CNMV
Comisión Nacional del Mercado de Valores

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Contents

Abbreviations

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

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

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

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

I Market survey (*)

(*) This article has been prepared by the CNMV's Research and Statistics Department, which belongs to the Directorate-General of Strategic Policy and International Affairs.

Índice

1 Overview

World growth remained strong in 2018, with estimated rates of 3.7%, although there were signs of a certain slowdown in some economies and lower synchrony between them. Among the advanced economies, the United States continued leading the rate of growth in activity, while growth in the emerging economies was led by the Asian economies, with rates of over 5% in many cases. The year was marked, however, by the presence of several sources of uncertainty, which include the doubts relating to the restrictions on world trade, the tensions in some emerging economies, such as Turkey and Brazil, Brexit and the initial lack of agreement between the Italian government and the European Commission with regard to Italy's public accounts. In this context, the tightening of monetary policy in the United States continued, with four interest-rate hikes in 2018, while in the euro area, the ECB kept its rates unchanged, but ended the debt purchase programme.

The performance of international financial markets was somewhat unstable over the year. In equity markets, the aforementioned uncertainties gave rise to occasional falls in share prices and upturns in volatility, which did not prevent significant price gains in the United States and Japan for much of the year. However, in the final stretch of the year, the perception of a possible sharper-than-expected slowdown in world growth triggered a widespread fall in share prices in all geographical areas. This in turn led to annual losses of varied significance in the most important indices, which stood at over 10% in most cases. In debt markets, long-term sovereign bond yields changed little during the year except in the United States and Italy, where they rose significantly.

Financial markets in Spain behaved in a similar way to those of other European economies. The stock market recorded falls practically throughout the year as a result of the existing sources of uncertainty – most of them shared with other economies – even despite strong economic activity. In the year as a whole, the Ibex 35 lost 15% of its value, a fall within the average range compared with the other benchmark European indices. There were small and temporary upturns in volatility and liquidity conditions remained at satisfactory levels. The trading of Spanish securities underwent few changes in 2018, but the recomposition between the falling national market share and the rising share of other markets and platforms continued. Particularly noteworthy among the latter was the Cboe (BATS book). In debt markets, the yield on the 10-year bond began the year with falls that reflected the improvement in its credit rating. It then recorded occasional increases associated with doubts about Italy, as did the risk premium. However, both the bond yield and the risk premium ended the year at levels very similar to those of year-end 2017. In addition, the number of debt issues registered with the CNMV continued to fall, while those carried out abroad increased and exceeded the former for the first time.

Key financial indicators

TABLE 1

	I 18	II 18	III 18	IV 18[1]
Short-term interest rates (%)[2]				
Official interest rate	0.00	0.00	0.00	0.00
Euribor 3 months	-0.33	-0.32	-0.32	-0.31
Euribor 12 months	-0.19	-0.18	-0.17	-0.13
Exchange rates[3]				
Dollar/euro	1.23	1.17	1.16	1.15
Yen/euro	131.2	129.0	131.2	125.9
Medium and long-term government bond yields[4]				
Germany				
3 years	-0.42	-0.55	-0.43	-0.53
5 years	-0.03	-0.23	-0.17	-0.27
10 years	0.58	0.39	0.45	0.25
United States				
3 years	2.42	2.65	2.83	2.68
5 years	2.63	2.77	2.88	2.68
10 years	2.84	2.91	3.00	2.83
Corporate debt risk premiums: spread over 10-year government bonds (bp)[4]				
Euro area				
High yield	407	478	505	605
BBB	104	142	149	199
AAA	43	64	61	86
United States				
High yield	371	357	354	485
BBB	127	149	144	191
AAA	60	62	51	72
Equity markets				
Performance of the world's main stock indices (%)[5]				
Eurostoxx 50	-4.1	1.0	0.1	-11.7
Dow Jones	-2.5	0.7	9.0	-11.8
Nikkei	-5.8	4.0	8.1	-17.0
Other indices (%)				
Merval (Argentina)	3.5	-16.3	28.5	-9.5
Bovespa (Brazil)	11.7	-14.8	9.0	10.8
Shangai Comp. (China)	-4.2	-10.1	-0.9	-11.6
BSE (India)	-4.8	4.6	1.4	0.2
Spanish stock market				
Ibex 35 (%)	-4.4	0.2	-2.4	-9.0
P/E of Ibex 35[6]	12.7	12.6	11.4	10.8
Volatility of Ibex 35 (%)[7]	15.6	13.9	13.6	17.5
SIBE trading volumes[8]	2,290	3,017	1,798	2,060

Source: CNMV, Thomson Datastream and Bolsa de Madrid.

1 Data to 31 December.

2 Monthly average of daily data. The official interest rate corresponds to the marginal rate at weekly auctions at the period close.

3 Data at period end.

4 Monthly average of daily data. In the euro area, the spread is calculated with regard to the German bond.

5 Cumulative quarterly change in each period.

6 Price-earnings ratio.

7 Implied volatility. Arithmetical mean for the quarter.

8 Daily average in million euros.

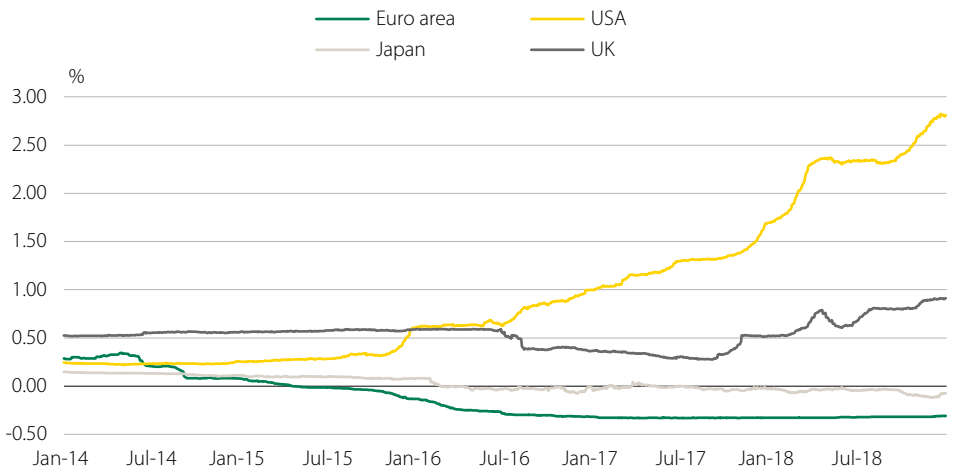
2 International financial background

2.1 Short-term interest rates

Short-term interest rates in the major advanced economies continued to drift apart over 2018 as a result of the different speeds at which central banks are normalising monetary policies. In the United States, the Federal Reserve raised the benchmark interest rate four times in 2018 to a range of 2.25% to 2.50%, and maintained the reduction in the size of its balance sheet.[1] At the same time, 3-month interest rates followed an upward path to stand at 2.81% at the end of December, 111 basis points (bp) up on year-end 2017 (see Figure 1).

In the euro area, 3-month rates remained stable at around -0.32% throughout the year, in line with the decisions adopted by the European Central Bank (ECB), which maintained the main refinancing rate, the deposit facility rate and the marginal lending rate unchanged at 0%, -0.4% and 0.25%, respectively, in all the meetings held during the year. Nevertheless, the ECB announced in December, as the first stage of the shift in its monetary policy, that its asset purchase programme would end that same month, although it announced that it would reinvest the maturing debt for an extended period of time and, in any case for as long as necessary to maintain favourable liquidity conditions and a sufficiently accommodative monetary policy stance.

Three-month interest rates FIGURE 1



Source: Thomson Datastream. Data to 31 December.

Three-month interest rates rose in the United Kingdom to 0.91% in December (39 bp up on the start of the year) due to the rise in the bank rate to 0.75% decided by the Bank of England in August (the bank rate had previously, in November 2017, been increased by 25 bp to 0.50%, with these two rises being the only rate hikes since the start of the financial crisis). With this decision, the ECB aims to contain the rise in inflation, which currently stands at above the 2% target (2.4% in December),

1 This has been reduced by approximately 8.4% since 2017.

and maintain economic growth and employment. For its part, 3-month interest rates in Japan followed a slightly downward path in 2018, which intensified in the final quarter, and they ended the year at around -0.07% (-0.02% in December 2017).

As shown in Table 2, short-term interest rates in the last quarter of the year were significantly higher in the United States than in the other advanced economies. US 6-month and 12-month rates recorded an increase of 32 and 20 bp, respectively, in the last quarter, to stand at 2.89% and 3.08% in December (the cumulative rise over the year was 112 bp and 103 bp, respectively). In the United Kingdom, 6-month and 12-month rates also rose in 2018. These interest rates stood at 1.03% and 1.16%, respectively, in December, which were higher than the rates in December 2017 (0.58% and 0.77%, respectively), driven by the rise in the benchmark interest rate. For its part, both in the euro area and in Japan, 6-month and 12-month rates recorded very slight variations.

Short-term interest rates[1]

TABLE 2

%

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Euro area								
Official[2]	0.05	0.00	-0.00	0.00	0.00	0.00	0.00	0.00
3 months	-0.13	-0.32	-0.33	-0.31	-0.33	-0.32	-0.32	-0.31
6 months	-0.04	-0.22	-0.27	-0.24	-0.27	-0.27	-0.27	-0.24
12 months	0.06	-0.08	-0.19	-0.13	-0.19	-0.18	-0.17	-0.13
United States								
Official[3]	0.50	0.75	1.50	2.50	1.75	2.00	2.25	2.50
3 months	0.54	0.98	1.61	2.79	2.17	2.33	2.35	2.79
6 months	0.77	1.31	1.77	2.89	2.34	2.49	2.57	2.89
12 months	1.09	1.67	2.05	3.08	2.60	2.76	2.88	3.08
United Kingdom								
Official	0.50	0.25	0.50	0.75	0.50	0.50	0.75	0.75
3 months	0.58	0.37	0.52	0.90	0.63	0.64	0.80	0.90
6 months	0.74	0.54	0.58	1.03	0.74	0.76	0.90	1.03
12 months	1.05	0.79	0.77	1.16	0.94	0.94	1.05	1.16
Japan								
Official[4]	0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
3 months	0.08	-0.04	-0.02	-0.10	-0.05	-0.04	-0.04	-0.10
6 months	0.12	0.01	0.02	0.00	0.01	0.02	0.02	0.00
12 months	0.22	0.12	0.11	0.11	0.11	0.12	0.14	0.11

Source: Thomson Datastream.

1 Monthly average of daily data except official rates, which correspond to the last day of the period. Data to 31 December.

2 Minimum bid rate at weekly auctions.

3 Federal fund rate.

4 Monetary policy rate.

As regards interest rate expectations, forward rates (FRAs) suggest that the differences in the short-term rates between the euro area and the United States are likely to continue in 2019. Rates in the euro area are expected to remain stable, which is consistent with the ECB's expressed intention of maintaining the main refinancing rate at 0% at least until the summer of 2019 (see Table 3). In the United States, forward rates also suggest a period of few changes in short-term interest rates, following the numerous rate hikes by the Federal Reserve since 2016.[2] This is due to the commencement of a period with a certain slowdown in economic growth, which will delay or, at least, mitigate the pace and size of rate hikes in the short term.

Three-month forward rates (FRAs) TABLE 3

%

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Euro area								
Spot	-0.13	-0.32	-0.33	-0.31	-0.33	-0.32	-0.32	-0.31
FRA 3x6	-0.17	-0.31	-0.32	-0.30	-0.32	-0.31	-0.30	-0.30
FRA 6x9	-0.18	-0.29	-0.31	-0.29	-0.31	-0.28	-0.28	-0.29
FRA 9x12	-0.18	-0.28	-0.28	-0.28	-0.29	-0.28	-0.24	-0.28
FRA 12x15	-0.18	-0.26	-0.23	-0.25	-0.25	-0.26	-0.17	-0.25
United States								
Spot	0.61	1.00	1.69	2.81	2.31	2.34	2.40	2.81
FRA 3x6	0.77	1.08	1.78	2.70	2.32	2.48	2.69	2.70
FRA 6x9	0.94	1.24	1.94	2.68	2.40	2.66	2.86	2.68
FRA 9x12	1.09	1.39	2.06	2.66	2.52	2.78	3.00	2.66
FRA 12x15	1.26	1.55	2.15	2.64	2.60	2.86	3.09	2.64

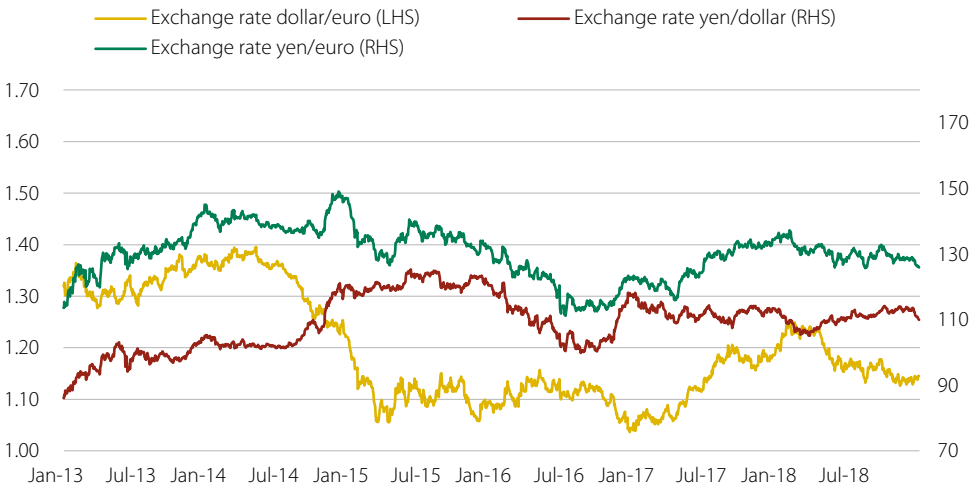
Source: Thomson Datastream. Data to 31 December.

2.2 Exchange rates

The euro-dollar exchange rate stood at around 1.15 in December, a slight fall on the 1.20 recorded at year-end 2017. As shown in Figure 2, this exchange rate remained at over 1.20 in the first four months of the year, but then the depreciation of the euro prevailed. This change in the trend was influenced by, on the one hand, the appeal of the US dollar as a result of the higher yield of its assets and, on the other hand, the existence of various elements of uncertainty in Europe (Italy, Brexit), which weakened the price of the European currency. The euro/yen exchange rate followed a similar path to that of the dollar/euro rate over the year, with the consequent slight depreciation of the European currency. Between December 2017 and December 2018, the exchange rate changed from 135 to 126 yen per euro.

2 Since December 2016, the cumulative increase in the benchmark interest rate is 2 percentage points (pp).

Dollar/euro and yen/euro exchange rates FIGURE 2



Source: Thomson Datastream. Data to 31 December.

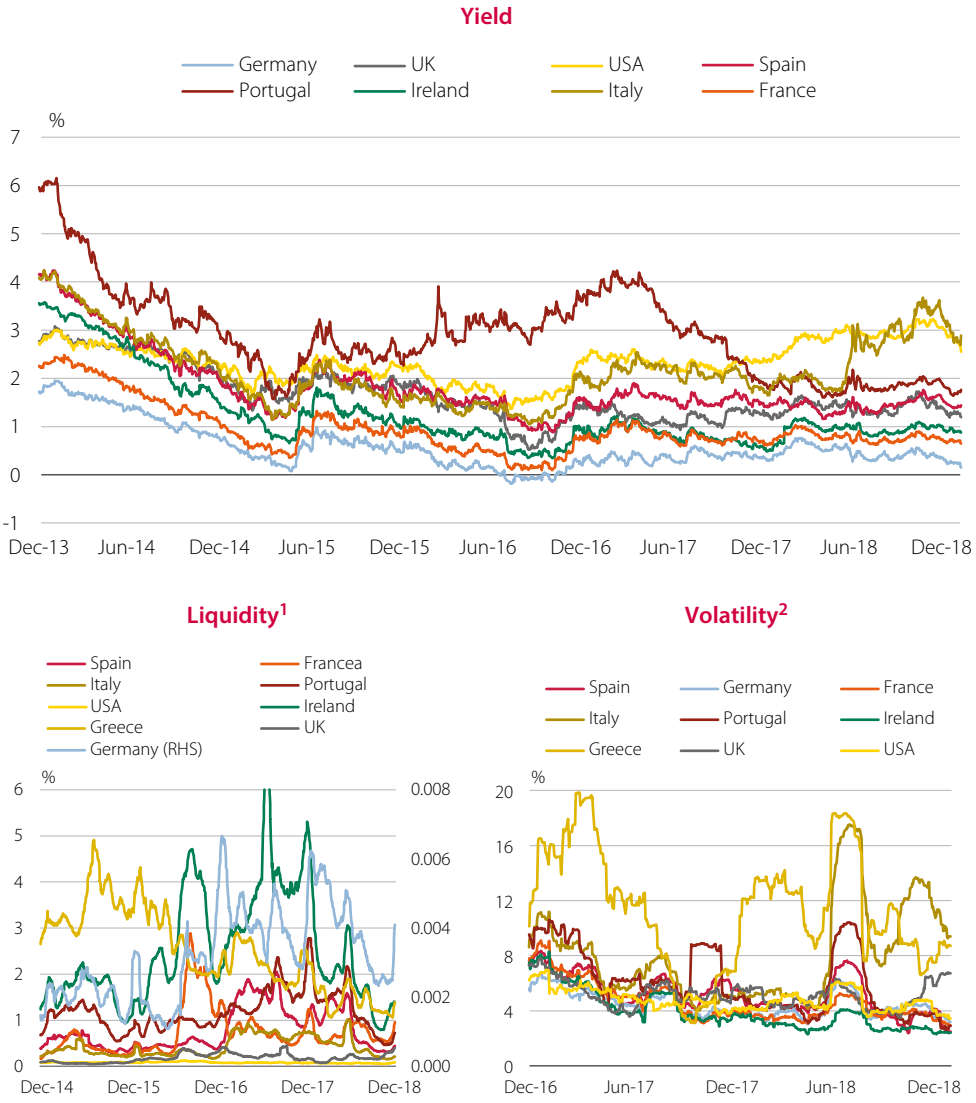
2.3 Long-term interest rates

Long-term sovereign bond yields of most advanced economies remained relatively stable over 2018, with slight upturns in the first few months and falls between November and December. The performance in the last part of the year was the result of the worsening outlook for global growth and, in the case of Europe, also as a consequence of confirmation that the changes in the ECB's monetary policy would be slow and progressive. Only the United States and, particularly, Italy recorded an increase in yields over the year as a whole, which rose by 28 bp in the case of the United States (from 2.41% to 2.69%) and 77 bp in the case of Italy (from 2.00% to 2.77%).

In line with the general trend, long-term yields in euro area countries recorded slight falls – that were negligible in some cases – in the last quarter of the year, despite the imminent end of the ECB's asset purchase programme (APP) as it had already largely been priced in by investors. Accordingly, 10-year sovereign bond yields fell by 10 bp in France and by 23 bp in Germany, while the fall in Italy was somewhat higher at 37 bp. In the case of German debt, its status as a safe-haven asset might partially explain the fall in its yield, while the fall in Italy may have been influenced by the start of an agreement with the European Union for approval of its budget. Rates in Spain started to fall slightly in the middle of October, after having reached 1.76%, reflecting the easing of domestic political tensions and the uncertainty in Italy. Hence, they fell by 9 bp in the last quarter (and by 34 bp from their high in October).

Sovereign bond market indicators (10 years)

FIGURE 3



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

1 Monthly average of the daily bid-ask spread of 10-year sovereign yields. In the case of the German bond, the one-month average of the buy-sell spread is shown without dividing it by the average of these yields so as to avoid the distortion from it being close to zero.

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

The yield on the US bond remained slightly above 3% in October and November and then fell in December to end the year at 2.69%, despite the 0.25% rate hike by the Federal Reserve in the middle of the month. Similarly, the yield on the United Kingdom sovereign bond fluctuated at around 1.5% between October and November and fell to 1.27% in December.

Medium and long-term bond yields[1]

TABLE 4

%

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Germany								
3 years	-0.28	-0.71	-0.58	-0.53	-0.42	-0.55	-0.43	-0.53
5 years	-0.07	-0.46	-0.30	-0.27	-0.03	-0.23	-0.17	-0.27
10 years	0.60	0.29	0.36	0.25	0.58	0.39	0.45	0.25
United States								
3 years	1.28	1.49	1.95	2.68	2.42	2.65	2.83	2.68
5 years	1.69	1.95	2.18	2.68	2.63	2.77	2.88	2.68
10 years	2.24	2.49	2.41	2.83	2.84	2.91	3.00	2.83
United Kingdom								
3 years	0.82	0.19	0.51	0.74	0.89	0.75	0.84	0.74
5 years	1.25	0.57	0.74	0.90	1.16	1.05	1.12	0.90
10 years	1.88	1.39	1.22	1.27	1.45	1.32	1.53	1.27
Japan								
3 years	0.00	-0.14	-0.13	-0.14	-0.13	-0.12	-0.09	-0.14
5 years	0.04	-0.08	-0.11	-0.13	-0.11	-0.11	-0.06	-0.13
10 years	0.30	0.06	0.05	0.04	0.04	0.04	0.12	0.04

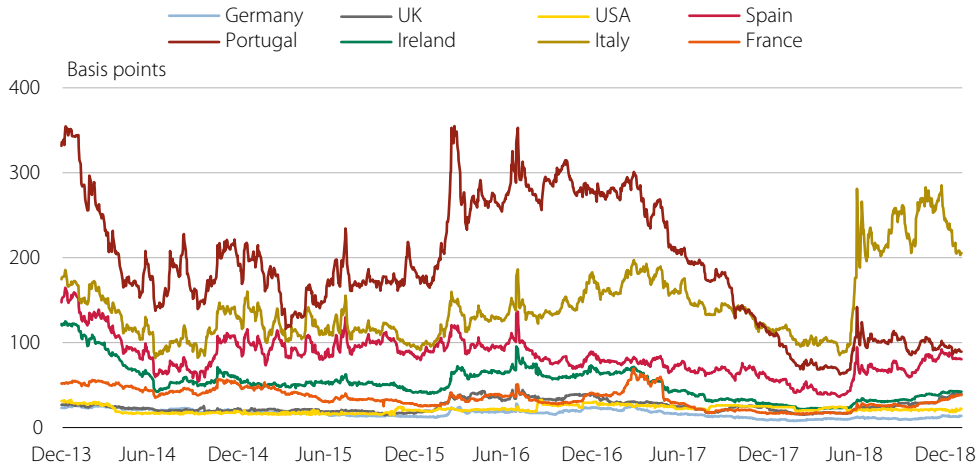
Source: Thomson Datastream.

1 Monthly average of daily data. Data to 31 December.

The sovereign risk premiums (as gleaned from 5-year CDS contracts) of advanced economies grew, in general terms, throughout 2018, echoing the downward corrections to world growth forecasts. In the case of the peripheral euro area countries, this increase was exacerbated by the results of the elections in Italy in May. The Italian risk premium recorded a first upturn at the end of that month (to 281 bp, 163 up on the end of 2017) and then subsequently between October and November due to the failure to reach an agreement between the Italian government and the European Commission with regard to the 2019 budget. Uncertainty in this area fell at the end of the year, which allowed the risk premium to drop to 205 bp. In Portugal, the risk premium rose by 28 bp in the first five months of the year to 142 bp and then fell in the following seven months to 89 bp. The risk premium in Spain rose by 38 bp until May (to 95 bp) and closed the year at 80 bp. In Greece, the largest increase in the risk premium took place in the last two months of the year, when it rose by around 100 bp, coinciding with the Greek government's proposal to create a vehicle to transfer part of the toxic assets of commercial banks so as to prevent further falls in their stock prices after shedding more than 40% between January and October.

In the other European economies, which were barely affected by the uncertainty in Italy, risk premiums edged up gradually over 2018. For example, risk premiums rose by 21 bp in France and by 4 bp and 20 bp, respectively, in Germany and the United Kingdom. In contrast, the US sovereign risk premium remained practically constant throughout the year and stood at 22 bp at the end of December, only 2 bp down on the figure for year-end 2017 (see Figure 4).

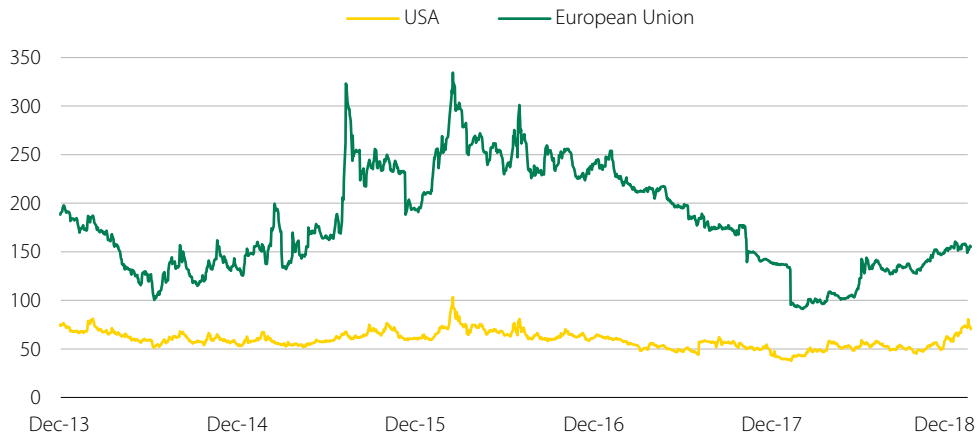
Sovereign credit spreads (5-year CDS) FIGURE 4



Source: Thomson Datastream. Data to 31 December.

In line with the performance of sovereign debt, the risk premiums of euro area credit institutions rose over 2018 as they were affected by the same factors that contributed towards the increase in sovereign risk premiums (the outlook of lower growth and the rise in political uncertainty in some economies worldwide) as well as the delay in normalisation of the ECB's monetary policy. In this context, the spreads of the euro area banking sector as a whole rose by 21 bp in 2018 to 155 bp at the end of December. The risk premium of the US banking sector also rose, from 33 bp to 70 bp, despite the fall in the sovereign risk premium.

Bank sector credit spreads (5-year CDS) FIGURE 5



Source: Thomson Datastream, indices drawn up by CMA. Data to 31 December.

Spreads on corporate debt also grew over 2018 in the leading advanced economies, particularly in lower quality corporate bonds, after two years of continuous falls. These increases were more moderate in the United States, as they began to occur after the summer. The spread on US high-yield bonds stood at 485 bp at the end of December, accumulating an annual increase of 108 bp (131 bp in the fourth quarter). Over the same period, the spread on corporate debt with the worst credit rating in the euro area recorded a substantially larger increase (207 bp) to

stand at 605 bp as a result of the aforementioned background of uncertainty (see Table 5).

Corporate bond spreads[1]

TABLE 5

Spread vs. the 10-year government bond, basis points

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Euro area[2]								
High yield	542	469	398	605	407	478	505	605
BBB	169	143	104	199	104	142	149	199
AAA	124	75	54	86	43	64	61	86
United States								
High yield	654	408	377	485	371	357	354	485
BBB	211	141	122	191	127	149	144	191
AAA	68	56	44	72	60	62	51	72

Source: Thomson Datastream.

1 Monthly average of daily data. Data to 31 December.

2 Spread over the German bond.

Net issuance on global debt markets amounted to 2.04 trillion dollars in 2018, 19.0% down on 2017. Debt issues fell in every sector except the financial sector, where they amounted to 846 billion dollars, 16.0% up on the figure for year-end 2017, as a result of the significant increase recorded in Europe (see Figure 6).

In the United States, total debt issuance in the year fell significantly to 753 billion dollars (1.12 trillion dollars in 2017) against the backdrop of the interest rate hikes by the Federal Reserve. While the fall took place both in the private sector and the public sector, it was much more dramatic in the former, where debt issuance shrank by 39.5% to 544 billion dollars in net terms. Of this amount, 327 billion corresponded to the financial sector, 21.5% down on 2017. Net issuance of government bonds amounted to 209 billion dollars in 2018, a very similar figure to that recorded in 2017 (only 8 billion dollars down).

In Europe, in contrast, net debt issuance grew by 24.8% over 2018 to 308 billion dollars. This growth was driven by the financial sector, whose net debt issuance stood at 213 billion dollars, after three consecutive years at negative values, as many institutions took advantage of the good financing conditions in the context of the imminent end of the ECB's bank-specific longer-term refinancing operations. In contrast, issuance by non-financial companies fell significantly to 124 billion dollars, 18% down on 2017, while net issuance of government bonds was negative for the first time since the start of the crisis (-29 billion dollars), as gross issues, which fell by 5.8%, were less than the debt that matured during the year.

Net international debt issuance FIGURE 6

Source: Dealogic. Half-yearly data to 31 December.

2.4 International stock markets

The leading international stock indices recorded significant falls in the fourth quarter of the year as a result of several sources of uncertainty, including the perception of an economic slowdown of some intensity in the most important economies, the prolongation of tensions relating to commercial trade, doubts about Brexit and the failure to reach an agreement between the European Union and the Italian government with regard to the latter's budget over a large part of the period under consideration. In this context, Japanese and US indices recorded the sharpest declines. The former fell by between 17% and 17.8%, while the latter fell by between 11.8% and 17.5%. In the case of the US indices, the price falls were exacerbated by the feeling that price levels were too high in certain companies, particularly in technology companies. In Europe, indices also recorded significant losses in the last three months of the year. The largest decline was recorded in the French Cac 40 index (13.9%), which was affected by the so-called "yellow vests" protests and in the German Dax 30 (13.8%). The Italian Mib 30 and the Spanish Ibex 35 index fell by 11.5% and 9.0%, respectively (see Table 6).

Performance of main stock indices[1]

TABLE 6

%

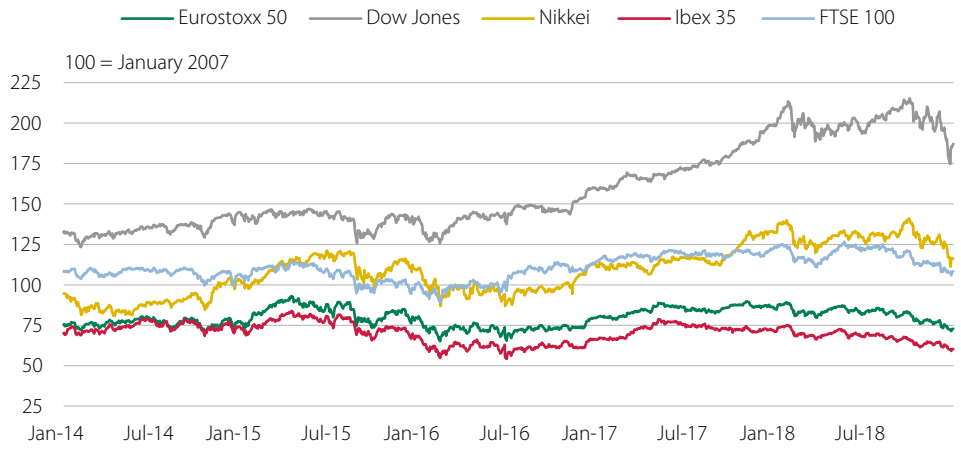
	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18
World								
MSCI World	-2.7	5.3	20.1	-10.4	-1.7	1.1	4.5	-13.7
Euro area								
Eurostoxx 50	3.8	0.7	6.5	-14.3	-4.1	1.0	0.1	-11.7
Euronext 100	8.0	3.0	10.6	-11.2	-2.0	3.3	1.5	-13.6
Dax 30	9.6	6.9	12.5	-18.3	-6.4	1.7	-0.5	-13.8
Cac 40	8.5	4.9	9.3	-11.0	-2.7	3.0	3.2	-13.9
Mib 30	12.7	-10.2	13.6	-16.1	2.6	-3.5	-4.2	-11.5
Ibex 35	-7.2	-2.0	7.4	-15.0	-4.4	0.2	-2.4	-9.0
United Kingdom								
FTSE 100	-4.9	14.4	7.6	-12.5	-8.2	8.2	-1.7	-10.4
United States								
Dow Jones	-2.2	13.4	25.1	-5.6	-2.5	0.7	9.0	-11.8
S&P 500	-0.7	9.5	19.4	-6.2	-1.2	2.9	7.2	-14.0
Nasdaq-Cpte	5.7	7.5	28.2	-3.9	2.3	6.3	7.1	-17.5
Japan								
Nikkei 225	9.1	0.4	19.1	-12.1	-5.8	4.0	8.1	-17.0
Topix	9.9	-1.9	19.7	-17.8	-5.6	0.9	5.0	-17.8

Source: Datastream.

1 In local currency. Data to 31 December.

The main stock indices recorded significant falls over the year as a whole, although there was greater diversity up to the third quarter of the year, with more favourable performance in stock markets in the United States and Japan and less favourable performance in Europe as a result of numerous sources of uncertainty. The largest losses were recorded in Europe, where indices fell by between 11.0% (Cac 40) and 18.3% (Dax 30). The falls in US stock markets were more moderate, ranging between 3.9% and 6.2%, in a context characterised by the positive tone of economic activity and the job market, where unemployment levels are at lows not seen since 1969.

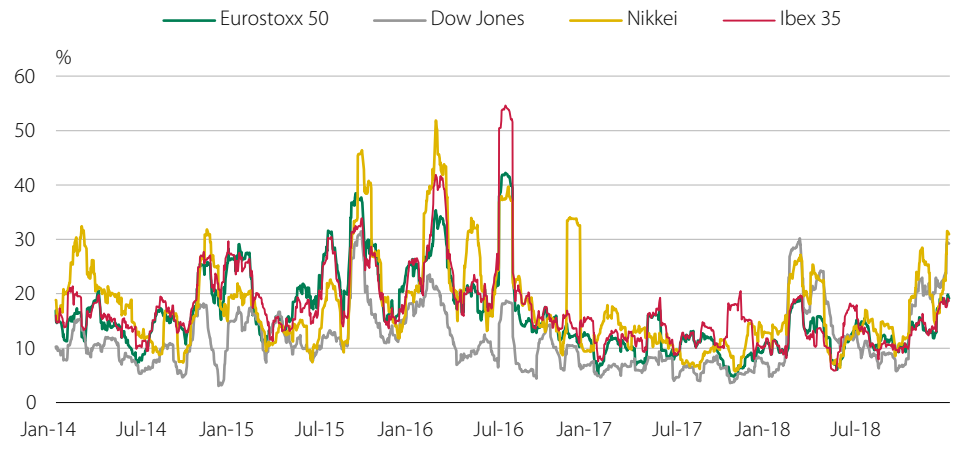
Performance of main stock indices FIGURE 7



Source: Thomson Datastream. Data to 31 December.

The various measures of volatility of the most important stock indices stood at low levels, comparing the annual average to their historical averages. However, the market turmoil in the first and last quarters of the year gave rise to temporary upturns in volatility to levels lower than those recorded in other moments of uncertainty. For example, the historical volatility of the Dow Jones and Nikkei indices grew to values of close to 30% in February and December, compared with averages of 15% and 16.6%, respectively, during the year (see Figure 8). Volatility on European stock markets reached occasional highs of close to 20%, with annual averages slightly above 10%, which are low levels. Similarly, implied volatility indicators reached temporary highs during the same months, although the upturn in December was slightly higher, reaching levels of close to 40% in some indices (for example, the Japanese Nikkei).

Historical volatility of main stock indices FIGURE 8



Source: Thomson Datastream. Data to 31 December.

Dividend yields differed between the various indices, with slight increases on the previous year in some European indices, such as the Italian Mib 30 (from 3.5% to 4.7%), the German Dax 30 (from 2.6% to 3.5%) and the Ibex 35 (from 3.8% to 4.6%) and falls in others, such as the Cac 40, which fell by 0.6 pp to 3.8%, or the Euronext

100, which went from 4.1% to 3.7%. The dividend yields of other significant stock indices remained relatively unchanged in the year. As shown in Table 7, the dividend yields of the European indices remain, broadly speaking, higher than those of US or Japanese indices. Thus, at the end of December, the former stood at between the 3.5% of the Dax 30 index and the 4.7% of the Mib 40, compared with the 2.6% of the Topix and the 2.8% of the S&P 500.

Dividend yield of main stock indices

TABLE 7

%

	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18[1]
S&P 500	2.6	2.5	2.2	2.8	2.4	2.4	2.3	2.8
Topix	1.9	1.9	1.8	2.6	1.9	2.0	1.9	2.6
Eurostoxx 50	4.0	4.1	3.9	4.1	3.7	3.7	3.6	4.1
Euronext 100	4.2	4.4	4.1	3.7	3.4	3.3	3.3	3.7
FTSE 100	4.8	4.1	4.0	4.8	4.2	4.0	4.1	4.8
Dax 30	2.7	2.7	2.6	3.5	3.0	3.1	3.0	3.5
Cac 40	4.7	4.9	4.4	3.8	3.4	3.3	3.2	3.8
Mib 30	2.9	3.9	3.5	4.7	3.9	3.9	4.1	4.7
Ibex 35	3.9	3.9	3.8	4.6	4.3	4.0	4.1	4.6

Source: Thomson Datastream.

