.6609)	(0.9050)	(0.2324)	(0.3361)
indebtedness	-0.0022*	-0.0017*	-0.0282	-0.1070***	-0.0428**	-0.0158**
	(0.0012)	(0.0009)	(0.0474)	(0.0196)	(0.0202)	(0.0073)
investment_op	0.0848**	0.1483***	3.7286**	1.7113**	0.9322*	0.5660**
	(0.0421)	(0.0321)	(1.4539)	(0.7005)	(0.5540)	(0.2602)
ROA	0.0007	-0.0021*	0.2853***	0.0419	-0.0422	-0.0192*
	(0.0022)	(0.0012)	(0.0968)	(0.0269)	(0.0480)	(0.0100)
MR	-0.0602*	-0.1002***	2.5285*	-0.045	-0.1504	-0.1524
	(0.0340)	(0.0190)	(1.4706)	(0.4138)	(0.7467)	(0.1537)
sdROA	-0.0093**	0.0070**	-0.134	-0.3090***	0.0315	-0.0279
	(0.0041)	(0.0028)	(0.1561)	(0.0605)	(0.0655)	(0.0225)
sdMR	0.7208***	-0.2554	-40.0207***	6.4351*	-4.5921	3.0610**
	(0.2697)	(0.1650)	(11.5714)	(3.5957)	(5.6320)	(1.3353)
liquidity	0.0003	0.0001	0.0126	0.0095***	0.0072*	0.0032***
	(0.0002)	(0.0001)	(0.0082)	(0.0024)	(0.0039)	(0.0009)
proprietary	-0.8016***	-0.1421***	-13.8859***	1.6008***	0.3307	0.214
	(0.1205)	(0.0216)	(4.5818)	(0.4693)	(1.8125)	(0.1743)
executive		1.5459***		20.1490***		2.8167***
		(0.0365)		(0.7955)		(0.2954)
seniority	0.0094***	0.0100***	-0.1973*	0.0136	-0.0464	0.0164
	(0.0029)	(0.0015)	(0.1150)	(0.0328)	(0.0482)	(0.0122)
num_boards	0.1190**	0.0635***	-2.8838	0.0497	-1.5114*	-0.0227
	(0.0509)	(0.0143)	(1.9986)	(0.3115)	(0.8406)	(0.1157)
constant	1.8783***	0.7773	-8.1668	23.4354*	-10.8734***	-16.1824***
	(0.3420)	(0.6528)	(10.2139)	(14.2305)	(3.5762)	(5.2846)
Observations	**631**	**5,137**	**631**	**5,149**	**631**	**5,149**
R^2	**0.622**	**0.379**	**0.315**	**0.165**	**0.195**	**0.035**
No. of groups	**173**	**1,438**	**173**	**1,440**	**173**	**1,440**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

An analysis of the findings of the regressions shows firstly that both size and growth opportunities have a positive influence not only on fixed remuneration but also on the percentage of variable and market-based remuneration received by directors, while indebtedness reduces these factors. This is consistent with the idea that the more complex it is to manage the company the higher the salaries required but the amounts paid are also limited by financial restrictions. It should be noted that the same results emerge for both top executives and other directors.

It can also be observed that in the case of top executives, higher returns, in both accounting terms (ROA) and in terms of market return (MR), lead to an increase in variable remuneration to the detriment of fixed pay. While risk, measured as the standard deviation of market returns, has the opposite effect. Furthermore, as would be expected, the proportion of market-based remuneration depends on the liquidity of the shares. In general, all of these findings are observed for top executives and other directors alike, but are quantitatively more significant for top executives.

With regard to the director's variables, it can be observed that directors with the most seniority and who are members of different boards have greater bargaining power, which is reflected in higher fixed remuneration and a lower percentage of variable remuneration. Looking at remuneration according to the type of director, the first thing that stands out is that when the top executive is a proprietary director who belongs to the controlling group, his or her fixed remuneration and percentage of variable remuneration are lower, possibly because, as described in the next section, he or she usually has a very large ownership stake which involves significant incentives.

In the case of directors who are not top executives, the category omitted in the regressions is that of independent director and, as anticipated, executive directors receive much higher fixed remuneration and a higher percentage of variable pay than independent directors. Proprietary directors receive lower fixed remuneration, due to the greater presence of independent directors on different board committees, given the requirement of independence of many of these.

To conclude this section, the assumption that directors' remuneration (the total amount and the proportion of variable remuneration) depends fundamentally on the characteristics of the company and the director can be confirmed. Furthermore, observing the value of the R^2 statistics of the regressions, which indicate how much of the variability of the remuneration is captured by the variables used, it seems clear that these variables offer a better explanation of the level of remuneration (R^2 of 0.622 in the first column of Table 16) than of its structure (R^2 of 0.315 and 0.195 in the third and fifth columns of Table 16 respectively) and better explain the remuneration received by top executives than that received by other directors (R^2 statistics are always higher for the top executives). The fact that the values of the R^2 statistics are far below value 1 also confirms that there must be other variables that influence agency conflict and the determination of remuneration.

Therefore, in the following sections, additions are made to the estimates in the form of ownership and board composition variables, which are also important in explaining remuneration. However, it should be noted that the inclusion of new variables does not reduce the importance of the variables specific to the company and the director, the signs and significance of which are unchanged by the considerations added.

4.2 Relationship between remuneration and ownership structure, after controlling for the characteristics of the company and the director

Based on the assumption that contractual problems mean that remuneration is a partial solution to agency conflict, ownership structure and the quality of corporate

governance are expected to be important in setting remuneration and controlling conflicts of interest. In this section, the ownership variables are included in the analysis and the greater supervision exercised by shareholders with significant stakes and, in particular, by families and individuals when they act as the main shareholder, would be expected to reduce the amount of remuneration and the use of variable remuneration. Table 17 shows the correlations between these ownership variables and remuneration.

Correlations among ownership and remuneration variables TABLE 17

	total_rem	*fixed_rem*	*variable_rem*	*variable_rem%*	*market_rem%*
1st_shldr%	-0.046***	-0.0489***	-0.0193	-0.0733***	-0.0607***
	(0.0002)	(0.0001)	(0.1228)	(0.000)	(0.000)
family	-0.011	-0.0122	-0.0041	0.0316**	-0.0286**
	(0.3785)	(0.3313)	(0.7458)	(0.0144)	(0.0267)
family member_with_CEO_prop	-0.0624***	-0.0521***	-0.0445***	-0.0368**	-0.0367**
	(0.000)	(0.000)	(0.0004)	(0.0044)	(0.0045)

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

These correlations are very clear and reflect how a higher concentration of ownership reduces both the amount of fixed remuneration and the percentage of variable and market-based remuneration. However, these univariate results must be interpreted with prudence, since it is known that concentration and the type of main shareholder can be related to size, which could be the cause of the correlations.

The regression analysis is shown in Table 18. To analyse these results, it is useful to review the assumptions developed in Section 2 of this article regarding ownership structure. In summary, these put forward that remuneration is expected to be influenced by: i) the concentration of ownership, ii) the nature of the main shareholder, and iii) situations in which the controlling shareholder is also a director.

With regard to the first of these assumptions, it can be observed that once the characteristics of each company and director have been controlled for, the negative relationship between concentration of ownership and fixed salary persists, but the findings for the percentage of variable remuneration are no longer clear. This suggests an imperfect degree of substitutability between the monetary incentives that can be obtained in an ideal bargaining situation and direct supervision by the shareholders as alternative mechanisms for controlling agency costs.

The second assumption refers to whether the main shareholder is a family or not. In view of the findings for companies controlled by families or individuals, no additional supervisory capacity of the top executives or differences in their remuneration are observed once the percentage of ownership of the family or the individual is factored in. However, these companies are seen to offer lower salaries and lower proportions of variable remuneration to all other directors, possibly because their boards have a higher proportion of proprietary directors (who, as seen in the previous section, tend to receive lower monetary incentives).

Relationship between remuneration and ownership structure

TABLE 18

	(1)	(2)	(3)	(4)	(5)	(6)
	fixed_rem		*variable_rem%*		*market_rem%*	
	OLS Top exec.	**FE Directors**	**RE Top exec.**	**FE Directors**	**RE Top exec.**	**FE Directors**
assets	0.2957***	0.2329***	3.0126***	-0.6519	1.2661***	1.1649***
	(0.0137)	(0.0414)	(0.6653)	(0.8986)	(0.2332)	(0.3362)
indebtedness	-0.0022*	-0.0016*	-0.0267	-0.1035***	-0.0435**	-0.0157**
	(0.0013)	(0.0009)	(0.0476)	(0.0195)	(0.0202)	(0.0073)
investment_op	0.0996***	0.1361***	3.6587**	2.3145***	1.0599*	0.6486**
	(0.0346)	(0.0322)	(1.4744)	(0.6992)	(0.5603)	(0.2616)
ROA	-0.0023	-0.0015	0.2888***	0.0233	-0.0472	-0.0219**
	(0.0036)	(0.0012)	(0.0973)	(0.0268)	(0.0481)	(0.0100)
MR	-0.0301	-0.0952***	2.4293	-0.2093	-0.2682	-0.1817
	(0.0578)	(0.0190)	(1.4846)	(0.4113)	(0.7542)	(0.1539)
sdROA	-0.0028	0.0055**	-0.141	-0.2800***	0.0417	-0.0228
	(0.0042)	(0.0028)	(0.1570)	(0.0605)	(0.0661)	(0.0226)
sdMR	0.3493	-0.2468	-40.0950***	7.8470**	-3.6745	3.1755**
	(0.4090)	(0.1647)	(11.6350)	(3.5716)	(5.6548)	(1.3364)
liquidity	0.0004	0.0001	0.0121	0.0105***	0.0055	0.0033***
	(0.0003)	(0.0001)	(0.0084)	(0.0023)	(0.0040)	(0.0009)
proprietary	-1.5770***	-0.1078***	-13.6866**	1.5229***	0.8908	0.0928
	(0.1341)	(0.0241)	(5.5133)	(0.5209)	(2.2107)	(0.1949)
executive		1.5470***		20.1641***		2.8184***
		(0.0364)		(0.7891)		(0.2952)
seniority	0.0109***	0.0104***	-0.2092*	0.016	-0.0576	0.0157
	(0.0031)	(0.0015)	(0.1168)	(0.0326)	(0.0494)	(0.0122)
num_boards	0.1926***	0.0627***	-2.831	0.0588	-1.322	-0.0176
	(0.0533)	(0.0143)	(2.0240)	(0.3092)	(0.8484)	(0.1157)
p_1st_shldr	-0.0054***	-0.0050***	-0.02	0.029	-0.0365*	0.0106
	(0.0013)	(0.0012)	(0.0564)	(0.0255)	(0.0215)	(0.0095)
family	0.0341	0.0781***	1.1509	-4.4543***	-0.7835	-0.6565***
	(0.0602)	(0.0297)	(1.9751)	(0.6442)	(0.9027)	(0.2411)
family member_prop	1.2264***	-0.1239***	-0.2546	0.2713	-0.8456	0.4448
	(0.2228)	(0.0402)	(8.2357)	(0.8716)	(3.5250)	(0.3261)
constant	1.9810***	0.9825	-7.8706	17.8623	-9.4203***	-17.0344***
	(0.2136)	(0.6527)	(10.5154)	(14.1575)	(3.6548)	(5.2974)
Observations	**631**	**5,137**	**631**	**5,149**	**631**	**5,149**
R^2	**0.669**	**0.384**	**0.317**	**0.179**	**0.214**	**0.037**
No. of groups		**1,438**	**173**	**1,440**	**173**	**1,440**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Lastly, the third assumption regarding ownership structure and its relationship with remuneration shows that when family businesses have a chief executive who is a member of the family, his or her fixed remuneration is higher. This is in line with the results of DeAngelo and DeAngelo (2000) for US companies and Cohen and Lauterbach (2008) for Israeli companies, which also find that family businesses use high pay as a mechanism for extracting private gains for the family at the expense of other shareholders. As explained below, all these findings remain unchanged after controlling for the corporate governance characteristics of the company.

4.3 Relationship between remuneration and the characteristics of the board, after controlling for the characteristics of the company, the director and ownership

Our research on the impact on remuneration of the quality of corporate governance variables shows in Table 19 the correlations between remuneration variables and variables that measure the quality of the company's governance, reflected in the characteristics of the board.

It can be observed that many of these correlations are in line the predictions of the literature, since the largest boards, with higher percentages of executive directors with higher average seniority, and on which a larger proportion of directors divide their time among several boards appear to be less effective supervisors and agency conflict appears to be more persistent, leading to the payment of higher fixed and variable salaries. However, there are also some contradictory results, as contrary to expectations, boards that meet more frequently and boards with more independent directors have higher levels of fixed remuneration. This may be due to the positive correlation of the number of meetings and the percentage of independent directors with the size of the company, which is one of the main economic determinants of high pay, and affirms the importance of performing a multivariate analysis.

The results of the regression analyses are shown in Table 20. This table can be analysed by groups of variables and bearing in mind the assumptions about remuneration made in regard to the quality of corporate governance. The first assumption addressed the impact of the board structure (in terms of its size, frequency of meetings and independence) on the amount and structure of the remuneration received by directors. In this regard, looking at the first group of corporate governance quality variables, it can be observed that an active board that meets frequently and has a high percentage of independent directors reduces the amount of remuneration that top executives receive, without affecting the percentage of variable remuneration. Further, the size of the board, which in the univariate analysis was highly correlated with all remuneration variables, is no longer a strong determinant and in fact increases the percentage of variable and market-based remuneration, possibly because a larger board size is clearly associated with greater management complexity and this effect is not fully controlled for with the inclusion of the size variable. Lastly, the presence of independent directors also increases the percentage of variable remuneration for directors who are not top executives, possibly due to a simple composition effect. As the percentage of independent directors increases, the percentage of proprietary directors tends to decrease more than that of executive directors, as these non-executive directors usually receive variable remuneration.

Correlations between characteristics of the boards and remuneration

TABLE 19

	total_rem	*fixed_rem*	*variable_rem*	*variable_rem%*	*market_rem%*
num_directors	0.1038***	0.0956***	0.0624***	-0.0057	0.0105
	(0.000)	(0.000)	(0.000)	(0.6617)	(0.4153)
num_meetings	0.0252**	0.0268**	0.0104	-0.0869***	-0.0321**
	(0.0443)	(0.0319)	(0.4039)	(0.000)	(0.013)
r_executive	0.0483***	0.0395**	0.0355**	0.0823***	0.0242*
	(0.0001)	(0.0016)	(0.0045)	(0.000)	(0.0615)
r_proprietary	-0.0691***	-0.0583***	-0.0486***	-0.0378**	-0.1377***
	(0.000)	(0.000)	(0.0001)	(0.0035)	(0.000)
r_independent	0.0473***	0.0373**	0.0364**	-0.0289**	0.1524***
	(0.0002)	(0.0028)	(0.0036)	(0.0254)	(0.000)
r_other	0.0214*	0.0237*	0.0078	0.046***	0.0213*
	(0.0875)	(0.0586)	(0.5346)	(0.0004)	(0.1)
avg_seniority	0.0285**	0.0235*	0.0207*	0.1958***	-0.0397**
	(0.0227)	(0.0606)	(0.0977)	(0.000)	(0.0021)
r_interlocked	0.018	0.024*	0.0013	-0.0626***	-0.0138
	(0.1497)	(0.0551)	(0.9144)	(0.000)	(0.2863)
r_busy	0.0659***	0.0573***	0.0441***	-0.059***	0.1029***
	(0.000)	(0.000)	(0.0004)	(0.000)	(0.000)
r_group_boards	0.0202	0.0233*	0.006	0.031**	-0.0248*
	(0.1072)	(0.0624)	(0.6301)	(0.0166)	(0.0549)
rel_trans_executives	-0.0238*	-0.0208*	-0.0158	0.0474***	-0.0136
	(0.057)	(0.0972)	(0.2056)	(0.0002)	(0.2918)
protection measures	0.0233*	0.0287**	0.0048	-0.0321**	0.0743***
	(0.0624)	(0.022)	(0.7015)	(0.0128)	(0.000)
remuneration_com	0.1072***	0.1083***	0.0523***	-0.0217*	0.073***
	(0.000)	(0.000)	(0.000)	(0.0931)	(0.000)
num_directors_nandr_com	0.0668***	0.0628***	0.0386**	-0.003	-0.023*
	(0.000)	(0.000)	(0.002)	(0.8171)	(0.0751)
num_meetings_nandr_com	0.0814***	0.0866***	0.0342**	-0.0939***	0.0236*
	(0.000)	(0.000)	(0.0063)	(0.000)	(0.0683)
r_exec_nandrc	-0.0142	-0.0105	-0.0118	0.0683***	-0.0288**
	(0.2661)	(0.41)	(0.3546)	(0.000)	(0.0292)
r_prop_and_other_randrc	-0.0309**	-0.0097	-0.0427***	-0.0042	-0.0791***
	(0.0154)	(0.4453)	(0.0008)	(0.7479)	(0.000)
r_indep_nandrc	0.0346**	0.0127	0.0455***	-0.0154	0.086***
	(0.0067)	(0.3208)	(0.0004)	(0.2439)	(0.000)

p-values in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

The second assumption refers to the potential influence of a second group of variables (other than mere independence) related to composition, which include the average seniority of the board and the percentages of busy, interlocked and group directors. No clear results emerge here, possibly because once again the complexity of the company cannot be perfectly controlled for by the size variable and the presence of directors on other boards is highly correlated with complexity. This would explain why companies that have this type of directors pay a higher percentage of variable remuneration to their top executives. However, it is also possible that the lower fixed salary paid to top executives in companies with more interlocked and

group directors reflects a more equal distribution between top executives and these more powerful directors.

The third group of variables includes protection measures and related party transactions. The findings show that protection measures increase the bargaining power of top executives and possibly amplify agency conflict by allowing them to increase their fixed remuneration. More difficult to explain is the negative influence of these protection measures on the percentage of variable remuneration received by other directors.

The last group of variables includes those related to the committee that sets remuneration and whether or not there is a specific remuneration committee, which enable this assumption to be studied in relation to corporate governance. The most interesting result relates to the market-based remuneration of top executives, which is known to be key for aligning executive directors' incentives with the interests of shareholders. We can see that market-based remuneration increases as the percentage of independent directors in the committee that sets remuneration rises and also when there is a specific remuneration committee. The size and number of meetings of the committee in charge of remuneration seem to have a positive impact on the fixed remuneration paid, but this could be because these committees tend to have more members and are more active in larger boards, which, in turn, tend to be those of the most complex and largest companies.

Looking at all these results, the most interesting message from the analysis is that the presence of active and well-organised independent directors on boards that meet frequently or on committees in charge of remuneration appears to lead to more moderate levels of remuneration and higher market-based remuneration. This would indicate that independent directors may be an important instrument for reducing agency conflict in companies.

Relationship between remuneration and the characteristics of the board TABLE 20

	(1)	(2)	(3)	(4)	(5)	(6)
	fixed_rem		*variable_rem%*		*market_rem%*	
	FE Top exec.	**FE Directors**	**RE Top exec.**	**FE Directors**	**FE Top exec.**	**FE Directors**
assets	0.1635**	0.2008***	1.5868*	-0.8057	-0.0945	1.4588***
	(0.0744)	(0.0416)	(0.9428)	(0.9453)	(1.8892)	(0.3511)
indebtedness	-0.0004	-0.0023***	0.0052	-0.0973***	-0.016	-0.0068
	(0.0016)	(0.0009)	(0.0523)	(0.0204)	(0.0404)	(0.0076)
investment_op	0.0898	0.0899***	3.7067**	2.9640***	1.3426	0.9139***
	(0.0623)	(0.0347)	(1.5847)	(0.7880)	(1.5806)	(0.2927)
ROA	0.0018	0.0002	0.2552**	0.0445	-0.061	-0.0193*
	(0.0025)	(0.0013)	(0.1068)	(0.0294)	(0.0625)	(0.0109)
MR	-0.0527	-0.0798***	2.4604	-0.5919	-0.7387	-0.1936
	(0.0365)	(0.0193)	(1.5969)	(0.4373)	(0.9259)	(0.1624)
sdROA	-0.008	-0.004	-0.121	-0.3485***	-0.0382	-0.0301
	(0.0053)	(0.0031)	(0.1676)	(0.0693)	(0.1338)	(0.0257)
sdMR	0.5539*	-0.1366	-38.0155***	11.5841***	8.2109	4.3687***
	(0.2863)	(0.1666)	(12.5357)	(3.7851)	(7.2674)	(1.4060)
liquidity	0.0002	0.0001	0.0096	0.0107***	0.0031	0.0032***
	(0.0002)	(0.0001)	(0.0087)	(0.0024)	(0.0050)	(0.0009)

Relationship between remuneration and the characteristics of the board (*continuation*)

TABLE 20

	(1)	(2)	(3)	(4)	(5)	(6)
	fixed_rem		*variable_rem%*		*market_rem%*	
	FE Top exec.	**FE Directors**	**RE Top exec.**	**FE Directors**	**FE Top exec.**	**FE Directors**
proprietary	-0.7048***	-0.1064***	-13.0954**	1.4545***	5.4737	0.119
	(0.1591)	(0.0240)	(5.7468)	(0.5428)	(4.0389)	(0.2016)
executive		1.5900***		21.5982***		3.0430***
		(0.0357)		(0.8107)		(0.3011)
seniority	0.0084**	0.0132***	-0.1054	0.0194	-0.1146	0.0131
	(0.0033)	(0.0015)	(0.1319)	(0.0343)	(0.0844)	(0.0127)
num_boards	0.1193**	0.0533***	-4.5647**	0.0411	0.8427	-0.0552
	(0.0571)	(0.0138)	(2.1096)	(0.3128)	(1.4486)	(0.1162)
p_1st_shldr	-0.0067***	-0.0030**	0.0071	0.0704***	0.0917*	0.0128
	(0.0021)	(0.0012)	(0.0597)	(0.0268)	(0.0532)	(0.0099)
family	0.0445	0.0949***	1.5312	-4.7563***	-3.0071**	-0.7352***
	(0.0493)	(0.0291)	(2.0416)	(0.6599)	(1.2508)	(0.2451)
family member_prop	0.3956*	-0.1273***	-1.2723	0.3838	-3.6931	0.3914
	(0.2152)	(0.0387)	(8.4196)	(0.8787)	(5.4640)	(0.3264)
n_directors	-0.0099	-0.0271***	0.9594*	0.5561***	0.9717**	0.0288
	(0.0164)	(0.0083)	(0.5125)	(0.1883)	(0.4173)	(0.0700)
n_meetings	-0.0150**	0.0093***	-0.3946	-0.0358	-0.1491	-0.0391
	(0.0062)	(0.0032)	(0.2515)	(0.0723)	(0.1574)	(0.0268)
p_independent	-0.6963***	0.1659	4.564	9.3702***	-5.9799	2.9792***
	(0.2358)	(0.1237)	(9.2725)	(2.8099)	(5.9865)	(1.0437)
m_seniority	-0.0061	-0.0093	-0.4411	0.0683	-0.5509*	0.0782
	(0.0121)	(0.0061)	(0.3777)	(0.1374)	(0.3063)	(0.0510)
p_interlocked	-0.3288**	-0.0993	-4.6106	2.1275	6.3279	1.1746**
	(0.1525)	(0.0703)	(6.3792)	(1.5960)	(3.8713)	(0.5928)
p_busy_directors	-0.234	0.0786	20.3724***	-1.4218	-1.5872	-0.6241
	(0.1901)	(0.0960)	(6.9930)	(2.1795)	(4.8255)	(0.8096)
p_group_board	-0.3929**	-0.0732	-1.0333	-1.4647	4.2625	1.3523*
	(0.1728)	(0.0954)	(5.8323)	(2.1670)	(4.3871)	(0.8049)
protection measures	0.1034*	0.0562*	-1.6866	-1.4526**	-0.8598	0.4532*
	(0.0619)	(0.0313)	(2.4933)	(0.7052)	(1.5717)	(0.2620)
rel_trans_exec	-0.0912	-0.0256	-1.7893	-3.5953***	0.4928	-0.2118
	(0.0602)	(0.0286)	(2.2118)	(0.6462)	(1.5287)	(0.2400)
remun_com	0.0593	0.0588	-1.8615	-0.7655	6.3242***	-0.2009
	(0.0796)	(0.0379)	(3.3935)	(0.8610)	(2.0199)	(0.3198)
n_meetings_randnc	0.0221***	0.0061**	-0.1081	-0.0664	0.1014	-0.0104
	(0.0066)	(0.0031)	(0.2767)	(0.0702)	(0.1666)	(0.0261)
n_nandrc	0.0701***	0.0179	1.2594	-0.4582*	0.9068	-0.0196
	(0.0269)	(0.0120)	(1.0621)	(0.2711)	(0.6820)	(0.1007)
p_indep_nandrc	0.2075	-0.0227	0.8847	-1.6595	7.6000**	-0.0139
	(0.1316)	(0.0642)	(5.3589)	(1.4581)	(3.3413)	(0.5416)
constant	4.1529***	1.5851**	-0.6422	14.008	-10.2072	-24.3909***
	(1.1579)	(0.6616)	(12.3318)	(15.0301)	(29.3955)	(5.5830)
Observations	**602**	**4,945**	**602**	**4,957**	**602**	**4,957**
R^2	**0**	**0**	**0**	**0**	**0**	**0**
No. of groups	**169**	**1,411**	**169**	**1,413**	**169**	**1,413**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

5 Conclusions

This work involved an exhaustive study of the determinants of the remuneration of directors of Spanish listed companies, taking into account both the amount of remuneration received and its composition.

The first thing that becomes clear on addressing this issue and analysing the existing related theoretical and empirical literature is its complexity, since a large number of theoretical hypotheses that are difficult to capture empirically have been identified. To address this difficulty, a comprehensive database was constructed based on many different sources, that enable a large number of determining variables to be controlled for. This is important in our study to identify and isolate the impact of each variable when they are all correlated.

In fact, a separate statistical analysis of each variable already provides key information on factors that are often ignored when analysing agency conflict. Thus, for example, the importance of considering all the different components of remuneration is noted, since concepts such as remuneration in kind or contributions to pension plans can be substantial amounts that are often overlooked. Similarly, the importance in some cases of remuneration received not directly from the listed company, but from other group companies, has been verified. Problems have also been identified in defining independent directors, since a far from inconsiderable number of directors moved in and out of this category to or from other categories during the study period. This makes it necessary to exercise caution when measuring variables such as directors' seniority.

In the econometric analysis, special care was taken to control endogeneity problems. However, a limitation of the study that must be taken into account when evaluating the results is that it is impossible to measure all the variables that may influence remuneration and, to the extent that any variable considered essential for setting remuneration has been overlooked, the results could be biased.

In view of our findings, it can be said that, as would be expected and desirable, the economic and financial variables of the company and characteristics of the director are clearly the most important factors for determining the amount of remuneration and the distribution between fixed and variable pay. However, results are much clearer in regard to the amounts of remuneration paid than for the percentages of variable and market remuneration. In this sense, the study confirms the results of previous studies (Gómez, 2019) which found variable remuneration and particularly remuneration based on shares and share options to be low in Spain and a long way off the percentages seen in other countries.

The concentrated ownership structure of Spanish companies has a clear moderating impact on the remuneration paid to top executives, which reflects the reduction in agency conflict due to the direct supervision of shareholders. However, the case of family businesses managed directly by members of the family casts a small shadow. On average, these companies overpay their top executives compared with the amounts that would be expected given the characteristics of the company and the director.

Lastly, but very important and interesting from a regulatory standpoint, the level of activity of the board, its independence and the presence of independent directors on the committee in charge of setting remuneration are observed to have a significant impact on controlling agency conflict and setting efficient pay levels and structures. The same result is obtained even taking into account the problems identified in relation to the classification and motivation of independent directors. Therefore, the definitive message that stands out from the study is the appropriateness of reinforcing the quality and role of independent directors on the boards of our companies.

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Appendix

Number of observations by company and type of director in the sample

TABLE A.1

Company	Top exec.	Other exec.	Prop.	Indep.	Total
ABENGOA, S.A.	8	5	12	32	57
ABERTIS INFRAESTRUCTURAS, S.A.	4		39	27	70
ACCIONA, S.A.	5	5	10	41	61
ACERINOX, S.A.	5		37	35	77
ACS, ACTIVIDADES DE CONSTRUCCIÓN Y SERVICIOS, S.A.	7	15	31	39	92
ADOLFO DOMÍNGUEZ, S.A.	3	1	5	6	15
ADVEO GROUP INTERNATIONAL, S.A.	6		29	17	52
AEDAS HOMES, S.A.	1			5	6
AENA, S.A.	3	2	32	19	56
ALANTRA PARTNERS, S.A.	4		18	28	50
ALMIRALL, S.A.	5	3	19	26	53
ALZA REAL ESTATE, S.A.	4		3	13	20
AMADEUS IT HOLDING, S.A.	4		1	48	53
AMPER, S.A.	4		6	19	29
APPLUS SERVICES, S.A.	4		10	26	40
ATRESMEDIA CORPORACIÓN DE MEDIOS DE COMUNICACIÓN, S.A.	5	9	34	20	68
AUDAX RENOVABLES, S.A.	2				2
AXIARE PATRIMONIO, SOCIMI, S.A.	3		2	10	15
AYCO GRUPO INMOBILIARIO, S.A.	5	1	14	17	37
AZKOYEN, S.A.	5		21	27	53
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	10	5		61	76
BANCO DE SABADELL, S.A.	10	6	8	56	80
BANCO POPULAR ESPAÑOL, S.A.	6	4	20	18	48
BANCO SANTANDER, S.A.	10	10	4	57	81
BANKIA, S.A.	10	5		41	56
BANKINTER, S.A.	9	1	10	31	51
BARÓN DE LEY, S.A.	6	11	3	18	38
BIOSEARCH, S.A.	5		13	18	36
BODEGAS BILBAINAS, S.A.	2	3		5	10
BODEGAS RIOJANAS, S.A.	5		28	19	52
CAIXABANK, S.A.	5	3	48	38	94
CARTERA INDUSTRIAL REA, S.A.	5		13	16	34
CELLNEX TELECOM, S.A.	3		19	16	38
CEMENTOS MOLINS, S.A.	6		48	17	71
CEMENTOS PORTLAND VALDERRIVAS, S.A.	3		24	5	32
CIE AUTOMOTIVE, S.A.	6	6	39	11	62
CLÍNICA BAVIERA, S.A.	5	5	8	14	32

Number of observations by company and type of director (*continuation*) in the sample

TABLE A.1

Company	Top exec.	Other exec.	Prop.	Indep.	Total
CODERE, S.A.	5	7	21	20	53
COMPAÑÍA DE DISTRIBUCIÓN INTEGRAL LOGISTA HOLDINGS, S.A.	2	2	9	8	21
COMPAÑÍA LOGÍSTICA DE HIDROCARBUROS CLH, S.A.	1		16	1	18
COMPAÑÍA VINÍCOLA DEL NORTE DE ESPAÑA, S.A.	1	1	4	1	7
CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES, S.A.	7	3	6	37	53
CORPORACIÓN EMPRESARIAL DE MATERIALES DE CONSTRUCCIÓN, S.A.	8				8
CORPORACIÓN FINANCIERA ALBA, S.A.	5	20	15	32	72
DEOLEO, S.A.	7	2	46	9	64
DISTRIBUIDORA INTERNACIONAL DE ALIMENTACIÓN, S.A.	6	2	7	43	58
DOGI INTERNATIONAL FABRICS, S.A.	4	4	9	8	25
DURO FELGUERA, S.A.	5	1	15	29	50
EBRO FOODS, S.A.	5	5	36	23	69
ECOLUMBER, S.A.	1	1	8	4	14
ELECNOR, S.A.	8		52	12	72
ENAGÁS, S.A.	10		13	42	65
ENCE ENERGÍA Y CELULOSA, S.A.	5		25	35	65
ENDESA, S.A.	9	1	18	22	50
ERCROS, S.A.	5			22	27
EUSKALTEL, S.A.	3	3	14	19	39
FAES FARMA, S.A.	5	1	20	21	47
FERROVIAL, S.A.	10		14	40	64
FERSA ENERGÍAS RENOVABLES, S.A.			30	14	44
FINANZAS E INVERSIONES VALENCIANAS, S.A.	5			16	21
FLUIDRA, S.A.	6		26	22	54
FOMENTO DE CONSTRUCCIONES Y CONTRATAS, S.A.	6	7	51	19	83
FUNESPAÑA, S.A.	4	2	12	8	26
GAMESA CORPORACIÓN TECNOLÓGICA, S.A.	4	5	19	30	58
GAS NATURAL SDG, S.A.	9		57	39	105
GENERAL DE ALQUILER DE MAQUINARIA, S.A.	5		21	15	41
GESTAMP AUTOMOCIÓN, S.A.	2		4	7	13
GLOBAL DOMINION ACCESS, S.A.	2	2	12	8	24
GRIFOLS, S.A.	5	11	4	47	67
GRUPO CATALANA OCCIDENTE, S.A.	5	15	54	9	83
GRUPO EMPRESARIAL SAN JOSÉ, S.A.	5	11	5	31	52
GRUPO EZENTIS, S.A.	9	4	9	29	51
HISPANIA ACTIVOS INMOBILIARIOS, SOCIMI, S.A.			7	25	32
IBERDROLA, S.A.	5	3	4	63	75
IBERPAPEL GESTIÓN, S.A.	5		5	30	40
INDRA SISTEMAS, S.A.	6	9	18	39	72

Number of observations by company and type of director (*continuation*) in the sample

TABLE A.1

Company	Top exec.	Other exec.	Prop.	Indep.	Total
INDUSTRIA DE DISEÑO TEXTIL, S.A.	5		16	27	48
INMOBILIARIA COLONIAL, SOCIMI, S.A.	10		28	20	58
INMOBILIARIA DEL SUR, S.A.	5		54	15	74
INTERNATIONAL CONSOLIDATED AIRLINES GROUP, S.A.	5	5		55	65
INVERFIATC, S.A.	2	2	9	6	19
INYPSA INFORMES Y PROYECTOS, S.A.	1		27	17	45
LABORATORIO REIG JOFRE, S.A.	5	3	9		17
LABORATORIOS FARMACÉUTICOS ROVI, S.A.	5	11	4	14	34
LAR ESPAÑA REAL ESTATE, SOCIMI, S.A.			6	19	25
LIBERBANK, S.A.	5	3	36	30	74
LIBERTAS 7, S.A.	4	1	15	13	33
LINGOTES ESPECIALES, S.A.	10	2	15	22	49
LIWE ESPAÑOLA, S.A.	6	10	4	10	30
MAPFRE, S.A.	6	20	29	35	90
MÁSMÓVIL IBERCOM, S.A.	1		8	4	13
MEDIASET ESPAÑA COMUNICACIÓN, S.A.	5	9	30	28	72
MELIÁ HOTELS INTERNATIONAL, S.A.	5	3	17	30	55
MERCADOS ESPAÑOLES, SDAD. HOLDING DE MDOS. Y STMAS. FIN., S.A.	5	7	12	38	62
MERLIN PROPERTIES, SOCIMI, S.A.	4	4	12	34	54
MIQUEL Y COSTAS & MIQUEL, S.A.	5	10	10	25	50
MONTEBALITO, S.A.	5	4	13	19	41
NATRA, S.A.	4	1	16	26	47
NATRACEUTICAL, S.A.				21	21
NATURHOUSE HEALTH, S.A.	3	6	3	11	23
NEINOR HOMES, S.A.	1		2	6	9
NH HOTEL GROUP, S.A.	5		30	30	65
NICOLÁS CORREA, S.A.	9		14	17	40
OBRASCÓN HUARTE LAIN, S.A.	7	3	30	29	69
ORYZON GENOMICS, S.A.	3	3	12	10	28
PARQUES REUNIDOS SERVICIOS CENTRALES, S.A.	1		5	3	9
PESCANOVA, S.A.			6	4	10
PHARMA MAR, S.A.	3	3	6	16	28
PRIM, S.A.	6	1		21	28
PROMOTORA DE INFORMACIONES, S.A.	5	8	24	54	91
PROSEGUR CASH, S.A.	2		3	4	9
PROSEGUR, COMPAÑÍA DE SEGURIDAD, S.A.	5	1	12	26	44
QUABIT INMOBILIARIA, S.A.	5		5	10	20
REALIA BUSINESS, S.A.	12		22	10	44
RED ELÉCTRICA CORPORACIÓN, S.A.	6		18	39	63

Number of observations by company and type of director (*continuation*) in the sample

TABLE A.1

Company	Top exec.	Other exec.	Prop.	Indep.	Total
RENTA 4 BANCO, S.A.	10	10	12	33	65
RENTA CORPORACIÓN REAL ESTATE, S.A.	10		9	23	42
REPSOL, S.A	5	5	27	50	87
SACYR, S.A.	5		45	24	74
SAETA YIELD, S.A.	2		9	8	19
SERVICE POINT SOLUTIONS, S.A.	4	2	6	12	24
SNIACE, S.A.	2		4	9	15
SOLARIA ENERGÍA Y MEDIOAMBIENTE, S.A.	5	4	6	9	24
SOTOGRANDE, S.A.	3		8	9	20
TALGO, S.A.	6		7	25	38
TÉCNICAS REUNIDAS, S.A.	5	5	10	46	66
TECNOCOM, TELECOMUNICACIONES Y ENERGÍA, S.A.	3	1	14	16	34
TELEFÓNICA, S.A.	8	5	26	59	98
TELEPIZZA GROUP, S.A.	2		4	10	16
TUBACEX, S.A.	5		17	44	66
TUBOS REUNIDOS, S.A.	1	1	31	28	61
UNICAJA BANCO, S.A.	2	2	6	8	18
URALITA, S.A.		6	6	9	21
URBAR INGENIEROS, S.A.	4	5	5	6	20
URBAS GRUPO FINANCIERO, S.A.	5		2	19	26
VÉRTICE TRESCIENTOS SESENTA GRADOS, S.A.	4	2	2	24	32
VIDRALA, S.A.	5		22	25	52
VISCOFAN, S.A.	5	4	7	33	49
VOCENTO, S.A.	5		36	21	62
ZARDOYA OTIS, S.A.	3		16	8	27

Definition of the components of director remuneration included in the analysis

TABLE A.2

According to CNMV Circular 4/2013 of 12 June:

Salary: Amount of the remuneration that is not of a variable nature and that has been accrued by the director by reason of executive functions.