1 Data to 31 December.

The price-earnings (P/E) ratios of the leading stock indices recorded considerable falls over the year in line with the falls in prices (see Table 8). There were particularly noteworthy reductions in this ratio in the Topix index (-4.3) to 10.7 and in the S&P 500 (-4.1) to 14.3 in December. In Europe, the most significant falls occurred in the Italian Mib 30 index (-4), which ended with the lowest ratio of all the indices considered (9.9) and in the Euronext 100 (-3.6). In the case of Spain, the P/E ratio fell by 3.1 to stand at 10.5, a low level compared with other indices. In general, at the end of 2018, this indicator stood at values of close to 11 in most indices, except the US S&P 500, with a figure of 14.3, and the Italian index, with a figure of 9.9.

P/E ratio[1] of main stock indices

TABLE 8

	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18[2]
S&P 500	16.5	17.2	18.5	14.3	16.3	16.2	16.9	14.3
Topix	14.1	14.8	15.0	10.7	13.5	13.3	13.6	10.7
Eurostoxx 50	13.8	14.0	14.0	11.4	12.8	12.7	12.9	11.4
Euronext 100	15.3	15.3	15.8	12.2	14.8	14.5	14.5	12.2
FTSE 100	15.5	14.3	14.4	11.2	13.1	13.1	12.8	11.2
Dax 30	13.1	13.4	13.3	11.0	12.1	11.9	12.2	11.0
Cac 40	14.3	14.2	14.5	11.2	13.5	13.3	13.4	11.2
Mib 30	15.2	14.3	13.8	9.9	13.1	11.7	11.6	9.9
Ibex 35	14.1	14.3	13.6	10.5	12.4	12.2	11.8	10.5

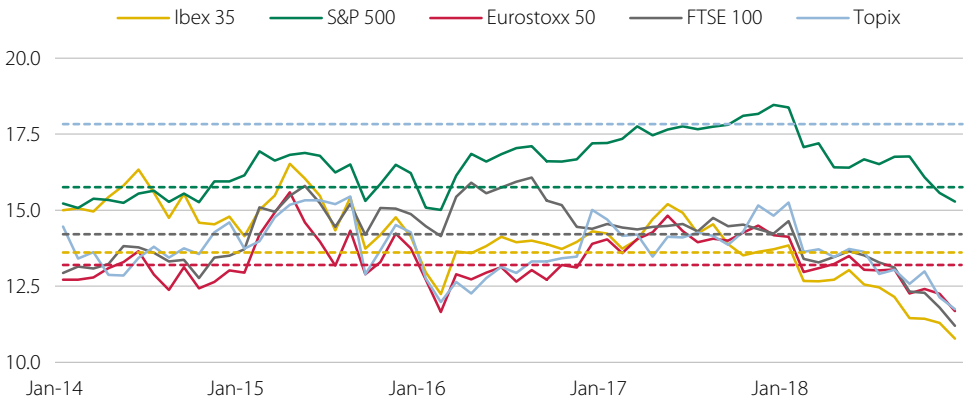
Source: Thomson Datastream.

1 The earnings per share making up the ratio denominator are based on 12-month forecasts.

2 Data to 31 December.

P/E ratio[1] of main stock indices

FIGURE 9



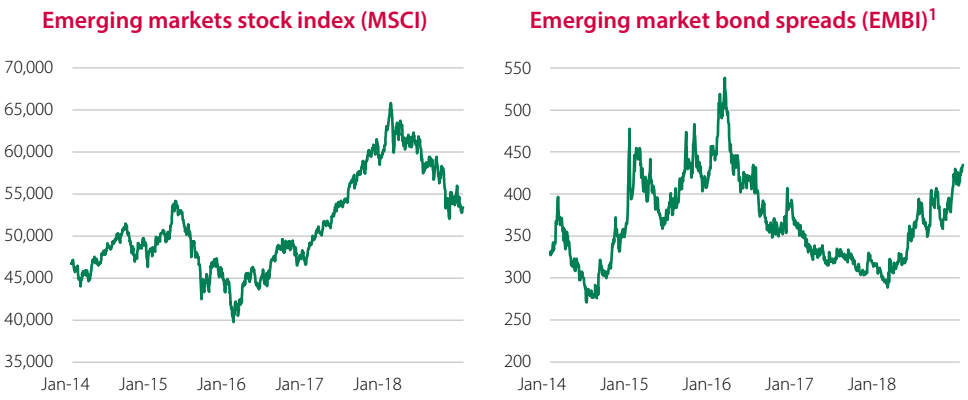
Source: Thomson Datastream. Data for the last session of each month. Data to 31 December.

1 The earnings per share making up the ratio denominator are based on 12-month forecasts. The dashed lines show each index's historical average since 2000.

Throughout the year, the performance of emerging economies was marked by escalating trade tensions between China and the United States and the uncertainty seen in such countries as Turkey and Argentina. All of this led to significant falls in stock market prices, particularly in the last quarter (the MSCI emerging market equity index fell by 7.8%), and to significant increases in risk premiums. In 2018 as a whole, the MSCI index fell by 12.3% and the risk premium (EMBI) rose by 123 bp to stand at 434 bp at the end of December (see Figure 10).

Risk valuation in emerging economies

FIGURE 10



Source: Thomson Datastream and Bloomberg. Data to 31 December.

1 A country risk indicator (Emerging Markets Bond Index) computed as the difference between the yield of dollar-denominated emerging market sovereign bonds and the yield of the corresponding US bond.

Performance of other world indices

TABLE 9

	Index	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18[1]
Latin America									
Argentina	Merval	36.1	44.9	77.7	0.8	3.5	-16.3	28.5	-9.5
Brazil	Bovespa	-13.3	38.9	26.9	15.0	11.7	-14.8	9.0	10.8
Chile	IGPA	-3.8	14.2	35.0	-7.3	-0.9	-3.2	0.2	-3.5
Mexico	IPC	-0.4	6.2	8.1	-15.6	-6.5	3.3	3.9	-15.9
Peru	IGRA	-33.4	58.1	28.3	-3.1	2.9	-3.7	-1.2	-1.1
Asia									
China	Shangai Comp.	9.4	-12.3	6.6	-24.6	-4.2	-10.1	-0.9	-11.6
India	BSE	-3.2	3.6	31.5	1.2	-4.8	4.6	1.4	0.2
South Korea	Korea Cmp. Ex	2.4	3.3	21.8	-17.3	-0.9	-4.9	0.7	-12.9
Philippines	Manila Comp.	-3.9	-1.6	25.1	-12.8	-6.8	-9.9	1.2	2.6
Hong Kong	Hang Seng	-7.2	0.4	36.0	-13.6	0.6	-3.8	-4.0	-7.0
Indonesia	Yakarta Comp.	-12.1	15.3	20.0	-2.5	-2.6	-6.3	3.1	3.6
Malaysia	Kuala Lumpur Comp.	-3.9	-3.0	9.4	-5.9	3.7	-9.2	6.0	-5.7
Singapore	SES All-S'Pore	-14.3	-0.1	18.1	-9.8	0.7	-4.6	-0.4	-5.8
Thailand	Bangkok SET	-14.0	19.8	13.7	-10.8	1.3	-10.2	10.1	-11.0
Taiwan	Taiwan Weighted Pr.	-10.4	11.0	15.0	-8.6	2.5	-0.6	1.6	-11.6
Eastern Europe									
Russia	Russian RTS Index	-4.3	52.2	0.2	-7.6	8.2	-7.6	3.3	-10.6
Poland	Warsaw G. Index	-9.6	11.4	23.2	-9.5	-8.4	-4.2	5.4	-2.2
Romania	Romania BET	-1.1	1.2	9.4	-4.8	12.4	-7.2	4.0	-12.2
Bulgaria	Sofix	-11.7	27.2	15.5	-12.3	-4.2	-2.3	-1.6	-4.8
Hungary	BUX	43.8	33.8	23.0	-0.6	-5.4	-3.0	2.9	5.3
Croatia	CROBEX	-2.8	18.1	-7.6	-5.1	-2.1	0.6	-1.9	-1.9

Source: Thomson Datastream.

1 Data to 31 December.

As shown in Table 9, stock markets of emerging economies generally recorded significant falls in 2018. In Latin America, the exception was the Brazilian Bovespa index, which reacted positively (gaining 10.8%) to Jair Bolsonaro's victory in the October general election. Particularly noteworthy in Asia, where significant losses were recorded in most stock indices, was the Shanghai Composite, which fell by 24.6% between January and December. The Russian RTS Index performed unevenly throughout the year. In the absence of major international economic sanctions, but with a drop in oil prices in the final stretch of the year, this index fell by 10.6% in the last quarter and by 7.6% in 2018 as a whole.

According to figures published by the World Federation of Exchanges and the Federation of European Securities Exchanges, movements in trading volumes on leading stock markets and multilateral trading facilities (MTF) were uneven in the different geographical areas over 2018. In the United States, trading grew across the

board, reaching a total of 39.7 trillion euros, 18% up on 2017. Among the European platforms, the most notable increases were seen in the Deutsche Börse and in Cboe Equities Europe, with growth of 9.6% and 5%, respectively, compared with the figures for 2017. At the opposite end was the Turquoise MTF, with a decline of over 25%. Trading volumes in other European markets and Japan also fell, but more moderately (see Table 10).

Trading volumes on main international stock markets

TABLE 10

Billion euros

	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18[1]
Market operator								
United States[2]	40,094	38,089	33,680	39,744	10,877.1	10,350.4	9,522.5	9,117.1
Nasdaq OMX	11,350	10,023	10,002	12,758	3,301.6	3,236.7	3,197.6	3,078.9
NYSE	15,850	15,679	12,825	14,714	4,037.9	3,871.7	3,538.9	3,307.3
BATS Global Markets	12,893	12,387	10,854	12,272	3,537.6	3,242.0	2,785.9	2,730.9
Japan Exchange Group	5,025	5,086	5,129	4,896	1,429.6	1,277.3	1,214.2	981.5
London Stock Exchange Group[3]	2,402	2,070	2,053	2,005	580.7	590.1	474.6	359.8
Euronext[4]	1,883	1,598	1,714	1,728	492.3	471.2	428.5	338.4
Deutsche Börse	1,411	1,182	1,307	1,432	425.7	378.9	347.2	281.3
BME[5]	958	652	650	591	146.7	192.1	118.1	133.8
Cboe Equities Europe[6]	2,862	2,396	2,120	2,225	593.5	625.3	565.8	440.5
Multilateral trading facility (MTF)								
Turquoise	973	1,224	810	589	189	165	140	95

Source: World Federation of Exchanges, Federation of European Securities Exchanges and CNMV.

1 Data to 30 November except BME, to 31 December.

2 As of 2009, the sum of Nasdaq OMX, New York Stock Exchange (NYSE), Euronext and BATS Global Markets.

3 Including London Stock Exchange and Borsa Italiana.

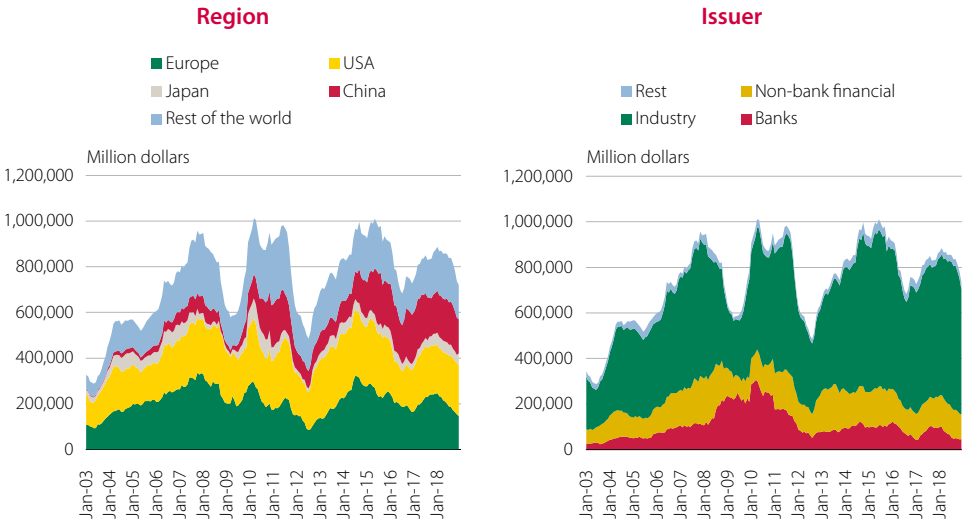
4 Including Belgium, the Netherlands, France, Portugal and Euronext London.

5 Bolsas y Mercados Españoles. Not including Latibex.

6 BATS Europe until February 2017, when it was acquired by the Cboe Global Markets group.

The volume of equity issues in international financial markets amounted to 720 billion dollars in 2018 as a whole, 17.5% down on 2017. This fall is framed in a complicated context for markets, particularly in Europe, which discouraged share issues. In the United States and in Japan, where the tone of equity markets was favourable for the bulk of the year, issues rose by 4.9% and 3.1%, respectively. In contrast, issues in China fell by 19.0% to 149 billion dollars, while in Europe the fall was even sharper, with issues dropping by 40.1% to 145 billion dollars. The breakdown by sector shows widespread falls in issues with the exception of utilities companies, which recorded an increase of 16.0%. Share issues by banks shrank by 60.5%, those by financial companies fell by 24.8%, and those by industrial companies dropped by 10.3%.

Global equity issuance FIGURE 11



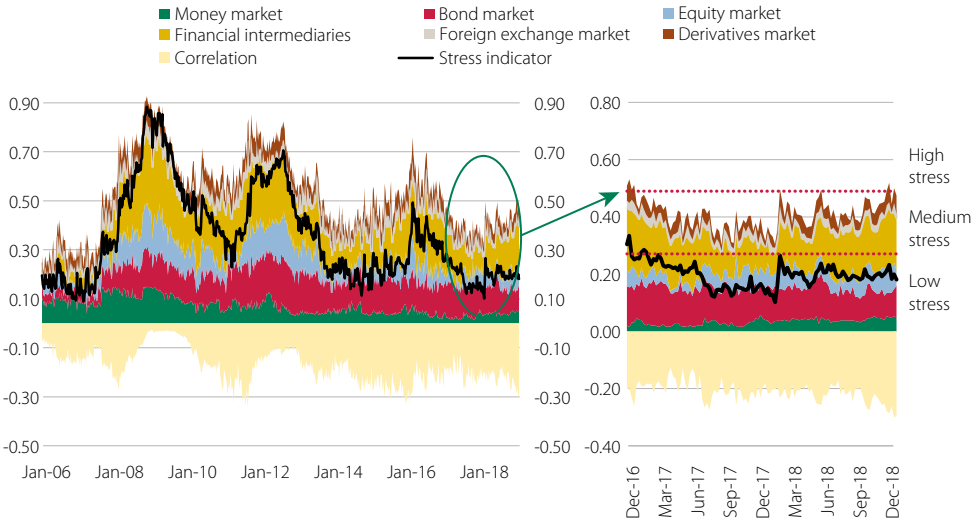
Source: Dealogic. Twelve-month data to 31 December.

3 Recent trends in Spanish markets

The stress indicator of Spanish financial markets recorded values in 2018 that correspond to low stress levels (below 0.27),[3] although it recorded temporary upturns associated with various sources of uncertainty. At the start of February, the indicator grew significantly to almost the medium stress level as a result of the turmoil in US markets and, following a slight fall, it rose once again in June as a consequence of the concerns about public finances in Italy and, to a lesser extent, other sources of uncertainty (agreements on trade, tensions in some emerging economies, regulatory uncertainty, etc.). At the end of the year, there was a high level of stress in the financial intermediary segment, which is essentially made up of banks, due to the sharp fall in their share prices. However, the overall stress level did not rise significantly as all volatility indicators remain at low levels as prices remained virtually unchanged in the last week of 2018.

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

Stress indicator of Spanish financial markets FIGURE 12



Source: CNMV.

3.1 Fixed-income markets

Yields on debt assets, which had recorded slight rises over much of the second half of the year, relaxed again in the last few months of the year after the positions of the Italian government and European Union moved closer together and it was confirmed that the changes in monetary policy would be slow and progressive.[4] Against this backdrop, government bond yields closed the year at levels close to those of 2017 for most long-term maturities, as did the sovereign credit risk premium, which underwent temporary upturns in 2018, but closed the year at 118 bp (114 bp in December 2017). Debt issues registered with the CNMV followed the downward trend of previous months with a fall of 32% in the fourth quarter (31% in the year as a whole) in contrast with the growth in issues abroad, which rose by 7% between January and November and accounted for a little over half of the total amount issued in the year.

Short-term bond yields generally remained relatively stable in the fourth quarter, with their levels both in the primary market and in the secondary market at the historic lows reached at the end of 2017. Government debt yields have therefore spent three years in negative terrain in all the short-term section of the curve as a result of the ultra-expansive monetary policy maintained by the ECB through its official rates (which remain at historic lows), which will be maintained at least until the second half of 2019.[5] Therefore, at the end of December, the yield in the secondary market of 3-month, 6-month and 12-month Letras del Tesoro stood at -0.50%,

4 In mid-December, the ECB confirmed that its debt purchase programme would end as expected from 19 December, but it announced that it will reinvest the amounts of the assets acquired under this programme as they mature (in total, the ECB holds assets worth 2.6 trillion euros) and for a prolonged period once the process of interest rate hikes begins.

5 In mid-December, the ECB's president reiterated the commitment to maintain rates at their present levels (0%) at least through the summer of 2019, and in any case for as long as necessary.

-0.41% and -0.33%, respectively. These values are very similar to those of the third quarter and in line with the minimum annual yield of -0.40% established by the ECB in its debt purchase programme (deposit facility rate). All auctions of Letras del Tesoro were again settled at negative rates, with the latest auctions performed in December settled at a similar rate to those in previous auctions. Short-term corporate bond yields performed similarly, with values similar to those recorded in the third quarter. In December, the yields on commercial paper when issued stood at values ranging between 0.07% for the 12-month benchmark and 0.24% for the 3-month benchmark (see Table 11).

Short-term interest rates[1] TABLE 11

%

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Letras del Tesoro								
3 months	-0.15	-0.47	-0.62	-0.50	-0.55	-0.52	-0.46	-0.50
6 months	-0.01	-0.34	-0.45	-0.41	-0.46	-0.43	-0.41	-0.41
12 months	-0.02	-0.25	-0.42	-0.33	-0.42	-0.34	-0.37	-0.33
Commercial paper[2]								
3 months	0.31	0.18	0.39	0.24	0.29	0.25	0.31	0.24
6 months	0.42	0.20	0.26	0.19	0.22	0.12	0.26	0.19
12 months	0.53	0.15	0.19	0.07	0.24	0.18	0.36	0.07

Source: Thomson Datastream and CNMV.

1 Monthly average of daily data.

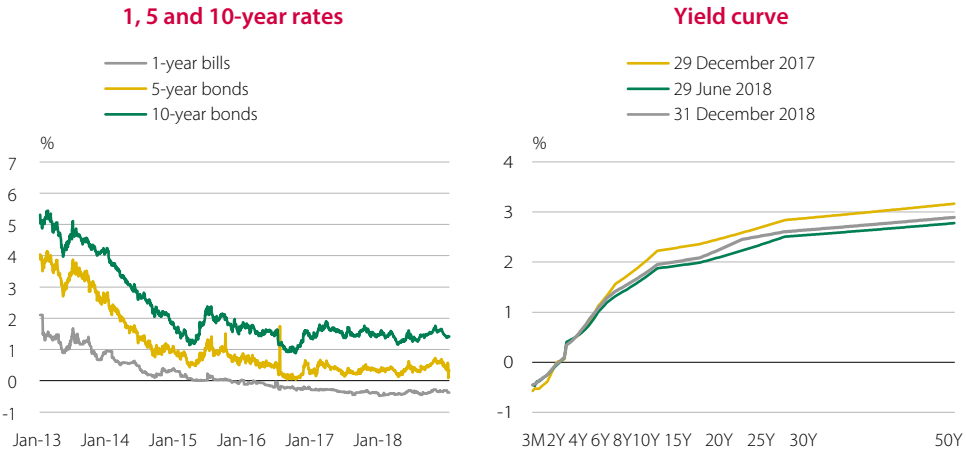
2 Interest rate at issuance.

Medium and long-term government bond yields began the quarter with increases. This was as a result of the fear that the uncertainties relating to Italian public finances might spread to other peripheral economies and also the expectation that the accommodative monetary policy might be reversed more quickly than expected,[6] against a backdrop of increasingly slowing economic growth together with other uncertainties. However, the narrowing of the differences between the positions of the Italian government and the European Union with regard to Italian public accounts and the confirmation by the ECB that its monetary policy will still continue to be accommodative over a long period of time allowed rates to fall again. The 10-year benchmark rate fell once again to below the levels at the end of the previous quarter and the levels at the start of the year. The average yield on 3-year, 5-year and 10-year government bonds in December stood at -0.04%, 0.43% and 1.43%, respectively (see Table 12). The yield curve shows slightly positive figures as from maturities of 3 years, with this benchmark fluctuating at around 0% throughout the year. The only noteworthy difference during the year was the slight increase in 5-year yields (12 bp), while 10-year yields closed the year at almost identical levels to those of year-end 2017 (1.43% on average in December 2018 compared with 1.46% on average in December 2017).

6 By the end of November, the ECB had acquired public debt for 2.16 trillion euros, of which 259.2 billion euros corresponded to Spanish debt.

Spanish government debt yields

FIGURE 13



Source: Thomson Datastream and Bloomberg. Data to 31 December.

In the case of corporate bonds, the negative impact of the end of the ECB's corporate sector purchase programme[7] was accompanied by the increase in the risk premiums of this type of debt. Both factors, together with the perspective that the slowdown in economic growth would affect the growth rates of corporate earnings in the context of expected rate hikes in the medium and long term, led corporate bond yields to increase slightly across most maturities on the curve. In the first three quarters of 2018, long-term corporate bonds recorded a negative spread with respect to government bonds thanks to the positive impact of the purchase programme for these assets, both in primary and secondary markets. However, the termination of the programme reversed the trend at the end of the year and the yields once again moved above those of government bonds across all maturities on the curve. At year-end 2018, yields on 3, 5 and 10-year bonds stood at 0.67%, 0.55% and 1.52%, respectively, which implies a spread of between 12 bp and 71 bp up to the 5-year maturity and of 9 bp for the 10-year maturity. In the year as a whole, the yield on long-term (10-year) corporate bonds rose by 36 bp, while that of the government bond hardly changed at all.

7 The corporate sector purchase programme had purchased a cumulative volume of 178.39 billion euros up to the middle of December, of which slightly over 17.5% was purchased in the primary market.

Medium and long-term corporate bond yields[1]

TABLE 12

%

	Dec-15	Dec-16	Dec-17	Dec-18	Mar-18	Jun-18	Sep-18	Dec-18
Government bonds								
3 years	0.24	0.04	-0.09	-0.04	-0.07	-0.06	0.00	-0.04
5 years	0.72	0.35	0.31	0.43	0.30	0.41	0.49	0.43
10 years	1.73	1.44	1.46	1.43	1.35	1.38	1.51	1.43
Corporate bonds								
3 years	0.66	0.69	0.44	0.67	0.51	0.44	0.47	0.67
5 years	1.95	1.43	0.41	0.55	0.39	0.36	0.59	0.55
10 years	2.40	2.14	1.16	1.52	1.04	1.23	1.41	1.52

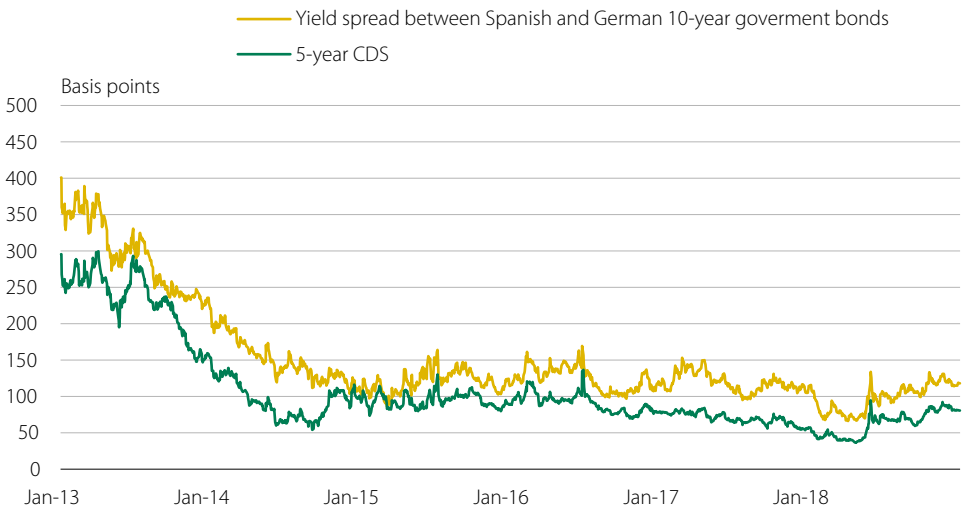
Source: Thomson Datastream, Reuters and CNMV.

1 Monthly average of daily data.

The sovereign risk premium began the quarter with rises as a result of the uncertainties relating to Italy and the possibility that they might spread to other peripheral European economies. It subsequently fell thanks to the easing of tensions between the European Union and the Italian government, as well as the confirmation by the ECB that it would shift the stance of its monetary policy slowly. In this context, the risk premium, measured as the spread between the yields on the Spanish 10-year sovereign bond and the 10-year German bond, stood at 118 bp at the end of 2018, a similar figure to that recorded at the end of 2017 (114 bp), but in the higher part of the range between the annual high at the end of May (134 bp) and the low recorded in April (66 bp). The risk premium measured by using the CDS of the Spanish sovereign bond – whose market is less liquid than that of the bond – recorded more significant increases and stood at 80 bp at the end of December, compared with 57 bp at the end of 2017 (see Figure 14). In the short term, the continuity of various elements of risk – some political (internal and external) and others linked to the progressive slowdown of the growth of the Spanish economy – will continue to influence the evolution of the credit risk premiums of Spanish issuers.

Risk premium paid by Spanish issuers: public sector

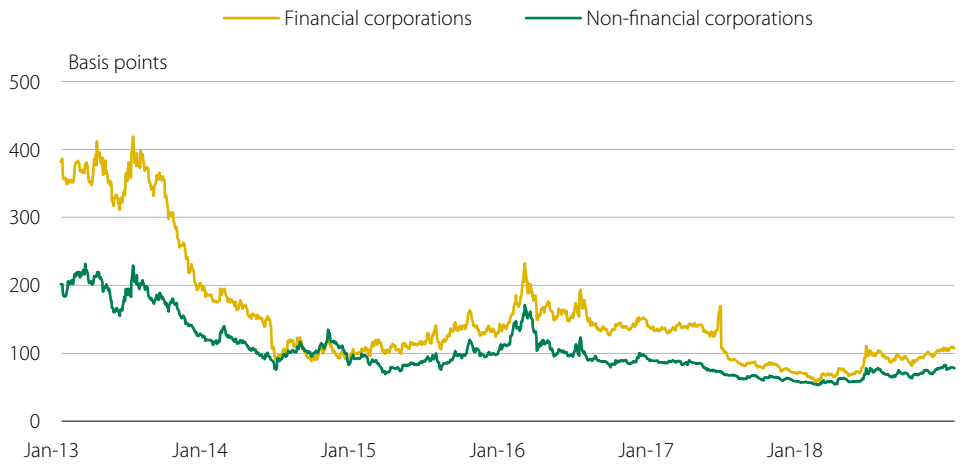
FIGURE 14



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

The risk premiums of the private sub-sectors of the economy recorded rises in the last quarter of the year, which were more intense in the case of financial institutions. The increase in the average premiums of the CDS contracts of financial institutions reflected the concerns associated with banks' exposure to Italian debt assets as well as to some emerging economies in difficulties (Turkey or Brazil) and, in addition, the existence of some regulatory uncertainties.[8] The delay in the normalisation of monetary policy and expected upward shift in interest rates, which narrows the sector's margins, also had a negative impact on risk premiums. The risk premiums of non-financial companies also grew, but to a lesser extent. The most important negative factors for these companies were the end of the ECB's corporate sector purchase programme (in which the main Spanish corporate bond issuers were included as eligible issuers with eligible assets) and the expectation of an increase in their finance costs in the medium term in the context of a certain slowdown in economic growth. As shown in Figure 15, the average of the CDS of Spanish financial institutions stood at 108 bp at the end of December, above the 90 bp at the end of the third quarter and a long way from the 69 bp at the start of the year. Meanwhile, in the case of non-financial companies, the average of the risk premiums on the same date was 78 bp, compared with 69 bp and 58 bp at the end of the previous quarter and the start of the year, respectively.

Risk premium paid by Spanish issuers: private sector[1] FIGURE 15



Source: Thomson Datastream and CNMV.

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

As was the case in every other quarter of the year, fixed-income issues registered with the CNMV in the fourth quarter performed discreetly and continued falling with regard to equivalent periods in 2017, while those registered abroad grew moderately. The latter also showed a change in composition, with short-term issues increasing, with twice the volume in 2018 compared with 2017, to the detriment of long-term issues, which fell by 34%. Even though companies have continued to replace their debt issues in Spain by issues abroad, their level of issuing activity has

8 These uncertainties are of a varied nature and may influence both companies' income (for example, the limits on fees in Mexico) and expenses (for example, the regulation on mortgage costs). These uncertainties also include potential changes in the tax framework applicable to these entities.

slowed down as the leading Spanish issuers had already covered a large part of their funding needs. Both large non-financial companies and banks brought forward their financing in order to take advantage of the buoyant moment in the market and low issue costs, given the expectation that these costs might move upwards. As a result, issues registered with the CNMV fell by 32% in the fourth quarter compared to the same term in the previous year and by 31% in the year as a whole, while those made abroad grew by 7% up to November (last available data) compared with the same period of 2017.

As shown in Table 13, the volume of debt issues registered with the CNMV in 2018 was the lowest of the last decade, with significant falls recorded in every category except in territorial bonds and in preferred shares. Issues of territorial bonds are limited by the evolution of lending to the autonomous regions and local authorities, which have other sources of funding. Issues of preferred shares were boosted by the reactivation of the placement of this type of asset with institutional investors due to their attractive returns in a context of very low interest rates. The largest falls corresponded to uncovered bonds, asset-backed securities and, to a lesser extent, mortgage bonds. In the case of uncovered bonds, which shrank by 66% compared with 2017, the fall was the result of the replacement of issues registered with the CNMV by issues abroad, while in the case of asset-backed securities, the fall was the result of banks' lower funding needs. Mortgage bonds continued the trend recorded over recent years whereby most of the issuing activity corresponded to the renewal of issues that had matured. It should be noted that the amount of this type of asset that may be issued is limited by the balance of outstanding mortgage loans, which continues to fall[9] despite the recovery in the Spanish real estate market. As a particular feature within the trend recorded over the last quarter of the year, it is worth noting the increase in the amount of issues of mortgage bonds and asset-backed securities, which recovered significantly compared with previous quarters, as some financial institutions took advantage over this period to renew their financing, pending the ECB's definition of the new long-term financing scheme specific to banks.

9 Up to November, according to Bank of Spain data, the balance of mortgage lending to households fell by 1.4% year-on-year to 521.87 billion euros, its lowest level since 2006.

Gross fixed-income issues registered with the CNMV

TABLE 13

	2015	2016	2017	2018	2018 I	2018 II	2018 III	2018 IV[1]
NOMINAL AMOUNT (million euros)	**136,907**	**139,028**	**109,446**	**75,378**	**20,205**	**10,645**	**11,793**	**32,735**
Mortgage bonds	31,375	31,643	29,824	26,575	5,125	1,700	5,050	14,700
Territorial bonds	10,400	7,250	350	2,800	0	0	0	2,800
Non-convertible bonds and debentures	39,400	40,170	30,005	10,150	4,983	1,177	1,431	2,559
Convertible/exchangeable bonds and debentures	53	0	0	0	0	0	0	0
Securitisation bonds	28,370	35,505	29,415	17,925	5,431	3,534	1,048	7,913
Commercial paper[2]	27,310	22,960	17,871	15,078	3,416	3,884	3,264	4,514
Securitised	2,420	1,880	1,800	240	0	240	0	0
Other commercial paper	24,890	21,080	16,071	14,838	3,416	3,644	3,264	4,514
Other fixed-income issues	0	1,500	981	0	0	0	0	0
Preferred shares	0	0	1,000	2,850	1,250	350	1,000	250
Pro memoria:								
Subordinated issues	5,254	4,279	6,442	4,923	1,857	832	933	1,301
Underwritten issues	0	421	0	0	0	0	0	0

Abroad by Spanish issuers

	2015	2016	2017	2018[3]	2018 I	2018 II	2018 III	2018 IV[3]
NOMINAL AMOUNT (million euros)	**66,347**	**58,587**	**84,760**	**85,407**	**27,218**	**22,226**	**20,423**	**15,540**
Long term	33,362	31,655	61,095	37,586	14,317	10,109	7,662	5,498
Preferred shares	2,250	1,200	5,844	2,000	1,500	0	500	0
Subordinated debt	2,918	2,333	5,399	2,250	1,250	1,000	0	0
Bonds and debentures	28,194	28,122	49,852	33,336	11,567	9,109	7,162	5,498
Securitisation bonds	0	0	0	0	0	0	0	0
Short term	32,984	26,932	23,665	47,822	12,901	12,117	12,762	10,042
Commercial paper	32,984	26,932	23,665	47,822	12,901	12,117	12,762	10,042
Asset-backed	0	0	0	0	0	0	0	0

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

	2015	2016	2017	2018[3]	2018 I	2018 II	2018 III	2018 IV[3]
NOMINAL AMOUNT (million euros)	**55,286**	**56,674**	**66,790**	**83,767**	**24,337**	**18,980**	**21,653**	**18,797**
Financial institutions	14,875	11,427	19,804	38,420	9,797	7,994	8,935	11,693
Non-financial companies	40,411	45,247	46,986	45,347	14,540	10,986	12,717	7,104

Source: CNMV and Bank of Spain.

1 Data to 31 December.

2 Figures for commercial paper issues correspond to the amounts placed.

3 Data to 30 November.

As mentioned above, fixed-income issues by Spanish issuers abroad were very buoyant in the year as a whole (up to 30 November), although they lost intensity in the second half of the year. The reasons for this change in intensity in the last part of the year include: the fact that a large part of these issues were considered as eligible assets in the ECB's corporate debt-buying programme, which ended in December and whose purchases were progressively reduced over the year; greater market volatility, which complicates their placement and raises issue costs; and the lower funding needs of companies, which brought forward their issues in order to take advantage of the good market conditions in previous months. In 2018, these issues amounted to a total of 85.41 billion euros, 7% up on the same period of 2017 and they accounted for 53% of total issues performed by Spanish issuers (compared with 46% in the same period of the previous year). Unlike in 2017, when over two thirds of the total amount issued corresponded to long-term debt, short-term issues grew strongly in 2018 to over double the figure recorded in the previous year. Finally, issues by subsidiaries of Spanish companies abroad grew by 25% to 83.77 billion euros in the year, thanks to the strong expansion of issues by financial institutions, which grew by 94%.

3.2 Equity markets

3.2.1 Prices

Prices on domestic equity markets, which had suffered significant falls in previous months, fell sharply once again in the last quarter of the year as a result of various sources of uncertainty. These included the fears of an economic slowdown both in Spain and in the rest of the Europe and in the United States, the continuation of trade tensions, doubts about the public finances of some European economies, the outcome of Brexit and, lastly, the tightening of monetary policy in the United States. In the fourth quarter, the Ibex 35 lost 9%, a similar performance to that of other benchmark European indices,[10] and its volatility edged upwards to levels of slightly over 20%. The trading of Spanish securities totalled 930 billion euros in the year as a whole, a very similar figure to that recorded in 2017. There continues to be a shift between the trading performed by the regulated Spanish market, which fell by 8.5%, and that performed on other trading venues and competitors, which rose by 17.5%.

The Ibex 35, which had fallen by 4.4% in the first quarter of the year and had remained practically unchanged in the second, fell again by 2.4% in the third quarter and intensified its declines in the fourth quarter, dropping by 9% to accumulate annual losses of 15%. This annual fall is the largest since 2010 and the index's level at the end of the year (slightly above 8,500 points) is the lowest since August 2016. The falls in the fourth quarter spread to practically every company and sector, although they were largely concentrated in small and mid-cap companies. The prices of these types of companies, particularly the smallest, which had performed well in the first half of the year, fell sharply to the point of recording losses in 2018 as a whole as a result of the possible impact that the slowdown in the Spanish economy

10 The leading European indices recorded losses both in the quarter and in the year as a whole: Eurostoxx (11.7% quarterly and 14.3% annually), Cac (13.9% and 11%, respectively), Dax (13.8% and 18.3%, respectively) and Mib 30 (11.5% and 16.1%, respectively).

might have on their accounts and the impossibility of offsetting this with other operations abroad. Furthermore, following a third quarter with significant gains, Latin American shares listed in euros once again recorded positive, albeit discrete, performances as a result of the appreciation of the leading Latin American currencies against the euro during the quarter.[11] The FTSE Latibex All-Share and FTSE Latibex Top indices recorded gains of 1.8% and 4.5%, respectively, in the quarter and of 10.3% and 14.8% for the year as a whole (see Table 14).

In the last part of the year, every sector performed negatively, with the exception of the energy sector, thanks to the positive evolution of electricity companies. The most significant falls corresponded to banks (12.9%), due to numerous uncertainties weighing on their accounts (regulatory costs, exposure to Italy and other emerging economies, competition from new intermediaries, etc.), as well as the delay in normalisation of monetary policy, which applies pressure to their interest margin in a context of a slowdown in the economy. The consumer goods sector recorded the largest fall in prices (13.5%). This was due to the fact that the leading company in the textile sector (Inditex) dropped significantly, which might be related to changes in its growth expectations, bearing in mind the strong competition in the field of e-commerce. The prices of companies in the real estate sector and technology and Internet companies also fell. In the case of the latter, this was as a result of investors' doubts about whether the growth forecasts of these companies justified the high prices reached by their shares over recent months.

As mentioned above, electricity companies proved to be an exception as, despite the sharp fall in the price of oil, their share prices grew to the area of annual highs thanks to their defensive nature and the expected stability of their profits. This stability may be associated with the positive perception that investors have with regard to the electricity price setting system in Spain.

Performance of the Spanish stock indices TABLE 14

%

	2015	2016	2017	2018	Mar-18	Jun-18	Sep-18	Dec-18
Ibex 35	-7.2	-2.0	7.4	-15.0	-4.4	0.2	-2.4	-9.0
Madrid	-7.4	-2.2	7.6	-15.0	-3.9	-0.1	-2.5	-9.3
Ibex Medium Cap	13.7	-6.6	4.0	-13.7	-1.4	1.9	0.8	-14.8
Ibex Small Cap	6.4	8.9	31.4	-7.5	11.1	5.6	-5.6	-16.4
FTSE Latibex All-Share	-39.2	71.0	-39.2	10.3	11.1	-12.4	11.4	1.8
FTSE Latibex Top	-34.6	67.8	-34.6	14.8	7.5	-9.4	12.9	4.5

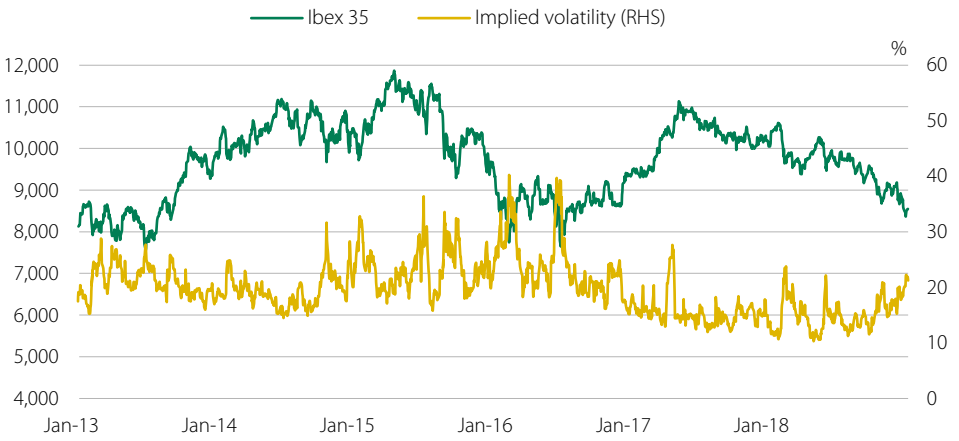
Source: Thomson Datastream.

The implied volatility of the Ibex 35, which had on average remained at low levels in the three previous quarters (between 13% and 16%), rose at the end of the year to levels of over 20% as a result of investors' concerns about political uncertainty and the evolution of stock markets over the coming months (see Figure 16). Temporary upturns in volatility had been recorded previously as a consequence of the different episodes of uncertainty on US stock markets and in Italy. Despite the increase

11 In 2018, the Brazilian real depreciated by 11.2% against the euro, while the Mexican peso appreciated by 4.2%.

in volatility in the final part of the year, volatility averaged 15.1% in 2018, a low figure that is similar to that for 2017 (15.5%), and lower than that recorded in 2016 (23.7%). The volatility levels of the Spanish index are similar to those seen in other European stock markets and lower than those recorded in US markets. The volatility of the Eurostoxx 50 ended the year at around 19%, while that of the US Dow Jones index ended at close to 30%.

Ibex 35 and implied volatility[1] FIGURE 16



Source: Thomson Datastream and MEFF. Data to 31 December.

1 At-the-money (ATM) implied volatility of the first maturity.

The movements in the prices of the six sectors making up the Madrid Stock Exchange General Index (IGBM) were uneven over the year, both by sector and by share (see Table 15). The best performance was recorded by the oil and energy sector, which grew over a large part of the year and ended 2018 with a significant gain of 6.1%, with strong gains made by electricity companies. In contrast, the worst performance was recorded by the financial sector (-27.1%) and the consumer goods sector (-19.7%), which recorded losses in every quarter. Two major banks recorded significant losses (BBVA: -34.8% and Santander: -26.9%), which contrasts with the gains of over 10% recorded in the previous year. The technology and telecommunications sector performed discreetly (-5.5%) as the positive performance of technology companies partially offset the falls in telecommunications operators. Similarly, as was the case in 2017, the consumer goods sector once again recorded negative performance (-16.7%), which was the result of the fall in the leading textile company (Inditex).

Performance of the Madrid stock exchange by sector and leading shares[1]

TABLE 15

	Weighting[2]	2017	2018	II 18	III 18	IV 18
Financial and real estate services	**37.60**	**10.5**	**-27.1**	**-8.7**	**-5.1**	**-12.6**
Real estate and others	0.57	17.6	-26.1	3.3	-10.9	-15.0
Banks	32.10	10.6	-29.0	-9.9	-5.3	-12.9
BBVA	9.16	12.9	-34.8	-5.5	-9.6	-15.6
Santander	16.76	13.1	-26.9	-13.3	-5.6	-7.6
Caixabank	3.01	23.9	-18.7	-4.3	6.4	-19.7
Oil and energy	**19.34**	**3.9**	**6.1**	**12.0**	**-1.4**	**0.9**
Iberdrola	8.68	8.2	14.2	10.9	-1.6	10.7
Repsol	4.72	16.0	1.1	19.7	2.4	-15.6
Basic materials, industry and construction	**8.35**	**2.6**	**-8.6**	**2.4**	**2.7**	**-11.5**
Construction	4.63	9.9	-3.4	6.7	4.5	-6.5
Technology and telecommunications	**14.19**	**7.5**	**-5.5**	**-0.9**	**4.8**	**-8.8**
Telefónica	6.84	-7.9	-9.7	-9.3	-6.3	7.7
Amadeus IT	6.04	39.2	1.2	12.7	18.4	-24.0
Consumer goods	**13.28**	**-2.1**	**-16.7**	**12.4**	**-6.5**	**-13.5**
Inditex	8.25	-10.4	-23.0	15.1	-10.8	-14.4
Consumer services	**7.22**	**23.3**	**-19.7**	**-1.1**	**-4.9**	**-11.1**

Source: Thomson Datastream, Bolsa de Madrid and BME.

1 Shares capitalising at more than 3% of the IGBM, adjusted for free float.

2 Relative weight (%) in the IGBM as at 2 July 2018.

In 2018, only a small number of shares belonging to the IGBM recorded price gains, with most of them recording losses. In addition, few companies (which in turn form part of the Ibex 35 index) had a significant impact on the annual change in the index (an absolute value of over 0.30 percentage points). Only one company – the leading electricity company (Iberdrola) – had a positive impact greater than this value. In contrast, eight companies had a negative impact of greater than 0.3 percentage points. This group contained five banks (including the two largest in terms of capitalisation – Banco Santander and BBVA – and the leading medium-sized banks – Sabadell, Caixabank and Bankia–), the largest listed communications company (Telefónica), the most important company in the textile sector (Inditex) and the main airport infrastructure manager (Aena).

Shares with greatest impact on IGBM change[1]

TABLE 16

Share	Sector	Dec-2018 Impact on IGBM change (pp)
Positive impact		**/Dec-17**
Iberdrola	Oil and energy	1.23
Negative impact		
Banco Santander	Financial and real estate services	-4.50
BBVA	Financial and real estate services	-3.19
Inditex	Consumer goods	-1.90
Telefónica	Technology and telecommunications	-0.66
Banco de Sabadell	Financial and real estate services	-0.65
Caixabank	Financial and real estate services	-0.56
AENA	Consumer services	-0.42
Bankia	Financial and real estate services	-0.32

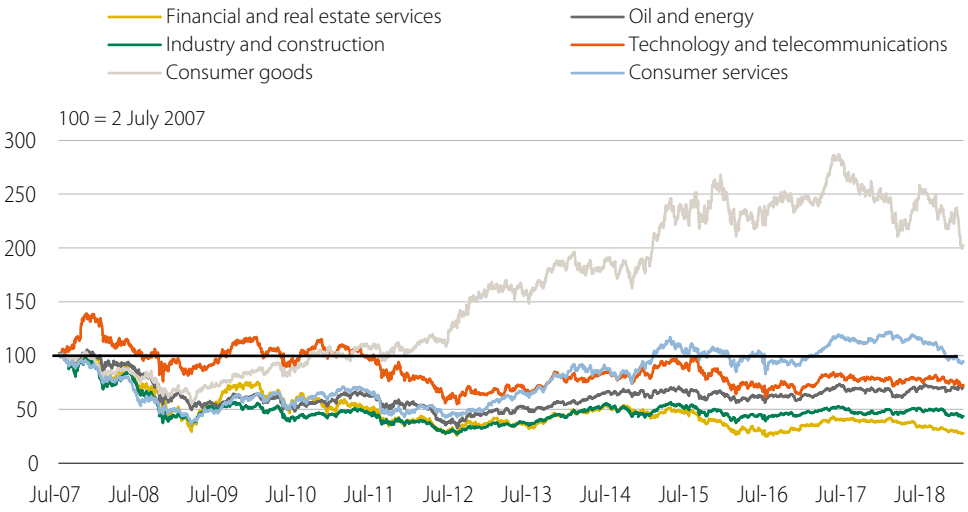
Source: Thomson Datastream and Bolsa de Madrid.

1 The shares listed are those having most impact (equal to or more than 0.3 pp in absolute terms) on the annual change in the IGBM. The sample comprises all shares that were neither delisted nor suspended from trading at the end of the period under consideration.

The movements in share prices of the different sectors of the IGBM are different if considered under a longer-term perspective. However, most of these shares continue to trade at values lower than those recorded prior to the start of the financial crisis in the middle of 2007. As shown in Figure 17, the most significant falls are still recorded by financial services companies and by real estate companies, which were once again the companies that suffered the largest reductions in 2018. In contrast, the consumer goods sector, despite recording two consecutive years of losses, remains the sector with a better relative performance than others thanks to the significant recovery that it posted in previous years. In fact, the most important company in this sector is the largest Spanish company by market capitalisation,[12] which continues to be the case in 2018 despite the falls in its share price. Among the other sectors, it is worth noting that the share price of the consumer services sector remains at values similar to those recorded at the start of the crisis despite the losses that have accumulated in 2018. The other sectors remain below those levels, despite the positive performance of companies in the oil and energy sector in the last two years.

12 Market capitalisation exceeded 69.6 billion euros at the end of 2018, above that of the leading Spanish bank, whose market valuation stood at around 64 billion euros.

Performance by sector of the Madrid Stock Exchange FIGURE 17



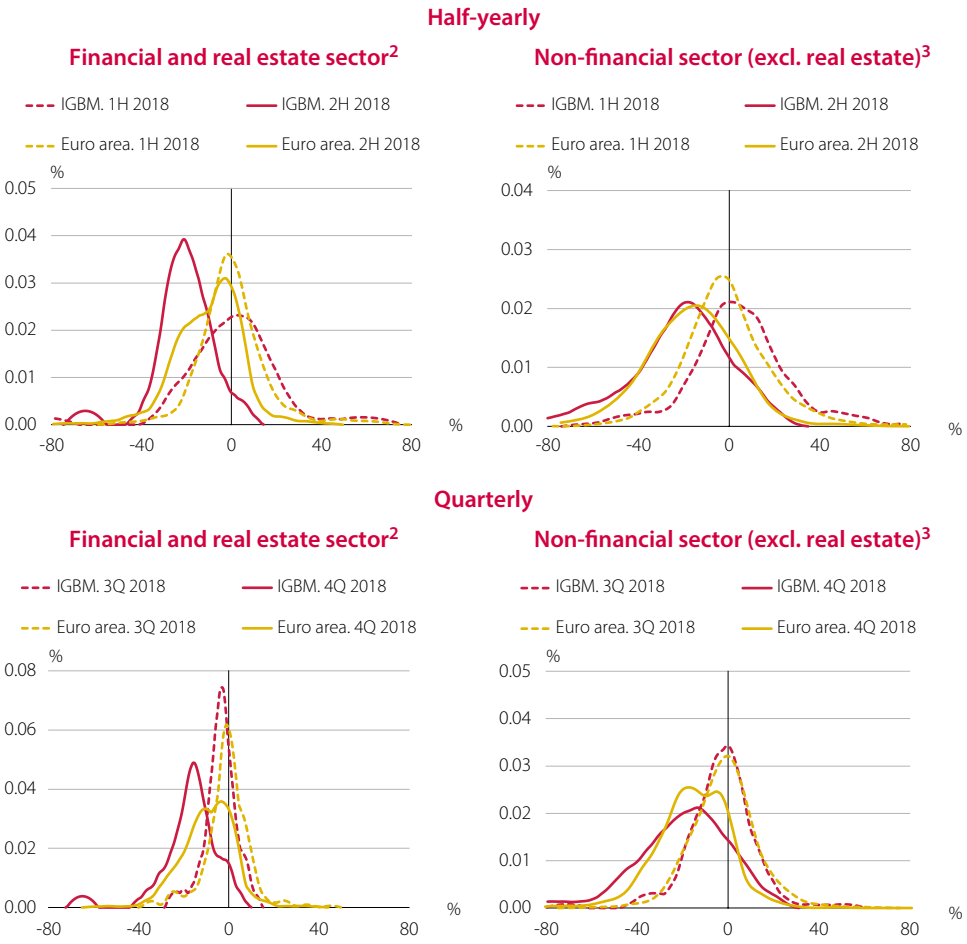
Source: Thomson Datastream. Data to 31 December.

The distributions of the share returns of Spanish and European listed companies reflect the aforementioned negative performance of equity in 2018. Nevertheless, there are some important differences: in the first half of the year, Spanish companies belonging to the financial sector and the real estate sector recorded more extreme returns than those of their European peers, with a half-yearly contraction or gain greater than 10% in more than half of them (a little lower than 40% for the euro area). In contrast, Spanish non-financial companies belonging to IGBM performed more favourably than euro area companies, as 35% of the total recorded a negative half-yearly return in the case of Spain, while this figure stood at 50% for the euro area. In turn, a quarter of Spanish companies recorded very high returns (above 20%), while this figure stood at 15% for companies in the euro area (see upper panels of Figure 18).

With regard to the distribution of cumulative returns in the second half of 2018, the shift of all curves to the left reflects a general deterioration in returns in both economic areas and in all sectors compared with the first half of the year, with the steepest decline recorded in Spain as a consequence of the greater falls in national stock markets over this period. Accordingly, in the financial sector, where the differences were more marked, around 95% of companies belonging to the IGBM saw a fall in their share prices, while this figure stood at 70% in the case of European companies.

Distribution of change in stock prices[1]

FIGURE 18



Source: Bolsa de Madrid and Thomson Datastream. Data to 28 December 2018.

1 Analysis run on the companies forming each index on 25 December 2018, when the Spanish IGBM comprised 132 listed companies compared with 1,357 in the euro-area index.

2 The financial and real estate sector comprises credit institutions, insurance undertakings, portfolio and holding companies, other investment service providers and real estate companies: 29 companies in Spain (22% of index members) compared with 300 (also 22% of the total) in the euro area.

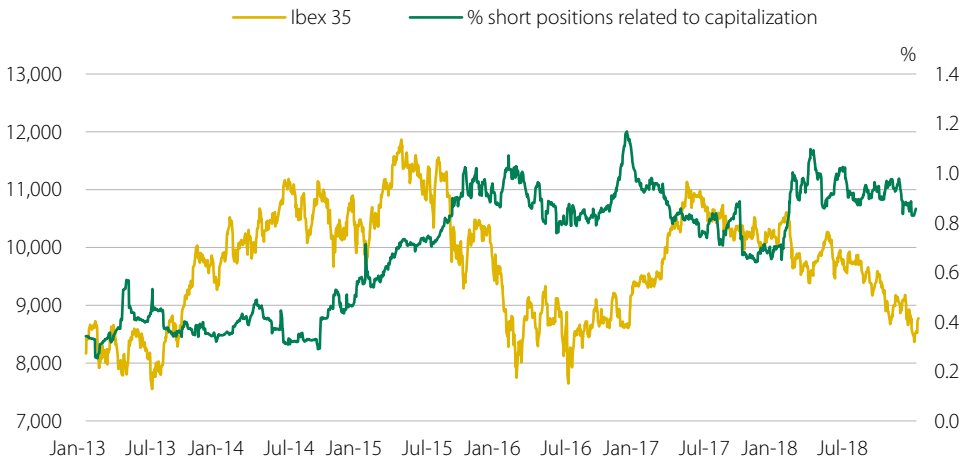
3 The non-financial sector (excl. real estate) comprises listed companies not included in the financial and real estate sector.

If the performance of returns in the last two quarters of 2018 is taken into account separately, it may be seen that the distribution of returns in the two sectors under consideration was worse in the fourth quarter of the year both in Spain and in the euro area, but with greater intensity in the former. Accordingly, around 75% of financial institutions belonging to the IGBM recorded a negative return of over 10% compared with 15% in the previous quarter, while this proportion stood at 43% and 14%, respectively, in euro area financial companies. The distribution of the returns of Spanish non-financial companies followed a similar, albeit much less marked, pattern: 66% of the total recorded contractions of over 10% in the fourth quarter compared with 28% in the third quarter. In the euro area, the curve showed similar movements to those in Spain (the lower panels of Figure 18).

The price-earnings (P/E) ratio of the Ibex 35 fell in the last quarter of the year to a value of 10.8, thus maintaining the downward trend that began in the middle of 2017 (when this ratio stood at 15). The level of this ratio at the end of 2018 – which is well below the historical average of this indicator (13.5) and which stands at lows since the second half of 2012 – is the result of prices falling and expected business earnings remaining the same. Similarly, other international benchmark indices show ratios lower than their historical averages. However, the Spanish ratio lies in a lower range in comparison with most of the other indices.

The aggregate position of short sales grew over most of the first half of the year. However, in the second half of the year, it fell slightly as the Ibex 35 and the indices of the leading international markets suffered worsening falls, in an environment of increasing economic and political uncertainties, but accompanied by continued growth in corporate earnings. Aggregate reported short positions were below 0.9% of total stock capitalisation at the end of the year. This figure was above the 0.7% at the start of the year, but lower than the 1% reached at the end of the first half of the year. As was the case during most of the year, particularly large short positions were recorded in Día (over 15% of the capital), which is currently undergoing a restructuring process, as well as, to a lesser extent, in OHL, Neinor Homes and Cellnex Telecom, which were also subject to significant short positions (between 7% and 9% of the capital). At year-end, there was no pattern to the distribution of short positions by sector, but rather by shares.

Ibex 35 performance and aggregate short positions FIGURE 19



Source: CNMV. Data to 31 December.

The CNMV will stop publishing aggregate short positions by share in 2019, applying the same criteria as other European regulators. Their regular publication was a particular feature of the Spanish market and, in addition to entailing asymmetric information compared with the practice of other European securities supervised by the other competent European authorities, their publication might lead to confusion given the application of the same threshold irrespective of the capitalisation of the company.

3.2.2 Activity: trading, issuance and liquidity

Trading of Spanish shares once again picked up in the final quarter of the year, following the significant fall recorded in the previous quarter, as the increase in volatility favours some types of trading, such as algorithmic and high-frequency trading (HFT). Despite this recovery, trading fell year-on-year by 5.3%. The competition from other trading venues continued to grow and the trend towards shifting trading abroad was maintained. Consequently, the relative weighting of the Spanish regulated market in the total trading of all securities listed on it fell once again. Following a temporary increase in the second quarter, BME's market share declined in the second half of the year, to the benefit of other trading venues, whose trading volume exceeded 40% of the total for the first time in the fourth quarter. For some Spanish shares, volume traded on other trading venues was greater than that traded on the national regulated market.

In the year as a whole, the traded volume of Spanish securities exceeded 930 billion euros, a similar figure to that recorded in 2017 (-0.2%), of which almost 580 billion corresponded to the Spanish regulated market (down 8.5%) and almost 351 billion (up 17.2%) to competing trading venues and markets. Equity trading on the latter has risen by over 104 billion euros in the last two years. In the year as a whole, the market share of these competing markets stood at 37.4% of trading subject to market rules, its all-time high, compared with 28.1% and 31.7% in 2016 and 2017, respectively.

Average daily trading on the electronic market stood at 2.06 billion euros in the fourth quarter, which was above the 1.8 billion euros of the previous quarter, but below the cumulative average of the whole year (2.29 billion euros). In the last two quarters of the year, the levels of trading in average daily terms were lower than in the first two quarters, which reflects the reduction in trading on BME in favour of its competitors.

With regard to the composition of the trading of Spanish shares abroad, the regulated market Cboe Global Markets (Cboe) – which operates through two different order books, BATS and Chi-X – with trading of almost 69 billion euros in the fourth quarter, accounted for almost 80% of trading abroad (see Table 17). In fact, its trading as a whole in 2018 grew by 44% on 2017 to over 278 billion euros and accounted for almost 80% of trading abroad, compared with 65% in 2017, although its spread between the two order books changed to the benefit of BATS. For its part, the Turquoise platform lost market share for the second year running, from 15% in 2017 to 12% in 2018. Similarly, the other operators, which had recorded high levels of growth in previous years, saw reductions both in the trading volume and in their market share to less than half compared with the previous year (8.4%) and they suffered most, together with BME, from the significant growth of Cboe.

Trading in Spanish shares listed on Spanish exchange[1]

TABLE 17

Million euros

	2015	2016	2017	2018	II 18	III 18	IV 18
Total	**1,161,482.8**	**877,413.3**	**932,771.9**	**930,495.5**	**281,299.7**	**193,976.4**	**220,663.7**
Listed on SIBE	1,161,222.9	877,402.7	932,763.1	930,486.5	281,296.3	193,974.0	220,661.6
BME	925,978.7	631,107.2	633,385.7	579,689.8	189,282.3	116,051.4	131,224.6
Chi-X	150,139.9	117,419.4	117,899.2	106,869.7	28,550.0	25,272.1	26,217.5
Turquoise	35,680.5	51,051.8	44,720.1	42,833.4	11,015.5	10,543.9	10,423.7
BATS	35,857.6	44,839.8	75,411.6	171,491.3	44,872.1	37,214.3	42,639.2
Other	13,566.2	32,984.5	61,346.5	29,552.2	7,576.4	4,892.3	10,156.5
Open outcry	246.1	7.5	8.1	8.2	3.1	2.0	2.1
Madrid	19.4	3.2	1.8	0.8	0.0	0.1	0.7
Bilbao	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Barcelona	219.1	4.1	6.3	7.4	3.1	1.9	1.4
Valencia	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Second market	13.8	3.2	0.7	0.8	0.3	0.4	0.0
Pro memoria							
Foreign shares traded on BME	12,417.7	6,033.0	6,908.0	3,517.1	805.6	841.5	717.0
Alternative stock market (MAB)	6,441.7	5,066.2	4,987.9	4,336.9	1,020.4	762.0	1,152.9
Latibex	258.7	156.7	130.8	151.6	33.2	31.6	43.0
ETFs	12,633.8	6,045.2	4,464.1	3,027.6	957.3	456.6	623.7
Total BME trading	957,990.5	648,418.9	649,885.3	590,732.0	192,102.2	118,145.5	133,772.4
% Spanish shares on BME vs. total Spanish shares	80.1	71.9	68.3	62.6	67.5	60.1	59.8

Source: Bloomberg and CNMV.

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

Unlike the Spanish market, in which fragmentation continues to grow to the point where 40% of trading subject to market rules is performed in other trading venues, there was a small reversal in this trend in the main European markets considered as a whole[13] in 2018. In some of them, the share of the regulated market once again grew to above 60% due to the fall in high-frequency trading, which is mostly performed on different trading venues outside the regulated markets where the securities are listed. In addition, reported trading that is not subject to market rules fell slightly to below 40% of total trading, which reveals the reluctance of operators to increase the transparency of their transactions and to redirect OTC trading towards regulated environments.

Equity issues made on national markets amounted to 3.59 billion euros in the fourth quarter (see Table 18), similar levels to those of the previous quarter and 72% up on

13 Including the major stock exchanges in the euro area and the London Stock Exchange.

the same quarter of 2017. Similarly, the volume of issues in the year as a whole amounted to 11.2 billion euros, almost one third of the amount issued throughout 2017 and the lowest figure for the last three years. This fall was the result of capital increases raising funds, which fell to 7.26 billion euros, almost 19 billion euros less than in 2017, when a capital increase by Banco Santander took place which alone exceeded 7.1 billion euros.

With regard to the composition of issues over the fourth quarter, it is worth noting the amount of capital increases with the format of accelerated book builds, in which one single operation – that of Amrest Holding – accounted for over half of the total amount of funds raised (1.91 billion euros). Furthermore, in spite of the current complex situation in the markets and the unfavourable evolution of share prices, two companies – one SOCIMI (Spanish REIT company) and one energy company – went public by means of two primary offerings for a total effective amount of 200 million euros. In addition, over 2018 there was one single public offering of shares, in an amount of 645 million euros, corresponding to a real estate company, the equivalent of only one fifth of the almost 3 billion euros raised in the seven public offerings of shares that took place in 2017. It should be noted that, although several companies showed their interest in going public in 2018, the unfavourable performance of stock markets led to the cancellation or delay of these plans, particularly the cancellation of the operation of the second largest oil company in the country (Cepsa).

Ibex 35 liquidity conditions, as measured by the bid-ask spread, held relatively stable in the final quarter of the year, in line with the rest of the year. Nevertheless, the spread inched up slightly in the period to an average of 0.056%, a figure similar to those recorded in previous quarters (0.06% in the first, 0.055% in the second and 0.05% in the third) and the average for the year (0.056%), although well below the historical average (0.093%). Similarly, its value fluctuated over the year between the 0.104% recorded in January and the 0.031% in July.

Capital increases and public offerings

TABLE 18

	2016	2017	2018	I 18	II 18	III 18	IV 18
NUMBER OF ISSUERS[1]							
Total	**45**	**47**	**67**	**15**	**12**	**17**	**23**
Capital increases	45	45	66	14	12	17	23
Public offers for subscription	3	3	2	0	0	0	2
Public offering of shares	2	4	1	1	0	0	0
NUMBER OF ISSUES[1]							
Total	**81**	**91**	**78**	**22**	**14**	**17**	**25**
Capital increases	79	84	77	21	14	17	25
Public offers for subscription	4	4	2	0	0	0	2
Public offering of shares[2]	2	7	1	1	0	0	0
CASH AMOUNT[1] (million euros)							
Capital increases raising funds	**13,846.7**	**25,787.7**	**7,255.6**	**1,898.9**	**426.1**	**1,667.4**	**3,263.2**
With pre-emptive subscription right	6,513.3	7,831.4	754.2	574.7	63.0	0.0	116.5
Without pre-emptive subscription right	807.6	956.2	200.1	0.0	0.0	0.0	200.1
Accelerated book builds	0.0	821.8	1,999.1	0.0	0.0	89.0	1,910.1
Capital increases against non-monetary considerations[3]	1,791.7	8,469.3	2,997.7	1,179.1	0.0	1,263.4	557.3
Capital increases by debt conversion	2,343.9	1,648.8	388.7	1.6	223.9	153.3	9.9
Other increases	2,390.2	6,060.2	913.2	143.5	139.2	161.7	469.4
Bonus issues[4]	**5,898.3**	**3,807.3**	**3,939.7**	**1,362.8**	**133.1**	**2,120.3**	**323.5**
Of which, scrip dividend	5,898.3	3,807.3	3,915.2	1,362.8	133.1	2,120.3	299.0
Total capital increases	**19,745.1**	**29,595.0**	**11,195.3**	**3,261.7**	**559.2**	**3,787.8**	**3,586.7**
Public offering of shares	**506.6**	**2,944.5**	**645.7**	**645.7**	**0.0**	**0.0**	**0.0**
***Pro memoria:* MAB transactions**[5]							
Number of issuers	15	13	9	1	3	3	2
Number of issues	21	15	12	3	3	4	2
Cash amount (million euros)	219.7	129.9	164.5	13.2	95.7	52.3	3.4
Capital increases	219.7	129.9	164.5	13.2	95.7	52.3	3.4
Of which, public offers for subscription	9.7	17.1	0.0	0.0	0.0	0.0	0.0
Public offering of shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: BME and CNMV.

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

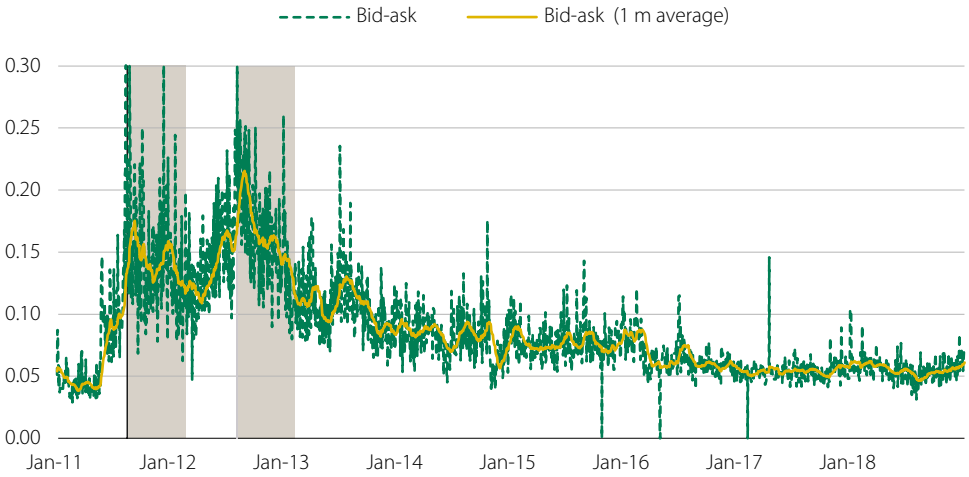
2 Transactions linked to the exercise of green shoe options are separately accounted for.

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

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

5 Transactions not registered with the CNMV.

Ibex 35 liquidity. Bid-ask spread FIGURE 20



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

3.2.3 Results

Non-financial listed companies obtained aggregate profit of 10.41 billion euros in the first half of 2018, 45% down on the same period of 2017. This performance was uneven between sectors and companies as, if the unfavourable performance of four companies[14] (out of a total of 118) is discounted, the total aggregate profit would have grown by 12.6%, which would be in line with the buoyancy of the domestic economy. By sector, the largest increases took place in retail and services companies, whose profits[15] grew in the first half of the year by 23.7% to over 5.3 billion euros, and energy companies, whose profits[16] rose by 14.6% to 4.5 billion euros. The profit of industrial companies grew by 5% in the first few months of 2018 to 2.7 billion euros, while the profit of construction and real estate companies fell from around 2.5 billion euros in 2017 to almost 1.2 billion euros in 2018. In this last case, two companies (OHL and Ferrovial) were responsible for over 90% of the fall in the sector's profits.

14 Naturgy (energy), Abengoa (retail and services), OHL and Ferrovial (both belonging to the construction and real estate services sector).

15 Discounting Abengoa's results. Its inclusion gives rise to a fall of 43% in the sector's aggregate profits.

16 Discounting Naturgy's results. Its inclusion gives rise to a fall of 71% in the sector's aggregate profits.

Profit by sector: non-financial listed companies

TABLE 19

Million euros

	Operating profit (loss)		Profit (loss) before tax		Consolidated profit (loss) for the year	
	1H17	1H18	1H17	1H18	1H17	1H18
Energy	6,400	3,104	5,712	1,735	4,646	1,331
Industry	3,771	3,770	3,407	3,512	2,572	2,700
Retail and services	7,121	8,345	11,486	7,368	9,192	5,205
Construction and real estate	3,061	2,697	2,543	1,984	2,479	1,194
Adjustments	18	21	14	21	14	17
Aggregate total	**20,335**	**17,895**	**23,134**	**14,578**	**18,875**	**10,412**

Source: CNMV.

The debts of non-financial listed companies rose by 3.1% in the first half of 2018 to over 237 billion euros (see Table 20). This increase was due to the significant rise in the level of debts held by construction and real estate companies (close to 9 billion euros), which were once again mostly concentrated in one single company (ACS). In the industry and retail and services sectors, the increase in the level of debt was much smaller (below 250 million euros in both cases), while energy companies recorded a reduction in debt (-2.6%). The aggregate leverage ratio, measured as the ratio between debt and equity, rose from 0.97 in June 2017 to 1.03 in June 2018, with a notable increase in the ratio in companies belonging to the construction and real estate sector (from 1.13 to 1.52). The lowest leverage was recorded in industrial companies (around 0.60) and those linked to the energy business (0.73).

Gross financial debt by sector: listed companies

TABLE 20

Million euros

	Debts		Debt / Equity		Debt / operating profit[1]	
	1H17	1H18	1H17	1H18	1H17	1H18
Energy	79,830	77,760	0.75	0.73	6.24	12.53
Industry	19,559	19,801	0.57	0.59	2.59	2.63
Retail and services	82,117	82,351	1.51	1.55	5.77	4.93
Construction and real estate	48,452	57,273	1.13	1.52	7.92	10.62
Adjustments	104	144	–	–	–	–
Aggregate total	**229,855**	**237,041**	**0.97**	**1.03**	**5.65**	**6.62**

Source: CNMV.

1 The ratio is calculated with the annualised operating profit.

II Reports and analysis

Corporate governance and trading with derivatives

Sergio García (*)

(*) Sergio García, a lecturer at the Universitat de les Illes Balears [University of the Balearic Islands], received the CNMV award for the best paper on securities market regulation at the 26th Finance Forum (Santander, July 2018).

The substantial growth in shareholder activism and the rise in the volume of trading in derivative instruments over recent years – particularly in the United States – are closely related phenomena. In addition to the traditional attention attracted by stock market liquidity, regulators are increasingly focusing on the manner in which derivative markets affect shareholder activism. Surprisingly, such an important issue has received little attention from academic literature. This brief article analyses the need and importance of corporate governance in the current financial world and reviews the academic literature that relates financial markets with shareholder activism. Finally, it focuses on the specific case of stock options markets and their influence on the incentives of shareholders to intervene in a company, analysing part of the author's own research.

1 Introduction

The separation of ownership and control is one of the main problems of modern corporations (Berle and Means, 1932).[1] When management does not have any incentives to act in the shareholders' best interests, it may deviate from the optimal objective of maximising the value of the company. This is the case, for example, when a manager does not work hard enough, earns an excessive salary or wastes the entity's resources in bad investments (such as buying an expensive and unnecessary company jet). The seriousness of this agency problem leads to numerous corporate governance mechanisms aimed at protecting a company's shareholders and other stakeholders against directors avoiding their responsibilities.

One of the most natural ways to guarantee that the incentives of management are in line with those of shareholders is simply by turning them into another of the company's shareholders. However, even though this provides the manager with a more convex payment (and, therefore, one which is more aligned with that of the shareholders), in practice most directors do not have a sufficiently significant holding in the company's capital for this to be an effective governance mechanism. Furthermore, although the trend for directors to have large holdings may reduce agency problems with regard to shareholders, it may also exacerbate conflicts with other groups of rights holders of the entity, such as debtholders (as a result of taking on excessive risks). The result is that large shareholders (blockholders or controlling shareholders) play a key role in the governance of a corporation as their significant holdings provide them with sufficient incentives to bear the high cost of controlling the director. The presence of controlling shareholders in companies is very common, even in markets with diffuse ownership structures, such as the United States. Holderness (2009)[2] reports that 96% of US companies have at least one blockholder, which owns at least 5% of the company's shares. It is therefore extremely important in the contemporary world to know the preferences and corporate governance mechanisms able to hinder or facilitate control of the director by these blockholders.