Fixed remuneration: Amount of the cash payments, subject to a pre-established payment frequency, whether or not consolidated over time and accrued by the director by reason of being a member of the Board, irrespective of the effective attendance of the director at Board meetings.

Remuneration for membership of Board committees: Amount of items other than attendance fees that are payable to directors for being members of the executive or advisory committees of the Board, irrespective of the effective attendance of the director at the meetings of the foregoing committees.

Attendance fees: Total amount of the attendance fees for attending Board meetings and, if applicable, meetings of delegated committees of the Board.

Long-term savings plans: All of the long-term savings plans must be explained, including retirement and any other survivor benefits, that are partially or totally financed by the company, whether provided for internally or externally.

Severance pay: Any remuneration accrued by the director deriving from the termination of the relationship that links him or her to the company.

Other items: Total amount of the remaining remuneration accrued in the year and that is not included in the previous items, or in any of the following sections, including remuneration in kind. Remuneration in kind is valued at cost for the company of the use, consumption or receipt of the goods, rights or services by the director.

Short-term variable remuneration: Variable amount linked to the performance or achievement of a series of individual or group objectives (quantitative or qualitative), in an accrual period equal to or less than one year. For the purposes of this circular, it will be understood that the director has accrued the short-term variable remuneration on the end date of the accrual period. The accrual period is the time during which the director's performance is measured in order to determine his or her short-term variable remuneration, regardless of the manner or term stipulated for the payment of said remuneration or whether the payment is subject to deferral, retention, *ex post* adjustment *malus* clauses or clawback clauses for remuneration already paid.

Long-term variable remuneration: Variable amount linked to the performance or achievement of a series of individual or group objectives (quantitative or qualitative), in an accrual period of more than one year. For the purposes of this circular, it will be understood that the director has accrued the long-term variable remuneration on the end date of the accrual period. The accrual period is the time during which the director's performance is measured in order to determine his or her long-term variable remuneration, regardless of the manner or term stipulated for the payment of said remuneration or whether the payment is subject to deferral, retention, *ex post* adjustment *malus* clauses or clawback clauses for remuneration already paid.

Alternative estimates of the relationship between the remuneration of the top executive and characteristics of the company and the director

TABLE A.3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
		fixed_rem			***var_rem%***			***market_rem%***	
assets	0.0703	0.2937***	0.2889***	2.4736	3.0077***	3.3284***	-0.0918	1.2793***	1.3595***
	(0.0691)	(0.0221)	(0.0141)	(3.1944)	(0.6609)	(0.4573)	(1.7071)	(0.2324)	(0.1932)
indebtedness	-0.0019	-0.0022*	-0.0023*	0.0187	-0.0282	-0.0729	-0.0415	-0.0428**	-0.0447**
	(0.0014)	(0.0012)	(0.0014)	(0.0663)	(0.0474)	(0.0443)	(0.0354)	(0.0202)	(0.0187)
investment_op	0.1342**	0.0848**	0.0714**	1.0341	3.7286**	3.7009***	0.7081	0.9322*	0.9194*
	(0.0556)	(0.0421)	(0.0354)	(2.5709)	(1.4539)	(1.1487)	(1.3740)	(0.5540)	(0.4851)
ROA	0.0011	0.0007	-0.0006	0.2368**	0.2853***	0.3593***	-0.0525	-0.0422	-0.0408
	(0.0023)	(0.0022)	(0.0037)	(0.1065)	(0.0968)	(0.1191)	(0.0569)	(0.0480)	(0.0503)
MR	-0.0851**	-0.0602*	0.0077	2.1307	2.5285*	3.5760*	-0.9038	-0.1504	0.2764
	(0.0352)	(0.0340)	(0.0592)	(1.6284)	(1.4706)	(1.9197)	(0.8703)	(0.7467)	(0.8107)
sdROA	-0.0108**	-0.0093**	-0.0048	-0.1245	-0.134	0.076	-0.0963	0.0315	0.072
	(0.0048)	(0.0041)	(0.0043)	(0.2207)	(0.1561)	(0.1399)	(0.1180)	(0.0655)	(0.0591)
sdMR	0.6857**	0.7208***	0.0665	-32.3150**	-40.0207***	-53.8105***	2.8735	-4.5921	-8.7431
	(0.2789)	(0.2697)	(0.4213)	(12.8920)	(11.5714)	(13.6574)	(6.8897)	(5.6320)	(5.7679)
liquidity	0.0001	0.0003	0.0009***	0.0118	0.0126	0.0166*	0.0052	0.0072*	0.0080**
	(0.0002)	(0.0002)	(0.0003)	(0.0092)	(0.0082)	(0.0090)	(0.0049)	(0.0039)	(0.0038)
proprietary	-0.6231***	-0.8016***	-1.2014***	-7.7364	-13.8859***	-20.0793***	3.0899	0.3307	-0.3378
	(0.1358)	(0.1205)	(0.1123)	(6.2748)	(4.5818)	(3.6411)	(3.3534)	(1.8125)	(1.5377)
seniority	0.0080**	0.0094***	0.0143***	-0.2662*	-0.1973*	-0.1253	-0.1438*	-0.0464	-0.0246
	(0.0032)	(0.0029)	(0.0031)	(0.1490)	(0.1150)	(0.1020)	(0.0796)	(0.0482)	(0.0431)
num_boards	0.1339**	0.1190**	0.1627***	-2.0015	-2.8838	-4.9847***	0.4112	-1.5114*	-2.0781***
	(0.0561)	(0.0509)	(0.0547)	(2.5947)	(1.9986)	(1.7721)	(1.3866)	(0.8406)	(0.7484)
constant	5.1841***	1.8783***	1.9444***	-2.0315	-8.1668	-7.3403	8.1431	-10.8734***	-11.2527***
	(1.0376)	(0.3420)	(0.2176)	(47.9571)	(10.2139)	(7.0558)	(25.6290)	(3.5762)	(2.9799)
Observations	**631**	**631**	**631**	**631**	**631**	**631**	**631**	**631**	**631**
R^2	**0.094**	**0.622**	**0.642**	**0.043**	**0.315**	**0.272**	**0.018**	**0.195**	**0.122**
No. of groups	**173**	**173**		**173**	**173**		**173**	**173**	
Hausman test (p-value)		**0.1304**	**0.0231**		**0.2427**	**0.2085**		**0.1694**	**0.1487**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Alternative estimates of the relationship between the remuneration of the top executive and ownership structure

TABLE A.4

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
		fixed_rem			***var_rem%***			***market_rem%***	
assets	0.0718	0.2870***	0.2957***	2.4802	3.0126***	3.3511***	-0.0099	1.2661***	1.3795***
	(0.0679)	(0.0215)	(0.0137)	(3.2099)	(0.6653)	(0.4609)	(1.7042)	(0.2332)	(0.1942)
indebtedness	-0.0018	-0.0020*	-0.0022*	0.0197	-0.0267	-0.0722	-0.0463	-0.0435**	-0.0454**
	(0.0014)	(0.0012)	(0.0013)	(0.0668)	(0.0476)	(0.0444)	(0.0355)	(0.0202)	(0.0187)
investment_op	0.1048*	0.0807*	0.0996***	0.8766	3.6587**	3.4808***	1.2108	1.0599*	1.0263**
	(0.0552)	(0.0412)	(0.0346)	(2.6077)	(1.4744)	(1.1639)	(1.3845)	(0.5603)	(0.4904)
ROA	0.0019	0.0012	-0.0023	0.2413**	0.2888***	0.3722***	-0.0674	-0.0472	-0.047
	(0.0023)	(0.0022)	(0.0036)	(0.1075)	(0.0973)	(0.1197)	(0.0571)	(0.0481)	(0.0504)
MR	-0.0913***	-0.0791**	-0.0301	2.0988	2.4293	3.5484*	-0.8769	-0.2682	0.067
	(0.0347)	(0.0332)	(0.0578)	(1.6382)	(1.4846)	(1.9469)	(0.8698)	(0.7542)	(0.8203)
sdROA	-0.0126***	-0.0105***	-0.0028	-0.1335	-0.141	0.0439	-0.0778	0.0417	0.0807
	(0.0047)	(0.0040)	(0.0042)	(0.2223)	(0.1570)	(0.1421)	(0.1180)	(0.0661)	(0.0599)
sdMR	0.6612**	0.7430***	0.3493	-32.4495**	-40.0950***	-55.3991***	3.9869	-3.6745	-7.5638
	(0.2756)	(0.2631)	(0.4090)	(13.0228)	(11.6350)	(13.7677)	(6.9143)	(5.6548)	(5.8010)
liquidity	0.0001	0.0002	0.0004	0.0117	0.0121	0.0186*	0.0054	0.0055	0.0053
	(0.0002)	(0.0002)	(0.0003)	(0.0092)	(0.0084)	(0.0096)	(0.0049)	(0.0040)	(0.0040)
proprietary	-0.7845***	-0.9885***	-1.5770***	-8.3702	-13.6866**	-18.2797***	4.005	0.8908	0.3452
	(0.1587)	(0.1395)	(0.1341)	(7.4988)	(5.5133)	(4.5135)	(3.9814)	(2.2107)	(1.9018)
seniority	0.0078**	0.0080***	0.0109***	-0.2677*	-0.2092*	-0.1235	-0.1370*	-0.0576	-0.0439
	(0.0032)	(0.0029)	(0.0031)	(0.1496)	(0.1168)	(0.1055)	(0.0795)	(0.0494)	(0.0444)
num_boards	0.1544***	0.1529***	0.1926***	-1.9237	-2.831	-5.2677***	0.3058	-1.322	-1.8608**
	(0.0564)	(0.0501)	(0.0533)	(2.6637)	(2.0240)	(1.7935)	(1.4143)	(0.8484)	(0.7557)
p_1st_shldr	-0.0072***	-0.0082***	-0.0054***	-0.0379	-0.02	0.0301	0.0696	-0.0365*	-0.0389**
	(0.0020)	(0.0016)	(0.0013)	(0.0958)	(0.0564)	(0.0439)	(0.0508)	(0.0215)	(0.0185)
family	0.073	0.07	0.0341	0.4333	1.1509	2.2224	-2.2834*	-0.7835	-0.097
	(0.0482)	(0.0458)	(0.0602)	(2.2802)	(1.9751)	(2.0279)	(1.2106)	(0.9027)	(0.8545)
family member_prop	0.4289**	0.5598***	1.2264***	1.6999	-0.2546	-5.3703	-1.9261	-0.8456	-1.0279
	(0.2164)	(0.1987)	(0.2228)	(10.2259)	(8.2357)	(7.5002)	(5.4293)	(3.5250)	(3.1602)
constant	5.3645***	2.1997***	1.9810***	-1.0692	-7.8706	-8.7886	5.3524	-9.4203***	-10.2966***
	(1.0189)	(0.3392)	(0.2136)	(48.1539)	(10.5154)	(7.1897)	(25.5667)	(3.6548)	(3.0294)
Observations	**631**	**631**	**631**	**631**	**631**	**631**	**631**	**631**	**631**
R^2	**0.134**	**0.659**	**0.669**	**0.044**	**0.317**	**0.274**	**0.031**	**0.214**	**0.129**
No. of groups	**173**	**173**		**173**	**173**		**173**	**173**	
Hausman test (p-value)		**0.0385**	**0.1979**		**0.449**	**0.228**		**0.1281**	**0.1526**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Alternative estimates of the relationship between the remuneration of the top executive and the characteristics of the board

TABLE A.5

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
		fixed_rem			***var_rem%***			***market_rem%***	
assets	0.1635**	0.2873***	0.3139***	3.6022	1.5868*	2.7246***	-0.0945	0.9947***	1.2631***
	(0.0744)	(0.0252)	(0.0216)	(3.6128)	(0.9428)	(0.7955)	(1.8892)	(0.3734)	(0.3390)
indebtedness	-0.0004	0.0003	-0.0009	0.0871	0.0052	-0.0274	-0.016	-0.0398*	-0.0372*
	(0.0016)	(0.0013)	(0.0013)	(0.0772)	(0.0523)	(0.0473)	(0.0404)	(0.0219)	(0.0202)
investment_op	0.0898	0.1271***	0.1337***	1.6811	3.7067**	2.9404**	1.3426	0.7326	0.6128
	(0.0623)	(0.0427)	(0.0330)	(3.0225)	(1.5847)	(1.2158)	(1.5806)	(0.5899)	(0.5182)
ROA	0.0018	0.0008	-0.0039	0.2303*	0.2552**	0.3750***	-0.061	-0.0454	-0.0353
	(0.0025)	(0.0024)	(0.0034)	(0.1196)	(0.1068)	(0.1237)	(0.0625)	(0.0515)	(0.0527)
MR	-0.0527	-0.0638*	-0.1068*	1.523	2.4604	3.8105*	-0.7387	0.121	0.553
	(0.0365)	(0.0348)	(0.0547)	(1.7706)	(1.5969)	(2.0150)	(0.9259)	(0.8034)	(0.8588)
sdROA	-0.008	-0.0041	0.0007	0.0434	-0.121	0.0134	-0.0382	-0.0043	0.0226
	(0.0053)	(0.0041)	(0.0039)	(0.2558)	(0.1676)	(0.1454)	(0.1338)	(0.0685)	(0.0620)
sdMR	0.5539*	0.5327*	0.7581*	-28.0615**	-38.0155***	-47.8090***	8.2109	-2.6433	-7.5178
	(0.2863)	(0.2754)	(0.3951)	(13.8976)	(12.5357)	(14.5573)	(7.2674)	(6.0664)	(6.2046)
liquidity	0.0002	0.0002	0.0005**	0.0095	0.0096	0.0103	0.0031	0.0046	0.0043
	(0.0002)	(0.0002)	(0.0003)	(0.0095)	(0.0087)	(0.0099)	(0.0050)	(0.0042)	(0.0042)
proprietary	-0.7048***	-0.9945***	-1.2096***	-7.2523	-13.0954**	-16.5265***	5.4737	1.5908	0.9014
	(0.1591)	(0.1378)	(0.1378)	(7.7237)	(5.7468)	(5.0755)	(4.0389)	(2.3943)	(2.1633)
seniority	0.0084**	0.0084***	0.0072**	-0.2719*	-0.1054	0.0585	-0.1146	-0.0487	-0.0424
	(0.0033)	(0.0030)	(0.0034)	(0.1614)	(0.1319)	(0.1257)	(0.0844)	(0.0578)	(0.0536)
num_boards	0.1193**	0.1302***	0.1432***	-2.4718	-4.5647**	-7.3795***	0.8427	-1.1411	-1.5615*
	(0.0571)	(0.0499)	(0.0529)	(2.7701)	(2.1096)	(1.9489)	(1.4486)	(0.9011)	(0.8307)
p_1st_shldr	-0.0067***	-0.0067***	-0.0053***	-0.0079	0.0071	0.0674	0.0917*	-0.0344	-0.0307
	(0.0021)	(0.0015)	(0.0013)	(0.1017)	(0.0597)	(0.0480)	(0.0532)	(0.0231)	(0.0204)
family	0.0445	0.0477	0.0476	-0.5208	1.5312	2.8902	-3.0071**	-1.01	-0.2953
	(0.0493)	(0.0461)	(0.0568)	(2.3920)	(2.0416)	(2.0933)	(1.2508)	(0.9310)	(0.8922)
family member_prop	0.3956*	0.5995***	0.9992***	-0.8415	-1.2723	-5.9876	-3.6931	-1.9739	-2.3142
	(0.2152)	(0.1954)	(0.2119)	(10.4490)	(8.4196)	(7.8085)	(5.4640)	(3.6363)	(3.3281)
n_directors	-0.0099	0.0008	-0.0026	2.4694***	0.9594*	0.3678	0.9717**	-0.1475	-0.2853
	(0.0164)	(0.0129)	(0.0113)	(0.7980)	(0.5125)	(0.4160)	(0.4173)	(0.2014)	(0.1773)
n_meetings	-0.0150**	-0.0205***	-0.0440***	-0.3419	-0.3946	-0.6080**	-0.1491	-0.2328**	-0.2815***
	(0.0062)	(0.0057)	(0.0068)	(0.3010)	(0.2515)	(0.2512)	(0.1574)	(0.1125)	(0.1071)
p_independent	-0.6963***	-0.4762**	-0.0461	-6.4177	4.564	10.8694	-5.9799	2.2591	3.5536
	(0.2358)	(0.2148)	(0.2408)	(11.4482)	(9.2725)	(8.8723)	(5.9865)	(4.0532)	(3.7815)
m_seniority	-0.0061	-0.0039	0.0088	-0.1973	-0.4411	-0.6503**	-0.5509*	-0.1223	-0.1237
	(0.0121)	(0.0094)	(0.0089)	(0.5857)	(0.3777)	(0.3267)	(0.3063)	(0.1531)	(0.1393)
p_interlocked	-0.3288**	-0.2499*	-0.0252	1.2375	-4.6106	-16.3266**	6.3279	-0.5714	-2.6582
	(0.1525)	(0.1424)	(0.1899)	(7.4032)	(6.3792)	(6.9952)	(3.8713)	(3.0122)	(2.9815)
p_busy_directors	-0.234	-0.1491	-0.0782	24.7016***	20.3724***	26.8132***	-1.5872	1.0274	2.189
	(0.1901)	(0.1664)	(0.1687)	(9.2279)	(6.9930)	(6.2152)	(4.8255)	(2.9292)	(2.6490)
p_group_board	-0.3929**	-0.2560*	-0.0809	2.5976	-1.0333	-1.841	4.2625	0.9601	0.7702
	(0.1728)	(0.1441)	(0.1315)	(8.3896)	(5.8323)	(4.8437)	(4.3871)	(2.3294)	(2.0645)