1 Berle, A. and Means, G. (1932). *The modern corporation and private property*. Macmillan, New York, p. 45.

2 Holderness, C.G. (2009). "The myth of diffuse ownership in the United States". *The Review of Financial Studies,* vol. 2, No. 4, pp. 1,377-1,408.

2 Governance of blockholders and the securities market

Blockholders have two routes for exercising corporate governance. On the one hand, there is direct intervention or "voice governance". Blockholders can intervene in corporate decisions by presenting, for example, a proposal suggesting a change in the corporate investment policy or in directors' remuneration. They can also express their disagreement either by voting against the managers' proposals in the general meeting or by writing an open letter to the management. In addition, there is the so-called "exit" or "voting with their feet" mechanism. When directors do not make enough effort and do not fulfil their obligations, shareholders may sell their shares in the market, thus reducing prices and punishing the bad director.

The "exit" will reduce the company's value, not only because the sale of a large shareholding will in itself lower the price, but also because the sale by a major shareholder issues a negative signal to other market participants. Given that managers are heavily influenced by the price of "their" share (see Holmström and Tirole, 1993; Faure-Grimaud and Gromb, 2004; Chen, Goldstein and Jiang, 2007),[3] the threat of an "exit" will be an effective governance mechanism for disciplining the director.

The effectiveness of both mechanisms largely depends on the characteristics of each company in the market, which has given rise to extensive literature studying the relationships existing between securities markets and corporate governance. For example, share liquidity can encourage governance by shareholders by both the "voice" and the "exit" mechanisms. In the "voice" mechanism, greater liquidity allows a large shareholder to acquire shares at a price that does not yet fully reflect the increase in the company's future value resulting from its governance activities, which thus increases the benefits of intervention (Maug, 1998; Kahn and Winton, 1998).[4] Alternatively, high liquidity also reduces the cost of selling a large holding in the market (Coffee, 1991; Bhide, 1993),[5] which will facilitate the "exit" and will thus raise the disciplinary power of the "exit threat".

These works highlight the importance of financial markets for mitigating agency problems, making them the traditional focus of attention for regulators in their work of protecting shareholders' interests. A basic example is the case of "decimalisation". In an attempt to increase market liquidity and align the United States with international practices, the US Securities and Exchange Commission (SEC) ordered that all stock market price quotes in the country should convert to decimals (instead of being expressed as sixteenths) by 9 April 2001. Several studies have investigated

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3 Holmström, B. and Tirole, J. (1993). "Market liquidity and performance monitoring". *Journal of Political Economy*, pp. 678-709; Faure-Grimaud, A. and Gromb, D. (2004). "Public trading and private incentives". *Review of Financial Studies,* No. 17, pp. 985-1,014; Chen, Q., Goldstein, I. and Jiang, W. (2007). "Price informativeness and investment sensitivity to stock price". *Review of Financial Studies,* No. 20, pp. 619-650.

4 Maug, E. (1998). "Large shareholders as monitors: is there a trade-off between liquidity and control?". *The Journal of Finance* No. 53, pp. 65-98; Kahn, C. and Winton, A. (1998). "Ownership structure, speculation, and shareholder intervention". *The Journal of Finance,* No. 53, pp. 99-129.

5 Coffee, J.C. (1991). "Liquidity versus control: The institutional investor as corporate monitor". *Columbia Law Review,* No. 91, pp. 1,277-1,368; Bhide, A. (1993). "The hidden costs of stock market liquidity". *Journal of Financial Economics,* No. 34, pp. 31-51.

the case of decimalisation – and, therefore, market liquidity – as a powerful driver of shareholder activism (see Norli, Ostergaard and Schindele, 2015; Edmans, Fang and Zur, 2013).[6]

However, the financial world has undergone many changes over the last two decades due to the emergence and growth of derivative products. Financial derivatives have taken on significant importance in the world today. For example, the volume traded on US stock options markets rose from 672 million contracts in 2000 to over 3.81 billion contracts up to November 2018.[7] The widespread use of these instruments by investors has new effects on the manner in which large shareholders influence the governance of a corporation, many of which are still unknown.

3 Change in the regulator's focus of attention

The use of financial derivatives has led to some questionable behaviour by activist investors. A frequently cited example is the acquisition in October 2010 of a controlling package of J.C. Penney by Pershing Square Capital Management (Bill Ackman) and Vornado Realty Trust (Steven Roth). These investors were convinced that the value of J.C. Penney 's share could, with a strategy for transforming the company, rise from 32 dollars (the price at that time) to 60 dollars. Therefore, through derivative instruments, they obtained over 25% of the capital rights of J.C. Penney before any public announcement was made, by applying a simple tactic. Firstly, Pershing Square acquired shares in the open market up to a 4.9% stake in the company, just below the 5% threshold that requires public disclosure. Pershing Square and Vornado then traded derivatives until they quickly accumulated a stake of 27%, which they did during the window of 10 days between the time the 5% threshold was crossed – at the end of September 2010 – and the public disclosure of all their positions to the SEC by filing a Schedule 13D. The average market price of J.C. Penney shares in those 10 days stood at 28.31 dollars, while on the first full day of trading following the public announcement, the price rose to 33.12 dollars. By trading with derivatives and hiding their internal activities from the public, Pershing Square and Vornado saved huge sums of money, which caused an expropriation of value from other shareholders, who sold their shares without being aware of the situation. The intentions of these two large shareholders to obtain control were clear, as was demonstrated shortly afterwards by Bill Ackman and Steven Roth joining the board of J.C. Penney.

The habitual use of these tactics – Pershing Square repeated this procedure with Fortune Brands – by activist investors has attracted the attention of the regulatory bodies of financial derivatives markets. This type of instrument has long given rise to heated regulatory debate on the use that should be made of them by shareholders. A number of voices oppose the use of derivatives by large investors, arguing that

6 Norli, Ø., Ostergaard, C. and Schindele, I. (2015). "Liquidity and shareholder activism". *Review of Financial Studies,* No. 28, pp. 486-520; Edmans, A., Fang, V.W. and Zur, E. (2013). "The effect of liquidity on governance". *Review of Financial Studies,* vol. 26, No. 6, pp. 1,443-1,482.

7 Figures from the Options Clearing Corporation. Available at https://www.theocc.com/webapps/historical-volume-

allowing these practices poses a threat to market transparency. In his speech on "Activism and Short-Termism" delivered at the 21st Annual Stanford Directors' College (23 June 2015), SEC Commissioner Daniel Gallagher stated that: "[...] derivatives and other synthetic forms of ownership can mask the size of the stake. As a result, the purpose of the rule – to alert investors in securities markets to potential changes in corporate control – is not being served".[8]

Most of the relevant issues on the use of financial derivatives by influential investors are summarised in the Petition for Rulemaking to the SEC submitted by the law firm Wachtell, Lipton, Rosen & Katz (2011).[9] This petition, motivated by the "narrow definition" of beneficial ownership, analyses the different problems that arise from the use of derivative markets by investors during the 10-day window until mandatory disclosure by filing Schedule 13D. It is clear that trading derivatives during this window may reduce market transparency, but it may also **facilitate market manipulation and abusive tactics.** If investors are able to hide the volume of their positions by using derivatives, it is more difficult to assess a shareholder's economic exposure and ability to control. Derivatives facilitate the decoupling of economic ownership from voting control, also called **empty voting**, which can encourage investors not to act in the best interests of a company.

There are many examples that illustrate the negative consequences of this decoupling for society. A good example is the case of Perry Corp., an investment fund, and Mylan Laboratories. At the end of 2004, Mylan undertook to buy King Pharmaceuticals at a substantial premium. Perry Corp. owned 7 million shares of King, but agreed to help Mylan obtain shareholder approval for the merger by acquiring 9.9% of Mylan's shares. However, Perry fully hedged the market risk of Mylan's position using derivatives so that it obtained a 9.9% voting stake in Mylan without suffering economic exposure. In short, Perry had a negative (positive) economic interest in Mylan (King). In other words, the higher the (extra) price Mylan was willing to pay for the shares of King, the higher Perry's profits would be.

4 Derivatives and corporate governance

There are few academic studies that formally investigate the consequences of financial derivatives on corporate governance incentives and investor actions and those which do exist mainly address the issue from a theoretical perspective. It is surprising that there is so little academic literature on this issue if we bear in mind the potential size of the problem that derivatives might generate. Even so, the results are not conclusive even from a theoretical point of view. On the one hand, Christoffersen, Geczy, Musto and Reed (2007),[10] as well as Kalay and Pant (2009)[11] argue

8 Gallagher, D. (2015). "Activism, short-termism, and the SEC". Speech, annual meeting of the Stanford Directors' College, 23 June.

9 Wachtell, Lipton, Rosen & Katz (2011). Petition for Rulemaking under Section 13 of the Securities Exchange Act of 1934.

10 Christoffersen, S.E., Geczy, C.C., Musto, D.K. and Reed, A.V. (2007). "Vote trading and information aggregation". *The Journal of Finance*, No. 62, pp. 2,897-2,929.

11 Kalay, A. and Pant, S. (2009). *Time varying voting rights and the private benefits of control.* Working paper.

that derivatives markets facilitate the exchange of votes between shareholders, which results in more effective voting results or shareholder control being more efficient. In the presence of derivatives, votes can be transferred from less informed investors to more informed investors as the latter will be more willing to vote correctly and will have a greater capacity to do so. Another alternative is the one presented by Brav and Mathews (2011):[12] voting is more effective when it is relatively expensive to separate shares and votes on the record date. Empty voting will decrease the efficiency of voting processes when this separation is cheaper, as is the case in the presence of derivatives. Similarly, Dekel and Wolinsky (2011)[13] theoretically explore the consequences of allowing votes and shares to be traded separately in corporate control contests. These researchers analysed several cases and concluded that vote buying is harmful for the efficiency of the process in all scenarios.

Although these studies focus directly on the impact of derivatives on the trading of votes, there are still certain unresolved key issues with regard to the effects of derivatives on shareholder governance incentives. For example, there is no evidence of the net influence of derivatives on corporate governance incentives. Neither is it known whether, on average, the existence of a market for the derivatives on a company's shares promotes empty voting among investors. While analysing net or average effects may be a simplistic approximation of reality, it is the necessary first step for correctly tackling this issue from a regulatory perspective. Recent studies (see García, 2018)[14] attempt to offer an answer to this and other questions.

5 The case of stock options

Financial derivatives have taken on enormous importance in today's financial world and the use of stock options by investors is a perfect example of this. Although the first theoretical models for the pricing of options were published in the 1970s (Black and Scholes, 1973; Merton, 1973),[15] it was not until the 2000s that the use of options became widespread among investors. Figure 1 shows the exponential growth in the total volume of stock options traded on the main US exchanges.

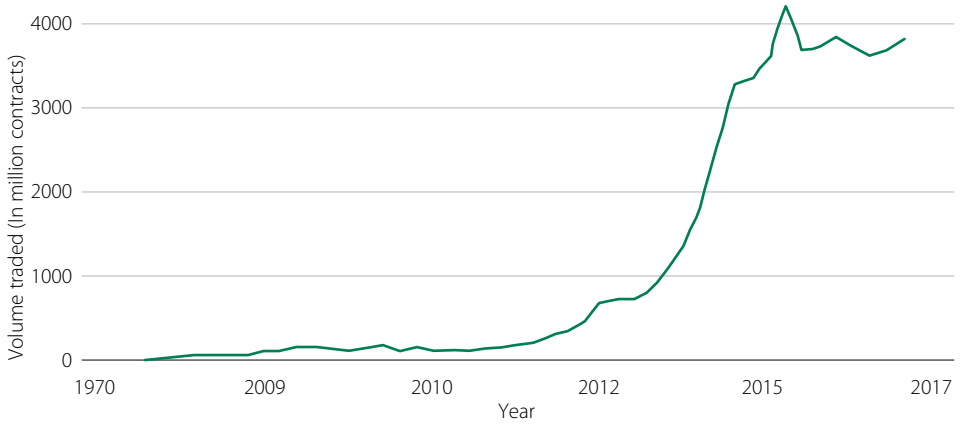
12 Brav, A. and Mathews, R.D. (2011). "Empty voting and the efficiency of corporate governance". *Journal of Financial Economics*, No. 99, pp. 289-307.

13 Dekel, E. and Wolinsky, A. (2011). "Buying shares and/or votes for corporate control". *The Review of Economic Studies,* No. 79, pp. 196-226.

14 García, S. (2018). *The role of options markets in shareholder activism*. Working paper.

15 Black, F. and Scholes, M. (1973). "The pricing of options and corporate liabilities". *The Journal of Political Economy,* No. 81, pp. 637-654; Merton, R.C. (1973). "Theory of rational option pricing". *Bell Journal of Economics,* No. 4, pp. 141-183.

Volume of stock options traded FIGURE 1



Source: Options Clearing Corporation (OCC).

Shareholder activism in the United States has experienced similar growth over recent years. Although activist investors "have been around since the 1980s, [...] the scale of their insurrection in America is unprecedented" (*The Economist*, 2015). This common trend raises the question of whether options markets and shareholder activism are interrelated.

As developed in García (2018),[16] stock options markets can have a twofold effect on shareholders' incentives for activism. On the one hand, having more active options markets attracts informed investors, whose trading increases the informative capacity of the share price (Cao, 1999; Chakravarty, Gulen and Mayhew, 2004; Pan and Poteshman, 2006),[17] which acts as an effective device for disciplining management (Holmström and Tirole, 1993; Dow and Gorton, 1997; Faure-Grimaud and Gromb, 2004; Chen *et al.*, 2007).[18] This, in turn, makes shareholders less willing to direct their activism through the "voice" mechanism, in favour of the "exit" or "voting with their feet" mechanism (Edmans, 2009; Admati and Pfleiderer, 2009; Edmans and Manso, 2011; Edmans *et al.*, 2013).[19]

In addition to this change in the way in which shareholders exercise activism, the existence of an active options market may encourage more undesired behaviour among investors. Options can be used to mitigate the harmful impact on prices

16 *Op. cit.*

17 Cao, H.H. (1999). "The effect of derivative assets on information acquisition and price behavior in rational expectations equilibrium". *Review of Financial Studies,* No. 12, pp. 131-163; Chakravarty, S., Gulen, H. and Mayhew, S. (2004). "Informed trading in stock and options markets". *The Journal of Finance,* No. 59, pp. 1,235-1,257; Pan, J. and Poteshman, A.M. (2006). "The information in option volume for future stock prices". *Review of Financial Studies,* No. 19, pp. 871-908.

18 Holmström and Tirole (1993), *op. cit.*; Dow, J. and Gorton, G. (1997). "Stock market efficiency and economic efficiency: Is there a connection?". *The Journal of Finance,* No. 52, pp. 1,087-1,129; Faure-Grimaud and Gromb (2004), *op. cit*; Chen *et al.* (2007), *op. cit.*

19 Edmans, A. (2009). "Blockholder trading, market efficiency, and managerial myopia". *The Journal of Finance,* No. 64, pp. 2,481-2,513; Admati, A.R. and Pfleiderer, P. (2009). "The 'Wall Street walk' and shareholder activism: Exit as a form of voice". *Review of Financial Studies,* No. 22, pp. 2,645-2,685; Edmans, A. and Manso, G. (2011). "Governance through trading and intervention: A theory of multiple blockholders". *Review of Financial Studies,* No. 24, pp. 2,395-2,428.; Edmans, A. *et al.*(2013). *Op. cit.*

suffered by an investor when selling a large stake in the market. As exit costs decrease, a large shareholder may refrain from initiating an intervention that will increase value and may simply leave the company (Coffee, 1991; Bhide, 1993).[20] In addition, shareholders may also use options as hedges against the exposure they take on through their shares. In this regard, the presence of an "insurance" market may reduce monitoring incentives for investors. Bolton and Oehmke (2011)[21] suggest that when debtholders obtain insurance against default, for example through credit default swaps (CDS), their monitoring efforts are less intense. Finally, options facilitate the separation of economic ownership and voting rights, which might exacerbate cases of **empty voting** (Hu and Black, 2006, 2007).[22]

However, there is also a more optimistic outlook with regard to the effect of options markets on shareholders' incentives for (good) activism. The costs are the main reason why activism is not seen more often in practice, particularly the amount of these costs. Activists that back campaigns have to pay significant costs for activities that included researching the company, engaging legal advice and marketing campaigns, which may cost millions of dollars. Gantchev (2013)[23] calculates that the average cost of an activism campaign that ends in a proxy fight stands at 10.71 million dollars. As analysed previously, the academic literature has presented several mechanisms that help the investor to offset these costs, mainly relating to market liquidity (Maug, 1998; Kahn and Winton, 1998).[24] Consistent with these mechanisms, options markets may be a good alternative to share trading through which large shareholders planning an intervention will be able to maximise their profits and cover the costs of their activism. This relationship, which is *a priori* ambiguous, deserves some attention from an empirical perspective, which is addressed in more detail in García (2018).[25] The analysis begins by recognising that any potential effect of options will depend on whether the market has sufficient volume – as incentives for informed investors are greater in markets with high volume – and that illiquid markets restrict both informed and non-informed investors (Kyle, 1985; Admati and Pfleiderer, 1988; Pagano, 1989).[26] The empirical sample of the study contains representative information on shareholders' activism and their behaviour when voting, as well as options trading data and firm-level characteristics for the period 2003-2014.[27]

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20 Coffee (1991), *op. cit.*; Bhide (1993), *op. cit.*

21 Bolton, P. and Oehmke, M. (2011). "Credit default swaps and the empty creditor problem". *The Review of Financial Studies,* No. 24, pp. 2,617-2,655.

22 Hu, H.T. and Black, B. (2006). "The new vote buying: Empty voting and hidden (morphable) ownership". *Southern California Law Review,* No. 79, p. 811-908; Hu, H.T. and Black, B. (2007). "Hedge funds, insiders, and the decoupling of economic and voting ownership: Empty voting and hidden (morphable) ownership". *Journal of Corporate Finance,* No. 13, pp. 343-367.

23 Gantchev, N. (2013). "The costs of shareholder activism: Evidence from a sequential decision model". *Journal of Financial Economics,* No. 107, pp. 610-631.

24 Maug (1998), *op. cit.*; Kahn and Winton (1998), *op. cit.*

25 García (2018), *op. cit.*

26 Kyle, A.S. (1985). "Continuous auctions and insider trading". *Econometrica,* pp. 1,315-1,335; Admati, A.R. and Pfleiderer, P. (1988). "A theory of intraday patterns: Volume and price variability". *Review of Financial Studies*, No. 1, pp. 3-40; Pagano, M. (1989). "Trading volume and asset liquidity". *The Quarterly Journal of Economics,* No. 104, pp. 255-274.

27 The data sources are those usually used in financial literature and include Institutional Shareholder Services (ISS), Thomson Reuters databases and CRSP-Compustat. Further information on data and methodology can be found in García (2018).

The first aim of the empirical analysis is to study the contribution of liquidity in the options market to the likelihood that a company will experience a case of activism. In other words, are companies with more liquid options markets more or less likely to experience a proxy contest or receive a shareholder proposal during the next financial year? The results are in line with the thesis that options markets encourage shareholder activism. Table 1 contains estimates based on a probit (probability per unit) model of the probability of a company experiencing a proxy contest or receiving a shareholder proposal, two of the most common examples of direct shareholder activism. The effect of options markets is captured through the variable of annual dollar options trading volume (Roll, Schwartz and Subrahmanyam, 2009; Blanco and Wehrheim, 2017).[28] These results demonstrate that options markets have a significant effect on the probability of future activism, even after taking into account time effects and including a full set of known determinants of activism, such as company performance, share volatility, market liquidity and corporate governance conditions. A change from the 10th to the 90th percentile in the volume of options corresponds to an increase of almost 62% in the probability of activism in the sample.

This effect is of a significant size, and close to that found in studies on stock market liquidity (see Norli *et al.*, 2015),[29] which underscores the importance of derivatives markets for investors with activist objectives.

Options volume and activism TABLE 1

	Proxy contest *t*		Shareholder prop. *t*	
	(1)	(2)	(3)	(4)
Ln(OptVol)(*t*−1)	0.055**		0.087***	
	(0.021)		(0.010)	
Ln(OptVol)(*t*−2)		0.050**		0.089***
		(0.022)		(0.009)
Observations	33.736	33.736	33.736	33.736
Pseudo R^2	0.074	0.074	0.323	0.323
Change in probability of activism when OptVol is increased from the 10th to the 90th percentile (marginal eff. at means)	0.21%	0.18%	3.42%	3.38%
(p-value Wald diff. test)	(0.03)	(0.05)	(0.00)	(0.00)
Change relative to sample probability of activism	61.76%	52.94%	40.01%	39.51%

Source: García (2018). Notes: This table presents probit regression estimates of firm-level shareholder activism events (proxy contest and shareholder proposal) on one and two-year lagged options volume and a set of determinants of shareholder activism. All regressions include year dummies. Robust standard errors are in brackets. The sample period is 2003-2014. ***, ** and * denote significance at 1%, 5% and 10%, respectively.

As mentioned above, direct activism – as in the case of a proxy contest – is difficult to observe in practice. In addition, there are other measures to be explored that

28 Roll, R., Schwartz, E. and Subrahmanyam, A. (2009). "Options trading activity and firm valuation". *Journal of Financial Economics,* No. 94, pp. 345-360; Blanco, I. and Wehrheim, D. (2017). "The bright side of financial derivatives: Options trading and firm innovation". *Journal of Financial Economics,* No. 125, pp. 99-119.

29 Norli *et al.* (2015), *op. cit.*

capture the level of shareholder participation in corporate governance. One of those which is most closely related to the level of alignment between investors and managers is the percentage of shareholder votes that disagree with management recommendations. Even though lower shareholder support in the election of directors rarely affects the results of the election, lower confidence in the management's recommendations is closely related to a higher probability of the CEO being replaced and a reduction in their remuneration (Cai, Garner and Walkling, 2009; Iliev and Lowry, 2014).[30] A second important issue is therefore whether the presence of a stock options market affects the manner in which shareholders vote and, particularly whether the options facilitate greater or lesser alignment with management's voting recommendations. Table 2 contains the results of an ordinary least squares (OLS) analysis of the level of shareholder support for managers, measured as the percentage of votes in favour of managerial proposals.

The analysis also includes a set of determinants of shareholder support for directors (as in Cai *et al.*, 2009),[31] as well as time and industry fixed effects. In general, the significant coefficients of options volume suggest that derivative markets further encourage dissenting voting among shareholders in several types of elections, but particularly in "other elections", which typically include concepts such as say-on-pay or other corporate governance provisions.

Voting for directors TABLE 2

	Average vote for directors (%)		
	Director elections	Other elections	All elections
	(1)	(2)	(3)
$Ln(OptVol)_{t-1}$	-0.072**	-0.242***	-0.114***
	(0.035)	(0.077)	(0.034)
Observations	10.150	4.885	10.206
Adjusted R^2	0.585	0.119	0.408

Source: García (2018). Notes: This table presents OLS regression estimates of the average shareholder vote for management-sponsored proposals on one-year lagged options volume and a set of known determinants of shareholder support to management. All regressions include year and industry (four-digit sic code) dummies. Robust standard errors are in brackets. The sample period is 2003-2014. ***, ** and * denote significance at 1%, 5% and 10%, respectively.

Overall, these results are in line with the most optimistic perspective of options markets: as promoters of shareholder activism (always under the assumption that shareholder intervention increases the share value). Further analysis reveals that this increase in incentives to shareholders in exchange for costly activism is consistent with the thesis that shareholders use the options market to increase the net benefits resulting from their intervention. The effect of options on incentives for activism is lower in overvalued companies, in which shareholders are able to obtain smaller gains from trading in the options market.

30 Cai, J., Garner, J.L. and Walkling, R.A. (2009). "Electing directors". *The Journal of Finance*, No. 64, pp. 2,389-2,421; Iliev, P. and Lowry, M. (2014). "Are mutual funds active voters?". *Review of Financial Studies,* No. 28, pp. 446-485.

31 Cai *et al.* (2009), *op. cit.*

The fact that an investor may obtain greater benefits as a result of being informed and intervening in the company's governance is also reflected in the manner in which the investor votes. One of the main ways in which investors can express their support for a company is through their voting. Unfortunately, most investors (including institutional investors) hold small stakes and therefore the full process of research and evaluation of each issue submitted to a vote at the general meeting entails an unbearable cost, which may lead to inefficient voting. An entire industry has grown up as a result of this problem: proxy advisory firms. These firms issue voting recommendations to shareholders after performing a – supposedly complete – assessment of each item to be voted on, bearing in mind the personalised objectives of each one of their clients. Confidence in these recommendations has become widespread, which makes them one of the main areas of attention for the SEC in its struggle to give meaning to activism and to protect shareholders: "Unfortunately, [...] too many institutional investors uncritically vote following the proxy advisory firm's recommendations. And proxy advisory firms in turn seem to have done little to address the factors that have given rise to poor research, erroneous recommendations, and conflicting advice" (Gallagher, 2015).[32]

Iliev and Lowry (2014)[33] study the use of the recommendations issued by Institutional Shareholder Services (ISS), one of the leading advisory firms, by mutual funds. Their research shows how funds with higher net benefits from the vote (or lower costs of assessing each proposal to be voted on) tend to more often vote in a manner different from the ISS recommendation. This dissent from ISS is more pronounced in issues classified as blanket recommendations – recommendations with no value whatsoever – which reflects more informed voting behaviour by these mutual funds. Similarly, the same behaviour is seen in companies that have an active options market: shareholders are less likely to vote in agreement with ISS, which is particularly true in the case of blanket recommendations (García, 2018). All this evidence seems to be in line with the idea that the options market encourages shareholders to research and be more informed about the consequences of different proposals for the company.

Although these results appear to highlight a positive aspect of financial derivatives, the exact potential objectives of the activism promoted by options remains unclear: specifically, whether options induce activism with value maximisation proposals or whether, in contrast, they encourage empty voting behaviour among investors. Garcia (2018)[34] analyses the reactions of the stock market after approval (or rejection) of shareholder proposals motivated by considerable trading activity in the options market in the previous quarter. As maintained by Cuñat, Gine and Guadalupe (2012),[35] the analysis focuses on "close votes" – proposals that are approved or rejected by a small margin of 5% – as this is the group whose behaviour is least likely to be discounted by the market and, therefore, potentially less susceptible to bias. The results suggest that, on average, shareholder proposals preceded by greater activity in the market are not associated with lower subsequent share performance,

32 Gallagher (2015), *op. cit.*

33 Iliev and Lowry (2014), *op. cit.*

34 García (2018), *op. cit.*

35 Cuñat, V., Gine, M. and Guadalupe, M. (2012). "The vote is cast: The effect of corporate governance on shareholder value". *The Journal of Finance,* No. 67, pp. 1,943-1,977.

which contradicts the predictions of empty voting theories. In fact, in the most dubious case of shareholder proposals not backed by a positive recommendation by ISS, market reactions are highly positive.

6 Outlook and debates for the future

These results, taken together, point to an effect of derivatives that can only be described as "positive" in the corporate governance activities performed by shareholders. They do, however, seem to contradict the observations of real-life examples, such as the case of Perry Corp. vs. Mylan Laboratories. It is therefore important to clarify that the results obtained in the García (2018)[36] study are average effects and that options markets may perfectly well catalyse undesired consequences in specific circumstances. In fact, identifying these scenarios is one of the most vital points to be addressed in future research. For example, although options markets may encourage the shareholders of companies in good financial health to take initiatives that maximise value, the incentives may be reversed in the case of companies in pre-bankruptcy situations, where incentives for expropriation may be intensified.

However, it is possible to draw significant conclusions based on these early academic studies which are worthy of being taken into account by regulators. Derivatives have a specific idiosyncrasy that allows the separation of ownership and control, which may pose a serious problem for effective functioning of financial markets and corporations. This is of particular importance in the case of activism and the rapid accumulation of usufruct rights during the current 10-day lag between the time the threshold of the 5% stake in the company is passed and disclosure of the position to the SEC (Wachtell, Lipton, Rosen & Katz, 2011).[37] The sometimes undesired use of derivatives in these cases has led to various voices supporting the elimination of the 10-day window in disclosing positions to the SEC and a strict restriction on the use of derivatives by large shareholders.[38]

However, these actions may be short-sighted in view of the latest evidence. The most recent studies reveal an average positive effect of certain derivatives – such as stock options – with regard to shareholders' governance activities. The imposition of restrictions on shareholders' capacity to operate and intervene in a company will discourage corporate governance efforts, irrespective of their final objective ("good" or "bad"), which may pose a much bigger problem. Activist investors need to offset enormous costs and one way of doing so is to accumulate ownership "stealthily". Quoting the well-known activist Bill Ackman, "if forced to disclose the position, the opportunity to buy at an attractive price disappears".

However, there is an essential need for regulation to control undesired actions that derivatives may encourage among shareholders. Although the evidence indicates

36 García (2018), *op. cit.*

37 Wachtell, Lipton, Rosen & Katz (2011), *op. cit.*

38 Although in most jurisdictions the acquisition of derivatives is reported to the supervisor - which immediately informs the public - in the case of Spain, the communication to the CNMV must be made within a maximum period of three days.

that derivatives, on average, seem to stimulate activism that aims to maximise value, there may be special circumstances in which said outcome is not achieved. Regulators must pay special attention to those companies in which there is greater potential for expropriation of assets, as in the case of firms with financial difficulties, or those that are broadly open to the mergers and acquisitions market. In these cases, quick disclosure of the positions of a large shareholder – both in the stock market and in the derivatives market – as well as a restriction on free trading of derivatives over short periods of time, may be a reasonable exercise to guarantee the effective functioning of financial markets.

ETFs and financial stability: a compendium of possible risk sources

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1 Introduction

The exchange traded funds (ETFs) market has experienced a significant growth worldwide. The assets under management rose from 710 trillion euros at the end of 2007 to 4,398 trillion euros in September 2018, accounting for almost 10% of the amount managed by open-ended investment funds (46,636 trillion euros). 75% of the volume is concentrated in the United States and 16% in Europe, with the latter being characterised by a greater presence of institutional investors and a lower leverage usage. In terms of growth, the volume managed by European ETFs has doubled over the last five years and amounted to 681 trillion euros in September 2018.[1]

The growth in ETFs has gone together with the introduction of complex strategies and investments in less liquid underlying assets, generating some concern regarding its possible systemic impact. The increase in volume has also been characterised by a high heterogeneity in terms of regulation and market structure, with significant divergences in different jurisdictions regarding the number and the requirements for authorised participants (APs) or the rules governing the ETF trading.

The approach followed by regulators has been to adopt the framework of collective investment schemes (CIS) for ETFs. However, there are substantial differences between ETFs and other CIS, such as: i) the frequency of price calculation – generally, once a day in most CIS, while ETFs are quoted continuously; ii) the arbitrage mechanism that characterises the price alignment between primary and secondary markets; iii) the way in which units or shares are traded; and iv) the interrelationship of ETFs with the reference indices.

As a result, in December 2012, the European Securities and Markets Authority (ESMA) published recommendations for the sector[2] specifying the information to be provided to investors and regulators. In addition, at a global level, the International Organization of Securities Commissions (IOSCO) published principles for the regulation of ETFs[3] in June 2013, focusing on the transparency, classification and structuring of these products. This document mentions several ETF risks, such as the risk of shock transmissions in stressed situations and the risk of abusive behaviour by some market members, indicating that these risks could be amplified by the continuous innovation and rapid technological progress. IOSCO is currently working on a new set of principles to improve ETF regulation.

1 Source: EFAMA and ETFGI.

2 ESMA (2014). *Guidelines on ETFs and other UCITS issues*. Available at https://www.esma.europa.eu/sites/default/files/library/2015/11/esma-2014-0011-01-00_en_0.pdf

3 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD414.pdf

This article provides a descriptive analysis of the risks that the ETF market might generate for financial stability. ETFs entail specific risks resulting from their activity, as well as other risks which, due to the size and growth of the sector, might generate a widespread impact. Although the potential ETF risks have been divided into different categories, many of them are interrelated and their joint modelling constitutes one of the main challenges of the empirical research on ETFs and systemic risk.

2 Impact of ETFs on the risk and the return of underlying assets

Different empirical studies[4] indicate that excessive indexing or passive management can influence market dynamics, increasing the risk of downward price spirals. Although the risks related to excessive indexing are not exclusive to ETFs, their growth in recent years is turning ETFs into a major contributor to passively-managed volumes. Specifically, the main risks related to excessive indexing are the following:

– **Increased correlation between index components:** When a security joins an index, it tends to behave more closely to the other securities in the index. Generally, the higher the turnover in the ETF portfolio, the higher the number of correlated sales and purchases and, therefore, the more similar the behaviour of index components will be. This behaviour may reduce the benefits of diversification, particularly at times of stress.

– **Non-fundamental volatility:** The arbitrage process that characterises ETFs creates a source of parallel movements for the index's components that are often unrelated to their fundamentals. The evidence suggests that in some cases the movements generated by the arbitrage of ETFs might be excessive, triggering possible contagion and propagating stress situations that are not associated with the fundamentals.

– **Increase in valuations:** Given the volume invested in ETFs and other indexed investments, including a security in an index substantially increases purchase orders of that security, which leads to an increase in its price that may be unrelated to its fundamentals.

– **Change in autocorrelation:**[5] According to some studies, the autocorrelation of stock returns has changed from positive to negative since the introduction of

4 See, *inter alia*: Agarwal, V., Hanouna, P., Moussawi, R. and Stahel, C. (2016). *Do ETFs increase the commonality in liquidity of underlying stocks?* Available at https://fisher.osu.edu/sites/default/files/etf_paper_osu_mar15.pdf; Baltussen, G., Van Bekkum, S. and Da, Z. (2016). *Indexing and Stock Market Serial Dependence Around the World.* Available at https://www3.nd.edu/~zda/Indexing.pdf; Ben-David, I., Franzoni, F. and Moussawi, R. (2017). "Do ETFs Increase Volatility?" *Journal of Finance.* doi:10.1111/jofi.12727; Da, Z. and Shive, S. (2018). "Exchange traded funds and asset return correlations". *European Financial Management,* No. 24, pp. 136-168; Wurgler, J. (2010). *On the Economic Consequences of Index-Linked Investing.* NBER, Working Papers No. 16,376.

5 Autocorrelation measures the statistical dependence between an asset's return and its returns in previous periods. In daily terms, a negative autocorrelation means that if an asset experiences a positive return on a particular session, the following day it will tend to be negative.

ETFs. The securities that are mostly traded through ETFs tend to have negative regression coefficients (beta) with respect to their previous returns in the market. This situation suggests that ETF activity is related to excessive movements in the underlying securities and a subsequent reversal in prices.

– **Effects on the liquidity of the underlying assets:** Including a security in an index increases its liquidity in the short term (due to the greater interest and demand) but, as ETFs increase their relative holding of the security, the number of shares available in the market falls and the liquidity of the securities tends to decrease.

The combination of large volumes managed by ETFs and the herding behaviour of investors might generate a contagion effect in the underlying markets. A stress situation or a sudden fall in ETF prices might trigger widespread falls in the price of the reference assets and create negative spirals that might be amplified by the automatic selling stemming from passive management strategies.

3 Effects on the quality and efficiency of the information on underlying assets

Excessive indexing can also affect the quality and efficiency of the information regarding the underlying assets.[6] A widespread investment in passive or indexed strategies may discourage investors from acquiring specific information on securities with lower capitalisation, increasing their trading costs and generating inaccurate valuations.

– In the short term, indexing and the creation of ETFs has a positive effect on the transmission and availability of information and, therefore, on appropriate price formation. This effect is greatest for securities for which little information is available or which are traded on uncompetitive markets.

– However, in the long term, as the volume of a security purchased by ETFs grows, an increasing proportion of the outstanding shares of the underlying would be concentrated in the hands of ETF promoters and no longer available to other market participants. This might have a negative effect on the quantity and quality of the information available on that security.

– Furthermore, due to their low cost and high liquidity, ETFs provide an attractive alternative for participants who were planning to buy the underlying

6 See, *inter alia*: Madhavan, A. and Sobczyk, A. (2014). "Price Dynamics and Liquidity of Exchange-Traded Funds". *Journal of Investment Management,* vol. 14, No. 2, pp. 1-17; Israeli, D., Lee, C.M.C. and Sridharan, S.A. (2015). "Is There a Dark Side to Exchange Traded Funds (ETFs)? An Information Perspective". *Review of Accounting Studies,* vol. 22, No. 3, pp. 1,048-1,083. doi:10.1007/s11142-017-9400-8; Broman, M.S. and Shum, P. (2015). "Relative Liquidity, Fund Flows and Short-term Demand: Evidence from Exchange-Traded Funds". *Financial Review,* No. 53, pp. 87-115. doi: 10.1111 / fire.12159; Bhattacharya, A. and Hara, M.O. (2016). *Can ETFs Increase Market Fragility? Effect of Information Linkages in ETFs Markets.* Available at https://www.uts.edu.au/sites/default/files/FDG_Seminar_160323.pdf

securities of the ETF directly. As the ETF has greater relative liquidity than its underlying securities, some investors will prefer to buy them through this instrument and the base of investors buying illiquid securities might decrease.

Therefore, in exchange for promoting an efficient investment alternative in terms of costs and liquidity, massive investment in ETF could discourage market participants from obtaining specific information about the underlying assets.

4 Possible fragility of the liquidity provided by ETFs

Another aspect to bear in mind is the behaviour of the liquidity provided by ETFs. Specifically, several studies indicate that this liquidity might drop significantly in periods of stress, generating instability and possible contagion to the underlying markets.[7] The main factors that may influence the liquidity risk associated with ETFs are as follows:

i) **The proportion of certain securities held by ETFs:** The greater the proportion of the security that is in the portfolios of ETFs (whether directly or indirectly), the more sensitive their liquidity will be to ETF activity.

ii) **Average holding period:** Empirical studies suggest that investors who acquire shares in ETFs hold them for a shorter period than they would have if they had invested directly in the underlying assets. Low transaction costs and their continuous trading may make ETFs i) more liquid than the reference securities and ii) more attractive than other types of CIS. ETFs can therefore attract short-term investors and high-frequency traders (HFTs) to a greater extent.

iii) **Concentration of liquidity providers and herding behaviour**: Liquidity provision services for ETFs are often performed by HFTs. Furthermore, some banks may be getting out of the liquidity provision business. In this context, APs may withdraw suddenly, which would create or amplify situations of stress. This behaviour may be bolstered by the fact that APs: i) in many cases have no commitment to the ETF (although they may have a commitment to the exchange); ii) their activity is mainly driven by the search for low-risk returns, and therefore they may withdraw in unfavourable situations; and iii) there are often clauses exempting specialists from their liquidity requirements precisely in situations of stress.

Based on these features, bond markets may be particularly vulnerable to liquidity risks resulting from ETFs. In many markets with low liquidity, ETFs have become a significant player, attracting investors who might unwind their positions if the greater relative liquidity provided by ETFs disappears. This situation, together with banks' low level of involvement in market making, might generate fragile liquidity in this market sector and greater exposure to sudden price falls.

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7 See, *inter alia*: Israeli *et al.* (2015), *op. cit.*; Broman and Shum (2015), *op. cit.*; Bhattacharya and Hara (2016), *op. cit.*; Ben-David *et al.* (2017), *op. cit.*

On the other hand, there are several mechanisms that might limit the liquidity risks of ETFs:

– Trading interruption mechanisms: An example would be the halting mechanism of Euronext Paris, which establishes a theoretical price corridor outside of which trades may not take place. If a price falls outside the corridor, the ETF is halted for a 30-second period, which may be repeated as necessary.[8] Another more widespread interruption mechanism (as is the case of the Spanish market) would be establishing volatility ranges.

– Establishing rules for market makers and APs: For example, financial incentives or certain exemptions could be established at times of stress in order to boost both the number and the activity of these specialists.

5 Counterparty risk and concentration of service providers

The concentration of ETF transactions with certain counterparties and service providers may generate a potentially systemic risk in the event that an entity with a high level of interconnection defaults or drastically modifies its investment policies.

With regard to counterparty risk, ETFs are exposed to default risks as a result of both its derivatives and cash portfolio and its collateral-backed trading. In addition, synthetic ETFs generally have a high exposure to counterparty risk due to their higher use of over-the-counter (OTC) derivatives. For European ETFs, counterparty risk is limited, at a micro-prudential level, by the diversification rules required by UCITS framework.[9] However, even with micro-prudential mitigators in place, the concentration of trading in a small number of entities might lead to a substantial risk if one of them defaults.

Beyond counterparty risk, the operations of the providers of services for ETFs (such as management, market-making and APs) are also concentrated in a small number of entities. For example, ETF management is largely concentrated in a few management companies (in the United States, five entities manage 3,159 trillion dollars, almost 90% of the market).[10] Given the size of ETFs, any substantial changes in the investment or trading policies by the leading management companies might lead to monetary flows that have a widespread impact on markets.

Similarly, correlated actions by APs and market makers might also trigger events of a potentially systemic nature. In this regard, a similar behaviour by these specialists

8 AMF (2017). *ETFs: Characteristics, Overview and Risk Analysis - The case of the French market*. Available at https://www.amf-france.org/en_US/Publications/Lettres-et-cahiers/Risques-et-tendances/Archives?docId=workspace%3A%2F%2FSpacesStore%2F2d61ede7-b0be-40fa-8654-fe438a33ad00

9 UCITS must limit their exposure to counterparty risk to a maximum of: i) 10% of the net asset value (NAV) for counterparties that are eligible credit institutions and ii) 5% of NAV for all other counterparties.

10 BlackRock, Vanguard, State Street, Invesco and Charles Schwab. Data at 13/12/18. Source: ETF.com

might result in liquidity withdrawals, financial flows or indirect effects that could have a systemic consequence or increase the severity of stress episodes. By way of example, correlated actions by market makers in stress situations might lead to a widespread reduction in liquidity at the time when it is most needed. This could impact the representativeness of ETF prices and fuel its contagion to the reference markets.

6 Conflicts of interest, anti-competitive behaviour and reputational risk

Empirical evidence indicates that APs and ETF derivative counterparties are often part of the same economic group, while their management company is also sometimes linked to the same group.[11] The fact that the main ETF agents belong to the same economic group creates a conflict of interest with regard to the conditions agreed in the transactions between affiliated entities, which might generate risks for investors and for the financial system.

One of the most cited conflicts in the ETF literature is the inappropriate use of collateral. Several studies[12] indicate that the reason for creating certain ETFs may be the linked to the possibility of removing from the balance sheet of credit institutions illiquid and high risk-weighted assets, which allows them to improve their capital and liquidity ratios.

As well as harming ETF shareholders, these types of transfers may generate financial stability risks. Transferring illiquid and high-risk assets to the ETFs entails placing in their portfolio a set of problematic assets which, at times of crisis, will be difficult to sell and will have a particularly negative performance, raising their vulnerability in times of stress. Moreover, it is precisely in situations of stress when investors analyse their investment portfolios more closely, and this may trigger negative spirals and second-order effects in the ETF sector as a response to the illiquidity and higher risk of the assets that support the ETF investment policy.

Furthermore, anti-competitive practices in the ETF sector might generate reputational risk. As entities in the financial sector operate under the premise of confidence, reputational risk is particularly relevant for leveraged or deposit-taking entities, in which negative events with extensive media coverage might trigger losses in confidence, which might in turn lead to widespread funds withdrawals. This could result in the insolvency of an entity, even if its initial situation was not particularly problematic.

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11 See CBI (2017). *Exchange Traded Funds - Discussion Paper*. Available at https://www.centralbank.ie/docs/default-source/publications/discussion-papers/discussion-paper-6/discussion-paper-6---exchange-traded-funds.pdf?sfvrsn=6

12 See, *inter alia*: FSB (2011). *Potential financial stability issues arising from recent trends in Exchange-Traded Funds*. Available at http://www.fsb.org/wp-content/uploads/r_110412b.pdf; Ramaswamy, S. (2011). *Market structures and systemic risks of exchange-traded funds*. BIS, Working Papers No. 343; Hurlin, C., Christophe, P. and Yeung, S. (2017). *The Counterparty Risk Exposure of ETFs Investors*. Available at https://halshs.archives-ouvertes.fr/halshs-01023807v3/document

In addition, inappropriate conduct in large sectors, such as the ETF sector, may lead to multi-billion fines and compensations. By way of example, the improper sale of payment protection insurance (PPI) has cost UK financial institutions over 35 billion pounds and has generated charges of over 15 billion pounds for Lloyds and over 9 million pounds for Barclays. The size of these costs, which relate to one single product and geographic market, highlight the high risk involved in the inappropriate management of conflicts of interest in securities markets and its relationship with systemic risk.

7 Other risks related to collateral use

As indicated by the Central Bank of Ireland,[13] the investment strategy of an ETF represents an ideal opportunity for securities lending. In the case of a physical ETF, the portfolio aims to replicate the performance of an index, generally by buying the underlying securities, which are then held in the portfolio for long time periods. Similarly, in a synthetic ETF, the securities obtained as collateral are also held for long periods and will be available for securities lending. In both cases, the investment policy of ETFs provides an ideal opportunity to obtain additional returns through securities lending.[14]

The collateral-backed operations of ETFs may give rise to potentially systemic risks, such as: i) those relating to the repurchasing of assets in the event of mass withdrawals of ETFs, ii) the risk of the collateral received not being enough to cover counterparty risk or iii) the risks resulting from conflicts of interest in large ETF portfolios (see Section 6).

For European ETFs, the above risks are limited by the regulatory frameworks of the UCITS Directive and the EMIR Regulation. In ETFs set up under UCITS legislation, the ESMA guidelines on the management of collateral[15] establish that the collateral used by ETFs must be liquid, of high credit quality, diversified, valued on a daily basis and it should not display high correlation with the counterparty credit risk. However, except in the case of diversification, the guidelines do not include thresholds or quantitative specifications for these requirements, which may lead to significant divergences with regard to their interpretation.

Similarly, the EMIR Regulation introduces the obligation to exchange initial margins in OTC derivative trading, which reduces the counterparty risk by requiring an initial guarantee that must be exchanged at the start of the transaction. In contrast, collateral-related risks may be greater in jurisdictions in which ETFs are not subject to such mitigating provisions.

13 CBI (2017), *op. cit.*

14 In Spain, securities lending is not allowed for collective investment schemes. However, on 25 April 2018, the Ministry of Economy, Industry and Competitiveness published the "draft ministerial order regulating securities lending" with the aim of allowing this type of lending in the future. Available at http://www.mineco.gob.es/stfls/mineco/ministerio/participacion_publica/consulta/ficheros/ECO_Tes_180425_CP_OM_Prestamo_Valores.pdf

15 ESMA (2014). *Guidelines on ETFs and other UCITS issues.* Available at https://www.esma.europa.eu/sites/default/files/library/2015/11/esma-2014-0011-01-00_en_0.pdf

8 Effects of rebalancing on inverse and leveraged ETFs

Leveraged ETFs seek to replicate the performance of an index or portfolio multiplied by a leverage factor (e.g., 3x or -2x). The prospectus of leveraged ETFs generally specifies that its objective is to reproduce the daily returns of the underlying index, taking as reference the index performance from its previous session close up to the close of the following day. This replication strategy differs from reproducing the index's long-term performance and entails that the ETF's manager must adjust its portfolio's exposure on a daily basis to maintain its target leverage.[16]

In terms of systemic risk, the rebalancing strategy of leveraged ETFs generates a substantial pro-cyclical effect and implies a concentration of market orders in a short period of time. To maintain their target leverage, both ETFs that use positive multiples and inverse ETFs must adjust their exposure upwards on days in which the market has risen and downwards on days in which the market has fallen. This behaviour means exacerbating market volatility, increasing the intensity of upward and downward movements. Furthermore, given that the exact amount to be rebalanced will depend on the price of the reference assets at the end of each session, the rebalancing trading is usually carried out as close as possible to the market close (generally in the last 30 minutes), thus generating a high concentration of trading in a short period of time.

The amount that ETFs will need to readjust will depend on: i) the asset under management, ii) the leverage factor and (iii) the daily movement of the reference index. With regard to the index's movement, the rebalancing of leveraged ETFs is highly pro-cyclical: the larger the increase (decrease) in daily prices, the larger the amount that the ETFs will need to increase (decrease) their exposure. Regarding the leverage factor, most leveraged ETFs use multiples of 2x or -2x, but the leverage multiples have risen in recent years, and in 2017 the first ETFs with multiples of four times the performance of the underlying were approved, implying a greater need for readjustment at the end of each day. Therefore, for a given managed volume, ETFs with higher leverage factors will generate a greater market impact and, hence, a greater procyclical effect.

Finally, the volume managed by leveraged ETFs is currently a mitigating factor, as it is low compared with the volume managed by traditional ETFs. However, both the number of leveraged ETFs and their asset volumes have gradually risen over recent years, raising the need for financial supervisors to consider the potential risk posed by these ETFs and to analyse its possible market impact in situations of stress.

16 For example, let us suppose the case of a 3x ETF in which the reference index, with an initial price of 100, rises by 5% on the first day and falls by 5% on the second. In this case, the reference index would finish at 99.75, which would be a cumulative return of -0.25%. For its part, the 3x ETF would rise by 15% on the first day and fall by 15% on the second, ending at 97.75, with a cumulative return of -2.25%, which is lower than the -0.75% that would be expected if the corresponding multiple (3x) were applied to the cumulative return of the index.

9 Greater complexity of the investment strategies of ETFs

ETFs were initially developed as an alternative for passively replicating the performance of the world's major indices; however, as their popularity has grown, their strategies have expanded towards more dynamic management models and markets with low liquidity. For example, ETFs with active management, ETFs whose underlying references are other ETFs, and ETFs whose trading is higher than that of the reference markets have been set up in recent years.

Although complex ETFs provide an efficient way to access markets and strategies that are not easily replicable by investors, their complexity means that it is more difficult to understand the risks of these ETFs and how they interrelate with other products and entities at times of stress. The 2008 financial crisis highlighted the risk involved in investing multi-billion figures in complex financial products (e.g., structured products) and instruments in which the traded amount or exposure is high in comparison with the reference markets (e.g., CDS). Since these risk factors have gradually materialised in the ETF sector, it would be advisable for financial supervisors to monitor the trends and volumes traded by ETFs with complex strategies and assess their potential behaviour during periods of stress.

However, it is also important to consider that ETFs, as a result of their dual status as CIS and traded products, are subject to greater regulation and risk mitigators when compared with other, more opaque products. Among other factors, ETFs provide a high level of transparency regarding traded prices, they must regularly report their portfolio composition and they are subject to diversification and liquidity rules that are particularly stringent in the UCITS framework. Therefore, compared with other products, the impact of these mitigating factors must be taken into account when analysing the potential risk of ETFs and designing macroprudential policies in this regard.

10 Conclusion

The low-cost, liquidity and transparency of ETFs have encouraged a significant growth in their assets under management in the last years, which has been accompanied by the development of new ETF strategies and by the expansion of ETFs to new reference markets.

Although ETFs are an efficient investment alternative, the large size of this sector and the expectations of greater growth could give rise to a set of risks with potential consequences for the financial system.

Regarding the underlying markets, ETFs may influence the risk profile, return, correlation, liquidity and information efficiency of their reference markets. Similarly, the concentration of trading in a low number of counterparties, managers and APs may generate risk for the financial system in case of defaults or coordinated action by the main financial institutions related to ETFs.

In addition, inappropriate management of conflicts of interest may give rise to activities or behaviour that, given the size of the sector, could lead to multi-billion payments in compensation and fines. Furthermore, anti-competitive behaviour by entities providing services to ETFs might generate reputational risks that could lead to a loss of confidence and potentially widespread investments withdrawals in periods of stress.

On the other hand, ETFs are typically subject to a two-fold regulation, as CIS and as listed products, and they must therefore respect numerous risk mitigating provisions, such as: offering a high level of transparency of traded prices, regularly reporting the composition of their portfolio and complying with specific rules on diversification and liquidity. These mitigating provisions, together with the benefits provided by ETFs as an efficient investment alternative, are essential factors that must be taken into account when evaluating the potential ETF risks and designing macroprudential policies for these instruments.

Scrip dividends and the empirical evidence in Spain

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1 Introduction

During the years of the financial crisis that affected the vast majority of the advanced economies and, in particular, Spain, the practice of remunerating the shareholders of listed companies through scrip dividends, instead of cash dividends, gained ground. This type of remuneration was used particularly by financial institutions, with Banco Santander being the first to apply it in Spain, in 2009. As will be seen below, the structure of scrip dividends varies between jurisdictions, as well as between companies. In all cases, however, scrip dividends involve a reduction in the cash paid out to shareholders and an immediate increase in share capital, which rises by the amount equivalent to the number of allotment rights exercised multiplied by the value of the share at the time of the scrip issue.

This situation, which clearly immediately strengthens the company's capital – which is particularly important in the case of financial institutions, which are subject to strict solvency requirements – also generates changes in the shareholders' position and leads to consequences that go beyond the short term for the company itself. All these phenomena are worthy of analysis.

This article describes the main types of scrip dividend programmes, as well as the advantages and disadvantages that they offer for shareholders and the issuing company. It also addresses the possibility that the announcements of these programmes may transmit some type of signal to the market and what the repercussions might be on the companies' share prices.

In this context, the article provides a detailed description of the development of these programmes in Spain between 2009 and 2017. Application of these shareholder remuneration policies grew over the first few years of this period, but fell over later years for various reasons, which include the elimination of the tax breaks existing up to 2017[1] and the improvement in the financial health of companies, which has allowed them to return to the traditional form of remuneration in cash. Finally, the article presents the results of a preliminary analysis of the movements in the share price of some large Spanish companies that have implemented scrip dividend policies in recent years, which suggests that this practice was, broadly speaking, positive for the companies.

1 Until 2017, the sale of free allotment rights in the market entailed a tax deferral, since the price received reduced the acquisition value of the shares that had generated the rights. It would only therefore be taxed as investment income at the time of the sale of those shares, as a consequence of the lower acquisition value. This meant that a "dividend" built in this way enjoyed more favourable tax treatment than a dividend in cash, which was subject to a withholding of 19% and was taxed as investment income in the year it was received. Since 2017, both the sale of rights in the market and the sale at a fixed price to the issuer are taxed exactly the same as a cash dividend.

2 Definition of scrip dividends

Scrip dividends arise when companies offer their shareholders the possibility of waiving a cash dividend with an established value in exchange for a number of additional shares. The reasons that might lead companies to offer this type of dividend, the market reaction to scrip dividends, their possible financial advantages and the legal differences in which these dividends are implemented in different countries are analysed below.

2.1 Financial function of the dividends

There are three reasons behind paying dividends in listed companies: providing liquidity, controlling agency problems and the desire to signal the company's quality to the market.

2.1.1 Providing liquidity

In the case of listed companies, shareholders can obtain liquidity and transfer their investments to other projects by selling the shares on the secondary market. However, Modigliani and Miller (1958)[2] had already highlighted that the existence of transaction costs, due to purchase/sale commissions or to tax differences in the treatment of profits and dividends, may favour the payment of dividends.

2.1.2 Controlling agency problems

Easterbrook (1984) and Jensen (1986)[3] argue that paying dividends mitigates agency problems because it reduces the discretion of managers and controlling shareholders in the use of the investors' funds.

2.1.3 Signalling to the market

The idea that dividends are a signalling system was developed by Bhattacharya (1979), Kose and Williams (1985), and Miller and Rock (1985).[4] According to this idea, in an imperfect capital market, payment of dividends is costly as the retained earnings are a cheaper form of financing than debt or equity issues. The fact that dividends are costly and may not easily be replaced by external capital is what gives them their signalling power. It is easier to pay a dividend for companies that are

2 Modigliani, F. and Miller, M.H. (1958). "The Cost of Capital, Corporation Finance, and the Theory of Investment". *American Economic Review*, vol. 48, No. 3, pp. 261-297.

3 Easterbrook, F.H. (1984). "Two Agency-Cost Explanations of Dividends". *American Economic Review*, vol. 74, No. 4, pp. 650-659; Jensen, M.C. (1986). "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers". *American Economic Review*, vol. 76, No. 2, pp. 323-329.

4 Bhattacharya, S. (1979). "Imperfect Information, Dividend Policy, and 'The Bird in the Hand' Fallacy". *The Bell Journal of Economics*, vol. 10, No. 1, pp. 259-270; Kose, J. and Williams, J. (1985). "Dividends, Dilution, and Taxes: A Signaling Equilibrium". *The Journal of Finance*, vol. 40, No. 4, pp. 1,053-1,070; Miller, M. and Rock, K. (1985). "Dividend Policy under Asymmetric Information". *The Journal of Finance*, vol. 40, No. 4, pp. 1,031-1,051.

confident that they will generate substantial profits or which consider that their shares are more attractive than those that have poor prospects. In this regard, dividends convey information to the market about the cash flows that they can expect to receive in the future from the company.

2.2 Market reaction to dividend payments

Due to the economic benefits that dividends have in general, the market usually considers the announcement of a higher-than-expected dividend payment as good news and receives it with an increase in the value of the share,[5] while an announcement of a lower-than-expected dividend has a negative impact.[6] The empirical evidence shows that this may occur, as explained above, as a result of tax breaks,[7] signalling or the reduction of agency problems.[8] In fact, the theory of dividends as a mechanism for controlling agency costs is the one that has gained the greatest empirical support and it is consistent with the fact that the companies with the highest payout ratios are the largest, oldest and most profitable companies, but those with the fewest opportunities for future growth.[9]

Furthermore, when the dividend is made effective, the value of the shares falls mechanically by approximately the amount of the dividend,[10] with the possibility of small variations due to the different tax treatment faced by different types of investors.

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5 See Allen, F. and Michaely, R. (2003). "Payout Policy", in Constantinides, G., Harris, M.G. and Stutz, R. (eds.). *Handbook of the Economics of Finance*, chap. 7. North Holland, Elsevier; Fama, E. and French, K. (2001). "Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?". *Journal of Financial Economics*, No. 60, pp. 3-43; Banerjee, S., Gatchev, V. and Spindt, P. (2007). "Stock Market Liquidity and Firm Dividend". *Journal of Financial and Quantitative Analysis*, vol. 42, No. 2, pp. 369-397. These authors study the variables that explain the dividend policy by using very long-term time-series data of US companies and find that the companies with the highest payout ratios are usually the largest, oldest and most profitable, but with the fewest opportunities for growth.

6 The only exception to this can arise when companies that were growing very rapidly start paying dividends. In some of these cases, the market receives the dividend with falls as it is interpreted as the end of the opportunities for sharp growth in the sector and the announcement of the entry into a maturity stage as a result of the scarcity of new profitable projects for the shareholders.

7 See Baker, M. and Wurgler, J. (2004). "A Catering Theory of Dividends". *The Journal of Finance*, vol. 59, No. 3, pp. 1,125-1,165; Baker, M. and Wurgler, J. (2004). "Appearing and Disappearing Dividends: The Link to Catering Incentives". *Journal of Financial Economics*, No. 73, pp. 271-288. These authors find that, in the North American market, the number of companies that start paying dividends (stop paying them) is positively (negatively) related to the annual aggregate value of the "dividend premium", i.e., to the difference between the market-to-book ratio of companies that pay dividends and that of those that do not.

8 See DeAngelo, L., DeAngelo, D.J. and Stulz, R.M. (2006). "Dividend Policy and the Earned/Contributed Capital Mix: A Test of the Lifecycle Theory". *Journal of Financial Economics*, No. 81, pp. 227-254; Denis, D.J. and Osobov, I. (2008). "Why Do Firms Pay Dividends? International Evidence on the Determinants of Dividend Policy". *Journal of Financial Economics*, No. 89, pp. 62-82. These authors find that the propensity to pay dividends is positively related to the ratio of retained earnings to the value of the shares, which may be understood as an approximation of the point in the life-cycle at which the company is located and the importance of agency problems.

9 As shown by Banerjee *et al.* (2007), *op. cit*.

10 Following the reform of the Spanish securities clearing, settlement and registry system in April 2016, the amount of the dividend is deducted from the share price two days before the payment date.

2.3 Different methods of shareholder remuneration

There are four different types of payment to shareholders:

2.3.1 Dividend

This is the traditional form of remuneration. Part of the retained earnings leave the company in cash and are delivered to shareholders in proportion to their contribution to the capital. Both the number of shares and their par value remain the same, but their book value (bearing in mind the retained earnings) and their market value change, as they fall by the amount of the dividend (without taking into account any other tax, signalling or agency effect that may have an impact on the market value).

2.3.2 Share buyback

This has the same effects as the traditional dividend, although there may be tax factors or transaction costs that make one system preferable to the other. The company's cash is used to buy shares in the market. If the buyback is carried out proportionally and the shares are cancelled following their acquisition, the number of shares falls without changes in their par value, book value or market value.

2.3.3 Stock dividend

This is not a dividend in the economic sense[11] and it has none of its effects, as there is no cash outflow from the company. This is a bonus shares issue that is distributed proportionally among shareholders. The number of shares rises and their unit book value falls, so that the total book value (capital plus reserves) remains unchanged. In the accounting, this is reflected by means of an accounting entry that transfers part of the retained earnings as reserves to ordinary capital.

As in any share issue, there may be a pre-emptive subscription right that shareholders may use to receive the new shares or sell on the market if they do not wish to receive the shares.

Since this is just an accounting reallocation, no market reaction will be expected to an announcement of a stock dividend. The market, however, sometimes reacts positively to this type of announcement given that it implies that the shareholders' equity will not be weakened.[12]

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11 In this case, if the shareholders want to make the remuneration effective, they will have to sell the new shares received on the market.

12 Grinblatt, M.S., Masulis, R.W. and Titman, S. (1984). "The Valuation Effects of Stock Splits and Stock Dividends." *Journal of Financial Economics,* No. 13, pp. 461-490. These authors find that announcements of stock dividends and stock splits are received with increases in market value. Lakonishok, J. and Lev, B. (1987). "Stock Splits and Stock Dividends: Why, Who, and When". *The Journal of Finance,* No. 42, pp. 913-932. These authors also observe an abnormal positive return of between 3% and 5% around the announcement date of these measures.

This reaction has been explained in three different ways. Some authors argue that this accounting adjustment may receive a positive welcome when investors prefer trading in lower price ranges.[13] The second explanation would be just the opposite. The idea is that the price readjustment associated with these measures raises transaction costs as buying and selling commissions are proportionally higher for low prices. Therefore, following this line of reasoning, stock dividends, as they are costly, will only be used by company managers that are confident that they will obtain sufficiently good results in the future to counteract this disadvantage. In this regard, stock dividends would signal in a similar manner to cash dividends although, as their cost is lower, both the signal and the positive market reaction would be weaker.[14] Finally, the third explanation would be that stock dividends are used to attract attention (cheap talk) to their company by managers who believe that the market is undervaluing their shares. In the event that the cheap talk is successful, the share price will rise.[15]

2.3.4 Scrip dividend, elective stock or optional stock dividend

The shareholder is given the opportunity to receive a dividend in cash or shares. A value is set for the dividend and a price for the new shares. The shareholder may choose between receiving the value of the dividend in cash or waiving it in exchange for a number of shares (which will be calculated as the number of shares held by that shareholder in portfolio multiplied by the value of the dividend and in turn divided by the price set for the new shares). Shareholders will, therefore, choose to receive cash (shares) only if they believe that the value of the dividend is greater than or equal to (lower than or equal to) that of the share.

This type of optional stock dividend exists, with small variations, in Spain, France, the Netherlands, Norway, the United Kingdom and the United States and its use grew over the financial crisis, during which in European countries that allow this type of payment, 12% of companies used optional stock dividends.[16]

By leaving the choice in the hands of the shareholder and committing to remunerate in cash if the shareholder wishes, the optional stock dividend can provide liquidity and control agency problems equally or more efficiently than traditional dividends, but it will be less efficient as a signalling mechanism.

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13 The following authors defend this interpretation: Ball, R., Brown, P. and Finn, F.J. (1977). "Share Capitalization Changes, Information, and the Australian Equity Market". *Australian Journal of Management,* No. 2, pp. 105-125; Muscarella, C.J. and Vetsuypens, M.R. (1996). "Stock Splits: Signaling or Liquidity? The Case of ADR 'Solo-Splits'". *Journal of Financial Economics*, No. 42, pp. 3-26.

14 This explanation has been defended by: Brennan, M.J. and Copeland, T.E. (1988). "Stock Splits, Stock Prices, and Transaction Costs". *Journal of Financial Economics*, No. 22, pp. 83-101; Brennan, M.J. and Hughes, P.J. (1991). "Stock Prices and the Supply of Information". *The Journal of Finance*, No. 46, pp. 1,665-1,691. It is also consistent with the empirical results of Pereira, J.P. and Cutelo, T. (2013). "Tiny Prices in a Tiny Market: Evidence from Portugal on Optimal Share Prices". *European Financial Management*, vol. 19, No. 3, pp. 579-598.

15 Almazán, A., Banerji, S. and Motta, A.D. (2008). "Attracting Attention: Cheap Managerial Talk and Costly Market Monitoring". *The Journal of Finance,* No. 63, pp. 1,399-1,436, present a theoretical model in how the use of seemingly zero-cost measures can have signalling effects. Bhattacharya, U. and Jacobsen, S. (2015). "The Share Repurchase Announcement Puzzle: Theory and Evidence". *Review of Finance*, vol. 20, No. 2, pp. 725-758 provide empirical evidence that is consistent with this explanation.

16 "Scrip payments save European groups £55bn over 3 years". *Financial Times*, 30 April 2018.

With respect to liquidity, given the heterogeneity among the different shareholders with regard to transaction costs and tax rates, with an optional stock dividend, each of them may make the optimum decision with regard to the liquidity that they wish to obtain from the company, especially if they can choose to receive the dividend only for some of the shares.

With regard to controlling agency problems, optional stock dividends would aggregate the different shareholders opinions more efficiently. The shareholders that do not have confidence in the management can choose to reduce the financing given to the company and receive their compensation now, while those that believe that managers can obtain good future profits will be compensated with a greater share of those profits.

The signalling function will be less important in the case of scrip dividends as the loss of retained earnings is also lower.

3 Empirical evidence on the use of scrip dividends

The two most recent studies on scrip dividends research what type of companies choose scrip dividends over traditional dividends, the market reaction to the announcement of this type of dividend and the choice made by shareholders.

Specifically, in the first study, David and Ginglinger (2016)[17] analyse the dividend decisions of 287 French companies over the period 2003-2012 in which the shareholders' decision to receive the dividend in cash or in shares was tax neutral. Specifically, they study why some companies opt to pay a scrip dividend instead of maintaining the cash dividend or omitting dividends.

Their results show that companies that change from paying cash dividends to paying scrip dividends do so as they hold high levels of debt and low levels of cash. However, in contrast to the companies that simply omit the dividend, those that opt for scrip dividends are those that had the highest payout ratios and a higher percentage of their capital held by institutional investors, and that maintained positive profit figures. There is also a general trend towards scrip dividends during recessive periods, when obtaining liquidity through share issues is more difficult. All of this seems to indicate that the companies that change from cash dividends to scrip dividends are those that are suffering liquidity problems, but which wish to maintain their long-term dividend payment commitment.

In the case of France, it seems that investors see scrip dividends as a good substitute for cash dividends. Specifically, the approval levels for this measure in the general shareholders' meeting stands at 97% and the market reaction on the announcement date is similar to that shown for cash dividends. Finally, the authors estimate that approximately 55% of the shareholders choose to receive shares instead of the cash

17 David, T. and Ginglinger, E. (2016). "When cutting dividends is not bad news: The case of optional stock dividends". *Journal of Corporate Finance,* No. 40, pp. 174-191.

dividend the first time it is offered, although this percentage falls if they are used repeatedly. In other words, it seems that shareholders are willing to accept reductions in the dividend provided that they are temporary.

Feito-Ruiz, Renneboog and Vansteenkiste (2018)[18] study scrip dividends in listed companies in the United Kingdom from 2003 to 2014, a period during which there were no tax differences between cash dividends and scrip dividends,[19] which allows them to explore the 2008 financial crisis as an exogenous shock to external finance availability for companies. Besides that, the study is similar to that by David and Ginglinger (2016) with an important institutional difference. While in France the payment of scrip dividends must be approved annually by the annual general meeting, in the United Kingdom, it is a multiannual plan that must only be approved at the start by the annual general meeting.

Their results confirm that the main reason why companies choose scrip dividends over cash dividends relates to financial restrictions. The companies that suffer these restrictions as a result of their low levels of cash generation or as a result of difficulties in accessing capital markets during the financial crisis opt for scrip dividends as a system that offers them greater financial flexibility, allows them to continue making investments and prevents them suffering from a liquidity crisis.

They also find that changing from paying a cash dividend to a scrip dividend is usually combined with a reduction in the dividend. In any event, investors seem to accept script dividends in a similar way to cash dividends as the positive market reaction to both is similar. However, when the scrip dividend is accompanied by a fall in the dividend, the reaction is negative. In fact, the negative reaction is more pronounced when the company has already paid scrip dividends previously. This, therefore, confirms the idea that investors may accept reductions in dividends if they are temporary, but react negatively if the reduction continues over time.

4 Institutional differences in scrip dividends

The manner in which scrip dividends are implemented varies among different jurisdictions, particularly with regard to the duration of the option, the reference price and the tax treatment.

– **France**. There have been no tax breaks for paying scrip dividends in France since 1993. Unlike stock dividends, which are not subject to taxation, shares received in an optional payment accrue the same taxes as a cash dividend.

18 Feito-Ruiz, I., Renneboog, L. and Vansteenkiste, C. (2018). *Elective Stock and Scrip Dividends*. ECGI, Working Papers No. 574/2018, Finance Series.

19 The previous empirical studies of the United Kingdom by Lasfer are not comparable as during the period studied there were tax breaks for the payment of stock dividends compared with the payment of cash dividends. Lasfer, M. (1997). "On the motivation for paying scrip dividends". *Financial Management*, No. 26, pp. 62-80; Lasfer, M. (1997). "Scrip dividends: the management's view". *European Financial Management*, vol. 3, No. 2, pp. 237-249.

Scrip dividends extend to all shareholders and must be approved annually by the general shareholders' meeting in a specific resolution. This resolution approves the issuance of new shares with a specific price, with the issue normally made at a discount. However, the price must be higher than 90% of the average closing price over the 20 days prior to the general shareholders' meeting. The dividend payment date is also set, which will coincide with the date on which the shares are issued and are available for sale. A conversion period must also be set, which starts on the ex-dividend date, during which each shareholder may choose the cash dividend or the stock dividend (without it being possible to apply each option to a percentage of their shares). This allows shareholders to make a decision based on the market price of the shares on the last day of the conversion period. The shareholders that choose shares receive the whole number of shares equal (or the closest lower whole number) to that obtained by multiplying the dividend per share by the number of shares that they hold and dividing it by the share price of the new issue.

In accounting terms, the distribution of the dividend and the reduction in the reserves for the total amount of the dividend and, at the same time, an increase in the capital amounting to the part of the dividend that is paid in shares are recorded.

– **United Kingdom**. In the United Kingdom, the tax treatment and mechanics of scrip dividends are very similar to those in France, with the biggest difference being that they are approved by shareholders in a multiannual plan. Payment is only received in shares if explicitly opted for and is automatically applied in the following years unless the shareholder explicitly opts to change to a cash dividend in a subsequent year during the duration of the plan. The price of the new shares is set as the average closing price in the five days following the ex-dividend date. This price is announced a couple of days before the conversion option ends. However, if the market price of the shares on the dividend payment date deviates by more than 15% from that reference price, the company may decide to cancel the scrip dividend and distribute the dividend in cash to all shareholders.

– **United States**. In the case of the United States, Dividend Reinvestment Plans (DRIPs) are used. These are multiannual plans and are only available for individual (non-institutional) shareholders, who must also register in order to access them. There is a maximum amount of dividends that may be reinvested in shares. In most cases, shareholders that opt into these plans receive treasury shares held by the company or shares which it buys back in the capital market.

5 Specific legal features of the case in Spain

There are various legal frameworks for implementing scrip dividends. In other countries, they are regulated by law (e.g. France) or by the articles of association (e.g. the United Kingdom). In Spain, in the absence of regulation, the companies themselves design the operation, which combines the legal framework for distributing dividends (Articles 275 *et seq.* of the Capital Companies Act) and the capital

increases charged to reserves (Article 303 of the Capital Companies Act). Nevertheless, these operations do not in practice give rise to significant problems that would require further regulatory efforts.[20] However, a complementary effort towards increased transparency and information from companies with regard to the details of the operation in each case would be desirable.

The most significant feature of the Spanish corporate operation lies in the fact that while in comparative law the shareholder's power to choose is implemented in the framework of the payment of dividends, in Spain it is implemented in the framework of a capital increase charged to profits or reserves. In this context, the aim will be to give shareholders the capacity to choose between receiving their share of profits or reserves as a cash dividend or, following capitalisation, in new shares. Accordingly, the general meeting will adopt the resolution for applying the profit not to paying scrip dividends, but to establishing voluntary reserves, or it might leave the profit without application, placing it in profit to be appropriated (as it is partly a distribution of dividends, it cannot be placed in the legal reserve). Following that, the same general meeting would approve the resolution of a capital increase charged precisely to the reserves or profits obtained in the year or, at least, a part of them. Then, and this is the key, a commitment is added to acquire the allotment rights from the shareholders at a specific price (and with this the dividends would be paid). What is important to note is that companies in Spain increase capital without excluding any of the shareholders and the choice between shares and dividends is made within the capital increase procedure itself.[21] Although the intended outcome is the same in every jurisdiction, i.e., to provide the shareholder with the option between receiving the agreed dividends in cash or in shares issued by the company itself, the mechanics used involve some minor differences in the operation of scrip dividends.