Alternative estimates of the relationship between the remuneration (*continuation*) of the top executive and the characteristics of the board

TABLE A.5

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
		fixed_rem			***var_rem%***			***market_rem%***	
protection measures	0.1034*	0.1273**	0.1352**	-3.1238	-1.6866	0.709	-0.8598	1.3671	2.1758**
	(0.0619)	(0.0568)	(0.0687)	(3.0056)	(2.4933)	(2.5303)	(1.5717)	(1.1261)	(1.0785)
rel_trans_exec	-0.0912	-0.0662	-0.0418	-2.2952	-1.7893	0.6931	0.4928	-0.1677	-0.192
	(0.0602)	(0.0527)	(0.0540)	(2.9234)	(2.2118)	(1.9879)	(1.5287)	(0.9278)	(0.8473)
remun_com	0.0593	-0.0376	-0.4093***	0.5657	-1.8615	-7.1263**	6.3242***	4.9983***	4.3640***
	(0.0796)	(0.0755)	(0.0983)	(3.8627)	(3.3935)	(3.6223)	(2.0199)	(1.5861)	(1.5439)
n_meetings_randnc	0.0221***	0.0237***	0.0279***	0.0164	-0.1081	0.1213	0.1014	0.0307	0.0343
	(0.0066)	(0.0062)	(0.0079)	(0.3186)	(0.2767)	(0.2912)	(0.1666)	(0.1282)	(0.1241)
n_nandrc	0.0701***	0.0603**	0.0503*	1.3635	1.2594	0.306	0.9068	-0.0054	-0.4137
	(0.0269)	(0.0245)	(0.0277)	(1.3042)	(1.0621)	(1.0209)	(0.6820)	(0.4663)	(0.4351)
p_indep_nandrc	0.2075	0.083	-0.2382	4.1341	0.8847	-8.6382	7.6000**	2.9586	0.7585
	(0.1316)	(0.1216)	(0.1495)	(6.3897)	(5.3589)	(5.5061)	(3.3413)	(2.4391)	(2.3468)
constant	4.1529***	2.0446***	1.8933***	-53.8004	-0.6422	-1.1043	-10.2072	-5.5269	-5.217
	(1.1579)	(0.3484)	(0.2643)	(56.2138)	(12.3318)	(9.7382)	(29.3955)	(4.6320)	(4.1506)
Observations	**602**	**602**	**602**	**602**	**602**	**602**	**602**	**602**	**602**
R^2	**0.213**	**0.681**	**0.7**	**0.107**	**0.329**	**0.321**	**0.101**	**0.29**	**0.19**
No. of groups	**169**	**169**		**169**	**169**		**169**	**169**	
Hausman test (p-value)		**0.007**	**0.009**		**0.118**	**0.0057**		**0.0018**	**0.0021**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Estimate of the determinants of the total remuneration of the top executive

TABLE A.6

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
assets	0.0935	0.3416***	0.3465***	0.0946	0.3349***	0.3536***	0.2021**	0.3135***	0.3669***
	(0.0888)	(0.0271)	(0.0175)	(0.0879)	(0.0266)	(0.0173)	(0.0963)	(0.0323)	(0.0281)
indebtedness	-0.0023	-0.0027*	-0.0037**	-0.0022	-0.0024	-0.0036**	0.0001	0.0001	-0.0019
	(0.0018)	(0.0016)	(0.0017)	(0.0018)	(0.0015)	(0.0017)	(0.0021)	(0.0016)	(0.0017)
investment_op	0.1333*	0.1265**	0.1234***	0.1009	0.1228**	0.1509***	0.0891	0.1681***	0.1695***
	(0.0715)	(0.0526)	(0.0441)	(0.0714)	(0.0520)	(0.0436)	(0.0806)	(0.0548)	(0.0430)
ROA	0.0044	0.0045	0.0053	0.0053*	0.0051*	0.0036	0.0054*	0.0046	0.0025
	(0.0030)	(0.0029)	(0.0046)	(0.0029)	(0.0028)	(0.0045)	(0.0032)	(0.0031)	(0.0044)
MR	-0.0661	-0.0407	0.0507	-0.0725	-0.0619	0.0106	-0.0444	-0.0515	-0.0577
	(0.0453)	(0.0434)	(0.0736)	(0.0449)	(0.0428)	(0.0730)	(0.0472)	(0.0450)	(0.0712)
sdROA	-0.0147**	-0.0120**	-0.0015	-0.0166***	-0.0131***	0.0003	-0.0104	-0.007	0.0025
	(0.0061)	(0.0051)	(0.0054)	(0.0061)	(0.0050)	(0.0053)	(0.0068)	(0.0053)	(0.0051)
sdMR	0.1671	0.1493	-0.7985	0.1375	0.1751	-0.5171	0.14	0.0396	-0.0039
	(0.3585)	(0.3446)	(0.5239)	(0.3567)	(0.3393)	(0.5162)	(0.3705)	(0.3566)	(0.5147)
liquidity	0.0003	0.0005**	0.0012***	0.0003	0.0004*	0.0007**	0.0004	0.0004*	0.0007**
	(0.0003)	(0.0002)	(0.0003)	(0.0003)	(0.0002)	(0.0004)	(0.0003)	(0.0002)	(0.0004)
proprietary	-0.6824***	-0.9462***	-1.5031***	-0.8384***	-1.1248***	-1.8555***	-0.7441***	-1.1125***	-1.4611***
	(0.1745)	(0.1524)	(0.1397)	(0.2054)	(0.1782)	(0.1692)	(0.2059)	(0.1778)	(0.1795)
seniority	0.0039	0.0054	0.0103***	0.0037	0.0037	0.0068*	0.0047	0.0058	0.0068
	(0.0041)	(0.0037)	(0.0039)	(0.0041)	(0.0037)	(0.0040)	(0.0043)	(0.0039)	(0.0044)
num_boards	0.0758	0.0553	0.0637	0.0954	0.0901	0.0935	0.0597	0.0535	0.0154
	(0.0721)	(0.0645)	(0.0680)	(0.0730)	(0.0641)	(0.0672)	(0.0739)	(0.0644)	(0.0689)
p_1st_shldr				-0.0077***	-0.0087***	-0.0056***	-0.0065**	-0.0070***	-0.0052***
				(0.0026)	(0.0020)	(0.0016)	(0.0027)	(0.0020)	(0.0017)
family				0.0868	0.0857	0.0512	0.0429	0.0656	0.0784
				(0.0625)	(0.0589)	(0.0760)	(0.0638)	(0.0596)	(0.0740)
family member_prop				0.4136	0.5480**	1.1674***	0.3459	0.5549**	0.8893***
				(0.2801)	(0.2549)	(0.2812)	(0.2786)	(0.2525)	(0.2761)
n_directors							0.0305	0.0243	0.0021
							(0.0213)	(0.0166)	(0.0147)
n_meetings							-0.0236***	-0.0286***	-0.0522***
							(0.0080)	(0.0074)	(0.0089)
p_independent							-0.7833**	-0.4498	0.1565
							(0.3052)	(0.2775)	(0.3137)
m_seniority							-0.0209	-0.0182	-0.0081
							(0.0156)	(0.0122)	(0.0116)
p_interlocked							-0.3402*	-0.3066*	-0.3109
							(0.1974)	(0.1842)	(0.2473)
p_busy_directors							-0.0563	0.0424	0.3561
							(0.2460)	(0.2147)	(0.2198)
p_group_board							-0.3616	-0.2638	-0.0868
							(0.2237)	(0.1857)	(0.1713)

Estimate of the determinants of the total remuneration of the top executive (*continuation*)

TABLE A.6

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FE Top exec.	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**	**FE Top exec.**	**RE Top exec.**	**OLS Top exec.**
protection measures							0.0661	0.098	0.1259
							(0.0801)	(0.0734)	(0.0895)
rel_trans_exec							-0.1450*	-0.1155*	-0.04
							(0.0779)	(0.0680)	(0.0703)
remun_com							0.1193	-0.0041	-0.5071***
							(0.1030)	(0.0977)	(0.1281)
n_meetings_randnc							0.0178**	0.0178**	0.0249**
							(0.0085)	(0.0080)	(0.0103)
n_nandrc							0.0748**	0.0644**	0.0374
							(0.0348)	(0.0317)	(0.0361)
p_indep_nandrc							0.2898*	0.1464	-0.3658*
							(0.1703)	(0.1572)	(0.1947)
constant	5.4609***	1.7650***	1.7873***	5.6580***	2.0986***	1.8220***	3.8609**	2.1338***	1.9398***
	(1.3335)	(0.4183)	(0.2707)	(1.3189)	(0.4194)	(0.2695)	(1.4986)	(0.4455)	(0.3443)
Observations	**631**	**631**	**631**	**631**	**631**	**631**	**602**	**602**	**602**
R^2	**0.064**	**0.604**	**0.621**	**0.092**	**0.633**	**0.639**	**0.174**	**0.643**	**0.663**
No. of groups	**173**	**173**		**173**	**173**		**169**	**169**	
Hausman test (p-value)		**0.0007**	**0.0074**		**0.033**	**0.0996**		**0.0053**	**0.0056**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

Determinants of the total remuneration of directors (excluding the top executive)

TABLE A.7

	(1)	(2)	(3)
assets	0.2182***	0.2180***	0.1817***
	(0.0440)	(0.0439)	(0.0444)
indebtedness	-0.0032***	-0.0031***	-0.0036***
	(0.0010)	(0.0010)	(0.0010)
investment_op	0.1620***	0.1588***	0.1227***
	(0.0340)	(0.0342)	(0.0370)
ROA	-0.0012	-0.0009	0.0014
	(0.0013)	(0.0013)	(0.0014)
MR	-0.0896***	-0.0874***	-0.0774***
	(0.0201)	(0.0201)	(0.0205)
sdROA	0.0018	0.0006	-0.0104***
	(0.0029)	(0.0030)	(0.0033)
sdMR	-0.2037	-0.1746	-0.0014
	(0.1748)	(0.1746)	(0.1778)
liquidity	0.0003***	0.0003**	0.0003**
	(0.0001)	(0.0001)	(0.0001)
proprietary	-0.1178***	-0.0890***	-0.0893***
	(0.0228)	(0.0255)	(0.0255)
executive	1.8126***	1.8140***	1.8818***
	(0.0387)	(0.0386)	(0.0381)
seniority	0.0120***	0.0123***	0.0153***
	(0.0016)	(0.0016)	(0.0016)
num_boards	0.0657***	0.0654***	0.0553***
	(0.0151)	(0.0151)	(0.0147)
p_1st_shldr		-0.0047***	-0.002
		(0.0012)	(0.0013)
family		0.006	0.0147
		(0.0315)	(0.0310)
family member_prop		-0.1041**	-0.1070***
		(0.0426)	(0.0413)
n_directors			-0.0159*
			(0.0088)
n_meetings			0.0088***
			(0.0034)
p_independent			0.3485***
			(0.1320)
m_seniority			-0.0102
			(0.0065)
p_interlocked			-0.0456
			(0.0750)
p_busy_directors			0.0333
			(0.1024)
p_group_board			-0.046
			(0.1018)

Determinants of the total remuneration of directors (*continuation*) (excluding the top executive)

TABLE A.7

	(1)	(2)	(3)
protection measures			0.0504
			(0.0331)
rel_trans_exec			-0.0669**
			(0.0304)
remun_com			0.0485
			(0.0404)
n_meetings_randnc			0.0046
			(0.0033)
n_nandrc			0.0157
			(0.0127)
p_indep_nandrc			-0.0365
			(0.0685)
constant	1.2103*	1.3418*	1.8180**
	(0.6916)	(0.6921)	(0.7060)
Observations	**5,149**	**5,149**	**4,957**
R^2	**0.419**	**0.422**	**0.458**
No. of groups	**1,440**	**1,440**	**1,413**

Standard errors in parentheses: *** p < 0.01; ** p < 0.05; * p < 0.1

III Legislative Annex

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

National regulations

– Law 3/2020, of 18 September, on procedural and organisational measures to deal with COVID-19 in the context of the administration of justice.

Chapter II includes **insolvency** and **corporate** measures. The health crisis triggered by COVID-19 is a further obstacle to the viability of insolvent companies, which can mean that they are either unable to sign or fulfil agreements, forcing them into liquidation, or have greater difficulty disposing of productive units that may be viable. For this reason Royal Decree-Law 11/2020, of 31 March, implementing additional urgent social and economic measures to deal with COVID-19, gave these companies the possibility of recourse to temporary employment regulation procedures regulated by Royal Decree-Law 8/2020, of 17 March, on extraordinary urgent social and economic measures to deal with COVID-19. This new Law added several other measures to those already established in the first Royal Decree-Law, with a threefold aim:

- First, 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.

- Second, financing of companies is strengthened and 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.

- Third, to prevent any rise in litigation related to the processing of insolvency proceedings in commercial and local courts, a series of rules is established to streamline the bankruptcy process, such as non requirement of hearings, 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).

Lastly, two rules are included in Chapter II to temporarily and exceptionally mitigate the consequences of the application, in current circumstances, of the general rules on the dissolution of corporate enterprises and on the declaration of insolvency, in such a way that companies gain time to restructure their debt, obtain liquidity and offset their losses, either by recovering their ordinary activity or accessing credit or public aid. Therefore, the suspension of the obligation to declare 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 Repeal Provision repeals Article 43 of Royal Decree-Law 8/2020, of 17 March, on extraordinary urgent social and economic measures to deal with COVID-19, which established the suspension of the obligation to file for insolvency during the state of alarm and provided that 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, already described, on the **Administration of Justice** and to extend the temporary application of these measures until 20 June 2021.

It establishes that procedural acts be preferably carried out remotely by the parties involved to ensure the protection of people's health and minimise the risk of contagion, safeguarding the rights of all parties in the process. However, in the area of criminal justice, an exception is made to the preference for holding trials using remote means in cases of serious crimes, or when any of the charges could lead to the defendant being remanded in custody or if a prison sentence of more than two years is requested. In these circumstances, the physical presence of the defendant is required.

For the same purpose, all public access to oral procedures is limited in accordance with the characteristics of the courtrooms. This makes it possible to maintain social distancing and avoid crowds and the movement of people in judicial buildings when this is not essential.

A system has also been established for attending to the public by telephone or though the e-mail address set up for this purpose, so as to limit face-to-face meetings to strictly necessary cases and only by appointment.

Legal units are expected to be set up to address matters deriving from COVID-19 and it is possible that justice department lawyers may, during their internship periods, undertake substitutions or reinforcement functions, among other measures.

The Fourth Final Provision amends Law 18/2011, of 5 July, regulating the use of information and communication technologies in the administration of

justice, by facilitating remote access to the applications used for procedural management and by encouraging teleworking. The electronic identification and signature systems are also amended and decoupled, under the same terms set down in Law 39/2015, of 1 October, on the Common Administrative Procedure of Public Administrations.

The publication of resolutions and communications will be concentrated in the Single Judicial Notice Board, which will be published electronically by the Spanish Official State Gazette, thereby amending the practice of publications being posted on different notice boards and in different official gazettes, simplifying the process and strengthening party guarantees.

The Fifth Final Provision amends and extends the *vacatio legis* (non-applicability) of Law 20/2011, of 21 July, of the Civil Registry, until 30 April 2021.

The Seventh 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.

Law 3/2020 repeals 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, as well as Article 43 of Royal Decree-Law 8/2020, of 17 March, on extraordinary urgent social and economic measures to deal with COVID-19.

This Law entered into force the day after its publication in the *BOE* [Official State Gazette].

– Royal Decree-Law 28/2020, of 22 September, on remote working.

This Royal Decree-Law will apply to employment relationships that correspond to the conditions described in Article 1.1 of the recast text of the Law on the Statute of Workers' Rights, approved by Royal Legislative Decree 2/2015, of 23 October, and are carried out remotely on a regular basis.

For this purpose, remote working is considered to be on a regular basis when within a reference period of three months at least 30 per cent of the working hours, or the equivalent proportional percentage according to the duration of the employment contract are worked remotely.

The Second Additional Provision establishes that the provisions of this Royal Decree-Law will also apply to employees of the public administration service and be governed by specific regulations for this service. Until these specific regulations are approved, the provisions of Article 13 of the recast text of the Law on the Statute of Workers' Rights, in its wording prior to the entry into force of this Royal Decree-Law, will apply.

The Ninth Final Provision, which provides for a specific amendment of Law 39/2015, of 1 October, on the Common Administrative Procedure of Public

Administrations, extends the deadline for the terms of the Seventh Final Provision of the aforementioned regulation, in regard to the electronic register of powers of attorney, the electronic register, the register of authorised public sector employees, the general electronic access point of the Administration and electronic files. Given the difficulty of completing the necessary adaptation process before the current deadline of 2 October 2020, the period will be extended until 2 April 2021, when the provisions regulating these matters will take effect.

Lastly, this Royal Decree-Law will enter into force 20 days after its publication in the *BOE* [Official State Gazette], without prejudice to the provisions of the Seventh Additional Provision.

However, the Third, Fourth, Fifth and Sixth Additional Provisions, the Fourth Transitory Provision and the Fourth, Fifth, Eighth, Ninth, Tenth, Eleventh and Twelfth Final Provisions will enter into force on the same day as they are published in the *BOE*.

– Royal Decree-Law 29/2020, of 29 September, on urgent measures regarding remote working in the public administration service and human resources in the National Health System to deal with the health crisis caused by COVID-19.

The objective is to establish a basic regulatory framework, from the perspective of both the legal regime for the public administration service, and more specifically of the rights and obligations of public employees, that will enable all public administration services to develop their own regulatory systems for teleworking, using their powers of self-organisation, and having recourse to state-level legislation in the case of employees.

There is a basic regulatory framework for the provision of remote services through teleworking, encouraging the use of new information technologies and the development of digital administration processes, with the consequent advantages for both public employees, the state, and society at large.

This Royal Decree-Law introduces a new Article 47 *bis* in the recast text of the Law on the Basic Statute of Workers' Rights for Public Employees, title III, chapter V, relating to daily working hours, leave and holidays.

Teleworking is defined as the form of providing services remotely whereby work can be properly carried out, provided that the needs of the service allow, outside the premises of the public administration service through the use of information and communication technologies.