– This operation entails a default option, different from in other jurisdictions in relation to the shareholder's lack of choice. Thus, for example, a shareholder taking no action in France would be paid the agreed dividend in cash, while in Spain they would be allocated new shares.

  In effect, in Spain shareholder remuneration is presented in practice as a bonus issue with the issue of new shares and the company's commitment to purchase the allotment rights of the shareholders who so wish at a set price (rights which the company subsequently waives). Consequently, the distribution of dividends in cash is implemented through the company buying the free allotment rights. However, it should be noted that the exercise of the shareholder's right to choose is only decisive if the shareholder prefers to

20 It is a relatively simple operation. However, there are authors who call for its regulation. See Aragón Tardón, S. (2018). *Las operaciones de* scrip dividends *en las sociedades cotizadas [Scrip dividends in listed companies]*. Aranzadi, Madrid.

21 The coordination of both resolutions – the capital increase resolution and the application of profit resolution – may be carried out in several ways. For example, the resolution for the capital increase charged to reserves may be approved by means of an extraordinary general meeting (including acquisition of the free allotment rights by the company) and, subsequently, the following ordinary general meeting may approve application of the profit for the amount that the company would have paid in cash for acquisition of the allotment rights as if it were an interim dividend.

receive the dividend in cash. The shareholder then has the burden to inform of this in due time and form – during the period that is open for acquiring the free allotment rights – as otherwise the shareholder will only keep the free allotment right of the new shares. Although this operation is consistent with the functioning of bonus issues, it also aims to retain profits. However, this result may also be qualified in practice. The example is that of the scrip dividends offered by Banco Santander. The bank offers shareholders whose shares are deposited in the Santander Group the opportunity of permanently opting for the choice of dividends without the need to request it in future operations. In this way, Banco Santander adapts the benefits of the UK scrip dividends framework to the case of Spain.

– The other hurdle – common to any scrip dividend mechanism – is the relationship between the profit applied and that effectively capitalised. The idea is that the real value of the new shares should correspond with the shareholders' share of the applied profits or reserves (in other words, the application of the principle of proportionality does not in itself guarantee the equivalence of what is received by the shareholders, whatever their choice). It should also be noted that the number of shares that the company must issue depends on the real value attributed to the share and the number of shareholders that prefer to participate in the increase. On the one hand, the real value is set during the resolution execution stage with the aim of reflecting the share price in the period directly prior to allocation of the shares to the shareholders. On the other hand, the uncertainty with regard to the number of participating shareholders means that the power to set the amount of the increase is delegated to the directors (as an analogous case to that of the incomplete take-up expressly provided for in Article 311 of the Capital Companies Act). The exact figure of the increased capital will depend on two variables: the number of participating shareholders and the ratio between the par value and the real value that is applied.

– Another important issue is the possibility of not executing the resolution under unfavourable conditions. The aim here would be to mitigate the problem if the conditions of the company or the market – including significant price falls – made it unadvisable to continue with the operation. This possibility is reasonable, but has different effects in other countries. The United Kingdom allows the possibility of cancelling the offer, but then all shareholders will receive the dividend in cash. In contrast, the essential initial operation for scrip dividends in Spain is the capital increase, and a failure to execute the increase leads to full cancellation of the scrip dividends operation. It is also significant that the revocation is not usually adopted by the board, as in the case of the United Kingdom, but involves the general meeting, either in order to revoke the resolution or to be informed *a posteriori*. The UK solution seems, *a priori,* to be the most appropriate. The approval by the general meeting of a resolution to distribute dividends creates a receivable in the shareholder's assets which is not available to the company. And this is not altered by the company's commitment to pay dividends being materialised in the acquisition of the free allotment rights at a specific price.

– As the scrip dividends operation in Spain is based on free allotment rights, there are not only two options – subscribing new shares of the company or

receiving the corresponding amount in cash – as is the case in comparative law, but rather two further options are opened. The first is that the shareholder also has the option of selling the free allotment rights on the secondary market (naturally, this would mean that the market conditions would be more favourable than the price set previously by the company, which seems improbable). This option also loses its appeal because the derivative holders of such rights are usually excluded from the company's purchase commitment (with some exceptions, as in the case of Iberdrola). As a result, they would generally only be able to subscribe new shares. The second possibility is for the shareholders to opt for a combination of the two main options and to allocate part of their allotment rights to the subscription of new shares and part of them to obtaining dividends. The company is free to decide whether or not to allow this alternative; it is not usually possible in other legal systems.

– The most novel application to date among Spanish issuers is the new scrip dividends proposal carried out by Iberdrola under the name "Iberdrola dividendo flexible". The aim is to channel the investor's option between cash and the bonus shares through an alternative obligation that arises from two general meeting resolutions that are coordinated with each other: that of the distribution of dividends and that of the capital increase. Thus, formally, obtaining cash, if that is the investor's choice, is not implemented through the issuer's commitment to buy the free allotment rights at a set price, but with the investor's waiver to such rights in favour of the payment of the dividend. The change achieved with this new system is nominal: in the company's accounting, the money distributed will explicitly appear as a dividend distribution and not as a purchase of allotment rights by the issuer. The formal appearance of the dividend in the accounts favours a comparison of profit distribution policies across companies and over time. This system brings us closer to that used in neighbouring countries as it leads to a "traditional" distribution of dividends, with the difference that, in the case of Iberdrola, the default option remains the delivery of shares and not the payment of the dividend.

In short, although the intended result is the same in every jurisdiction – i.e., giving the shareholder the right to choose between receiving the agreed dividends in cash or in shares issued by the company itself – the mechanics used, depending on whether the underlying operation is a distribution of dividends or a capital increase, leads to some minor differences in scrip dividends operations. At any event, companies may mitigate the shareholder's doubts by providing thorough information on all aspects of the operation.

6 Empirical evidence in Spain

This section provides statistics and an introduction to scrip dividend programmes in Spain. In particular, the sample under consideration includes 14 Ibex 35 companies that carried out scrip dividend programmes between 2009 and October 2017 (see Table 1). Of these 14 companies, 6 are large banks.

Companies that have carried out scrip dividend programmes TABLE 1

Company	Sector
Banco Santander	Finance
BBVA	Finance
Banco Popular	Finance
Banco Sabadell	Finance
Bankinter	Finance
Caixabank	Finance
Iberdrola	Non-financial
Gamesa Corporación Tecnológica	Non-financial
Gas Natural	Non-financial
Telefónica	Non-financial
Repsol	Non-financial
Actividades de Construcción y Servicios (ACS)	Non-financial
Acerinox	Non-financial
Ferrovial	Non-financial

Source: CNMV.

In the first scrip dividend programmes (in Spain referred to as "dividendo flexible" or "dividendo elección") carried out in the period under consideration, the format used was the most traditional format, i.e., the shareholder's choice was: to continue receiving cash or the sale of rights in the market or the receipt of new shares from the issuer. These programmes visibly and explicitly state that the receipt of new shares from the issuer was the only case that was not subject to tax withholding. In addition, the receipt of cash would require an express notification to the entity, while the receipt of pre-emptive subscription rights was automatic.

In subsequent programmes, another method is added to the traditional practice described above in order to make the receipt of rights more attractive: the entity guarantees shareholders a purchase price for their rights which is calculated in such a way that the payment is equivalent to the value of the dividend on the day of the announcement. This provides certainty to shareholders, who may now choose between a payment that is certain and equivalent to the dividend or, depending on forecasts for an increase in value, waiting to sell them on the market with the expectation of an additional gain.

For the company in question, both the purchase of the rights from the shareholders that decide to request it and the delivery of a cash dividend entail a cash outflow. However, the decision is not academic given that one case is associated with an increase in the company's capital while the other case entails a direct outflow of profits.

This practice of guaranteeing shareholders the buyback price of their rights has been gradually adopted in different formats by the issuers that have made use of scrip dividends. It is a common perception that the incorporation of certainty into the buyback price of the right has considerably encouraged shareholders to choose this format.

Table 2 provides detailed information on scrip dividend payments in Spain between 2009 and 2017. For each year, the table shows the number of companies that offered scrip dividend programmes and the number of programmes of this type. It also includes a summary of the amounts of cash distributed to shareholders in scrip dividend programmes, the average percentages of share capital that opted for new shares in scrip dividend programmes and the capital increases resulting from the issuance of new shares.

According to the information presented in the table, both the number of companies that offer scrip dividend programmes and the number of scrip dividend programmes *per se* rose between 2009 and 2016 and then fell in 2017. Only one company offered scrip dividends in 2009, Banco Santander, while they were offered by a total of 11 companies in 2016 (6 in 2017).[22]

The cash paid out in scrip dividends rose up to 2012 and then fell, except in 2014, when there was a significant upturn. The highest level of distributed cash was recorded in 2012, when eight companies distributed over 3.6 billion euros in cash to their shareholders through scrip dividend programmes. That year also recorded a high in the percentage of share capital that chose to receive a dividend in cash, with an average of 32.2%. In each year, the average percentage that opted for new shares amply and regularly exceeded that which opted for cash. The lowest average acceptance rate for new shares was 67.7% (in 2012) and the highest was 81% (in 2009). The average increase in the share capital in the period under consideration was 1.49%.

Information on scrip dividend programmes in Spain[1] TABLE 2

Year	Number of companies	Number of programmes	Total cash (million euros)	Request for cash (average %)	Acceptance of new shares (average %)	Increase in share capital (average %)
2009	1	1	181.95	18.97	81.03	0.89
2010	3	4	776.59	29.78	70.22	1.61
2011	8	12	1,224.96	22.16	77.84	1.36
2012	8	15	3,676.77	32.23	67.77	1.97
2013	7	16	2,382.87	22.27	77.73	2.02
2014	10	24	3,220.67	25.43	74.57	1.31
2015	11	21	2,465.65	23.71	76.29	1.21
2016	11	18	2,214.43	27.23	72.77	1.59
2017[2]	6	9	1,312.17	32.02	67.98	1.45

Source: CNMV.

1 The table presents a summary of the most significant variables of the scrip dividend programmes in Spain. These include the number of Ibex 35 companies that have implemented scrip dividend programmes and the number of such programmes. It also provides information on the total cash amount distributed to the shareholders who opted to resell their rights to the company in exchange for cash, the average percentage of requests for cash and the average percentage of acceptance of new shares. These percentages are calculated on the share capital. Finally, information is provided on the average increase in share capital resulting from the issuance of new shares through the scrip dividend programmes. The sample includes 14 companies.

2 Until October.

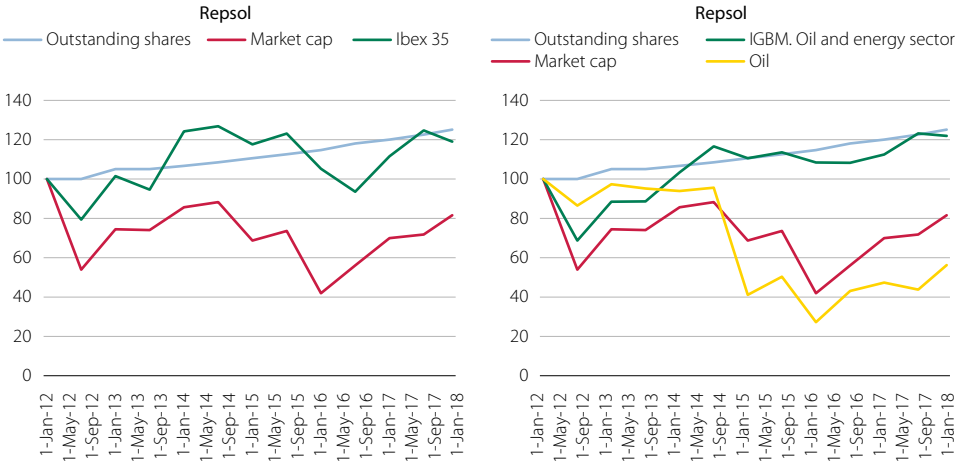
22 The information for 2017 is up to October. A comparative analysis with similar periods in previous years leads to the conclusion that the downward trend of these programmes extended into that year.

The volume of resources associated with scrip dividend programmes in Spain is likely to fall in the coming years. One of the reasons for this is the disappearance of the tax breaks enjoyed by scrip dividends until 2017.[23] Another reason might be the fact that the financial health of the companies that had been paying scrip dividends is improving, which allows them to gradually resume traditional remuneration policies through cash dividends and share buybacks. Last but not least, Spanish companies are expected to reduce their scrip dividend offerings in order to avoid a fall in the earnings per share figure.

7 Effects strictly linked to the scrip dividend policy

As a complement to the immediate effect of this alternative dividend distribution policy on the company and its shareholders, this section presents a preliminary assessment of the medium and long-term effect on the share price. To this end, a sample has been taken of several large companies of the Ibex 35[24] that chose to implement scrip dividend programmes and the movements in their share prices have been compared with "equivalent" companies which continued carrying out a traditional dividend distribution policy. In this case, the set of equivalent companies has been approximated through the set of companies in their sector. In addition, the effects of other corporate events, such as capital increases, splits or other operations that would mask the direct and unique effects of scrip dividend programmes have been discounted.

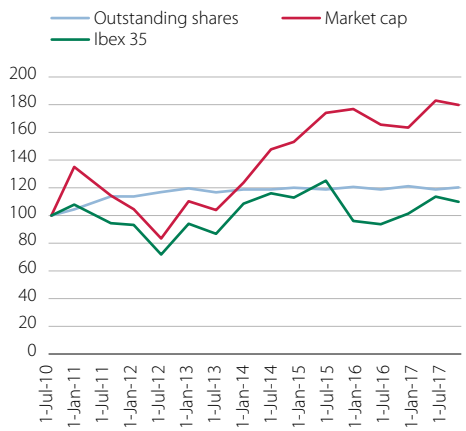
Movements in the share prices of companies with scrip dividend policies FIGURE 1



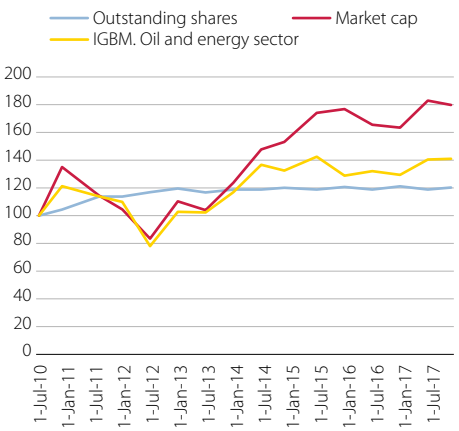
23 See footnote 1.

24 Repsol, BBVA, Santander, Iberdrola and Telefónica.

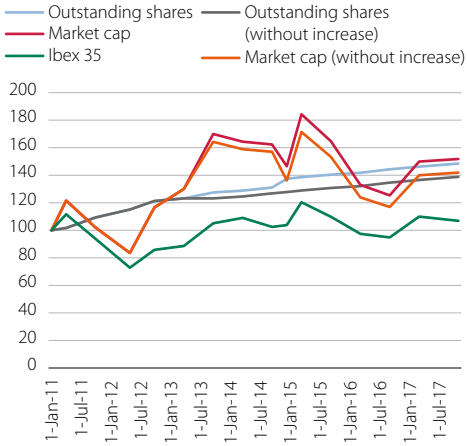
Iberdrola



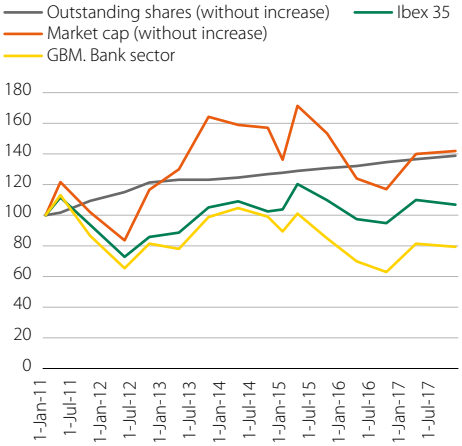
Iberdrola



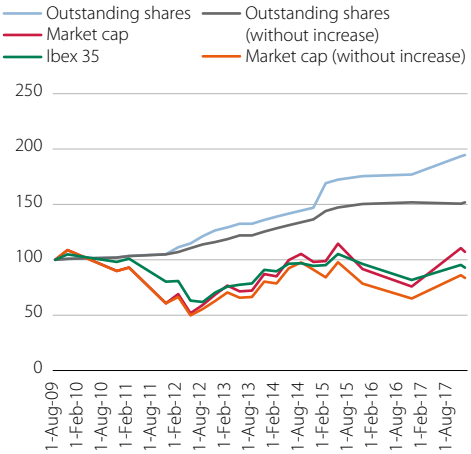
BBVA (with and without effect other capital increases)



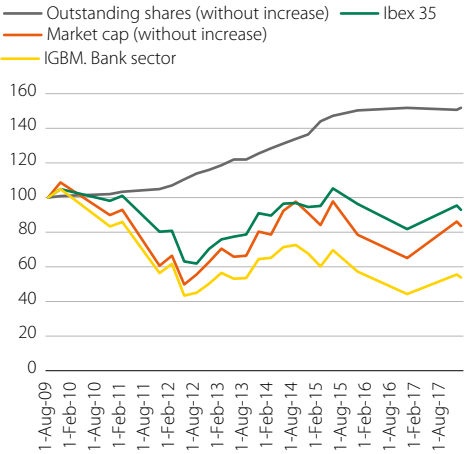
BBVA (without effect other capital increases)

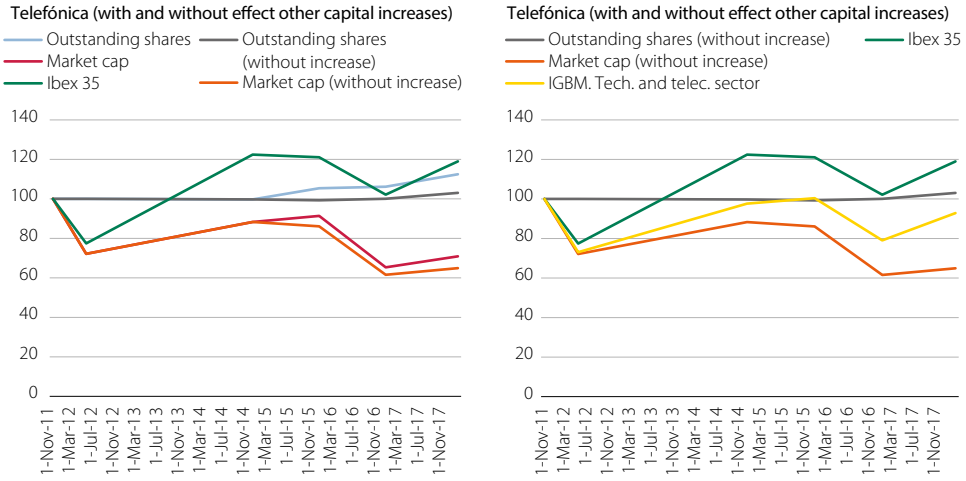


Santander (with and without effect other capital increases)



Santander (without effect other capital increases)





Source: CNMV.

The results of this exercise (see Figure 1) suggest that the effect of the policy analysed is unambiguous in the medium term. In most cases, the share value and the capitalisation, discounting the effects of other corporate policies, remains slightly below or close to the value prior to implementation of the aforementioned policies. In no case is there a significant increase in the value of the capitalisation or the share. However, it seems reasonable to think that the companies that opted for this policy managed to stem a fall in the share price or the capitalisation (and, therefore, the solvency position) that might have compromised their future plans.

This analysis does not allow a distinction to be made between whether these trends are largely due to agents incorporating the information available in the "announcement" effect or whether there have been other factors that might have contributed towards explaining these movements. However, the information available to date for the case of Spain is compatible with the semi-strong hypothesis of the efficient-market theory, which states that the information contained in dividend policy announcements together with past observations is immediately incorporated by agents. It also seems to be the case that the companies with greater potential to generate future profits are those that have opted for a scrip dividend policy.

8 Conclusion

This article describes the most significant aspects of scrip dividend policies and the different types, the advantages and disadvantages of these remuneration practices, both for shareholders and for the paying companies, and the signals that the announcements of scrip dividends send to financial markets. In this context, an analysis is presented of the application of these policies by Spanish companies between 2009 and 2017. The available information reveals that the number of companies that offer scrip dividend programmes and the size of said programmes rose in the first few years of the sample, while the data for recent years show a downward trend. The expansive trend of these remuneration policies in Spain is similar to that recorded in companies with certain liquidity tensions in other countries following the financial crisis. In addition, the fact that scrip dividend programmes have recently

become a declining phenomenon in Spain may be the result of several reasons, which include: i) the disappearance of the tax breaks associated with scrip dividend programmes in Spain up to 2017, ii) the strengthening of the financial position of companies making use of scrip dividends in Spain, and iii) the desire of these companies to avoid a fall in the earnings per share figure.

The preliminary analysis of the movements in the share prices of some of the Spanish companies that have adopted these dividend policies over recent years suggest that this practice has generally been beneficial for the companies and financial institutions, with rises noted both in their profits and in the return on their shares. In the short term, it is not clear whether they have contributed to generating shareholder value, but it is possible that they have prevented value destruction and that they have helped to established certain foundations – by strengthening the balance sheet and financial position – so that the companies may once again create value in the medium and long term. The results are compatible with the "retained earnings hypothesis", which holds that the companies that obtain the confidence of the market in their future capacity to generate cash flows may reduce their current retained earnings or reserves by paying scrip dividends instead of cash dividends, without this policy harming them.

Appendix A

Examples of recording a scrip dividend according to different types of implementation.

Common initial assumptions:

Company without debt, with a market value of 10,000 euros, 1,000 shares and cash of 1,000.

80% of shareholders opt for cash payment.

The company will issue an additional 5% of shares (1 new share for every 20 old shares).

Balance sheet of Company A before dividend

Assets		Liabilities	
Cash	1,000	Capital (No. of shares 1,000 * par 3)	3,000
Other assets	9,000	Voluntary reserves	5,000
		Retained earnings	2,000
TOTAL	10,000	TOTAL	10,000

→ Initial price at market value of a share: Pi = 10,000 / 1,000 = 10

Three different cases are analysed depending on how the scrip dividend is structured, but it will be shown that they are indifferent for the initial shareholders.

Case 1 (Spanish model 1)

The scrip dividend is structured through a share issue. The shareholders have pre-emptive subscription rights, which they may use to buy new shares or sell to the company for a cash amount equal to the theoretical subscription value. The shares that are not wanted by shareholders who are entitled to them, as they prefer cash, will not be issued.

The shareholders who do not want the new options will receive the pre-emptive subscription right (PSR) for each share that they have:

PSR= Pi – Pf

And:

Vi = 10,000 = ni * Pi = 1,000 * 10 = 10,000

Vf = 10,000 – cash outflow = 10,000 – (80% * 1,000 * (Pi – Pf)
= 10,000 – 800(10 – Pf) = 10,000 – 8,000 + 800Pf = nfPf

The final number of shares is 1,010 (only those corresponding to 20% of the capital = 5% * 200 are issued), so:

Vf = 2,000 + 800Pf = 1,010Pf

2,000 = 210Pf

So, Pf = 9.5238 and PSR = 0.4762

Where: Pi: initial share price (before increase)
Pf: final share price (after increase)
Vi: initial valuation of the company
Vf: final valuation of the company
ni: initial number of outstanding shares
nf: final number of outstanding shares (after the increase)

The shareholders who choose cash (80%) are paid the PSR, in total 800 * 0.4762 = 380.9523, which is a net cash outflow.

A shareholder that had 20 shares and opted for cash, now has:

Cash: 20 * 0.4762 = 9.524

Shares: 20 * 9.5238 = 190.476

A shareholder that had 20 shares and opted for the increase, now has:

Cash: 0

Shares: 21 * 9.5238 = 200

At the level of the final balance sheet:

Balance sheet of Company A following the dividend

Assets		Liabilities	
Cash	1,000– 380.9523	Capital (No. of shares 1,010 * par 3)	3,030
Other assets	9,000	Voluntary reserves	4,589.0477
		Retained earnings	2,000
TOTAL	9,619.0477	TOTAL	9,619.0477

→ Initial price at market value of a share: Pi = 9619.0477 / 1,010 = 9.5238

Capital: The capital is increased by 30 (3 * 10 which are transferred from reserves as a result of the shares distributed to the 20% of shareholders who opted for the new shares).

Reserves: These fall by 410.9523. They fall as a result of the PSR paid to shareholders who opted for cash (800 * 0.4762 = 380.96) and also as a result of the par value of the shares that were distributed to the shareholders who opted for shares (3 * 10).

Case 2 (UK model)

The scrip dividends are structured through a cash dividend, which, if desired, can be swapped for new company shares. Shareholders are offered either a 5% increase in the number of shares or to receive a dividend of 0.4762 per share.

The shareholders who do not want the new options will receive the dividend of 0.4762.

And:

Vi = 10,000 = ni * Pi = 1,000 * 10 = 10,000

Vf = 10,000 – cash outflow = 10,000 – (80% * 1,000 * 0.4762)
= 10,000 – 800 * 0.4762 = 10,000 – 380.96 = 9,619.04 = nfPf

The final number of shares is 1,010 (only those corresponding to 20% of the capital = 5% * 200 are issued), so:

Vf = 9,619.04 = 1,010Pf

So, Pf = 9.5238

The shareholders who choose cash (80%) are paid 800 * 0.4762 = 380.9523 in total, which is a net cash outflow.

A shareholder that had 20 shares and opted for cash, now has:

Cash: 20 * 0.4762 = 9.524

Shares: 20 * 9.5238 = 190.476

A shareholder that had 20 shares and opted for the increase, now has:

Cash: 0

At the level of the final balance sheet:

Balance sheet of Company A following the dividend

Assets		Liabilities	
Cash	1,000 –380.9523	Capital (No. of shares 1,010 * par 3)	3,030
Other assets	9,000	Voluntary reserves	4,970
		Retained earnings	1,619.0477
TOTAL	9,619.0477	TOTAL	9,619.0477

→ Initial price at market value of a share: Pi = 9,619.0477 / 1,010 = 9.5238

Capital: The capital is increased by 30 (3 * 10 which are transferred from reserves as a result of the shares distributed to the 20% of shareholders who opted for the new shares).

Reserves: These fall by 30, the par value of the shares that were distributed to the shareholders who opted for the shares (3 * 10).

Ordinary profit: This falls by the amount of the dividend paid of 380.9523.

Case 3 (Spanish model 2)

The scrip dividend is structured through a share issue. The shareholders have pre-emptive subscription rights, which they may use to buy new shares or sell to the company for a cash amount equal to the theoretical subscription value. The shares that are not wanted by shareholders who are entitled to them, as they prefer cash, will be sold on the market at market price to new shareholders, so that the final number of shares will be 1,050.

The shareholders who do not want the new options will receive for each share that they have the pre-emptive subscription right PSR= Pi – Pf:

And:

Vi = 10,000 = ni * Pi = 1,000 * 10 = 10,000

Vf = 10,000 – cash outflow + inflow from the shares sold on the market =
= 10.000 – (80% * 1,000 * (Pi – Pf) + (5% * 80% * 1,000 * Pf) =
10,000 – 800(10 – Pf) + (40 * Pf) = 10,000 – 8,000 + 800Pf + (40 * Pf) = nfPf

As the final number of outstanding shares is 1,050, we have:

Vf = 2,000 + 800Pf + (40 * Pf) = 1,050Pf

2,000 = 210Pf

So, Pf = 9.5238 and PSR= 0.4762

The shareholders who opt for cash (80%) are paid the PSR, in total 800 * 0.4762 = 380.9523

The 40 shares not subscribed by these shareholders are sold on the market at market value = 40 * 9.5238 = 380.9523. There is no net outflow of cash, which remains at 1,000.

A shareholder that had 20 shares and opted for cash, now has:

Cash: 20 * 0.4762 = 9.524

Shares: 20 * 9.5238 = 190.476

A shareholder that had 20 shares and opted for the increase, now has:

Cash: 0

Shares: 21 * 9.5238 = 200

At the level of the balance sheet:

Balance sheet of Company A following the dividend

Assets		Liabilities	
Cash	1,000 – 380.9523 + 380.9523	Capital (No. of shares 1,050 * par 3)	3,150
Other assets	9,000	Voluntary reserves	4,850
		Retained earnings	2,000
TOTAL	10,000	TOTAL	10,000

→ The initial price at market value of a share: Pi = 10,000 / 1,050 = 9.5238

Capital: The capital is increased by 150 (3 * 40 from payment by the new shareholders and 3 * 10 which are transferred from reserves as a result of the shares distributed to the 20% of shareholders who opted for the new shares).

Reserves: These fall by 150. On the one hand, they fall as a result of the PSR paid to the shareholders who opted for cash (800 * 0.4762 = 380.96) and they also fall as a result of the par value of the shares that were distributed to the shareholders who opted for shares (3 * 10). On the other hand, they rise as a result of the price above the par value paid by the new shareholders in the market (40 * (9.5238 – 3) = 260.952). The net change is 150.

It seems that in this case, nothing has happened with regard to the initial situation, in which case it would be like a traditional stock dividend with no choice, but this is not the case. There is a significant change. Only 96.19% of this balance sheet (1,010 / 1,050) belongs to the initial shareholders (same value as in cases 1 and 2), while the rest belongs to new shareholders. For the initial shareholders, case 3 is equivalent to 1 or 2. In addition, the risk with regard to the value of the new shares in the market is borne by the company and not by the shareholders, who receive payment in cash, as this payment is set beforehand in every case.

III Legislative annex

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

Spanish legislation

– Resolution of 18 October 2018, of the Congress of Deputies [Lower House], ordering publication of the Resolution Ratifying Royal Decree-Law 14/2018, of 28 September, amending the recast text of the Securities Market Act, approved by Royal Legislative Decree 4/2015, of 23 October.

– Royal Decree-Law 19/2018, of 23 November, on payment services and other urgent financial measures.

The aim of this royal decree-law is to regulate the payment services, which are listed in Section 2, that are provided on a professional basis in Spain. This includes the manner in which said services are provided, the legal regime for payment instruments and the rules on transparency and information applicable to payment services, as well as the respective rights and obligations of both users and providers of payment services.

The payment services regulated by this royal decree-law include **two new ones**: payment initiation and account information. Both services involve third-party access to the accounts of payment service users.

With regard to the scope of the services to which this legislation applies, the principle that the royal decree-law applies to services provided in Spain, whatever the origin and final destination of the transactions, is maintained.

Law 16/2009, of 13 November, on payment services is repealed.

In addition to the above regulation, the following is noteworthy:

- Ninth final provision. **Amendment to the recast text of the Securities Market Act, approved by Royal Legislative Decree 4/2015, of 23 October.**

  The objectives of this amendment are as follows:

  i) To perform a formal and technical adaptation of some of its provisions.

  The ninth final provision makes some technical adaptations to the recast text of the Securities Market Act. The need for these adaptations became apparent following its amendment by Royal Decree-Law 14/2018, of 28 September, amending the recast text of the Securities Market Act, approved by Royal Legislative Decree 4/2015, of 23 October, and they aim to give full effect to the new aspects introduced in the reference piece of securities market legislation. Royal Decree-Law 14/2018 made progress in incorporating

the MiFID II regulatory package into Spanish law and its approval was necessary on an extraordinary and urgent basis for several reasons. Firstly, the deadline for transposing said Directive had passed and the European Commission had referred the Kingdom of Spain to the Court of Justice of the European Union as a result of a failure to transpose said Directive in full. Secondly, it was necessary to avoid serious harm to Spanish investment firms resulting from regulatory uncertainty. Thirdly, the failure to transpose the Directive by the deadline was affecting the appeal of the Spanish market as a market in which new investment firms might set up. Fourthly, as a result of the extraordinary and urgent need to provide the CNMV with the new inter-administrative cooperation tools that MiFID II granted to the public bodies that supervise investment firms and securities markets in the European Union.

ii) To adapt legislation to various recent European regulations whose entry into force and effective application had already taken place, specifically:

- Regulation (EU) No. 2016/1011 of the European Parliament and of the Council, of 8 June 2016, on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No. 596/2014.

- Regulation (EU) No. 596/2014 of the European Parliament and of the Council, of 16 April 2014, on market abuse and repealing Directive 2003/6/EC of the European Parliament and of the Council, and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC.

- Regulation (EU) No. 1286/2014 of the European Parliament and of the Council, of 26 November 2014, on key information documents for packaged retail and insurance-based investment products.

- Regulation (EU) No. 2015/2365 of the European Parliament and of the Council, of 25 November 2015, on transparency of securities financing transactions and of reuse and amending Regulation (EU) No. 648/2012.

iii) To complete the transposition of two partially transposed directives. Firstly, Commission Implementing Directive (EU) 2015/2392, of 17 December 2015, on Regulation (EU) No. 596/2014 of the European Parliament and of the Council, as regards reporting to competent authorities of actual or potential infringements of that Regulation; and Directive 2013/36/EU of the European Parliament and of the Council, of 26 June 2013, on access to the activity of credit institutions and the prudential supervision of credit institutions and

investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

Legal certainty is introduced into Spanish law through adaptation of the recast text of the Securities Market Act (especially its disciplinary regime) to the European regulations already in force. Although these regulations already apply directly, Spanish law is adapted to them in order to provide certainty to operators and to the CNMV's supervisory work. This means that the core legislation applicable to securities markets is fully adapted to current European law, which ensures that the CNMV has all the necessary supervisory instruments to guarantee the proper functioning of these markets and adequate investor protection.

- Second final provision. **Amendment of Law 35/2003, of 4 November, on Collective Investment Schemes.** Spanish law is adapted to Regulation (EU) No. 2017/1131 of the European Parliament and of the Council, of 14 June 2017, on money market funds, which establishes a harmonised regulation for this type of investment fund and which imposes on the Member States the obligation to establish a disciplinary regime. This Regulation has applied since 21 July 2018 and therefore the disciplinary regime for breaches of European legislation was included in Law 35/2003, of 4 November, on Collective Investment Schemes in order to establish the infringement categories that reflect breaches of the obligations set out in the Regulation.

  It should be noted that the regulations of the European Union imposed on Member States the obligation to notify the European Commission, by a specific deadline, of the administrative penalties incorporated into their legal systems in order to ensure their effectiveness. These deadlines were as follows: Regulation (EU) No. 2016/1011, on 1 January 2018; Regulation (EU) No. 1286/2014, on 31 December 2016; Regulation (EU) No. 2015/2365, on 13 July 2017; and Regulation (EU) No. 2017/1131, on 21 July 2018.

- First final provision. **Amendment of Law 41/1999, of 12 November, on securities payment and settlement systems.** This amendment updates the list of securities payment and liquidation systems following integration of the Spanish community into the pan-European TARGET2-Securities platform.

- Eighth final provision. **Amendment of Law 11/2015, of 18 June, on recovery and resolution of credit institutions and investment firms.** This amendment aims to correctly transpose the provisions for branches of institutions established outside the European Union in Directive 2014/59/EU of the European Parliament and of the Council, of 15 May, establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No. 1093/2010 and (EU) No. 648/2012. In this regard, it is also necessary to

amend Article 53 to clarify that the **Fund for Orderly Bank Restructuring** (Spanish acronym: FROB) may collect contributions from branches in Spain of institutions established outside the European Union. In addition, this final provision contains provisions to clarify **the powers of the FROB** as an executive resolution authority at the time that it carries out a resolution, with respect to the limits and requirements set out in corporate law, in accordance with Directive 2014/59/EU of the European Parliament and of the Council, of 15 May 2014.

- Sixth final provision. **Amendment of Law 10/2014, of 26 June, on the regulation, supervision and solvency of credit institutions.** The legislation is adapted to the activity of providing payment services and completed with regard to Directive 2013/36/EU of the European Parliament and of the Council, of 26 June, on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms. Particularly noteworthy is the provision of an appropriate whistleblowing channel so that any person who has knowledge or well-founded suspicion of breaches of the obligations relating to the prudential supervision of credit institutions provided for in said Law and its implementing regulations has the possibility and the right to report it to the Bank of Spain with the due guarantees.

  In addition, it provides that all places of business set up in Spanish territory by European credit institutions with headquarters in another Member State shall be regarded as a single branch. It also ensures the appropriate exchange of information between the Bank of Spain and other competent authorities in the European Union in the case of Spanish institutions controlled by a European Union parent institution.

- Seventh final provision. **Amendment of Law 5/2015, of 27 April, on the promotion of business financing.** It establishes the Bank of Spain as the body responsible for authorising hybrid specialised lending institutions. Insofar as hybrid specialised lending institutions provide payment services, this amendment is consistent with the fact that the Bank of Spain has been assigned authority with regard to authorising payment institutions in this Royal Decree-Law.

- Fourth final provision. **Amendment of the recast text of the Capital Companies Act, approved by Royal Legislative Decree 1/2010, of 2 July.** This amends the Capital Companies Act by adding a new case in which withdrawal of a shareholder as a result of a failure to distribute dividends is not possible for the case of shareholders of credit institutions and other financial institutions that are not listed companies subject 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 and amending Regulation (EU) No. 648/2012.

  An eleventh additional provision is added to the recast text of the Capital Companies Act on the right of withdrawal in financial institutions.

- Third final provision. **Amendment of Law 22/2007, of 11 July, on distance marketing of consumer financial services.** The regulation on distance marketing of financial services is adapted to the requirements of Directive (EU) 2015/2366 of the European Parliament and of the Council, of 25 November 2015.

  This Royal Decree-Law entered into force on the day following that of its publication in the *BOE* (Official State Gazette). However:

  i) Titles II and III shall apply as from three months following its publication in the *BOE* (Official Journal of Spain).

  ii) The security measures referred to in Articles 37, 38, 39 and 68 will apply as from 18 months following entry into force of Commission Delegated Regulation (EU) 2018/389, of 27 November 2017, supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication, without prejudice to the fact that up to that date no account servicing payment service provider may prevent or hinder the use of payment initiation services and account information services with regard to the accounts that they service.

  iii) The wording of Articles 119.3 and 121.1 of Law 10/2014, of 26 June, on the regulation, supervision and solvency of credit institutions is amended by the sixth final provision.

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

This introduces into Spanish law the necessary macro-prudential tools for addressing any vulnerabilities for the financial system by providing the Bank of Spain, the CNMV and the Directorate-General for Insurance and Pension Funds with the necessary instruments and tools to mitigate any disturbances that have a potential systemic impact.

In the case of investment funds, the CNMV is empowered, under certain circumstances, to set liquidity requirements for collective investment schemes and entities. The former are open funds, i.e., the unit-holders are able to withdraw funds at any time, which makes them critically vulnerable to possible mass withdrawals as a result of market tensions. Furthermore, these funds are marketed to individuals, which makes them sensitive from a social point of view.

The title of Article 71 *septies* of Law 35/2003, of 4 November, on Collective Investment Schemes, is amended, and a new paragraph 7 is added.

Similarly, an amendment is made to the title of Article 87 of Law 22/2014, of 12 November, regulating venture capital vehicles, other closed-end collective investment entities and the management companies of closed-end collective

investment entities, and amending Law 35/2003, of 4 November, and a new paragraph 7 is added.

Article 5 amends the recast text of the Securities Market Act, approved by Royal Legislative Decree 4/2015, of 23 October, so as to authorise the CNMV to establish restrictions on certain activities by its supervised entities that generate an excessive increase in risk or indebtedness of economic agents that might affect financial stability.

A new Article 234 *bis* is added to the recast text of the Securities Market Act, approved by Royal Legislative Decree 4/2015, of 23 October, with the following content:

> "Article 234 *bis*. Other powers to strengthen macro-prudential supervision.
>
> The CNMV may introduce limits and conditions for the activity of its supervised entities with the aim of preventing excessive indebtedness of the private sector that might affect financial stability".

The single additional provision establishes the obligation of sector supervisors to report to the authority designated as the macro-prudential authority the adoption of macro-prudential tools before they are reported to the public and the parties concerned. Until the creation of this authority, the single transitory provision establishes that this reporting be made to the Financial Stability Committee.

European legislation

– Commission Regulation (EU) 2018/1595, of 23 October 2018, amending Regulation (EC) No. 1126/2008, adopting certain international accounting standards in accordance with Regulation (EC) No. 1606/2002 of the European Parliament and of the Council as regards Interpretation 23 of the International Financial Reporting Interpretations Committee.

  This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union* (24 October 2018).

– Commission Delegated Regulation 2018/1637, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards for the procedures and characteristics of the oversight function.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

– Commission Delegated Regulation (EU) 2018/1638, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the

Council with regard to regulatory technical standards specifying further how to ensure that input data is appropriate and verifiable, and the internal oversight and verification procedures of a contributor that the administrator of a critical or significant benchmark has to ensure are in place where the input data are provided from a front office function.

This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

- Commission Delegated Regulation (EU) 2018/1639, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the elements of the code of conduct to be developed by administrators of benchmarks that are based on input data from contributors.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

- Commission Delegated Regulation (EU) 2018/1640, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the governance and control requirements for supervised contributors.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

- Commission Delegated Regulation (EU) 2018/1641, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the information to be provided by administrators of critical or significant benchmarks on the methodology used to determine the benchmark, the internal review and approval of the methodology and on the procedures for making material changes in the methodology.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

- Commission Delegated Regulation (EU) 2018/1642, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the criteria to be taken into account by competent authorities when assessing whether administrators of significant benchmarks should apply certain requirements.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

- Commission Delegated Regulation (EU) 2018/1643, of 13 July, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the contents

of, and cases where updates are required to, the benchmark statement to be published by the administrator of a benchmark.

This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

– Commission Delegated Regulation (EU) 2018/1644, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards determining the minimum content of cooperation arrangements with competent authorities of third countries whose legal framework and supervisory practices have been recognised as equivalent.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

– Commission Delegated Regulation (EU) 2018/1645, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards for the form and content of the application for recognition with the competent authority of the Member State of reference and of the presentation of information in the notification to the European Securities and Markets Authority (ESMA).

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

– Commission Delegated Regulation (EU) 2018/1646, of 13 July 2018, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards for the information to be provided in an application for authorisation and in an application for registration.

  This Regulation, published on 5 November 2018, shall apply from 25 January 2019.

– Commission Implementing Regulation (EU) 2018/1624, of 23 October 2018, laying down implementing technical standards with regard to procedures and standard forms and templates for the provision of information for the purposes of resolution plans for credit institutions and investment firms pursuant to Directive 2014/59/EU of the European Parliament and of the Council, and repealing Commission Implementing Regulation (EU) 2016/1066.

– Commission Implementing Regulation (EU) 2018/1889, of 4 December 2018, on the extension of the transitional periods related to own funds requirements for exposures to central counterparties set out in Regulations (EU) No. 575/2013 and (EU) No. 648/2012 of the European Parliament and of the Council.

  This Regulation entered into force on the third day following that of its publication in the *Official Journal of the European Union* (5 December 2018).

Other

- European Securities and Markets Authority Decision (EU) 2018/1636, of 23 October 2018, renewing and amending the temporary restriction in Decision (EU) 2018/796 on the marketing, distribution or sale of contracts for differences to retail clients.

- Constitutional Law 3/2018, of 5 December, on Personal Data Protection and guarantee of digital rights.

  The purpose of this Constitutional Law is to:

  i) Adapt Spanish law to Regulation (EU) 2016/679 of the European Parliament and of the Council, of 27 April 2016, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and completing its provisions. The fundamental right of natural persons to the protection of personal data, protected under Article 18.4 of the Spanish Constitution, shall be exercised in accordance with the provisions of Regulation (EU) 2016/679 and this Constitutional Law.

  ii) Guarantee the digital rights of citizens in accordance with the mandate set out in Article 18.4 of the Spanish Constitution.

  This Constitutional Law introduces the amendments necessary to Law 1/2000, of 7 January, on Civil Procedure and Law 29/1998, of 13 July, regulating the Contentious-Administrative Jurisdiction; Constitutional Law 6/1985, of 1 July, on the Judiciary; Law 19/2013, of 9 December, on transparency, access to public information and good governance; Constitutional Law 5/1985, of 19 June, on the General Electoral System; Law 14/1986, of 25 April, on General Health; Law 41/2002, of 14 November, on basic regulation of patient autonomy and rights and obligations with regard to clinical information and documentation; and Law 39/2015, 1 October, on the Common Administrative Procedure of Public Administrations.

  In addition, in relation to the guarantee of digital rights, amendments are also made to Constitutional Law 2/2006, of 3 May, on Education, and Constitutional Law 6/2001, of 21 December, on Universities, as well as to the recast text of the Law on the Workers' Statute and to the recast text of the Law on the Basic Statute of Public Employees.

  Constitutional law 15/1999, of 13 December, on Personal Data Protection and Royal Decree-Law 5/2018, of 27 July, on urgent measures to adapt Spanish law to European Union legislation and data protection are repealed.

- Royal Decree-Law 21/2018, of 14 December, on urgent measures in the housing and rental sector.

  This Royal Decree-Law provides a set of urgent measures to enhance access to housing and to promote affordable rent.

IV Statistics annex

1 Markets

1.1 Equity

Share issues and public offerings[1]

TABLE 1.1

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[2]
NO. OF ISSUERS								
Total	50	45	46	17	15	12	17	15
Capital increases	45	45	44	17	14	12	17	15
Primary offerings	0	3	3	1	0	0	0	1
Bonus issues	17	18	12	3	5	2	5	2
Of which, scrip dividend	12	12	9	2	5	2	5	2
Capital increases by conversion	6	8	5	3	1	4	2	1
For non-monetary consideration	3	3	8	2	2	0	3	3
With pre-emptive subscription rights	12	11	8	3	4	1	0	2
Without trading warrants	16	11	15	7	4	5	7	7
Secondary offerings	6	2	4	1	1	0	0	0
NO. OF ISSUES								
Total	111	81	89	25	22	14	17	17
Capital increases	99	79	82	24	21	14	17	17
Primary offering	0	4	4	1	0	0	0	1
Bonus issues	28	25	16	3	5	2	5	2
Of which, scrip dividend	22	19	13	2	5	2	5	2
Capital increases by conversion	23	17	6	3	1	5	2	1
For non-monetary consideration	3	4	12	4	3	0	3	3
With pre-emptive subscription rights	15	11	8	3	4	1	0	2
Without trading warrants	30	18	36	10	8	6	7	8
Secondary offerings	12	2	7	1	1	0	0	0
CASH VALUE (million euro)								
Total	37,065.5	20,251.7	32,538.1	2,656.7	3,907.4	559.2	3,787.8	3,203.3
Capital increases	28,733.9	19,745.1	29,593.6	2,089.5	3,261.7	559.2	3,787.8	3,203.3
Primary offerings	0.0	807.6	956.2	100.0	0.0	0.0	0.0	100.1
Bonus issues	9,627.8	5,898.3	3,807.3	720.1	1,362.8	133.1	2,120.3	132.5
Of which, scrip dividend	9,627.8	5,898.3	3,807.3	720.1	1,362.8	133.1	2,120.3	132.5
Capital increases by conversion	1,868.7	2,343.9	1,648.8	125.5	1.6	223.9	153.3	0.0
For non-monetary consideration	365.2	1,791.7	8,469.3	49.9	1,179.1	0.0	1,263.4	557.3
With pre-emptive subscription rights	7,932.6	6,513.3	7,831.4	531.6	574.7	63.0	0.0	40.6
Without trading warrants	8,939.7	2,390.2	6,880.5	562.4	143.5	139.2	250.7	2,372.8
Secondary offerings	8,331.6	506.6	2,944.5	567.3	645.7	0.0	0.0	0.0
NOMINAL VALUE (million euro)								
Total	4,253.4	4,206.1	3,165.1	269.4	1,104.8	119.4	311.8	418.3
Capital increases	3,153.3	4,189.8	2,662.8	264.1	823.0	119.4	311.8	418.3
Primary offerings	0.0	28.2	749.2	0.9	0.0	0.0	0.0	100.1
Bonus issues	946.6	877.8	324.3	57.4	132.6	1.5	170.8	50.3
Of which, scrip dividend	785.8	708.0	299.1	49.7	132.6	1.5	170.8	50.3
Capital increases by conversion	89.6	648.0	182.8	11.3	1.6	84.8	2.7	0.1
For non-monetary consideration[3]	146.6	248.9	181.9	12.8	220.7	0.0	132.7	204.1
With pre-emptive subscription rights	1,190.7	1,403.0	882.0	56.3	448.6	17.5	0.0	40.2
Without trading warrants	779.8	983.9	342.6	125.4	19.5	15.6	5.6	23.4
Secondary offerings	1,100.2	16.3	502.3	5.4	281.7	0.0	0.0	0.0
***Pro memoria*: transactions MAB[4]**								
No. of issuers	16	15	13	3	1	3	3	2
No. of issues	18	21	15	4	3	3	4	2
Cash value (million euro)	177.8	219.7	129.9	26.2	13.2	95.7	52.3	3.4
Capital increases	177.8	219.7	129.9	26.2	13.2	95.7	52.3	3.4
Of which, primary offerings	21.6	9.7	17.1	3.0	0.0	0.0	0.0	0.0
Secondary offerings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Registered transactions at the CNMV. Does not include data from MAB, ETF or Latibex.
2 Available data: November 2018.
3 Capital increases for non-monetary consideration are valued at market prices.
4 Unregistered transactions at the CNMV. Source: BME and CNMV.

Companies listed[1]

TABLE 1.2

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[2]
Total electronic market[3]	129	130	134	134	133	133	131	133
Of which, foreign companies	7	7	7	7	7	7	8	8
Second Market	5	5	4	4	4	4	4	4
Madrid	2	2	1	1	1	1	1	1
Barcelona	3	3	3	3	3	3	3	3
Bilbao	0	0	0	0	0	0	0	0
Valencia	0	0	0	0	0	0	0	0
Open outcry	18	14	12	12	11	11	11	11
Madrid	8	5	4	4	4	4	4	4
Barcelona	10	8	6	6	6	6	6	6
Bilbao	6	5	4	4	3	3	3	3
Valencia	3	3	3	3	3	3	3	3
MAB[4]	3,429	3,336	2,965	2,965	2,910	2,879	2,856	2,850
Latibex	21	20	20	20	20	20	19	19

1 Data at the end of period.
2 Available data: November 2018.
3 Without ETFs (Exchange Traded Funds).
4 Alternative Stock Market.

Capitalisation[1]

TABLE 1.3

Million euro	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[2]
Total electronic market[3]	766,335.7	779,123.8	877,867.6	877,867.6	853,412.1	869,858.7	833,728.9	787,069.3
Of which, foreign companies[4]	141,695.3	151,043.2	178,620.3	178,620.3	177,079.4	184,514.8	183,387.7	159,391.2
Ibex 35	477,521.1	484,059.2	534,250.1	534,250.1	511,770.8	494,267.2	482,579.5	466,120.5
Second Market	20.6	114.1	49.9	49.9	49.7	38.2	39.3	37.8
Madrid	20.6	72.0	8.7	8.7	8.7	2.2	3.3	2.4
Barcelona	0.0	42.1	41.2	41.2	41.0	36.0	36.0	35.4
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	1,040.3	1,291.6	1,288.5	1,288.5	1,429.0	1,565.6	1,532.3	1,474.5
Madrid	296.9	289.9	165.9	165.9	164.4	254.4	234.2	220.5
Barcelona	887.7	1,136.6	1,134.3	1,134.3	1,276.7	1,432.7	1,399.3	1,339.3
Bilbao	943.3	54.0	211.3	211.3	209.1	283.5	263.3	56.5
Valencia	150.0	349.2	54.0	54.0	56.4	53.5	54.1	251.5
MAB[5, 6]	37,258.5	38,580.8	43,804.8	43,804.8	41,411.4	40,960.3	43,032.7	41,833.7
Latibex	116,573.4	198,529.6	215,277.7	215,277.7	284,843.2	209,870.5	239,781.3	233,880.1

1 Data at the end of period.
2 Available data: November 2018.
3 Without ETFs (Exchange Traded Funds).
4 Foreign companies capitalisation includes their entire shares, whether they are deposited in Spain or not.
5 Calculated only with outstanding shares, not including treasury shares, because capital stock is not reported until the end of the year.
6 Alternative Stock Market.

Trading

TABLE 1.4

				2017	2018			
Million euro	2015	2016	2017	IV	I	II	III	IV[1]
Total electronic market[2]	938,396.7	635,797.8	640,293.7	155,638.9	109,024.1	190,087.9	116,892.9	93,861.2
Of which, foreign companies	12,417.7	6,018.0	6,908.0	1,143.0	866.4	805.6	841.5	509.5
Second Market	13.8	3.1	0.7	0.2	0.1	0.3	0.4	0.0
Madrid	13.7	2.7	0.5	0.1	0.0	0.1	0.4	0.0
Barcelona	0.1	0.4	0.3	0.1	0.1	0.1	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	246.1	7.4	8.1	2.2	0.9	3.1	2.0	1.6
Madrid	19.4	3.2	2.3	0.0	0.0	0.0	0.1	0.7
Barcelona	219.1	4.2	6.2	2.1	0.8	3.1	1.9	0.9
Bilbao	7.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Valencia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAB[3]	6,441.7	5,055.1	4,985.6	1,317.4	1,021.7	1,020.4	762.0	646.9
Latibex	258.7	156.4	130.8	16.1	36.2	33.2	31.6	34.2

1 Available data: November 2018.
2 Without ETFs (Exchange Traded Funds).
3 Alternative Stock Market.

Trading on the electronic market by type of transaction[1]

TABLE 1.5

				2017	2018			
Million euro	2015	2016	2017	IV	I	II	III	IV[2]
Regular trading	903,397.2	619,351.6	619,108.6	149,360.4	105,863.5	172,034.7	113,345.0	90,779.5
Orders	475,210.0	346,980.8	335,917.3	80,628.0	64,677.9	75,366.9	70,956.2	50,608.3
Put-throughs	96,187.7	68,990.5	51,315.9	12,379.5	9,351.9	15,435.6	10,691.5	7,739.9
Block trades	331,999.5	203,380.2	231,875.3	56,353.0	31,833.7	81,232.2	31,697.3	32,431.3
Off-hours	3,137.9	1,996.2	2,373.8	961.1	273.7	746.6	154.0	211.9
Authorised trades	14,885.5	12,667.0	9,265.3	2,159.4	444.0	551.9	720.9	407.0
Art. 36.1 SML trades	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tender offers	4,360.1	788.4	389.9	2.3	843.2	15,368.8	1,474.8	1,179.9
Public offerings for sale	4,266.8	777.5	2,288.1	1,150.2	710.2	0.0	89.0	534.0
Declared trades	203.6	37.3	0.0	0.0	0.0	0.0	0.0	200.0
Options	5,964.2	5,408.3	4,462.2	1,499.9	525.0	921.3	627.2	223.6
Hedge transactions	2,181.4	1,833.8	2,405.7	505.6	364.4	464.6	482.0	325.3

1 Without ETFs (Exchange Traded Funds).
2 Available data: November 2018.

1.2 Fixed-income

Gross issues registered at the CNMV

TABLE 1.6

	2015	2016	2017	2017 IV	2018 I	II	III	IV[1]
NO. OF ISSUERS								
Total	49	51	48	23	15	16	16	15
Mortgage covered bonds	13	13	9	4	3	4	4	4
Territorial covered bonds	3	3	1	0	0	0	0	0
Non-convertible bonds and debentures	16	16	16	9	9	7	7	5
Convertible bonds and debentures	1	0	0	0	0	0	0	0
Backed securities	16	20	21	12	3	4	2	3
Commercial paper	16	14	13	3	3	0	6	4
Of which, asset-backed	1	1	1	0	1	0	0	0
Of which, non-asset-backed	15	13	12	3	2	0	6	4
Other fixed-income issues	0	1	1	0	0	0	0	0
Preference shares	0	0	1	0	1	1	1	1
NO. OF ISSUES								
Total	415	399	378	103	89	68	69	43
Mortgage covered bonds	34	41	28	10	7	4	4	6
Territorial covered bonds	6	4	1	0	0	0	0	0
Non-convertible bonds and debentures	318	277	276	58	70	52	53	26
Convertible bonds and debentures	1	0	0	0	0	0	0	0
Backed securities	40	61	58	32	8	11	5	6
Commercial paper[2]	16	15	13	3	3	0	6	4
Of which, asset-backed	1	1	1	0	1	0	0	0
Of which, non-asset-backed	15	14	12	3	2	0	6	4
Other fixed-income issues	0	1	1	0	0	0	0	0
Preference shares	0	0	1	0	1	1	1	1
NOMINAL AMOUNT (million euro)								
Total	136,607.3	139,028.2	109,487.4	47,852.3	20,204.9	10,644.7	11,793.1	15,080.4
Mortgage covered bonds	31,375.0	31,642.5	29,823.7	13,348.7	5,125.0	1,700.0	5,050.0	4,060.0
Territorial covered bonds	10,400.0	7,250.0	350.0	0.0	0.0	0.0	0.0	0.0
Non-convertible bonds and debentures	39,099.9	40,170.4	30,006.2	12,632.0	4,983.4	1,176.6	1,430.7	472.6
Convertible bonds and debentures	53.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Backed securities	28,369.6	35,504.9	29,415.4	16,327.6	5,430.7	3,534.0	1,048.0	6,635.0
Commercial paper[3]	27,309.6	22,960.4	17,911.2	5,543.9	3,415.8	3,884.1	3,264.4	3,662.8
Of which, asset-backed	2,420.0	1,880.0	1,800.0	800.0	0.0	240.0	0.0	0.0
Of which, non-asset-backed	24,889.6	21,080.4	16,111.2	4,743.9	3,415.8	3,644.1	3,264.4	3,662.8
Other fixed-income issues	0.0	1,500.0	981.0	0.0	0.0	0.0	0.0	0.0
Preference shares	0.0	0.0	1,000.0	0.0	1,250.0	350.0	1,000.0	250.0
***Pro memoria*:**								
Subordinated issues	5,452.2	4,278.7	6,504.6	1,658.9	1,856.5	832.0	933.2	900.5
Underwritten issues	0.0	421.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: November 2018.
2 Shelf registrations.
3 The figures for commercial paper refer to the amount placed.

Issues admitted to trading on AIAF[1]

TABLE 1.7

Nominal amount in million euro	2015	2016	2017	2017 IV	2018 I	II	III	IV[2]
Total	145,890.9	130,141.0	121,556.6	39,193.6	30,948.9	9,852.9	10,932.3	10,249.2
Commercial paper	27,455.3	22,770.6	18,388.9	5,982.5	3,201.6	3,934.0	2,797.8	4,251.7
Bonds and debentures	47,616.4	31,723.0	43,182.3	2,888.5	15,161.5	918.9	852.5	227.5
Mortgage covered bonds	31,375.0	31,392.5	30,000.0	14,775.0	5,125.0	1,700.0	5,050.0	3,900.0
Territorial covered bonds	10,400.0	7,250.0	350.0	0.0	0.0	0.0	0.0	0.0
Backed securities	29,044.2	35,504.9	28,635.4	15,547.6	6,210.7	2,950.0	1,232.0	1,620.0
Preference shares	0.0	0.0	1,000.0	0.0	1,250.0	350.0	1,000.0	250.0
Matador bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other fixed-income issues	0.0	1,500.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Includes only corporate bonds.
2 Available data: November 2018.

AIAF. Issuers, issues and outstanding balance

TABLE 1.8

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
NO. OF ISSUERS								
Total	388	375	362	362	370	362	363	351
Corporate bonds	387	374	342	342	343	330	330	319
Commercial paper	16	14	14	14	13	13	11	9
Bonds and debentures	64	52	48	48	48	46	46	45
Mortgage covered bonds	44	43	41	41	41	41	41	41
Territorial covered bonds	9	9	7	7	7	7	7	7
Backed securities	278	276	262	262	265	254	253	242
Preference shares	13	9	4	4	4	5	6	7
Matador bonds	7	6	6	6	6	5	5	5
Government bonds	1	1	20	20	27	32	33	32
Letras del Tesoro	1	1	1	1	1	1	1	1
Long Government bonds	1	1	1	1	1	1	1	1
Regional Goverments debt	–	–	11	11	14	14	14	13
Foreign public debt	–	–	–	–	3	8	9	9
Other public debt	–	–	7	7	8	8	8	8
NO. OF ISSUES								
Total	2,723	2,637	2,468	2,468	2,563	2,890	2,881	2,854
Corporate bonds	2,531	2,433	2,084	2,084	2,059	1,999	1,964	1,933
Commercial paper	392	351	179	179	137	122	101	111
Bonds and debentures	882	856	764	764	781	768	755	751
Mortgage covered bonds	238	231	218	218	215	213	211	211
Territorial covered bonds	32	29	24	24	24	22	22	22
Backed securities	966	948	889	889	891	863	863	825
Preference shares	16	12	4	4	5	6	7	8
Matador bonds	7	6	6	6	6	5	5	5
Government bonds	193	204	384	384	504	891	917	921
Letras del Tesoro	12	12	12	12	12	12	12	12
Long Government bonds	181	192	226	226	230	228	226	223
Regional Goverments debt	–	–	133	133	170	165	163	164
Foreign public debt	–	–	–	–	75	470	500	507
Other public debt	–	–	13	13	17	16	16	15
OUTSTANDING BALANCE[2] (million euro)								
Total	1,386,289.8	1,408,556.6	1,466,964.4	1,466,964.4	2,594,094.1	6,770,127.9	6,688,189.9	6,728,416.4
Corporate bonds	534,088.9	531,056.9	493,629.6	493,629.6	500,535.2	482,204.0	477,131.8	470,276.9
Commercial paper	15,172.9	16,637.4	11,978.9	11,978.9	10,685.2	8,851.8	7,797.9	8,861.7
Bonds and debentures	74,082.2	85,477.8	70,127.7	70,127.7	79,437.4	74,340.9	73,761.6	73,182.4
Mortgage covered bonds	194,072.7	180,677.5	181,308.7	181,308.7	180,317.9	177,490.8	180,845.1	181,611.8
Territorial covered bonds	27,586.3	29,387.3	23,862.3	23,862.3	23,862.3	22,062.3	20,062.3	20,062.3
Backed securities	222,100.4	217,992.1	204,570.0	204,570.0	203,200.4	196,148.4	190,355.1	181,998.8
Preference shares	627.4	497.8	1,395.0	1,395.0	2,645.0	2,995.0	3,995.0	4,245.0
Matador bonds	447.1	386.9	386.9	386.9	386.9	314.8	314.8	314.8
Government bonds	852,200.9	877,499.6	973,334.7	973,334.7	2,093,558.9	6,287,923.9	6,211,058.2	6,258,139.6
Letras del Tesoro	82,435.4	81,037.1	78,835.2	78,835.2	72,599.4	69,375.7	68,538.1	71,121.4
Long Government bonds	769,765.5	796,462.5	864,059.7	864,059.7	890,343.3	901,887.3	917,024.0	914,377.5
Regional Goverments debt	–	–	28,620.8	28,620.8	34,037.3	32,862.2	32,484.0	33,197.2
Foreign public debt	–	–	–	–	1,093,949.8	5,281,341.3	5,190,554.7	5,237,736.1
Other public debt	–	–	1,819.1	1,819.1	2,629.1	2,457.4	2,457.4	1,707.4

1 Available data: November 2018.
2 Nominal amount.

AIAF. Trading

TABLE 1.9

Nominal amount in million euro	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
BY TYPE OF ASSET								
Total	521,853.7	169,658.2	68,422.0	225.4	18,345.4	30,179.4	20,172.5	21,412.3
Corporate bonds	521,590.4	169,534.0	68,297.4	189.3	197.0	122.4	62.9	33.0
Commercial paper	31,346.2	20,684.3	7,144.4	0.0	0.0	0.0	0.0	0.0
Bonds and debentures	78,120.5	27,795.6	15,839.5	189.3	194.7	116.7	62.7	32.8
Mortgage covered bonds	187,201.7	79,115.6	24,936.4	0.0	0.0	0.0	0.0	0.0
Territorial covered bonds	46,711.4	5,329.3	381.7	0.0	0.0	0.0	0.0	0.0
Backed securities	177,844.1	36,554.9	18,502.5	0.0	1.9	5.1	0.0	0.2
Preference shares	295.5	43.1	1,482.3	0.0	0.4	0.6	0.2	0.1
Matador bonds	71.1	11.1	10.7	0.0	0.0	0.0	0.0	0.0
Government bonds	263.3	124.2	124.6	36.1	18,148.4	30,057.1	20,109.6	21,379.3
Letras del Tesoro	30.2	8.5	4.2	0.1	146.7	3,472.1	8,792.7	11,099.8
Long Government bonds	233.1	115.8	120.4	36.0	17,998.5	24,686.6	6,960.0	4,913.4
Regional Goverments debt	–	–	0.0	0.0	3.1	0.1	0.0	0.0
Foreign public debt	–	–	–	–	0.0	1,898.3	4,356.9	5,366.0
Other public debt	–	–	0.0	0.0	0.0	0.0	0.0	0.0
BY TYPE OF TRANSACTION								
Total	521,853.7	169,658.3	68,422.0	225.4	18,345.4	30,179.4	20,172.5	21,412.3
Outright	239,086.8	127,643.7	57,723.9	225.4	18,345.4	30,179.4	20,172.5	21,412.3
Repos	7,144.5	4,143.7	671.6	0.0	0.0	0.0	0.0	0.0
Sell-buybacks/Buy-sellbacks	267,875.7	37,870.9	10,026.5	0.0	0.0	0.0	0.0	0.0

1 Available data: November 2018.

AIAF. Third-party trading. By purchaser sector

TABLE 1.10

Nominal amount in million euro	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
Total	193,694.8	117,373.0	49,230.2	222.2	17,891.9	30,171.0	20,168.5	21,409.8
Non-financial companies	22,747.1	7,119.3	1,492.6	0.0	0.0	0.0	0.0	0.0
Financial institutions	95,467.1	63,048.2	23,402.5	222.2	17,891.9	30,171.0	20,168.5	21,409.8
Credit institutions	74,196.0	46,583.9	15,363.2	185.6	181.7	106.6	51.2	25.1
CIS, insurance and pension funds	8,835.4	8,525.2	4,337.8	0.0	0.0	0.0	0.0	0.0
Other financial institutions	12,435.7	7,939.1	3,701.5	36.6	17,710.2	30,064.4	20,117.2	21,384.7
General government	10,414.4	4,969.7	3,196.3	0.0	0.0	0.0	0.0	0.0
Households and NPISHs[2]	1,575.2	1,076.0	256.6	0.0	0.0	0.0	0.0	0.0
Rest of the world	63,491.1	41,159.9	20,882.3	0.0	0.0	0.0	0.0	0.0

1 Available data: November 2018.
2 Non-profit institutions serving households.

Equity markets. Issuers, issues and outstanding balances

TABLE 1.11

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
NO. OF ISSUERS								
Total	20	17	15	15	15	14	14	14
Private issuers	10	7	7	7	7	6	6	6
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	10	7	7	7	7	6	6	6
General government[2]	10	10	8	8	8	8	8	8
Regional governments	2	2	2	2	2	2	2	2
NO. OF ISSUES								
Total	103	75	64	64	65	57	60	58
Private issuers	43	26	24	24	24	19	19	19
Non-financial companies	0	0	0	0	0	0	0	0
Financial institutions	43	26	24	24	24	19	19	19
General government[2]	60	49	40	40	41	38	41	39
Regional governments	25	23	22	22	22	19	22	21
OUTSTANDING BALANCES[3] (million euro)								
Total	11,702.2	10,203.4	9,718.0	9,718.0	9,689.9	7,666.4	8,438.0	8,281.0
Private issuers	1,383.3	899.4	760.6	760.6	735.8	640.1	611.9	594.9
Non-financial companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial institutions	1,383.3	899.4	760.6	760.6	735.8	640.1	611.9	594.9
General government[2]	10,319.0	9,304.0	8,957.4	8,957.4	8,954.0	7,026.2	7,826.1	7,686.1
Regional governments	9,320.2	8,347.6	8,193.1	8,193.1	8,193.1	6,274.1	7,079.7	6,959.7

1 Available data: November 2018.
2 Without public book-entry debt.
3 Nominal amount.

SENAF. Public debt trading by type

TABLE 1.12

Nominal amounts in million euro	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
Total	129,366.0	165,472.0	131,475.0	30,939.0	30,800.0	20,094.0	20,309.0	18,901.0
Outright	129,366.0	165,472.0	131,475.0	30,939.0	30,800.0	20,094.0	20,309.0	18,901.0
Sell-buybacks/Buy-sellbacks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: November 2018.

1.3 Derivatives and other products

1.3.1 Financial derivatives markets: MEFF

Trading on MEFF

TABLE 1.13

				2017	2018			
Number of contracts	2015	2016	2017	IV	I	II	III	IV[1]
Debt products	8,012	360	0	0	0	0	0	0
Debt futures[2]	8,012	360	0	0	0	0	0	0
Ibex 35 products[3, 4]	8,279,939	7,468,299	8,033,835	2,512,513	2,256,759	2,080,529	1,827,201	1,491,958
Ibex 35 plus futures	7,384,896	6,836,500	6,268,290	1,826,553	1,704,051	1,595,835	1,430,789	1,135,436
Ibex 35 mini futures	318,129	249,897	1,284,050	488,715	427,489	395,437	305,559	253,844
Ibex 35 dividend impact futures	32,499	58,044	43,372	14,297	15,588	13,247	7,218	16,622
Ibex 35 sectorals futures	–	1,619	7,753	3,628	859	706	690	410
Call mini options	325,479	169,871	206,843	87,265	52,005	34,722	41,750	46,736
Put mini options	218,937	152,368	223,527	92,055	56,767	40,582	41,195	38,910
Stock products[5]	31,768,355	32,736,458	32,335,004	8,100,205	8,306,888	8,383,047	6,542,076	3,383,473
Futures	10,054,830	9,467,294	11,671,215	2,524,881	2,864,619	3,138,663	2,015,974	437,941
Stock dividend futures	291,688	367,785	346,555	153,116	142,701	142,742	58,563	0
Stock plus dividend futures	1,152	760	880	440	0	0	0	100
Call options	8,572,088	11,239,662	8,848,643	1,986,565	2,156,518	2,047,308	1,786,866	1,159,148
Put options	12,848,597	11,660,957	11,467,711	3,435,203	3,143,050	3,054,334	2,680,673	1,786,284

1 Available data: November 2018.
2 Contract size: 100,000 euros.
3 The number of Ibex 35 mini futures (multiples of 1 euro) was standardised to the size of the Ibex 35 plus futures (multiples of 10 euro).
4 Contract size: Ibex 35, 10 euros.
5 Contract size: 100 stocks.

1.3.2 Warrants, option buying and selling contracts, and ETF (Exchange-Traded Funds)

Issues registered at the CNMV

TABLE 1.14

				2017	2018			
	2015	2016	2017	IV	I	II	III	IV[1]
WARRANTS								
Premium amount (million euro)	3,479.1	2,688.6	2,433.6	336.4	819.7	630.8	313.9	157.3
On stocks	1,807.3	1,438.2	939.5	137.2	269.9	239.1	141.0	101.7
On indexes	1,486.1	1,153.1	1,443.0	194.6	510.3	366.0	139.2	52.0
Other underlyings[2]	185.6	97.2	51.1	4.5	39.5	25.7	33.7	3.5
Number of issues	9,059	7,809	5,730	791	1,800	1,521	1,039	529
Number of issuers	8	5	6	4	5	5	4	3
OPTION BUYING AND SELLING CONTRACTS								
Nominal amounts (million euro)	5.0	650.0	1,964.5	601.0	302.0	401.0	250.0	0.0
On stocks	5.0	650.0	1,950.0	600.0	300.0	400.0	250.0	0.0
On indexes	0.0	0.0	14.5	1.0	2.0	1.0	0.0	0.0
Other underlyings[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of issues	1	4	15	4	5	3	2	0
Number of issuers	1	1	2	2	2	2	1	0

1 Available data: November 2018.
2 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.

Equity markets. Warrants and ETF trading

TABLE 1.15

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
WARRANTS								
Trading (million euro)	1,095.9	715.5	462.6	123.2	103.2	93.1	86.0	111.6
On Spanish stocks	303.6	248.4	156.8	30.1	17.2	25.5	20.7	21.5
On foreign stocks	66.7	32.6	29.9	9.7	7.0	7.3	7.0	9.4
On indexes	692.0	420.4	266.0	80.7	77.8	59.1	57.5	79.4
Other underlyings[2]	33.6	14.2	9.9	2.7	1.2	1.2	0.8	1.3
Number of issues[3]	7,530	6,296	5,084	974	1,059	1,109	864	955
Number of issuers[3]	9	8	7	7	7	7	6	6
CERTIFICATES								
Trading (million euro)	1.1	0.4	0.3	0.3	0.0	0.2	0.0	0.0
Number of issues[3]	2	2	2	1	2	2	2	2
Number of issuers[3]	1	1	1	1	1	1	1	1
ETFs								
Trading (million euro)	12,633.8	6,045.2	4,464.1	1,472.8	759.9	957.3	456.6	451.2
Number of funds	58	33	8	8	8	6	6	6
Assets[4] (million euro)	436.1	349.3	359.3	359.3	340.1	334.1	334.1	308.4

1 Available data: November 2018.
2 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.
3 Issues or issuers which were traded in each period.
4 Only assets from national collective investment schemes are included because assets from foreign schemes are not available.