It is expressly established that teleworking must in any case contribute to improving the organisation of the work by identifying objectives and assessing their achievement. As it regulates a working modality and the flexibilization of the structural organisation of the public administration service, it must serve to improve the achievement of the administration service's objectives in its endeavour to serve the public interest.

As such, without prejudice to its voluntary nature, the use of this way of working must guarantee the proper provision of public services, and service requirements must always be met.

The provision of services through this type of work must be expressly authorised, using objective access criteria, and be compatible with on-site work, which will continue to be considered the default way of working. Staff who provide services remotely will have the same rights and obligations as all other public employees, and the public administration service must provide and maintain the technological means necessary for their activity.

However, teleworking must be carried out in accordance with the rules of each public administration service, and is subject to collective bargaining in each area.

European regulations

– Commission Delegated Regulation (EU) 2020/1273, of 4 June 2020, amending and correcting Delegated Regulation (EU) 2019/980 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted to listing on a regulated market.

  Published in *OJEU* (L) No. 300 of 14/09/2020.

– Commission Delegated Regulation (EU) 2020/1304, of 14 July 2020, supplementing Regulation (EU) No. 648/2012 of the European Parliament and of the Council with regard to the minimum elements to be assessed by ESMA when assessing third-country CCPs' requests for comparable compliance and the modalities and conditions of that assessment.

  Published in *OJEU* (L) No. 305 of 21/09/2020.

– Commission Delegated Regulation (EU) 2020/1303, of 14 July 2020, supplementing Regulation (EU) No. 648/2012 of the European Parliament and of the Council with regard to the criteria that ESMA should take into account to determine whether a central counterparty established in a third country is systemically important or likely to become systemically important for the financial stability of the Union or of one or more of its Member States.

  Published in *OJEU* (L) No. 305 of 21/09/2020.

– Commission Delegated Regulation (EU) 2020/1302, of 14 July 2020, supplementing Regulation (EU) No. 648/2012 of the European Parliament and of the Council with regard to fees charged by the European Securities and Markets Authority to central counterparties established in third countries.

  Published in *OJEU* (L) No. 305 of 21/09/2020.

– ESMA Guidelines on Liquidity Stress Testing in UCITS and AIFs, of 16 July 2020.

IV Statistics Annex

1 Markets

1.1 Equity

Share issues and public offerings[1]

TABLE 1.1

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
NO. OF ISSUERS								
Total	46	46	33	10	12	8	8	8
Capital increases	44	45	33	10	12	8	8	8
Primary offerings	3	2	1	0	0	0	0	0
Bonus issues	12	12	10	4	2	5	1	5
Of which, scrip dividend	9	10	9	4	1	5	1	5
Capital increases by conversion	5	6	3	1	1	2	0	0
For non-monetary consideration	8	7	2	1	0	1	0	0
With pre-emptive subscription rights	8	10	8	2	3	0	1	1
Without trading warrants	15	16	13	2	8	0	6	2
Secondary offerings	4	1	0	0	0	0	0	0
NO. OF ISSUES								
Total	89	81	52	10	15	8	8	8
Capital increases	82	80	52	10	15	8	8	8
Primary offering	4	2	1	0	0	0	0	0
Bonus issues	16	17	15	4	2	5	1	5
Of which, scrip dividend	13	15	14	4	1	5	1	5
Capital increases by conversion	6	10	4	1	1	2	0	0
For non-monetary consideration	12	9	2	1	0	1	0	0
With pre-emptive subscription rights	8	10	9	2	3	0	1	1
Without trading warrants	36	32	21	2	9	0	6	2
Secondary offerings	7	1	0	0	0	0	0	0
CASH VALUE (million euro)								
Total	32,538.1	12,063.2	9,806.0	2,823.1	4,135.5	571.3	1,611.9	5,108.5
Capital increases	29,593.6	11,329.5	9,806.0	2,823.1	4,135.5	571.3	1,611.9	5,108.5
Primary offerings	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	1,074.9	2.6	396.4	93.5	1,083.9
Of which, scrip dividend	3,807.3	3,915.2	1,564.1	1,074.9	1.3	396.4	93.5	1,083.9
Capital increases by conversion	1,648.8	388.7	354.9	0.7	341.1	162.4	0.0	0.0
For non-monetary consideration[2]	8,469.3	2,999.7	2,034.2	1,682.6	0.0	12.5	0.0	0.0
With pre-emptive subscription rights	7,831.4	888.4	4,729.8	44.6	3,132.8	0.0	50.0	3,999.5
Without trading warrants	6,880.5	2,912.9	1,111.8	20.4	659.0	0.0	1,468.4	25.1
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	385.2	305.9	124.2	30.3	328.3
Capital increases	2,662.8	1,810.6	1,297.2	385.2	305.9	124.2	30.3	328.3
Primary offerings	749.2	104.9	0.5	0.0	0.0	0.0	0.0	0.0
Bonus issues	324.3	381.6	306.3	148.8	2.6	121.4	1.2	301.7
Of which, scrip dividend	299.1	357.1	306.3	148.8	1.3	121.4	1.2	301.7
Capital increases by conversion	182.8	90.0	13.1	0.7	3.4	1.7	0.0	0.0
For non-monetary consideration	181.9	557.6	401.0	190.8	0.0	1.1	0.0	0.0
With pre-emptive subscription rights	882.0	611.1	372.1	44.6	109.5	0.0	1.0	25.3
Without trading warrants	342.6	65.5	204.2	0.4	190.3	0.0	28.1	1.3
Secondary offerings	502.3	281.7	0.0	0.0	0.0	0.0	0.0	0.0
***Pro memoria*: Transactions BME Growth[3]**								
No. of issuers	13	8	12	5	4	5	3	2
No. of issues	15	12	17	6	4	6	3	3
Cash value (million euro)	129.9	164.5	298.3	74.1	200.5	18.3	9.9	36.0
Capital increases	129.9	164.5	298.3	74.1	200.5	18.3	9.9	36.0
Of which, primary offerings	17.1	0.0	229.4	30.0	196.3	0.1	0.0	0.0
Secondary offerings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Registered transactions at the CNMV. Does not include data from BME Growth, 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 listed[1]

TABLE 1.2

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total electronic market[2]	134	133	129	128	129	129	129	127
Of which, foreign companies	7	8	7	7	7	7	7	7
Second market	4	4	3	4	3	3	0	0
Madrid	1	1	1	1	1	1	0	0
Barcelona	3	3	2	3	2	2	0	0
Bilbao	0	0	0	0	0	0	0	0
Valencia	0	0	0	0	0	0	0	0
Open outcry	12	11	9	9	9	8	11	11
Madrid	4	4	3	3	3	2	3	3
Barcelona	6	6	5	5	5	4	6	6
Bilbao	4	3	2	2	2	2	2	2
Valencia	3	3	2	2	2	2	2	2
BME Growth[3]	2,965	2,842	2,709	2,749	2,709	2,677	2,653	2,627
Latibex	20	19	19	19	19	19	19	19

1 Data at the end of period.
2 Without ETFs (Exchange Traded Funds).
3 Alternative Stock Market.

Capitalisation[1]

TABLE 1.3

Million euro

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total electronic market[2]	877,867.6	733,656.4	806,064.3	770,475.7	806,064.3	551,292.8	587,384.7	565,124.3
Of which, foreign companies[3]	178,620.3	143,598.7	141,671.0	132,453.7	141,671.0	73,645.8	78,273.2	79,132.6
Ibex 35	534,250.1	444,178.3	494,789.4	481,981.4	494,789.4	352,613.5	377,846.0	355,491.3
Second market	49.9	37.4	31.1	45.3	31.1	31.1	0.0	0.0
Madrid	8.7	1.9	1.9	1.9	1.9	1.9	0.0	0.0
Barcelona	41.2	35.4	29.2	43.3	29.2	29.2	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	1,288.5	1,459.1	1,154.2	1,116.8	1,154.2	1,053.0	1,096.6	1,053.9
Madrid	165.9	219.4	69.8	68.1	69.8	58.9	54.0	44.4
Barcelona	1,134.3	1,318.4	1,036.5	1,003.4	1,036.5	939.6	981.3	944.6
Bilbao	211.3	56.5	32.9	32.9	32.9	32.9	26.0	22.5
Valencia	54.0	257.0	80.4	77.8	80.4	76.0	76.0	76.0
BME Growth[4, 5]	43,804.8	40,020.7	44,706.4	43,607.7	44,706.4	39,698.8	41,841.8	42,231.5
Latibex	215,277.7	223,491.3	199,022.2	193,789.8	199,022.2	128,748.4	144,296.1	136,210.7

1 Data at the end of period.
2 Without ETFs (Exchange Traded Funds).
3 Capitalisation of foreign companies includes their entire shares, whether they are deposited in Spain or not.
4 Calculated only with outstanding shares, not including treasury shares, because capital stock is not reported until the end of the year.
5 Alternative Stock Market.

Trading

TABLE 1.4

Million euro

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total electronic market[1]	640,293.7	583,327.6	462,378.8	98,913.6	126,679.1	127,686.0	108,194.3	81,140.3
Of which, foreign companies	6,908.0	3,517.1	3,477.8	690.9	966.6	987.7	1,265.4	1,066.8
Second market	0.7	0.8	0.1	0.0	0.0	0.0	0.0	0.0
Madrid	0.5	0.6	0.1	0.0	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	1.4	0.7	1.1	0.6	0.2
Madrid	2.3	0.7	0.8	0.2	0.0	0.1	0.0	0.0
Barcelona	6.2	7.4	3.2	1.2	0.7	1.0	0.6	0.2
Bilbao	0.1	0.0	2.1	0.1	0.0	0.0	0.0	0.0
Valencia	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
BME Growth[2]	4,985.6	4,216.3	4,014.4	704.2	1,358.7	1,145.3	809.5	641.8
Latibex	130.8	151.6	136.4	32.4	39.2	29.2	24.5	16.5

1 Without ETFs (Exchange Traded Funds).
2 Alternative Stock Market.

Trading on the electronic market by type of transaction[1]

TABLE 1.5

Million euro

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Regular trading	619,108.6	552,716.8	450,575.7	95,693.0	124,322.8	123,941.0	102,664.3	76,276.1
Orders	335,917.3	300,107.8	258,242.2	62,180.0	65,055.7	87,831.8	70,418.8	54,142.3
Put-throughs	51,315.9	48,644.1	38,888.0	10,408.8	10,283.0	12,503.4	9,276.1	9,273.5
Block trades	231,875.3	203,965.0	153,445.5	23,104.1	48,984.1	23,605.8	22,969.4	12,860.3
Off-hours	2,373.8	1,667.2	3,098.1	1,074.4	797.4	1,715.4	1,065.4	456.4
Authorised trades	9,265.3	2,597.0	1,706.3	677.5	342.8	254.7	239.5	938.5
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	451.8	0.0	0.0	2,569.1	2,681.7
Public offerings for sale	2,288.1	1,333.2	634.4	20.0	574.9	0.0	802.8	0.0
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	629.1	1,378.5	980.5	701.6	378.3
Hedge transactions	2,405.7	2,037.8	1,799.4	367.7	629.2	794.5	151.6	409.3

1 Without ETFs (Exchange Traded Funds).

1.2 Fixed income

Gross issues registered at the CNMV

TABLE 1.6

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
NO. OF ISSUERS								
Total	48	43	39	16	18	13	17	13
Mortgage-covered bonds	9	12	12	4	6	3	7	3
Territorial-covered bonds	1	2	2	0	2	0	2	3
Non-convertible bonds and debentures	16	13	13	5	7	6	4	3
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	21	14	13	5	6	2	3	4
Commercial paper	13	13	11	4	2	2	4	1
Of which, asset-backed	1	1	0	0	0	0	0	0
Of which, non-asset-backed	12	12	11	4	2	2	4	1
Other fixed-income issues	1	0	1	1	0	0	2	0
Preference shares	1	4	1	0	0	0	0	1
NO. OF ISSUES								
Total	378	303	298	67	95	59	56	62
Mortgage-covered bonds	28	28	29	4	9	6	9	4
Territorial-covered bonds	1	2	3	0	3	0	3	3
Non-convertible bonds and debentures	276	215	205	39	60	43	25	42
Convertible bonds and debentures	0	0	0	0	0	0	0	0
Backed securities	58	41	48	19	21	8	11	11
Commercial paper[1]	13	13	11	4	2	2	4	1
Of which, asset-backed	1	1	0	0	0	0	0	0
Of which, non-asset-backed	12	12	11	4	2	2	4	1
Other fixed-income issues	1	0	1	1	0	0	4	0
Preference shares	1	4	1	0	0	0	0	1
NOMINAL AMOUNT (million euro)								
Total	109,487.4	101,295.6	90,164.5	19,970.9	35,018.7	20,762.7	35,880.4	20,731.2
Mortgage-covered bonds	29,823.7	26,575.0	22,933.0	6,750.0	7,508.0	6,250.0	10,100.0	1,160.0
Territorial-covered bonds	350.0	2,800.0	1,300.0	0.0	1,300.0	0.0	4,750.0	4,400.0
Non-convertible bonds and debentures	30,006.2	35,836.4	29,605.6	1,536.7	12,084.4	6,158.7	1,924.7	373.2
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	4,909.0	9,680.5	3,065.7	5,059.5	8,193.2
Commercial paper[2]	17,911.2	15,089.1	15,085.0	5,275.2	4,445.9	5,288.3	7,780.0	5,604.8
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	15,085.0	5,275.2	4,445.9	5,288.3	7,780.0	5,604.8
Other fixed-income issues	981.0	0.0	1,500.0	1,500.0	0.0	0.0	6,266.2	0.0
Preference shares	1,000.0	2,850.0	1,000.0	0.0	0.0	0.0	0.0	1,000.0
***Pro memoria*:**								
Subordinated issues	6,504.6	4,923.0	3,213.5	459.0	2,088.3	860.7	516.0	2,020.2
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 AIAF[1]

TABLE 1.7

Nominal amount in million euro

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total	121,556.6	76,751.3	114,034.0	18,335.6	28,921.7	26,909.2	38,581.3	20,295.8
Commercial paper	18,388.9	15,007.0	15,036.1	4,098.5	5,609.4	4,126.3	8,951.9	4,264.1
Bonds and debentures	43,182.3	19,234.2	45,082.0	2,585.1	1,684.8	16,299.0	909.3	294.1
Mortgage-covered bonds	30,000.0	19,935.0	29,375.0	4,500.0	9,560.0	5,448.3	12,100.0	1,160.0
Territorial-covered bonds	350.0	800.0	3,300.0	0.0	1,300.0	0.0	4,750.0	4,400.0
Backed securities	28,635.4	18,925.2	18,740.9	5,652.0	10,767.5	1,035.7	5,580.0	9,177.5
Preference shares	1,000.0	2,850.0	1,000.0	0.0	0.0	0.0	0.0	1,000.0
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	1,500.0	0.0	0.0	6,290.1	0.0

1 Only corporate bonds are included.

AIAF. Issuers, issues and outstanding balance

TABLE 1.8

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
NO. OF ISSUERS								
Total	362	353	331	327	331	327	325	323
Corporate bonds	342	320	299	295	299	295	293	291
Commercial paper	14	9	9	9	9	9	9	8
Bonds and debentures	48	45	40	40	40	39	39	40
Mortgage-covered bonds	41	40	35	37	35	35	36	30
Territorial-covered bonds	7	7	7	7	7	7	7	8
Backed securities	262	244	227	222	227	224	223	224
Preference shares	4	7	6	6	6	6	5	5
Matador bonds	6	5	5	5	5	5	5	5
Government bonds	20	33	32	32	32	32	32	32
Letras del Tesoro	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	2,785	2,775	2,701	2,682	2,646
Corporate bonds	2,084	1,917	1,834	1,834	1,834	1,765	1,719	1,677
Commercial paper	179	106	84	100	84	67	78	49
Bonds and debentures	764	737	718	730	718	678	620	604
Mortgage-covered bonds	218	213	209	206	209	212	215	207
Territorial-covered bonds	24	20	23	21	23	21	21	22
Backed securities	889	828	787	764	787	774	773	782
Preference shares	4	8	8	8	8	8	7	8
Matador bonds	6	5	5	5	5	5	5	5
Government bonds	384	934	941	951	941	936	963	969
Letras del Tesoro	12	12	12	12	12	12	12	12
Long government bonds	226	243	236	241	236	237	237	233
Regional government debt	133	164	173	169	173	164	169	176
Foreign public debt	–	502	508	516	508	511	533	536
Other public debt	13	13	12	13	12	12	12	12
OUTSTANDING BALANCE[1] (million euro)								
Total	1,466,964.4	6,663,565.5	6,421,003.0	6,550,655.7	6,421,003.0	6,412,421.1	6,478,122.2	6,414,281.5
Corporate bonds	493,629.6	448,394.4	463,816.1	464,021.4	463,816.1	465,404.2	479,780.9	478,091.0
Commercial paper	11,978.9	9,308.7	6,423.1	6,965.1	6,423.1	5,840.2	6,401.8	4,675.1
Bonds and debentures	70,127.7	47,894.0	62,477.8	72,674.1	62,477.8	69,882.2	75,780.5	75,743.3
Mortgage-covered bonds	181,308.7	183,266.8	195,719.1	189,286.3	195,719.1	199,396.8	207,478.3	202,543.3
Territorial-covered bonds	23,862.3	18,362.3	20,762.3	19,862.3	20,762.3	17,762.3	19,112.3	18,512.3
Backed securities	204,570.0	185,002.7	172,878.9	169,678.7	172,878.9	166,967.9	165,753.2	170,362.2
Preference shares	1,395.0	4,245.0	5,240.0	5,240.0	5,240.0	5,240.0	4,940.0	5,940.0
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	6,086,634.3	5,957,186.8	5,947,017.0	5,998,341.3	5,936,190.4
Letras del Tesoro	78,835.2	70,442.2	68,335.5	65,204.9	68,335.5	68,888.5	81,414.0	88,038.0
Long government bonds	864,059.7	918,000.0	937,290.9	949,990.4	937,290.9	1,006,709.3	1,057,726.8	1,067,073.6
Regional government debt	28,620.8	33,100.4	35,247.6	34,942.4	35,247.6	31,493.3	32,097.8	32,815.4
Foreign public debt	–	5,192,055.3	4,914,792.7	5,034,923.4	4,914,792.7	4,838,405.6	4,825,582.4	4,746,743.2
Other public debt	1,819.1	1,573.2	1,520.2	1,573.2	1,520.2	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 III	2019 IV	2020 I	2020 II	2020 III
BY TYPE OF ASSET								
Total	68,422.0	94,241.3	158,807.2	39,146.0	26,175.9	45,994.9	53,413.4	25,232.4
Corporate bonds	68,297.4	435.4	275.2	59.4	62.9	61.8	27.5	36.4
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	59.0	62.4	61.4	27.5	36.2
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	0.1	0.2	0.0	0.0	0.0
Preference shares	1,482.3	1.2	1.4	0.3	0.3	0.4	0.1	0.2
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	39,086.6	26,113.1	45,933.1	53,385.9	25,196.0
Letras del Tesoro	4.2	24,766.7	25,858.4	8,190.4	7,865.0	5,504.2	12,722.2	5,472.2
Long government bonds	120.4	56,122.5	92,592.8	21,176.1	11,072.9	30,410.2	30,920.3	13,865.2
Regional government debt	0.0	3.2	35.1	1.5	0.0	0.0	0.0	0.0
Foreign public debt	–	12,913.5	40,027.8	9,718.6	7,175.2	10,018.6	9,743.4	5,858.6
Other public debt	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
BY TYPE OF TRANSACTION								
Total	68,422.0	94,241.3	158,807.2	39,146.0	26,175.9	45,994.9	53,413.4	25,232.4
Outright	57,723.9	94,241.3	158,807.2	39,146.0	26,175.9	45,994.9	53,413.4	25,232.4
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 III	2019 IV	2020 I	2020 II	2020 III
Total	49,230.2	92,661.9	158,792.5	39,143.6	26,172.0	45,990.7	53,407.9	25,230.1
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	39,143.6	26,172.0	45,990.7	53,407.9	25,230.1
Credit institutions	15,363.2	437.9	385.5	84.4	69.8	56.4	37.4	22.1
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	39,059.2	26,102.2	45,934.3	53,370.4	25,208.0
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 III	2019 IV	2020 I	2020 II	2020 III
NO. OF ISSUERS								
Total	15	14	13	13	13	12	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[1]	8	8	8	8	8	7	7	7
Regional governments	2	2	2	2	2	2	2	2
NO. OF ISSUES								
Total	64	58	54	57	54	52	52	50
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	41	38	36	36	34
Regional governments	22	21	20	21	20	18	18	18
OUTSTANDING BALANCES[2] (million euro)								
Total	9,718.0	8,268.3	7,340.4	8,163.1	7,340.4	6,249.6	6,242.6	6,227.9
Private issuers	760.6	589.8	481.1	498.6	481.1	464.2	449.1	435.6
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	498.6	481.1	464.2	449.1	435.6
General government[1]	8,957.4	7,678.5	6,859.2	7,664.6	6,859.2	5,785.5	5,793.5	5,792.3
Regional governments	8,193.1	6,959.7	6,260.7	6,959.7	6,260.7	5,179.3	5,179.3	5,179.3

1 Without public book-entry debt.
2 Nominal amount.

SENAF. Public debt trading by type

TABLE 1.12

Nominal amounts in million euro

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total	131,475.0	96,708.0	150,634.0	37,224.0	34,036.0	28,005.0	31,167.0	24,130.0
Outright	131,475.0	96,708.0	150,634.0	37,224.0	34,036.0	28,005.0	31,167.0	24,130.0
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

				2019		2020		
	2017	2018	2019	III	IV	I	II	III
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	2,056,740	1,999,333	2,693,090	1,602,972	1,699,700
Ibex 35 plus futures	6,268,290	6,342,478	5,965,905	1,553,764	1,475,185	1,992,435	1,231,531	1,328,472
Ibex 35 mini futures	161,886	149,023	1,454,885	386,841	366,525	619,842	307,848	302,183
Ibex 35 micro futures			36	1	3	0	0	0
Ibex 35 dividend impact futures	43,372	70,725	144,831	16,277	52,827	10,122	8,225	24,922
Ibex 35 sector futures	7,753	2,745	6	1	1	0	0	0
Call mini options	206,843	193,480	177,369	46,123	60,488	36,055	18,825	12,461
Put mini options	223,527	224,835	192,393	53,733	44,304	34,636	36,543	31,662
Stock products[4]	32,335,004	31,412,879	32,841,027	5,126,089	9,339,160	9,850,736	7,531,055	4,226,165
Futures	11,671,215	10,703,192	15,298,027	1,487,978	3,103,189	3,437,527	3,657,008	875,676
Stock dividend futures	346,555	471,614	758,700	57,552	108,004	62,040	4,200	7,800
Stock plus dividend futures	880	200	0	0	0	0	3,264	612
Call options	8,848,643	7,761,974	7,405,619	1,439,960	2,597,957	3,216,199	1,393,792	1,880,966
Put options	11,467,711	12,475,899	9,378,681	2,140,599	3,530,010	3,134,970	2,472,791	1,461,111

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

				2019		2020		
	2017	2018	2019	III	IV	I	II	III
WARRANTS								
Premium amount (million euro)	2,433.6	2,084.9	1,837.7	246.0	557.7	219.4	453.3	0.6
On stocks	939.5	819.0	901.4	145.0	258.3	72.1	202.0	0.0
On indexes	1,443.0	1,160.5	809.3	80.9	267.5	139.8	233.7	0.6
Other underlyings[1]	51.1	105.5	127.1	20.1	31.9	7.5	17.7	0.0
Number of issues	5,730	5,231	5,496	1,107	1,306	646	1,426	1
Number of issuers	6	5	6	5	6	3	2	1
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 It includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.

Equity markets. Warrants and ETF trading

TABLE 1.15

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
WARRANTS								
Trading (million euro)	462.6	435.2	291.6	59.4	63.3	86.4	82.1	71.3
On Spanish stocks	156.8	93.3	81.1	14.6	21.1	20.5	28.3	29.7
On foreign stocks	29.9	31.6	19.7	4.5	7.1	9.6	6.5	5.3
On indexes	266.0	305.5	186.6	39.2	33.6	53.1	44.8	34.7
Other underlyings[1]	9.9	4.8	3.7	0.7	1.6	3.2	2.4	1.6
Number of issues[2]	5,084	3,986	3,605	872	823	1,095	1,074	805
Number of issuers[2]	7	7	8	8	8	7	7	6
CERTIFICATES								
Trading (million euro)	0.3	0.3	0.3	0.1	0.1	0.2	0.0	0.0
Number of issues[2]	2	2	2	2	2	1	1	1
Number of issuers[2]	1	1	1	1	1	1	1	1
ETFs								
Trading (million euro)	4,464.1	3,027.6	1,718.8	414.3	461.6	819.0	671.4	436.0
Number of funds	8	6	6	5	5	5	5	5
Assets[3] (million euro)	359.3	288.9	229.2	267.0	229.2	205.5	234.0	227.2

1 It includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.
2 Issues or issuers which were traded in each period.
3 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 III	2019 IV	2020 I	2020 II	2020 III
BROKER-DEALERS								
Spanish firms	41	39	39	40	39	37	38	38
Branches in Spain[1]	24	25	19	22	19	18	17	14
Agents operating in Spain	5,747	2,027	1,944	1,948	1,944	1,698	1,397	1,385
Branches in EEA[2]	5	9	9	9	9	9	9	9
Firms providing services in EEA[2]	24	24	25	25	25	25	26	25
Passports to operate in EEA[2, 3]	165	172	205	223	205	205	205	205
BROKERS								
Spanish firms	48	52	56	57	56	56	55	57
Branches in Spain[1]	23	21	23	22	23	23	23	23
Agents operating in Spain	461	414	361	354	361	338	328	356
Branches in EEA[2]	2	2	1	1	1	1	1	0
Firms providing services in EEA[2]	22	25	24	24	24	25	24	28
Passports to operate in EEA[2, 3]	116	150	144	146	144	146	146	153
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	1	1	1	1	1	1	1	1
FINANCIAL ADVISORY FIRMS								
Spanish firms	171	158	140	144	140	140	139	139
Branches in Spain	19	21	22	22	22	21	21	23
Branches in EEA[2]	2	2	2	2	2	2	2	2
Firms providing services in EEA[2]	29	29	29	29	29	26	28	28
Passports to operate in EEA[2, 3]	62	51	51	51	51	48	50	50
CREDIT INSTITUTIONS[4]								
Spanish firms	122	114	112	113	112	111	111	111

1 Revised data.
2 EEA: European Economic Area.
3 Number of passports to provide services in the EEA. The same entity may provide investment services in one or more Member States.
4 Source: Banco de España [Bank of Spain] and CNMV.

Investment services. Foreign firms

TABLE 2.2

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III
Total	3,339	3,474	3,567	3,582	3,567	3,562	3,588	3,606
Investment services firms	2,872	3,002	3,088	3,103	3,088	3,083	3,105	3,122
From EU Member states	2,869	2,999	3,085	3,100	3,085	3,080	3,102	3,119
Branches	53	61	65	62	65	64	66	69
Free provision of services	2,816	2,938	3,020	3,038	3,020	3,016	3,036	3,050
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	483	484
From EU Member states	461	466	473	473	473	474	478	478
Branches	52	53	54	53	54	54	53	52
Free provision of services	409	413	419	420	419	420	425	426
Subsidiaries of free provision of services institutions	0	0	0	0	0	0	0	0
From non-EU States	6	6	6	6	6	5	5	6
Branches	4	3	3	3	3	3	3	4
Free provision of services	2	3	3	3	3	2	2	2

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

Intermediation of spot transactions[1]

TABLE 2.3

Million euro

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
FIXED INCOME								
Total	3,727,687.0	3,082,789.5	3,222,363.2	812,562.2	791,523.6	735,041.6	1,108,871.4	1,117,312.0
Broker-dealers	2,347,959.0	2,184,921.9	2,263,416.4	575,936.8	574,831.6	497,478.6	679,536.9	1,114,160.4
Spanish organised markets	836,831.1	855,948.9	909,992.9	220,796.9	239,719.8	201,547.3	270,037.2	241,184.6
Other Spanish markets	1,255,087.2	1,111,231.9	1,012,359.1	265,019.0	235,678.5	215,515.3	321,387.3	767,902.7
Foreign markets	256,040.7	217,741.1	341,064.4	90,120.9	99,433.3	80,416.0	88,112.4	105,073.1
Brokers	1,379,728.0	897,867.6	958,946.8	236,625.4	216,692.0	237,563.0	429,334.5	3,151.6
Spanish organised markets	6,067.6	6,237.8	17,314.9	5,131.7	4,714.1	901.2	912.9	95.6
Other Spanish markets	1,175,387.4	702,731.7	803,742.9	195,568.6	178,640.9	210,317.5	405,160.9	6.7
Foreign markets	198,273.0	188,898.1	137,889.0	35,925.1	33,337.0	26,344.3	23,260.7	3,049.3
EQUITY								
Total	804,328.3	630,896.1	1,213,388.9	358,803.5	330,078.7	387,429.2	512,419.7	481,027.4
Broker-dealers	660,312.8	600,442.4	1,194,473.3	354,079.3	326,053.1	382,524.4	503,328.1	476,513.5
Spanish organised markets	610,682.8	525,648.7	329,666.8	92,697.9	69,963.7	88,826.2	90,300.4	70,683.0
Other Spanish markets	3,178.2	839.1	1,771.0	235.0	446.3	941.4	1,650.4	1,138.4
Foreign markets	46,451.8	73,954.6	863,035.5	261,146.4	255,643.1	292,756.8	411,377.3	404,692.1
Brokers	144,015.5	30,453.7	18,915.6	4,724.2	4,025.6	4,904.8	9,091.6	4,513.9
Spanish organised markets	7,037.7	6,462.5	7,712.5	1,694.7	2,115.0	1,980.0	2,510.1	1,627.2
Other Spanish markets	12,052.0	1,328.5	1,006.8	252.7	241.5	262.2	454.0	174.8
Foreign markets	124,925.8	22,662.7	10,196.3	2,776.8	1,669.1	2,662.6	6,127.5	2,711.9

1 Period accumulated data. Quarterly.

Intermediation of derivative transactions[1, 2]

TABLE 2.4

Million euro

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
Total	10,708,583.9	10,308,915.0	10,807,586.8	2,594,223.7	2,595,476.8	3,092,990.7	2,647,243.6	2,333,005.1
Broker-dealers	10,528,524.3	10,065,090.4	10,523,995.1	2,526,680.4	2,552,432.9	2,995,603.4	2,500,341.1	2,312,414.3
Spanish organised markets	5,330,761.9	5,457,270.1	5,058,147.9	1,139,191.0	1,267,019.9	1,398,540.1	1,125,366.5	657,784.1
Foreign organised markets	4,676,156.7	3,927,718.5	4,160,941.8	1,008,116.6	999,213.7	1,200,656.7	1,028,475.9	1,349,458.4
Non-organised markets	521,605.7	680,101.8	1,304,905.4	379,372.8	286,199.3	396,406.6	346,498.7	305,171.8
Brokers	180,059.6	243,824.6	283,591.7	67,543.3	43,043.9	97,387.3	146,902.5	20,590.8
Spanish organised markets	17,171.0	30,836.1	29,601.4	14,570.6	4,695.3	6,539.9	4,100.6	2,201.8
Foreign organised markets	48,043.8	105,915.8	116,038.0	24,127.6	21,661.2	35,758.0	59,555.4	16,425.1
Non-organised markets	114,844.8	107,072.7	137,952.3	28,845.1	16,687.4	55,089.4	83,246.5	1,963.9

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 management[1]

TABLE 2.5

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
NUMBER OF PORTFOLIOS								
Total[2]	12,601	16,172	25,389	19,524	21,935	25,389	32,814	38,357
Broker-dealers. Total	3,769	3,807	3,219	3,664	3,620	3,219	3,383	3,291
CIS[3]	18	37	40	37	43	40	40	40
Other[4]	3,751	3,770	3,179	3,627	3,577	3,179	3,343	3,251
Brokers. Total	8,831	12,364	22,169	15,860	18,315	22,169	29,431	35,066
CIS[3]	89	83	79	80	79	79	78	79
Other[4]	8,742	12,281	22,090	15,780	18,236	22,090	29,353	34,987
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	4,941,068	5,057,339	4,946,670	4,736,945	5,266,995
Broker-dealers. Total	33,958,038	2,216,956	2,266,997	2,407,541	2,484,996	2,266,997	2,221,520	2,419,320
CIS[3]	344,474	838,379	1,059,718	921,876	1,020,180	1,059,718	1,038,540	1,061,277
Other[4]	33,613,564	1,378,577	1,207,279	1,485,665	1,464,816	1,207,279	1,182,980	1,358,043
Brokers. Total	2,949,741	2,619,297	2,658,674	2,533,527	2,572,343	2,658,674	2,515,425	2,847,675
CIS[3]	1,595,851	1,295,580	1,346,615	974,538	1,054,869	1,346,615	920,360	1,079,828
Other[4]	1,353,890	1,323,717	1,312,059	1,558,989	1,517,474	1,312,059	1,595,065	1,767,847
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 It includes both resident and non-resident CIS management.
4 It 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 II	2019 III	2019 IV	2020 I	2020 II
NUMBER OF CONTRACTS								
Total[3]	20,170	23,149	26,561	24,479	25,762	26,561	29,158	30,262
Broker-dealers. Total	5,125	5,241	6,163	5,852	5,971	6,163	7,647	8,474
Retail clients	5,108	5,211	6,115	5,820	5,932	6,115	7,598	8,424
Professional clients	6	21	31	24	29	31	47	44
Eligible counterparties	11	9	17	8	10	17	2	6
Brokers. Total	15,045	17,908	20,398	18,627	19,791	20,398	21,511	21,788
Retail clients	14,881	17,654	20,125	18,363	19,439	20,125	21,221	21,498
Professional clients	132	199	229	211	310	229	249	249
Eligible counterparties	32	55	44	53	42	44	41	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 advice[4]** (thousand euro)								
Total[4]	16,473	35,287	37,583	14,337	30,581	37,583	8,139	13,757
Broker-dealers	5,555	9,562	23,400	7,599	21,118	23,400	1,455	2,809
Brokers	10,918	25,725	14,183	6,738	9,463	14,183	6,684	10,948
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 euro[1]

				2019		2020		
	2017	2018	2019	III	IV	I	II	III[2]
I. Interest income	21,377	73,969	38,125	27,328	38,125	-1,582	12,589	24,561
II. Net commission	402,154	296,037	279,650	201,925	279,650	73,729	140,318	169,720
Commission revenues	549,298	414,595	427,813	307,881	427,813	126,716	246,775	293,534
Brokering	217,601	160,320	164,606	115,073	164,606	68,269	120,852	147,922
Placement and underwriting	17,553	11,090	8,849	4,103	8,849	529	1,270	1,313
Securities deposit and recording	38,200	42,958	42,643	34,619	42,643	11,696	21,646	23,818
Portfolio management	49,720	13,505	15,102	9,249	15,102	2,782	5,513	6,458
Design and advice	16,406	21,135	34,751	29,275	34,751	4,543	8,546	9,627
Stock search and placement	1,500	543	1,302	1,058	1,302	237	358	504
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	83,354	55,483	53,506	40,195	53,506	12,533	24,390	28,628
Other	124,964	109,561	107,055	74,310	107,055	26,127	64,199	75,263
Commission expenses	147,144	118,558	148,163	105,956	148,163	52,987	106,457	123,814
III. Financial investment income	43,725	27,088	29,452	22,367	29,452	10,697	70,866	80,678
IV. Net exchange differences and other operating products and expenses	28,507	16,614	29,066	21,730	29,066	15,770	51,948	43,873
V. Gross income	495,763	413,708	376,293	273,350	376,293	98,614	275,721	318,832
VI. Operating income	145,364	85,837	55,978	38,755	55,978	27,315	107,737	120,056
VII. Earnings from continuous activities	120,683	91,771	54,528	40,421	54,528	23,965	96,529	108,323
VIII. Net earnings from the period	157,065	91,771	54,528	40,421	54,528	23,965	96,529	108,323

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: July 2020.

Results of proprietary trading. Broker-dealers

TABLE 2.8

Thousand euro[1]

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
TOTAL								
Total	92,832	114,751	101,039	46,603	74,611	101,039	24,876	135,330
Money market assets and public debt	3,909	11,193	2,625	1,816	2,266	2,625	1,054	20,266
Other fixed-income securities	34,369	11,842	27,811	14,210	21,178	27,811	6,399	2,073
Domestic portfolio	20,941	8,304	13,186	5,680	8,873	13,186	2,581	8,133
Foreign portfolio	13,428	3,538	14,625	8,530	12,305	14,625	3,818	-6,060
Equities	53,601	10,844	8,009	6,250	5,218	8,009	914	24,095
Domestic portfolio	11,494	9,901	7,006	3,542	4,265	7,006	1,250	24,344
Foreign portfolio	42,107	943	1,003	2,708	953	1,003	-336	-249
Derivatives	-40,286	-1,167	-3,873	-1,236	-1,911	-3,873	-321	-2,236
Repurchase agreements	-288	-107	-3,492	-934	-2,105	-3,492	-1,597	-3,106
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	114	3,884	1,084	255	829	1,084	-303	-2,766
Net exchange differences	4,353	283	118	-78	-24	118	68	8,055
Other operating products and expenses	24,154	16,330	28,949	15,571	21,755	28,949	15,703	43,893
Other transactions	12,906	61,649	39,808	10,749	27,405	39,808	2,959	45,056
INTEREST INCOME								
Total	21,377	73,968	38,127	12,445	27,327	38,127	-1,582	12,589
Money market assets and public debt	1,576	2,036	1,027	648	839	1,027	147	302
Other fixed-income securities	1,285	1,300	3,319	1,432	1,971	3,319	597	832
Domestic portfolio	415	124	734	67	113	734	341	409
Foreign portfolio	870	1,176	2,585	1,365	1,858	2,585	256	423
Equities	6,140	3,673	2,767	1,824	1,800	2,767	48	827
Domestic portfolio	3,047	2,892	2,456	924	1,564	2,456	30	657
Foreign portfolio	3,093	781	311	900	236	311	18	170
Repurchase agreements	-288	-107	-3,492	-934	-2,105	-3,492	-1,597	-3,106
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	114	3,884	1,084	255	829	1,084	-303	-2,766
Other transactions	12,550	63,182	33,422	9,220	23,993	33,422	-474	16,500
FINANCIAL INVESTMENT INCOME								
Total	43,725	27,088	29,451	17,278	22,366	29,451	10,699	70,865
Money market assets and public debt	2,333	9,157	1,598	1,168	1,427	1,598	907	19,964
Other fixed-income securities	33,084	10,542	24,492	12,778	19,207	24,492	5,802	1,241
Domestic portfolio	20,526	8,180	12,452	5,613	8,760	12,452	2,240	7,724
Foreign portfolio	12,558	2,362	12,040	7,165	10,447	12,040	3,562	-6,483
Equities	47,461	7,171	5,242	4,426	3,418	5,242	866	23,268
Domestic portfolio	8,447	7,009	4,550	2,618	2,701	4,550	1,220	23,687
Foreign portfolio	39,014	162	692	1,808	717	692	-354	-419
Derivatives	-40,286	-1,167	-3,873	-1,236	-1,911	-3,873	-321	-2,236
Other transactions	1,133	1,385	1,992	142	225	1,992	3,445	28,628
EXCHANGE DIFFERENCES AND OTHER ITEMS								
Total	27,730	13,695	33,461	16,880	24,918	33,461	15,759	51,876
Net exchange differences	4,353	283	118	-78	-24	118	68	8,055
Other operating products and expenses	24,154	16,330	28,949	15,571	21,755	28,949	15,703	43,893
Other transactions	-777	-2,918	4,394	1,387	3,187	4,394	-12	-72

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 euro[1]

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III[2]
I. Interest income	3,127	1,583	1,252	783	1,252	-4	551	564
II. Net commission	120,674	135,782	130,293	89,925	130,293	34,779	65,697	76,080
Commission revenues	142,771	156,624	150,842	103,815	150,842	40,524	75,912	88,864
Brokering	20,449	20,018	23,194	17,375	23,194	8,196	14,004	15,214
Placement and underwriting	3,427	1,120	580	580	580	979	1,172	1,172
Securities deposit and recording	903	824	879	649	879	216	417	487
Portfolio management	12,470	15,412	14,890	9,600	14,890	3,404	6,648	7,755
Design and advice	11,263	26,446	14,426	9,639	14,426	6,705	11,004	14,634
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	43,829	62,866	14,549	29,299	34,155
Other	33,689	28,983	34,008	22,143	34,008	6,475	13,367	15,445
Commission expenses	22,097	20,842	20,549	13,890	20,549	5,745	10,215	12,784
III. Financial investment income	1,133	-51	910	824	910	-7,366	-6,788	-6,498
IV. Net exchange differences and other operating products and expenses	-1,680	-279	1,194	739	1,194	-198	-416	-698
V. Gross income	123,254	137,035	133,648	92,271	133,648	27,211	59,044	69,448
VI. Operating income	17,024	12,031	9,284	8,749	9,284	-5,456	-3,604	-1,882
VII. Earnings from continuous activities	11,620	7,459	6,163	8,107	6,163	-5,109	-1,547	17
VIII. Net earnings of the period	11,620	7,459	6,163	8,107	6,163	-5,109	-1,547	17

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: July 2020.

Aggregated income statement. Portfolio management companies[1]

TABLE 2.10

Thousand euro[2]

	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 ratio[1]

TABLE 2.11

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
TOTAL[2]								
Total capital ratio[3]	33.40	42.36	46.92	36.69	35.74	46.92	37.13	38.13
Own fund surplus (thousand euro)	803,793	915,383	1,165,707	919,410	901,336	1,165,707	1,098,487	1,140,674
Surplus (%)[4]	317.54	429.49	486.52	358.66	346.78	486.52	364.11	376.63
No. of companies according to surplus percentage								
≤ 100%	18	20	23	21	24	23	25	26
> 100-≤ 300%	23	29	31	28	26	31	27	25
> 300-≤ 500%	14	10	10	9	10	10	12	11
> 500%	18	15	13	19	20	13	13	14
BROKER-DEALERS								
Total capital ratio[3]	34.28	45.16	49.63	38.02	36.95	49.63	39.05	39.90
Own fund surplus (thousand euro)	755,143	874,235	1,118,273	870,260	852,187	1,118,273	1,037,871	1,076,407
Surplus (%)[4]	328.55	464.51	520.42	375.22	361.84	520.42	388.12	398.76
No. of companies according to surplus percentage								
≤ 100%	8	7	7	5	7	7	6	8
> 100-≤ 300%	10	10	14	14	14	14	13	13
> 300-≤ 500%	8	7	4	4	3	4	6	4
> 500%	13	14	11	15	15	11	11	12
BROKERS								
Total capital ratio[3]	24.69	21.17	23.34	24.11	24.11	23.34	22.14	23.62
Own fund surplus (thousand euro)	48,452	40,952	47,249	49,151	49,149	47,249	60,616	64,267
Surplus (%)[4]	208.66	164.84	191.77	201.36	201.40	191.77	176.80	195.19
No. of companies according to surplus percentage								
≤ 100%	10	13	16	16	17	16	19	18
> 100-≤ 300%	12	18	16	14	12	16	14	12
> 300-≤ 500%	6	3	6	5	7	6	6	7
> 500%	5	1	2	4	5	2	2	2
PORTFOLIO MANAGEMENT COMPANIES[2]								
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 taxes[1]

TABLE 2.12

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
TOTAL[2]								
Average (%)[3]	17.73	12.27	9.23	4.93	6.91	9.23	10.41	25.53
Number of companies according to annualised return								
Losses	20	40	32	36	39	32	44	39
0-≤ 15%	28	22	22	24	27	22	13	10
> 15-≤ 45%	22	10	19	20	17	19	17	15
> 45-≤ 75%	4	6	7	3	4	7	3	8
> 75%	15	14	12	11	10	12	15	19
BROKER-DEALERS								
Average (%)[3]	17.84	12.16	8.87	3.92	6.36	8.87	14.25	27.89
Number of companies according to annualised return								
Losses	7	18	13	18	19	13	17	15
0-≤ 15%	17	12	13	12	15	13	6	6
> 15-≤ 45%	11	5	7	8	5	7	10	7
> 45-≤ 75%	1	2	1	1	1	1	1	6
> 75%	4	2	2	0	0	2	2	3
BROKERS								
Average (%)[3]	16.49	13.24	12.05	14.55	11.80	12.05	-13.84	9.77
Number of companies according to annualised return								
Losses	13	21	19	18	20	19	27	24
0-≤ 15%	11	10	9	12	12	9	7	4
> 15-≤ 45%	10	5	11	12	12	11	7	8
> 45-≤ 75%	3	4	6	2	3	6	2	2
> 75%	11	12	10	11	10	10	13	16
PORTFOLIO MANAGEMENT COMPANIES[2]								
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:

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

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 figures[1]

TABLE 2.13

Thousand euro

	2015	2016	2017	2018	2019
ASSETS UNDER ADVICE[2]					
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 INCOME[3]					
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

				2019		2020		
	2017	2018	2019	III	IV	I	II	III[1]
Total financial CIS	4,564	4,386	4,233	4,290	4,233	4,182	4,152	4,115
Mutual funds	1,676	1,617	1,595	1,611	1,595	1,578	1,562	1,540
Investment companies	2,833	2,713	2,569	2,614	2,569	2,535	2,518	2,502
Funds of hedge funds	8	7	7	7	7	7	7	7
Hedge funds	47	49	62	58	62	62	65	66
Total real estate CIS	7	7	5	6	5	5	5	5
Real estate mutual funds	3	3	2	2	2	2	2	2
Real estate investment companies	4	4	3	4	3	3	3	3
Total foreign CIS marketed in Spain	1,013	1,024	1,033	1,017	1,033	1,035	1,042	1,038
Foreign funds marketed in Spain	455	429	399	392	399	402	402	400
Foreign companies marketed in Spain	558	595	634	625	634	633	640	638
Management companies	109	119	123	123	123	124	124	455
CIS depositories	54	37	36	36	36	36	36	558

1 Available data: August 2020.

Number of CIS investors and shareholders

TABLE 3.2

				2019		2020		
	2017	2018	2019	III	IV	I	II	III[1]
Total financial CIS[2]	10,704,585	11,627,118	12,132,581	11,620,670	12,132,581	12,142,357	12,324,766	12,591,193
Mutual funds	10,283,312	11,213,482	11,734,029	11,221,151	11,734,029	11,746,642	11,939,407	12,207,368
Investment companies	421,273	413,636	398,552	399,519	398,552	395,715	385,359	383,825
Total real estate CIS[2]	1,424	905	799	811	799	796	795	795
Real estate mutual funds	1,097	483	483	483	483	483	483	483
Real estate investment companies	327	422	316	328	316	313	312	312
Total foreign CIS marketed in Spain[3, 4]	1,984,474	3,172,682	3,361,901	3,144,420	3,361,901	3,421,733	3,834,258	–
Foreign funds marketed in Spain	431,295	547,517	521,648	488,522	521,648	531,035	572,841	–
Foreign companies marketed in Spain	1,553,179	2,625,165	2,840,253	2,655,898	2,840,253	2,890,698	3,261,417	–

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 III	2019 IV	2020 I	2020 II	2020 III[1]
Total financial CIS	296,619.5	286,930.9	308,170.1	301,467.3	308,170.1	274,633.1	289,847.9	291,194.0
Mutual funds[2]	265,194.8	259,095.0	279,377.4	273,100.7	279,377.4	250,126.3	263,619.4	265,159.7
Investment companies	31,424.7	27,835.9	28,792.7	28,366.6	28,792.7	24,506.9	26,228.5	26,034.3
Total real estate CIS	991.4	1,058.2	1,072.9	1,069.5	1,072.9	1,076.8	1,205.1	1,207.6
Real estate mutual funds	360.0	309.4	309.4	309.3	309.4	309.7	309.7	310.4
Real estate investment companies	631.4	748.8	763.5	760.2	763.5	767.1	895.4	897.2
Total foreign CIS marketed in Spain[3, 4]	150,420.6	162,701.9	178,841.5	177,366.2	178,841.5	167,800.5	171,882.9	–
Foreign funds marketed in Spain	26,133.9	34,237.1	30,843.4	30,010.6	30,843.4	29,844.4	26,201.3	–
Foreign companies marketed in Spain	124,286.7	128,464.9	147,998.1	147,355.6	147,998.1	137,956.1	145,681.6	–

1 Available data: July 2020.
2 Mutual funds investment in financial mutual funds of the same management company reached €7,415.0 million in June 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 II	2019 III	2019 IV	2020 I	2020 II
Asset	265,194.8	259,095.0	279,377.4	270,916.0	273,100.7	279,377.4	250,126.3	263,619.4
Portfolio investment	244,598.0	241,016.2	256,750.7	251,189.1	251,719.1	256,750.7	225,972.0	240,056.3
Domestic securities	83,032.1	74,486.1	66,520.4	73,843.0	69,542.8	66,520.4	55,616.4	55,564.9
Debt securities	55,389.1	50,537.5	44,637.7	51,611.7	47,670.3	44,637.7	38,960.2	39,528.1
Shares	10,911.7	10,868.4	9,047.9	9,788.0	9,258.3	9,047.9	5,696.7	5,810.0
Collective investment schemes	7,625.9	6,984.9	8,581.9	7,690.2	7,982.2	8,581.9	7,729.5	8,019.8
Deposits in credit institutions	8,657.1	5,854.8	4,004.8	4,493.0	4,375.5	4,004.8	3,103.6	2,067.2
Derivatives	441.4	235.4	243.2	254.7	251.3	243.2	114.8	126.9
Other	6.8	5.2	4.9	5.4	5.2	4.9	11.7	12.8
Foreign securities	161,556.6	166,522.5	190,224.5	177,336.6	182,169.4	190,224.5	170,350.5	184,486.8
Debt securities	67,794.0	74,079.1	83,817.5	77,987.5	82,625.8	83,817.5	82,667.6	83,963.6
Shares	27,081.8	26,660.8	33,115.9	26,943.6	30,924.1	33,115.9	25,407.5	29,738.0
Collective investment schemes	66,099.9	65,624.3	73,054.4	72,134.2	68,328.8	73,054.4	62,442.1	70,616.8
Deposits in credit institutions	74.7	21.1	4.5	29.9	14.7	4.5	4.5	11.1
Derivatives	504.7	136.0	231.3	240.4	275.0	231.3	-172.1	156.4
Other	1.4	1.2	0.9	1.0	1.0	0.9	0.9	0.9
Doubtful assets and matured investments	9.3	7.6	5.8	9.5	6.9	5.8	5.0	4.6
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash	19,988.5	16,897.1	21,735.1	18,625.3	20,954.7	21,735.1	21,319.0	21,651.0
Net balance (Debtors - Creditors)	608.3	1,181.7	891.6	1,101.6	426.9	891.6	2,835.3	1,912.1

Asset allocation of investment companies

TABLE 3.5

Million euro

				2019			2020	
	2017	2018	2019	II	III	IV	I	II
Asset	31,424.7	27,835.9	28,792.7	29,105.8	28,366.6	28,792.7	24,506.9	26,228.5
Portfolio investment	28,804.9	24,840.8	25,940.3	25,773.8	25,140.6	25,940.3	21,490.8	23,583.5
Domestic securities	6,229.4	5,031.5	4,588.3	4,828.1	4,621.3	4,588.3	3,622.1	3,438.0
Debt securities	1,653.8	1,433.8	1,217.1	1,346.1	1,265.2	1,217.1	1,155.8	885.1
Shares	2,674.5	2,193.7	1,982.8	2,077.3	1,992.2	1,982.8	1,440.5	1,497.5
Collective Investment Schemes	1,625.9	1,193.8	1,232.2	1,217.6	1,178.6	1,232.2	892.6	927.5
Deposits in credit institutions	236.2	164.3	98.6	152.7	134.6	98.6	79.8	73.0
Derivatives	-0.6	-0.2	0.8	-16.9	-2.1	0.8	-3.0	-3.0
Other	39.7	46.2	56.8	51.2	52.9	56.8	56.5	58.0
Foreign securities	22,566.2	19,803.8	21,348.2	20,940.9	20,512.8	21,348.2	17,864.4	20,142.0
Debt securities	4,396.6	4,241.6	4,617.7	4,495.4	4,469.0	4,617.7	4,030.2	4,075.8
Shares	6,987.8	5,979.1	6,133.8	6,188.7	5,975.1	6,133.8	4,998.1	6,022.3
Collective Investment Schemes	11,153.5	9,540.9	10,549.0	10,205.1	10,023.7	10,549.0	8,781.9	9,988.5
Deposits in credit institutions	0.0	0.0	1.1	1.1	1.1	1.1	0.0	0.0
Derivatives	19.3	27.6	34.1	36.6	27.6	34.1	41.9	42.1
Other	8.9	14.5	12.5	14.1	16.3	12.5	12.3	13.2
Doubtful assets and matured investments	9.3	5.6	3.8	4.8	6.4	3.8	4.3	3.5
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	3,121.1	2,926.1	2,659.8	2,707.5	2,396.2
Net balance (Debtors - Creditors)	197.5	262.6	192.1	210.3	299.4	192.1	308.0	248.3

Financial mutual funds: number, investors and total net assets by category[1, 2]

TABLE 3.6

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	2020 III[3]
NO. OF FUNDS								
Total financial mutual funds	1,741	1,725	1,710	1,723	1,710	1,697	1,692	1,668
Fixed income[4]	290	279	281	283	281	283	283	278
Mixed fixed income[5]	155	168	173	171	173	173	175	173
Mixed equity[6]	176	184	185	186	185	187	186	183
Euro equity	111	113	113	113	113	112	110	108
Foreign equity	211	236	263	257	263	272	275	279
Guaranteed fixed income	79	67	66	66	66	66	63	59
Guaranteed equity[7]	188	163	155	159	155	147	145	138
Global funds	225	242	255	252	255	254	247	250
Passive management[8]	202	172	133	148	133	119	125	120
Absolute return	104	99	84	86	84	82	81	78
INVESTORS								
Total financial mutual funds	10,287,454	11,217,569	11,739,183	11,227,026	11,739,183	11,751,437	11,944,057	12,212,040
Fixed income[4]	2,627,547	2,709,547	3,668,324	3,376,056	3,668,324	3,660,775	3,793,867	3,969,468
Mixed fixed income[5]	1,197,523	1,188,157	1,087,881	1,044,836	1,087,881	1,203,900	1,204,871	1,186,067
Mixed equity[6]	584,408	624,290	707,159	695,444	707,159	707,919	715,404	738,845
Euro equity	710,928	831,115	598,901	553,832	598,901	532,060	500,778	491,767
Foreign equity	1,865,367	2,225,366	2,655,123	2,512,222	2,655,123	2,732,902	2,775,877	2,896,328
Guaranteed fixed income	190,075	165,913	154,980	161,392	154,980	148,317	145,787	144,715
Guaranteed equity[7]	527,533	494,660	428,470	461,897	428,470	391,235	383,372	371,019
Global funds	1,086,937	1,501,730	1,359,915	1,291,162	1,359,915	1,355,885	1,376,316	1,363,046
Passive management[8]	638,966	543,192	429,428	474,947	429,428	396,398	435,035	437,224
Absolute return	858,170	930,641	646,042	652,278	646,042	619,085	609,793	610,603
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	265,194.8	259,095.0	279,377.4	273,100.7	279,377.4	250,126.3	263,619.4	265,159.7
Fixed income[4]	70,563.9	66,889.3	78,583.2	77,871.1	78,583.2	73,475.8	76,179.4	77,747.2
Mixed fixed income[5]	43,407.0	40,471.0	40,819.9	38,959.2	40,819.9	41,312.7	42,581.8	42,036.3
Mixed equity[6]	22,386.7	23,256.0	28,775.8	27,613.4	28,775.8	25,829.7	27,511.7	28,845.6
Euro equity	12,203.2	12,177.7	10,145.1	10,034.3	10,145.1	6,618.2	7,027.7	6,475.7
Foreign equity	24,064.6	24,404.9	34,078.9	30,447.0	34,078.9	27,636.0	31,757.0	31,900.2
Guaranteed fixed income	5,456.7	4,887.4	4,809.3	5,143.1	4,809.3	4,505.2	4,517.4	4,465.8
Guaranteed equity[7]	15,417.5	14,556.0	13,229.1	14,395.0	13,229.1	11,684.0	11,626.5	11,383.9
Global funds	35,511.5	42,137.2	43,041.9	41,702.5	43,041.9	37,120.7	39,071.8	39,089.3
Passive management[8]	19,477.8	16,138.6	14,073.8	15,355.0	14,073.8	11,708.7	13,054.6	13,044.6
Absolute return	16,705.9	14,172.5	11,818.3	11,577.6	11,818.3	10,233.0	10,289.6	10,169.2

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: July 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 onwards, 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 onwards, 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 III	2019 IV	2020 I	2020 II	2020 III[1]
INVESTORS								
Total financial mutual funds	10,287,454	11,217,569	11,739,183	11,227,026	11,739,183	11,751,437	11,944,057	12,212,040
Natural persons	10,080,255	11,008,977	11,534,957	11,024,532	11,534,957	11,551,161	11,738,396	12,005,781
Residents	9,994,395	10,917,387	11,440,086	10,931,913	11,440,086	11,456,061	11,642,328	11,908,960
Non-residents	85,860	91,590	94,871	92,619	94,871	95,100	96,068	96,821
Legal persons	207,199	208,592	204,226	202,494	204,226	200,276	205,661	206,259
Credit institutions	515	655	1,928	638	1,928	1,415	1,435	1,441
Other resident institutions	205,804	207,073	201,408	200,945	201,408	198,000	203,379	203,965
Non-resident institutions	880	864	890	911	890	861	847	853
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	265,194.8	259,095.0	279,377.4	273,100.7	279,377.4	250,126.3	263,619.4	265,159.7
Natural persons	218,429.6	215,785.0	231,434.8	227,293.8	231,434.8	207,225.4	218,464.1	219,810.9
Residents	215,290.8	212,758.3	228,214.4	224,066.0	228,214.4	204,390.5	215,479.5	216,815.0
Non-residents	3,138.8	3,026.7	3,220.4	3,227.8	3,220.4	2,834.9	2,984.6	2,996.0
Legal persons	46,765.1	43,310.0	47,942.6	45,806.9	47,942.6	42,900.8	45,155.3	45,348.8
Credit institutions	342.2	384.1	523.7	321.5	523.7	412.4	440.1	446.6
Other resident institutions	45,518.8	41,967.9	46,628.9	44,662.0	46,628.9	41,913.2	44,127.4	44,321.4
Non-resident institutions	904.1	957.9	790.0	823.4	790.0	575.2	587.8	580.8

1 Available data: July 2020.

Subscriptions and redemptions of financial mutual funds by category[1, 2]

TABLE 3.8

Million euro

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
SUBSCRIPTIONS								
Total financial mutual funds	151,586.4	130,577.0	156,702.7	35,971.0	32,555.6	34,009.0	40,155.8	22,418.1
Fixed income	59,088.5	53,165.8	91,050.8	19,188.6	15,125.4	15,896.8	17,098.9	10,772.7
Mixed fixed income	20,513.3	14,823.4	14,154.1	3,396.7	3,373.1	4,623.9	7,341.1	1,628.1
Mixed equity	10,452.2	10,406.8	11,156.0	4,411.4	1,624.4	3,665.9	3,238.3	1,160.3
Euro equity	9,452.9	7,024.3	2,998.4	672.9	511.4	769.0	714.8	664.9
Foreign equity	14,866.5	13,265.2	16,864.0	3,305.0	7,452.2	3,843.4	5,649.8	3,758.1
Guaranteed fixed income	986.9	796.0	854.1	301.5	36.7	8.4	45.5	204.7
Guaranteed equity	2,413.1	2,116.8	898.2	395.5	68.6	22.4	15.4	8.9
Global funds	21,571.9	20,455.3	12,713.7	3,416.6	2,296.0	3,628.0	4,395.4	1,978.3
Passive management	2,374.0	3,014.3	2,261.9	383.0	376.4	476.8	928.1	1,541.1
Absolute return	9,867.1	5,493.3	3,751.5	499.9	1,691.4	1,074.5	728.4	701.2
REDEMPTIONS								
Total financial mutual funds	130,248.0	122,669.5	154,273.0	35,660.4	32,262.7	31,757.6	42,240.3	22,286.0
Fixed income	62,087.2	55,823.7	80,046.4	16,719.5	10,531.1	14,948.6	18,569.8	9,413.2
Mixed fixed income	18,011.6	16,685.2	16,004.2	5,360.9	4,307.6	3,049.7	5,333.4	2,072.5
Mixed equity	4,942.6	7,344.0	7,943.7	1,792.4	1,551.0	2,970.6	2,962.3	1,142.5
Euro equity	6,908.0	5,246.8	6,540.2	1,899.1	1,024.1	1,235.0	1,536.8	1,037.7
Foreign equity	10,363.6	9,476.0	12,963.1	3,466.6	4,691.8	2,352.9	3,911.7	4,160.7
Guaranteed fixed income	3,876.9	1,202.9	1,136.7	277.3	162.9	287.3	306.9	203.8
Guaranteed equity	3,001.5	2,582.6	2,739.2	381.1	816.4	1,101.5	1,302.8	222.0
Global funds	8,587.6	11,301.6	15,133.7	3,124.3	5,702.2	3,133.4	4,841.6	2,187.2
Passive management	6,954.8	5,776.3	5,272.0	1,063.1	1,139.0	1,757.8	2,027.1	817.8
Absolute return	5,488.2	7,230.5	6,493.7	1,575.9	2,336.3	920.8	1,447.8	1,028.4

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 II	2019 III	2019 IV	2020 I	2020 II
NET SUBSCRIPTIONS/REDEMPTIONS								
Total financial mutual funds	21,325.0	7,841.8	2,467.5	326.2	295.6	2,247.9	-2,103.9	145.6
Fixed income	-3,638.0	-2,766.0	10,732.6	2,469.2	4,352.6	914.1	-3,186.6	1,393.8
Mixed fixed income	2,890.5	-1,063.7	-1,506.1	-1,631.4	-949.3	1,618.4	3,742.5	-353.7
Mixed equity	5,498.6	2,485.9	3,288.8	2,623.8	-0.8	693.1	411.2	6.8
Euro equity	2,549.7	1,848.7	-3,588.2	-1,272.8	-518.3	-466.0	-836.8	-366.0
Foreign equity	4,514.0	3,864.1	4,113.8	-38.9	2,843.5	1,492.7	1,735.7	-355.5
Guaranteed fixed income	-3,262.6	-575.8	-282.6	24.2	-126.2	-278.9	-261.3	-43.8
Guaranteed equity	-309.5	-667.2	-1,857.0	-4.7	-745.2	-1,078.6	-1,313.7	-213.0
Global funds	13,405.9	9,448.9	-2,553.9	93.2	-3,325.4	495.4	-574.7	-253.4
Passive management	-4,585.0	-2,790.4	-3,026.8	-680.3	-780.1	-1,295.8	-1,099.7	737.5
Absolute return	4,287.3	-1,899.6	-2,852.9	-1,256.1	-454.9	153.5	-720.6	-407.0
RETURN ON ASSETS								
Total financial mutual funds	6,022.6	-13,919.3	18,002.8	2,229.8	1,898.4	4,197.3	-27,140.2	13,353.6
Fixed income	-24.1	-908.5	961.9	342.6	316.0	-202.0	-1,920.7	1,309.9
Mixed fixed income	451.4	-1,865.1	1,866.9	296.2	267.5	248.0	-3,245.8	1,627.0
Mixed equity	577.8	-1,616.6	2,231.0	261.2	264.1	469.4	-3,357.3	1,675.2
Euro equity	987.8	-1,871.2	1,556.4	105.4	-124.2	577.1	-2,690.2	776.0
Foreign equity	1,872.3	-3,522.6	5,561.1	213.7	341.1	2,139.2	-8,178.5	4,477.5
Guaranteed fixed income	39.4	6.6	204.4	107.9	71.5	-54.9	-42.8	56.1
Guaranteed equity	251.3	-194.2	530.0	218.0	202.0	-87.3	-231.3	155.6
Global funds	1,190.3	-2,602.1	3,460.8	355.3	359.1	844.5	-5,345.9	2,204.0
Passive management	472.9	-537.5	1,133.2	266.7	157.6	176.4	-1,262.9	608.4
Absolute return	203.4	-796.6	498.7	63.5	43.7	87.2	-864.8	464.4

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 category[1]

TABLE 3.10

% of daily average total net assets

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
MANAGEMENT YIELDS								
Total financial mutual funds	3.41	-4.19	7.67	1.08	0.95	1.77	-9.74	5.44
Fixed income	0.59	-0.79	1.83	0.61	0.55	-0.14	-2.39	1.89
Mixed fixed income	2.22	-3.25	5.75	1.01	0.95	0.87	-7.22	4.11
Mixed equity	4.36	-5.46	9.79	1.33	1.32	2.03	-11.38	6.58
Euro equity	11.14	-11.98	16.01	1.44	-0.81	6.20	-30.24	11.68
Foreign equity	10.80	-11.89	21.00	1.21	1.55	7.10	-25.19	15.31
Guaranteed fixed income	1.14	0.56	4.52	2.21	1.50	-1.01	-0.82	1.42
Guaranteed equity	2.18	-0.80	4.20	1.61	1.54	-0.56	-1.77	1.46
Global funds	5.39	-5.11	9.24	1.09	1.15	2.32	-12.50	6.04
Passive management	2.81	-2.55	7.88	1.81	1.15	1.36	-9.82	5.29
Absolute return	2.32	-4.01	4.93	0.74	0.59	0.98	-7.37	4.74
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	0.91	0.86	0.85	0.21	0.21	0.21	0.20	0.20
Fixed income	0.54	0.45	0.44	0.11	0.11	0.11	0.10	0.10
Mixed fixed income	1.05	0.96	0.92	0.22	0.23	0.23	0.21	0.22
Mixed equity	1.34	1.26	1.29	0.32	0.32	0.33	0.31	0.31
Euro equity	1.71	1.47	1.49	0.37	0.37	0.38	0.36	0.36
Foreign equity	1.69	1.41	1.41	0.35	0.34	0.35	0.32	0.31
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	0.11	0.11	0.11	0.11
Global funds	1.07	0.98	1.03	0.25	0.26	0.27	0.26	0.26
Passive management	0.52	0.48	0.42	0.11	0.10	0.10	0.10	0.10
Absolute return	0.91	0.79	0.81	0.20	0.20	0.21	0.20	0.19
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	0.03	0.03	0.02	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	0.02	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 category[1]

TABLE 3.11

In %

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	III[2]
Total financial mutual funds	2.42	-4.89	7.12	0.71	1.57	-9.30	5.56	0.38
Fixed income	-0.13	-1.44	1.38	0.42	-0.26	-2.43	1.82	0.38
Mixed fixed income	1.10	-4.27	4.75	0.69	0.59	-6.97	3.96	0.47
Mixed equity	3.23	-6.45	9.25	0.97	1.68	-11.06	6.54	0.70
Euro equity	11.16	-13.01	14.27	-1.13	5.95	-28.48	11.94	-2.49
Foreign equity	8.75	-12.34	22.18	1.37	6.91	-23.11	16.43	0.27
Guaranteed fixed income	0.72	0.09	3.98	1.39	-1.07	-0.94	1.20	0.46
Guaranteed equity	1.61	-1.33	3.62	1.42	-0.63	-1.86	1.35	0.21
Global funds	4.46	-5.69	8.45	0.77	2.04	-12.00	6.15	0.78
Passive management	2.13	-3.16	7.45	0.96	1.27	-9.29	5.54	-0.29
Absolute return	1.44	-4.81	3.94	0.35	0.75	-7.50	4.66	0.77

1 Data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.
2 Available data: July 2020.

Hedge funds and funds of hedge funds

TABLE 3.12

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II[1]
HEDGE FUNDS								
Investors/shareholders	3,656	4,444	7,548	5,846	6,451	7,548	8,025	8,053
Total net assets (million euro)	2,298.2	2,262.2	2,832.4	2,321.5	2,467.1	2,832.4	2,523.3	2,700.1
Subscriptions (million euro)	663.9	500.7	1,290.0	139.6	208.3	835.4	215.5	45.6
Redemptions (million euro)	607.2	320.4	937.0	226.2	68.7	570.7	86.1	25.3
Net subscriptions/redemptions (million euro)	56.7	180.3	353.0	-86.7	139.6	264.8	129.3	20.3
Return on assets (million euro)	149.4	-153.8	217.2	13.1	6.0	100.6	-438.5	156.5
Returns (%)	7.84	-6.47	10.35	0.36	0.22	3.94	-13.75	6.40
Management yields (%)[2]	9.51	-5.46	9.94	0.85	0.49	4.08	-15.76	6.11
Management fees (%)[2]	2.59	1.70	1.19	0.25	0.23	0.25	0.23	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	2,850	2,861	2,859	2,855	2,857
Total net assets (million euro)	468.7	468.8	566.7	513.7	562.4	566.7	546.8	559.9
Subscriptions (million euro)	205.4	7.2	72.3	0.2	42.2	0.0	2.2	–
Redemptions (million euro)	22.1	0.6	0.3	0.2	0.1	-0.4	0.1	–
Net subscriptions/redemptions (million euro)	183.4	6.6	71.4	0.0	42.2	-0.4	2.1	–
Return on assets (million euro)	-8.3	-6.5	26.5	6.8	6.5	4.6	-22.0	–
Returns (%)	-1.66	-1.28	5.23	1.34	1.10	0.83	-3.49	2.48
Management yields (%)[3]	-0.24	-3.04	6.32	1.64	1.61	1.12	-3.08	–
Management fees (%)[3]	1.45	1.64	1.63	0.39	0.39	0.36	0.36	–
Depository fees (%)[3]	0.06	0.06	0.06	0.02	0.02	0.02	0.01	–

1 Available data: May 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 III	2019 IV	2020 I	2020 II	2020 III[1]
NUMBER OF PORTFOLIOS[2]								
Mutual funds	1,676	1,617	1,595	1,611	1,595	1,578	1,562	1,540
Investment companies	2,824	2,713	2,560	2,605	2,560	2,530	2,512	2,496
Funds of hedge funds	8	7	7	7	7	7	7	7
Hedge funds	47	49	62	58	62	62	65	66
Real estate mutual funds	3	3	2	2	2	2	2	2
Real estate investment companies	4	4	3	4	3	3	3	3
ASSETS UNDER MANAGEMENT (million euro)								
Mutual funds	265,194.8	259,095.0	279,377.4	273,100.7	279,377.4	250,126.3	263,619.4	265,159.7
Investment companies	31,021.1	27,479.7	28,385.5	27,984.6	28,385.5	24,220.8	25,883.3	25,687.2
Funds of hedge funds[3]	468.7	468.8	566.7	562.5	566.7	546.8	559.9	–
Hedge funds[3]	2,298.2	2,262.2	2,832.4	2,461.7	2,832.4	2,523.3	2,700.1	–
Real estate mutual funds	360.0	309.4	309.4	309.3	309.4	309.7	309.7	310.4
Real estate investment companies	631.5	748.8	763.5	760.2	763.5	767.1	895.4	897.2

1 Available data: July 2020.
2 Data source: Registers of Collective Investment Schemes.
3 Available data: May 2020.

Foreign Collective Investment Schemes marketed in Spain[1]

TABLE 3.14

	2017	2018	2019	2019 II	2019 III	2019 IV	2020 I	2020 II
INVESTMENT VOLUME[2, 3] (million euro)								
Total	150,420.6	162,335.0	178,841.5	179,976.2	177,664.7	178,841.5	167,800.5	171,882.9
Mutual funds	26,133.9	34,209.6	30,843.4	33,322.4	30,207.0	30,843.4	29,844.4	26,201.3
Investment companies	124,286.7	128,125.5	147,998.1	146,653.8	147,457.7	147,998.1	137,956.1	145,681.6
INVESTORS/SHAREHOLDERS[2]								
Total	1,984,474	3,173,245	3,361,901	3,117,731	3,145,703	3,361,901	3,421,733	3,834,258
Mutual funds	431,295	547,826	521,648	496,837	488,584	521,648	531,035	572,841
Investment companies	1,553,179	2,625,419	2,840,253	2,620,894	2,657,119	2,840,253	2,890,698	3,261,417
NUMBER OF SCHEMES[4]								
Total	1,013	1,024	1,033	1,020	1,017	1,033	1,035	1,042
Mutual funds	455	429	399	403	392	399	402	402
Investment companies	558	595	634	617	625	634	633	640
COUNTRY[4]								
Luxembourg	429	447	462	457	461	462	463	469
France	292	263	222	234	221	222	222	221
Ireland	184	200	220	211	216	220	219	221
Germany	35	42	48	46	47	48	49	49
UK	33	27	23	25	24	23	23	23
The Netherlands	2	2	4	2	4	4	4	4
Austria	21	24	30	25	25	30	31	31
Belgium	5	5	5	5	4	5	5	5
Denmark	1	1	1	1	1	1	1	1
Finland	8	9	11	10	10	11	11	11
Liechtenstein	3	4	4	4	4	4	4	4

1 Only data on UCITS are included. 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 schemes[1]

TABLE 3.15

	2017	2018	2019	2019 III	2019 IV	2020 I	2020 II	III[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	309.3	309.4	309.7	309.7	310.4
Return on assets (%)	-2.60	0.24	-0.02	-0.01	0.02	0.09	0.01	0.22
REAL ESTATE INVESTMENT COMPANIES								
Number	4	4	3	4	3	3	3	3
Shareholders	327	422	316	328	316	313	312	312
Assets (million euro)	631.5	748.8	763.5	760.2	763.5	767.1	895.4	897.2

1 Real estate investment schemes which have sent reports to the CNMV, excluding those in process of dissolution or liquidation.
2 Available data: July 2020.