2 Investment services

Investment services. Spanish firms, branches and agents

TABLE 2.1

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
BROKER-DEALERS								
Spanish firms	39	40	41	41	40	40	40	41
Branches	25	27	24	24	26	26	26	20
Agents	5,819	5,761	5,747	5,747	2,134	2,185	2,165	2,167
BROKERS								
Spanish firms	39	41	48	48	50	52	53	53
Branches	21	22	23	23	23	24	24	25
Agents	468	492	461	461	393	430	423	433
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	3	2	1	1	1	1	1	1
Branches	9	8	0	0	0	0	0	0
Agents	0	0	0	0	0	0	0	0
FINANCIAL ADVISORY FIRMS								
Spanish firms	154	160	171	171	168	165	162	160
Branches	13	16	21	21	24	23	25	25
CREDIT INSTITUTIONS[2]								
Spanish firms	134	126	122	122	120	120	120	115

1 Available data: November 2018.
2 Source: Banco de España.

Investment services. Foreign firms

TABLE 2.2

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
Total	3,176	3,310	3,340	3,340	3,399	3,434	3,440	3,467
Investment services firms	2,716	2,843	2,873	2,873	2,925	2,959	2,972	2,999
From EU member states	2,713	2,840	2,870	2,870	2,922	2,956	2,969	2,996
Branches	42	46	53	53	54	56	55	61
Free provision of services[2]	2,671	2,794	2,817	2,817	2,868	2,900	2,914	2,935
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[3]	460	467	467	467	474	475	468	468
From EU member states	451	460	461	461	468	470	463	463
Branches	53	55	52	52	54	54	53	53
Free provision of services	398	405	409	409	414	416	410	410
Subsidiaries of free provision of services institutions	0	0	0	0	0	0	0	0
From non-EU states	9	7	6	6	6	5	5	5
Branches	6	5	4	4	4	3	3	3
Free provision of services	3	2	2	2	2	2	2	2

1 Available data: November 2018.
2 Revised data from fourth quarter 2017.
3 Source: Banco de España and CNMV.

Intermediation of spot transactions[1]

TABLE 2.3

Million euro	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
FIXED-INCOME								
Total	5,365,817.5	4,625,411.6	3,727,687.0	830,152.5	840,921.2	865,998.4	888,233.8	644,508.3
Broker-dealers	3,774,816.4	3,171,599.2	2,347,959.0	470,314.6	588,965.3	604,086.9	629,121.5	463,909.0
Spanish organised markets	1,909,130.4	1,350,483.4	836,831.1	149,376.2	173,689.7	196,847.5	230,333.3	222,782.1
Other Spanish markets	1,689,702.4	1,570,540.0	1,255,087.2	273,027.3	349,221.0	336,165.9	338,333.8	205,198.5
Foreign markets	175,983.6	250,575.8	256,040.7	47,911.1	66,054.6	71,073.5	60,454.4	35,928.4
Brokers	1,591,001.1	1,453,812.4	1,379,728.0	359,837.9	251,955.9	261,911.5	259,112.3	180,599.3
Spanish organised markets	14,160.0	25,247.8	6,067.6	1,317.3	1,024.2	1,667.7	1,231.9	944.6
Other Spanish markets	1,402,106.3	1,222,925.7	1,175,387.4	317,566.3	208,188.7	206,815.7	206,672.4	148,974.5
Foreign markets	174,734.8	205,638.9	198,273.0	40,954.3	42,743.0	53,428.1	51,208.0	30,680.2
EQUITY								
Total	1,020,289.5	798,564.7	804,328.3	187,021.8	216,783.5	161,477.8	213,323.2	118,831.1
Broker-dealers	914,649.2	636,727.0	660,312.8	143,388.5	158,155.7	149,934.8	204,926.8	114,083.1
Spanish organised markets	855,883.2	583,283.9	610,682.8	133,659.1	145,357.3	135,402.8	173,871.0	105,785.0
Other Spanish markets	3,327.8	2,313.1	3,178.2	458.3	647.5	201.1	290.6	143.7
Foreign markets	55,438.2	51,130.0	46,451.8	9,271.1	12,150.9	14,330.9	30,765.2	8,154.4
Brokers	105,640.3	161,837.7	144,015.5	43,633.3	58,627.8	11,543.0	8,396.4	4,748.0
Spanish organised markets	14,207.3	11,090.1	7,037.7	1,325.8	2,313.8	1,871.9	1,625.2	1,176.9
Other Spanish markets	13,769.0	8,902.9	12,052.0	3,424.4	4,831.0	463.0	319.2	217.1
Foreign markets	77,664.0	141,844.7	124,925.8	38,883.1	51,483.0	9,208.1	6,452.0	3,354.0

1 Period accumulated data. Quarterly.

Intermediation of derivative transactions[1, 2]

TABLE 2.4

Million euro	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
Total	12,104,474.3	10,985,305.6	10,708,583.9	2,301,768.2	3,145,938.1	2,812,720.9	2,659,541.6	2,257,783.7
Broker-dealers	11,958,716.2	10,698,379.2	10,528,524.3	2,264,865.2	3,092,685.7	2,750,608.8	2,595,678.8	2,212,452.0
Spanish organised markets	6,215,223.3	4,842,990.7	5,330,761.9	1,198,702.1	1,755,443.2	1,399,069.6	1,384,442.9	1,250,515.7
Foreign organised markets	5,386,722.4	5,204,785.7	4,676,156.7	963,880.9	1,161,762.4	1,178,164.9	1,036,058.2	863,611.6
Non-organised markets	356,770.5	650,602.8	521,605.7	102,282.2	175,480.1	173,374.3	175,177.7	98,324.7
Brokers	145,758.1	286,926.4	180,059.6	36,903.0	53,252.4	62,112.1	63,862.8	45,331.7
Spanish organised markets	7,510.9	20,935.4	17,171.0	2,203.1	7,512.7	4,748.4	9,147.5	5,236.5
Foreign organised markets	27,846.8	59,427.1	48,043.8	10,086.7	19,445.7	30,026.3	27,491.9	21,002.9
Non-organised markets	110,400.4	206,563.9	114,844.8	24,613.2	26,294.0	27,337.4	27,223.4	19,092.3

1 The amount of the buy and sell transactions of financial assets, financial futures on values and interest rates, and other transactions on interest rates will be the securities nominal or notional value or the principal to which the contract reaches. The amount of the transactions on options will be the strike price of the underlying asset multiplied by the number of instruments committed.

2 Period accumulated data. Quarterly.

Portfolio management. Number of portfolios and assets under management[1]

TABLE 2.5

	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
NUMBER OF PORTFOLIOS								
Total[2]	13,713	15,818	12,601	13,300	12,601	13,321	13,968	14,928
Broker-dealers. Total	5,711	5,743	3,769	5,261	3,769	3,862	3,903	3,900
CIS[3]	60	34	18	17	18	22	28	32
Other[4]	5,651	5,709	3,751	5,244	3,751	3,840	3,875	3,868
Brokers. Total	5,681	6,512	8,831	8,039	8,831	9,459	10,065	11,028
CIS[3]	95	90	89	90	89	90	93	91
Other[4]	5,586	6,422	8,742	7,949	8,742	9,369	9,972	10,937
Portfolio management companies.[2] Total	2,321	3,563	1	–	1	–	–	–
CIS[3]	1	1	1	–	1	–	–	–
Other[4]	2,320	3,562	0	–	0	–	–	–
ASSETS UNDER MANAGEMENT (thousand euro)								
Total[2]	9,201,678	13,298,318	36,923,861	37,889,931	36,923,861	5,589,254	6,029,150	5,554,205
Broker-dealers. Total	5,406,804	5,534,052	33,958,038	35,042,579	33,958,038	2,597,455	2,793,817	2,417,154
CIS[3]	1,546,293	890,371	344,474	346,820	344,474	486,772	641,621	834,096
Other[4]	3,860,511	4,643,682	33,613,564	34,695,759	33,613,564	2,110,683	2,152,195	1,583,058
Brokers. Total	2,565,132	2,557,207	2,949,741	2,847,352	2,949,741	2,991,799	3,235,333	3,137,051
CIS[3]	1,448,260	1,352,653	1,595,851	1,538,808	1,595,851	1,676,348	1,728,140	1,662,052
Other[4]	1,116,872	1,204,553	1,353,890	1,308,544	1,353,890	1,315,451	1,507,193	1,474,999
Portfolio management companies.[2] Total	1,229,742	5,207,059	16,082	–	16,082	–	–	–
CIS[3]	15,729	15,916	16,082	–	16,082	–	–	–
Other[4]	1,214,013	5,191,143	0	–	0	–	–	–

1 Data at the end of period. Quarterly.
2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.
3 Includes both resident and non-resident CIS management.
4 Includes the rest of clients, both covered and not covered by the Investment Guarantee Fund, an investor compensation scheme regulated by Royal Decree 948/2001.

Financial advice. Number of contracts[1, 2]

TABLE 2.6

	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
NUMBER OF CONTRACTS								
Total[3]	17,627	21,341	20,170	21,885	20,170	21,471	22,721	24,116
Broker-dealers. Total[4]	4,241	4,678	5,125	4,972	5,125	5,269	5,523	5,825
Retail clients	4,217	4,669	5,108	4,958	5,108	5,251	5,497	5,795
Professional clients	11	3	6	6	6	9	17	21
Brokers. Total[4]	11,456	14,358	15,045	16,913	15,045	16,202	17,198	18,291
Retail clients	11,247	14,170	14,881	16,735	14,881	16,030	17,016	18,108
Professional clients	176	154	132	141	132	125	134	134
Portfolio management companies.[3] Total[4]	1,930	2,305	0	–	0	–	–	–
Retail clients	1,928	2,303	0	–	0	–	–	–
Professional clients	2	2	0	–	0	–	–	–
***Pro memoria*: commission received for financial advice[5]** (thousand euro)								
Total[3]	10,937	11,515	17,123	9,732	17,123	3,191	6,625	11,411
Broker-dealers	2,930	2,547	5,551	2,586	5,551	1,099	2,352	4,945
Brokers	7,636	8,614	11,572	7,146	11,572	2,092	4,273	6,466
Portfolio management companies[3]	371	354	0	–	0	–	–	–

1 Data at the end of period. Quarterly.
2 Quarterly data on assets advised are not available since the entry into force of CNMV Circular 3/2014, of 22 October.
3 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.
4 Includes retail, professional and other clients.
5 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.

Aggregated income statement. Broker-dealers

TABLE 2.7

Thousand euro[1]	2015	2016	2017	2017 IV	2018 I[2]	II[2]	III	IV[3]
I. Interest income	55,570	53,930	58,545	58,545	8,665	46,031	50,418	71,411
II. Net commission	422,542	373,552	400,884	400,884	77,836	151,557	224,194	249,587
Commission revenues	614,705	538,586	547,776	547,776	109,553	213,150	314,030	349,701
Brokering	322,857	245,700	217,667	217,667	48,289	92,739	125,574	140,034
Placement and underwriting	11,556	5,955	17,553	17,553	1,015	2,029	7,732	9,959
Securities deposit and recording	24,358	47,843	38,175	38,175	10,720	21,937	31,676	34,748
Portfolio management	22,541	23,738	50,467	50,467	3,930	7,765	10,298	11,374
Design and advising	13,575	14,648	16,402	16,402	3,370	7,716	12,663	13,939
Stocks search and placement	1,497	2,155	1,500	1,500	10	211	275	278
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	73,889	75,505	81,225	81,225	14,588	28,185	42,614	46,789
Other	144,432	123,042	124,789	124,789	27,632	52,569	83,198	92,579
Commission expenses	192,163	165,034	146,892	146,892	31,717	61,593	89,836	100,114
III. Financial investment income	215,861	104,292	40,996	40,996	9,004	16,138	23,262	23,541
IV. Net exchange differences and other operating products and expenses	-128,200	-1,177	28,450	28,450	5,789	12,451	17,830	18,943
V. Gross income	565,773	530,597	528,875	528,875	101,294	226,177	315,704	363,482
VI. Operating income	186,771	169,499	180,204	180,204	21,793	62,998	71,194	91,459
VII. Earnings from continuous activities	141,291	140,521	156,379	156,379	20,153	60,661	73,535	92,937
VIII. Net earnings of the period	141,291	140,521	155,972	155,972	20,153	60,661	73,535	92,937

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in December 2018.
3 Available data: October 2018.

Results of proprietary trading. Broker-dealers

TABLE 2.8

Thousand euro[1]	2015	2016	2017	2017 III	2017 IV	2018 I[2]	2018 II[2]	2018 III
TOTAL								
Total	137,327	152,893	128,817	99,011	128,817	23,650	74,932	91,929
Money market assets and public debt	9,327	8,332	3,909	2,837	3,909	1,368	4,042	4,996
Other fixed-income securities	24,795	35,415	31,391	25,586	31,391	7,009	9,231	13,858
Domestic portfolio	8,990	19,863	17,963	15,172	17,963	3,502	2,371	4,898
Foreign portfolio	15,805	15,552	13,428	10,414	13,428	3,507	6,860	8,960
Equities	112,943	135,587	53,704	38,048	53,704	1,496	5,531	8,216
Domestic portfolio	18,141	14,010	11,530	9,203	11,530	1,452	5,105	7,504
Foreign portfolio	94,802	121,577	42,174	28,845	42,174	44	426	712
Derivatives	109,668	-52,325	-40,286	-30,322	-40,286	14	-159	-112
Repurchase agreements	-248	-471	-307	-292	-307	0	-20	-46
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	1,605	-1,030	84	399	84	599	1,223	2,732
Net exchange differences	-142,545	-29,730	4,290	3,982	4,290	-531	194	73
Other operating products and expenses	14,344	28,555	24,160	17,197	24,160	6,320	12,257	17,757
Other transactions	7,438	28,560	51,872	41,576	51,872	7,375	42,633	44,455
INTEREST INCOME								
Total	55,570	53,930	58,544	51,952	58,544	8,664	46,032	50,419
Money market assets and public debt	2,156	1,708	1,576	1,168	1,576	782	1,019	1,446
Other fixed-income securities	2,731	1,742	1,285	965	1,285	293	655	946
Domestic portfolio	1,534	809	415	352	415	27	51	72
Foreign portfolio	1,197	933	870	613	870	266	604	874
Equities	43,826	24,619	6,201	5,032	6,201	108	1,777	2,479
Domestic portfolio	3,622	3,298	3,041	2,047	3,041	44	1,291	1,956
Foreign portfolio	40,204	21,321	3,160	2,985	3,160	64	486	523
Repurchase agreements	-248	-471	-307	-292	-307	0	-20	-46
Market credit transactions	0	0	0	0	0	0	0	0
Deposits and other transactions with financial intermediaries	1,605	-1,030	84	399	84	599	1,223	2,732
Other transactions	5,500	27,362	49,705	44,680	49,705	6,882	41,378	42,862
FINANCIAL INVEST INCOME								
Total	215,861	104,291	40,995	29,922	40,995	9,004	16,137	23,262
Money market assets and public debt	7,171	6,624	2,333	1,669	2,333	586	3,023	3,550
Other fixed-income securities	22,064	33,673	30,106	24,621	30,106	6,716	8,576	12,912
Domestic portfolio	7,456	19,054	17,548	14,820	17,548	3,475	2,320	4,826
Foreign portfolio	14,608	14,619	12,558	9,801	12,558	3,241	6,256	8,086
Equities	69,117	110,968	47,503	33,016	47,503	1,388	3,754	5,737
Domestic portfolio	14,519	10,712	8,489	7,156	8,489	1,408	3,814	5,548
Foreign portfolio	54,598	100,256	39,014	25,860	39,014	-20	-60	189
Derivatives	109,668	-52,325	-40,286	-30,322	-40,286	14	-159	-112
Other transactions	7,841	5,351	1,339	938	1,339	300	943	1,175
EXCHANGE DIFFERENCES AND OTHER ITEMS								
Total	-134,104	-5,328	29,278	17,137	29,278	5,982	12,763	18,248
Net exchange differences	-142,545	-29,730	4,290	3,982	4,290	-531	194	73
Other operating products and expenses	14,344	28,555	24,160	17,197	24,160	6,320	12,257	17,757
Other transactions	-5,903	-4,153	828	-4,042	828	193	312	418

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in December 2018.

Aggregated income statement. Brokers

TABLE 2.9

Thousand euro[1]	2015	2016	2017	2017 IV	2018 I[2]	II[2]	III	IV[3]
I. Interest income	884	903	3,127	3,127	83	1,076	1,278	1,300
II. Net commission	113,904	108,111	120,194	120,194	26,669	57,465	87,192	97,374
Commission revenues	135,320	129,682	142,323	142,323	31,525	68,417	102,975	115,006
Brokering	31,845	24,181	20,459	20,459	5,195	10,415	14,486	16,593
Placement and underwriting	3,829	3,193	3,427	3,427	333	849	949	1,108
Securities deposit and recording	521	603	924	924	179	424	633	705
Portfolio management	10,711	11,054	12,492	12,492	3,257	6,859	11,143	12,323
Design and advising	7,856	8,980	11,935	11,935	2,179	4,462	6,765	7,513
Stocks search and placement	216	40	0	0	0	0	0	0
Market credit transactions	0	0	0	0	0	0	0	0
CIS marketing	53,169	50,504	59,398	59,398	14,144	30,867	47,810	53,336
Other	27,173	31,128	33,689	33,689	6,238	14,539	21,189	23,428
Commission expenses	21,416	21,571	22,129	22,129	4,856	10,952	15,783	17,632
III. Financial investment income	592	245	1,139	1,139	-69	-86	220	134
IV. Net exchange differences and other operating products and expenses	1,197	-1,030	-1,706	-1,706	-430	-775	-1,194	-1,148
V. Gross income	116,577	108,229	122,754	122,754	26,253	57,680	87,496	97,660
VI. Operating income	22,148	10,140	16,929	16,929	1,140	5,460	8,725	9,380
VII. Earnings from continuous activities	17,266	6,982	11,890	11,890	934	4,868	7,767	7,999
VIII. Net earnings of the period	17,266	6,982	11,890	11,890	934	4,868	7,767	7,999

1 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
2 Data revised in December 2018.
3 Available data: October 2018.

Aggregated income statement. Portfolio management companies[1, 2]

TABLE 2.10

Thousand euro	2013	2014	2015	2016	2017
I. Interest income	667	574	399	83	23
II. Net commission	9,362	11,104	8,526	6,617	1,543
Commission revenues	18,603	15,411	13,064	6,617	1,543
Portfolio management	17,028	13,572	11,150	4,228	1,095
Design and advising	1,575	849	371	354	59
Other	0	990	1,544	2,035	390
Commission expenses	9,241	4,307	4,538	0	0
III. Financial investment income	9	-6	-28	-1	6
IV. Net exchange differences and other operating products and expenses	-32	-237	-234	-126	-52
V. Gross income	10,006	11,435	8,663	6,573	1,520
VI. Operating income	3,554	5,860	3,331	3,172	623
VII. Earnings from continuous activities	2,472	4,135	2,335	2,222	439
VIII. Net earnings of the period	2,472	4,135	2,335	2,222	439

1 Accumulated data from the beginning of the year. It includes companies removed throughout the year.
2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this.

Capital adequacy and capital ratio[1]

TABLE 2.11

	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
TOTAL[2]								
Total capital ratio[3]	43.14	44.13	33.40	35.42	33.40	35.96	35.23	34.20
Own funds surplus (thousand euro)	1,090,823	965,833	803,793	971,016	803,793	868,636	836,468	825,885
Surplus (%)[4]	439.29	451.60	317.54	342.77	317.54	349.54	340.35	327.47
Number of companies according to its surplus percentage								
≤ 100%	16	15	18	19	18	23	18	20
> 100-≤ 300%	22	25	23	22	23	21	20	22
> 300-≤ 500%	12	13	14	15	14	14	18	18
> 500%	22	18	18	17	18	16	19	15
BROKER-DEALERS								
Total capital ratio[3]	44.81	45.97	34.28	36.36	34.28	37.39	36.48	35.54
Own funds surplus (thousand euro)	1,037,623	912,248	755,143	921,512	755,143	826,890	789,353	781,251
Surplus (%)[4]	44.81	474.60	328.55	354.45	328.55	367.34	356.01	344.26
Number of companies according to its surplus percentage								
≤ 100%	6	8	8	7	8	10	7	9
> 100-≤ 300%	11	11	10	12	10	8	8	7
> 300-≤ 500%	7	9	8	8	8	7	9	10
> 500%	14	12	13	13	13	14	15	13
BROKERS								
Total capital ratio[3]	25.14	26.35	24.69	25.00	24.69	22.27	23.68	22.13
Own funds surplus (thousand euro)	47,196	47,620	48,452	49,504	48,452	41,746	47,115	44,634
Surplus (%)[4]	25.14	229.33	208.66	212.44	208.66	178.35	195.97	176.67
Number of companies according to its surplus percentage								
≤ 100%	10	7	10	12	10	13	11	11
> 100-≤ 300%	10	13	12	10	12	13	12	15
> 300-≤ 500%	5	4	6	7	6	7	9	8
> 500%	5	5	5	4	5	2	4	2
PORTFOLIO MANAGEMENT COMPANIES[2]								
Total capital ratio[3]	71.26	61.64	30.70	–	30.70	–	–	–
Own funds surplus (thousand euro)	6,004	5,965	198	–	198	–	–	–
Surplus (%)[4]	791.04	670.22	282.86	–	282.86	–	–	–
Number of companies according to its surplus percentage								
≤ 100%	0	0	0	–	0	–	–	–
> 100-≤ 300%	1	1	1	–	1	–	–	–
> 300-≤ 500%	0	0	0	–	0	–	–	–
> 500%	3	1	0	–	0	–	–	–

1 On 1 January 2014 Regulation (EU) No. 575/2013 of the European Parliament and of the Council, of 26 June 2013, on prudential requirements for credit institutions and investment firms, came into force, which has changed the own funds requirements calculation. Since January 2014 only the entities subject to reporting requirements are included, according to CNMV Circular 2/2014, of 23 June, on the exercise of various regulatory options regarding solvency requirements for investment firms and their consolidated groups.

2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.

3 Total capital ratio is the own funds of the institution expressed as a percentage of the total risk exposure amount. This ratio should not be under 8%, pursuant to the provisions of Regulation (EU) No. 575/2013.

4 Average surplus percentage is weighted by the required equity of each company. It is an indicator of the number of times, in percentage terms, that the surplus contains the required equity in an average company.

Return on equity (ROE) before taxes[1]

TABLE 2.12

	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
TOTAL[2]								
Average (%)[3]	15.34	15.97	18.35	16.18	18.35	7.47	11.77	9.82
Number of companies according to its annualized return								
Losses	21	20	22	22	22	36	34	36
0-≤ 15%	23	31	28	32	28	19	22	23
> 15-≤ 45%	22	17	22	19	22	21	18	17
> 45-≤ 75%	5	6	4	9	4	5	4	6
> 75%	9	9	13	7	13	9	14	11
BROKER-DEALERS								
Average (%)[3]	14.85	16.16	18.48	16.50	18.48	7.70	11.72	9.52
Number of companies according to its annualized return								
Losses	9	8	8	9	8	14	14	16
0-≤ 15%	14	20	17	17	17	13	12	13
> 15-≤ 45%	10	6	11	10	11	10	10	9
> 45-≤ 75%	4	2	1	3	1	3	2	1
> 75%	2	4	3	2	3	0	2	1
BROKERS								
Average (%)[3]	21.52	11.53	16.92	12.13	16.92	4.94	12.32	13.39
Number of companies according to its annualized return								
Losses	12	12	14	13	14	22	20	20
0-≤ 15%	8	10	11	15	11	6	10	10
> 15-≤ 45%	11	11	10	9	10	11	8	8
> 45-≤ 75%	1	3	3	6	3	2	2	5
> 75%	7	5	10	5	10	9	12	10
PORTFOLIO MANAGEMENT COMPANIES[2]								
Average (%)[3]	24.49	46.29	20.65	–	20.65	–	–	–
Number of companies according to its annualized return								
Losses	0	0	0	–	0	–	–	–
0-≤ 15%	1	1	0	–	0	–	–	–
> 15-≤ 45%	1	0	1	–	1	–	–	–
> 45-≤ 75%	0	1	0	–	0	–	–	–
> 75%	0	0	0	–	0	–	–	–

1 ROE has been calculated as:

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

Reserves – Own shares + Prior year profits and retained earnings – Interim dividend.

2 Only public information about portfolio management companies is shown since the first quarter of 2016 with the objective of maintaining statistical secrecy, as the number of companies is not enough to guarantee this. For the rest of the periods only broker-dealers and brokers data are shown.

3 Average weighted by equity, %.

Financial advisory firms. Main figures[1]

TABLE 2.13

Thousand euro	2013	2014	2015	2016	2017
ASSETS ADVISED[2]					
Total	17,630,081	21,284,942	25,084,882	30,174,877	30,790,535
Retail clients	4,991,653	5,671,431	6,499,049	7,588,143	9,096,071
Professional	3,947,782	4,808,250	5,108,032	5,654,358	6,482,283
Other	8,690,646	10,805,261	13,477,801	16,932,376	15,212,181
COMMISSION INCOME[3]					
Total	33,272	48,460	57,231	52,534	65,802
Commission revenues	33,066	47,641	56,227	51,687	65,191
Other income	206	819	1,004	847	611
EQUITY					
Total	21,498	24,808	25,021	24,119	32,803
Share capital	5,156	5,372	5,881	6,834	8,039
Reserves and retained earnings	9,453	7,978	7,583	12,123	13,317
Income for the year[3]	6,890	11,458	11,481	7,511	11,361
Other own funds	–	–	76	-2,349	86

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

2 Data at the end of each period.

3 Accumulated data from the beginning of the year.

3 Collective investment schemes (CIS)[a]

Number, management companies and depositories of CIS registered at the CNMV

TABLE 3.1

				2017	2018			
	2015	2016	2017	IV	I	II	III	IV[1]
Total financial CIS	5,180	5,035	4,564	4,564	4,516	4,444	4,420	4,411
Mutual funds	1,760	1,748	1,676	1,676	1,668	1,628	1,630	1,631
Investment companies	3,372	3,239	2,833	2,833	2,793	2,763	2,734	2,723
Funds of hedge funds	11	7	8	8	8	7	7	7
Hedge funds	37	41	47	47	47	46	49	50
Total real estate CIS	9	9	7	7	7	7	7	7
Real estate mutual funds	3	3	3	3	3	3	3	3
Real estate investment companies	6	6	4	4	4	4	4	4
Total foreign CIS marketed in Spain	880	941	1,013	1,013	1,009	1,022	1,031	1,024
Foreign funds marketed in Spain	425	441	455	455	450	446	445	431
Foreign companies marketed in Spain	455	500	558	558	559	576	586	593
Management companies	96	101	109	109	113	116	117	119
CIS depositories	65	56	54	54	53	44	41	37

1 Available data: November 2018.

Number of CIS investors and shareholders[1]

TABLE 3.2

				2017	2018			
	2015	2016	2017	IV	I[2]	II	III	IV[3]
Total financial CIS	8,164,054	8,704,329	10,704,585	10,704,585	11,439,656	11,851,561	11,744,182	11,748,284
Mutual funds	7,680,124	8,248,249	10,283,312	10,283,312	11,019,934	11,431,573	11,327,950	11,341,875
Investment companies	483,930	456,080	421,273	421,273	419,722	419,988	416,232	406,409
Total real estate CIS	4,501	4,601	1,424	1,424	1,517	908	906	906
Real estate mutual funds	3,918	3,927	1,097	1,097	1,092	483	483	483
Real estate investment companies	583	674	327	327	425	425	423	423
Total foreign CIS marketed in Spain[4, 5]	1,643,776	1,748,604	2,226,991	2,226,991	3,252,167	–	–	–
Foreign funds marketed in Spain	298,733	372,872	445,299	445,299	637,733	–	–	–
Foreign companies marketed in Spain	1,345,043	1,375,732	1,781,692	1,781,692	2,614,434	–	–	–

1 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 can be different from those in Tables 3.6 and 3.7.
2 Data on foreign CIS are estimated with the 96.9% of the entities subject to reporting requirements.
3 Available data: October 2018.
4 Until fourth quarter 2017, data on Exchange Traded Funds (ETFs) are not included.
5 With the entry into force of CNMV Circular 2/2017, of 25 October 2016, 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.

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

Total net assets of CIS

TABLE 3.3

				2017	2018			
Million euro	2015	2016	2017	IV	I[1]	II	III	IV[2]
Total financial CIS	255,677.0	269,953.8	296,619.5	296,619.5	302,020.1	304,605.7	305,404.2	297,599.7
Mutual funds[3]	222,144.6	237,862.2	265,194.8	265,194.8	271,264.3	273,774.0	274,645.4	268,116.1
Investment companies	33,532.4	32,091.6	31,424.7	31,424.7	30,755.8	30,831.7	30,758.8	29,483.6
Total real estate CIS	1,093.1	1,077.4	991.4	991.4	920.5	880.3	877.9	879.4
Real estate mutual funds	391.0	370.1	360.0	360.0	360.9	309.4	309.4	309.4
Real estate investment companies	702.1	707.3	631.4	631.4	559.6	570.9	568.5	570.0
Total foreign CIS marketed in Spain[4, 5]	108,091.6	114,990.2	150,420.6	150,420.6	160,841.0	–	–	–
Foreign funds marketed in Spain	15,305.1	21,337.5	26,133.9	26,133.9	27,779.0	–	–	–
Foreign companies marketed in Spain	92,786.5	93,652.8	124,286.7	124,286.7	133,062.0	–	–	–

1 Data on foreign CIS are estimated with the 96.9% of the entities subject to reporting requirements.
2 Available data: October 2018.
3 Mutual funds investment in financial mutual funds of the same management company reached 6,949.3 million euro in September 2018.
4 Until fourth quarter 2017 data on Exchange Traded Funds (ETFs) are not included.
5 With the entry into force of CNMV Circular 2/2017, of 25 October 2016, 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.

Mutual funds asset allocation

TABLE 3.4

				2017		2018		
Million euro	2015	2016	2017	III	IV	I	II	III
Asset	222,144.6	237,862.2	265,194.8	258,466.2	265,194.8	271,264.3	273,774.0	274,645.4
Portfolio investment	204,797.4	219,141.1	244,598.0	239,130.5	244,598.0	249,808.0	250,815.1	253,303.6
Domestic securities	93,833.6	95,799.1	83,032.1	83,884.6	83,032.1	83,206.6	78,221.9	75,622.0
Debt securities	58,451.3	63,471.1	55,389.1	55,836.9	55,389.1	54,869.3	51,096.6	48,998.8
Shares	8,757.5	8,529.9	10,911.7	10,429.3	10,911.7	12,192.4	12,419.1	12,330.6
Collective investment schemes	5,698.5	6,249.5	7,625.9	7,534.8	7,625.9	7,907.1	7,666.1	7,982.1
Deposits in credit institutions	20,482.9	17,134.3	8,657.1	9,546.8	8,657.1	7,871.1	6,696.5	5,973.5
Derivatives	433.7	405.7	441.4	529.2	441.4	359.7	337.8	331.8
Other	9.7	8.5	6.8	7.4	6.8	7.1	5.9	5.3
Foreign securities	110,957.0	123,336.0	161,556.6	155,236.4	161,556.6	166,594.4	172,586.0	177,674.3
Debt securities	48,542.8	56,307.9	67,794.0	67,487.2	67,794.0	69,764.9	73,945.3	76,175.4
Shares	18,654.1	20,035.3	27,081.8	25,958.6	27,081.8	28,031.5	29,236.3	30,409.3
Collective investment schemes	43,365.7	46,435.1	66,099.9	61,155.5	66,099.9	68,426.1	68,981.4	70,839.7
Deposits in credit institutions	104.1	81.2	74.7	90.8	74.7	38.5	38.4	38.4
Derivatives	285.6	474.3	504.7	542.6	504.7	332.1	383.3	210.0
Other	4.8	2.3	1.4	1.7	1.4	1.4	1.3	1.4
Doubtful assets and matured investment	6.8	6.1	9.3	9.5	9.3	7.1	7.2	7.3
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	16,594.5	18,392.6	19,988.5	18,910.6	19,988.5	21,265.2	22,157.5	20,668.7
Net balance (Debtors - Creditors)	752.7	328.5	608.3	425.1	608.3	191.1	801.4	673.1

Asset allocation of investment companies

TABLE 3.5

				2017		2018		
Million euro	2015	2016	2017	III	IV	I	II	III
Asset	33,532.4	32,091.6	31,424.7	31,715.7	31,424.7	30,755.8	30,831.7	30,758.8
Portfolio investment	30,035.2	28,127.7	28,804.9	28,745.3	28,804.9	28,072.2	27,989.2	27,919.3
Domestic securities	9,424.4	7,707.1	6,229.4	6,684.0	6,229.4	5,714.0	5,640.4	5,390.3
Debt securities	3,663.3	2,395.4	1,653.8	1,842.5	1,653.8	1,275.2	1,334.2	1,237.0
Shares	3,090.3	2,871.9	2,674.5	2,816.7	2,674.5	2,684.5	2,586.4	2,543.9
Collective investment schemes	1,418.4	1,485.3	1,625.9	1,598.9	1,625.9	1,494.2	1,487.0	1,400.3
Deposits in credit institutions	1,226.3	925.3	236.2	390.8	236.2	218.2	192.3	170.4
Derivatives	-7.4	-5.2	-0.6	-4.1	-0.6	-1.1	-1.3	-5.5
Other	33.7	34.4	39.7	39.2	39.7	43.0	41.8	44.2
Foreign securities	20,608.1	20,412.7	22,566.2	22,054.3	22,566.2	22,353.3	22,343.8	22,524.0
Debt securities	4,472.0	4,263.3	4,396.6	4,471.0	4,396.6	4,215.2	4,367.0	4,298.8
Shares	7,025.9	6,465.5	6,987.8	6,821.5	6,987.8	6,844.5	6,832.5	7,169.8
Collective investment schemes	9,090.2	9,653.0	11,153.5	10,744.4	11,153.5	11,267.7	11,114.0	11,048.2
Deposits in credit institutions	6.2	6.7	0.0	4.4	0.0	0.0	0.0	0.0
Derivatives	8.3	15.7	19.3	3.7	19.3	15.0	16.8	-5.6
Other	5.5	8.4	8.9	9.4	8.9	11.0	13.6	12.8
Doubtful assets and matured investment	2.7	7.9	9.3	6.9	9.3	5.0	5.0	4.9
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.1	0.1	0.6	0.6	0.6	0.6	0.6	0.6
Cash	3,211.3	3,791.7	2,421.7	2,719.2	2,421.7	2,500.1	2,521.4	2,576.1
Net balance (Debtors - Creditors)	285.8	172.2	197.5	250.6	197.5	182.9	320.5	262.9

Financial mutual funds: number, investors and total net assets by category[1, 2]

TABLE 3.6

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[3]
NO. OF FUNDS								
Total financial mutual funds	1,804	1,805	1,741	1,741	1,748	1,724	1,719	1,723
Fixed-income[4]	319	306	290	290	284	281	280	281
Mixed fixed-income[5]	132	148	155	155	154	161	166	166
Mixed equity[6]	142	168	176	176	177	176	179	181
Euro equity	109	112	111	111	106	108	111	112
Foreign equity	200	201	211	211	224	229	229	232
Guaranteed fixed-income	186	122	79	79	76	69	67	66
Guaranteed equity[7]	205	198	188	188	186	175	167	167
Global funds	178	203	225	225	241	236	238	239
Passive management	213	220	202	202	201	187	181	179
Absolute return	97	106	104	104	99	102	99	98
INVESTORS								
Total financial mutual funds	7,682,947	8,253,611	10,287,454	10,287,454	11,019,934	11,435,155	11,332,911	11,347,248
Fixed-income[4]	2,203,847	2,347,984	2,627,547	2,627,547	2,711,617	2,840,000	2,726,028	2,716,737
Mixed fixed-income[5]	1,130,190	1,043,798	1,197,523	1,197,523	1,239,848	1,252,577	1,245,007	1,227,928
Mixed equity[6]	612,276	448,491	584,408	584,408	618,234	615,754	623,901	625,312
Euro equity	422,469	395,697	710,928	710,928	877,146	929,169	833,260	839,709
Foreign equity	1,041,517	1,172,287	1,865,367	1,865,367	2,071,665	2,186,454	2,237,176	2,262,649
Guaranteed fixed-income	423,409	307,771	190,075	190,075	184,036	175,776	166,125	165,855
Guaranteed equity[7]	417,843	552,445	527,533	527,533	519,396	505,574	499,529	502,992
Global funds	381,590	658,722	1,086,937	1,086,937	1,236,975	1,366,657	1,444,064	1,496,876
Passive management	554,698	746,233	638,966	638,966	601,927	554,981	552,612	556,263
Absolute return	479,182	565,325	858,170	858,170	959,090	1,008,213	1,002,252	949,970
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	222,144.6	237,862.2	265,194.8	265,194.8	271,264.3	273,774.0	274,645.0	268,116.1
Fixed-income[4]	65,583.8	74,226.4	70,563.9	70,563.9	69,325.4	68,881.3	67,936.3	66,984.0
Mixed fixed-income[5]	44,791.8	40,065.6	43,407.0	43,407.0	43,766.1	43,979.4	43,640.9	42,319.7
Mixed equity[6]	21,502.9	16,310.6	22,386.7	22,386.7	23,860.3	24,039.9	24,782.7	24,269.1
Euro equity	9,092.9	8,665.9	12,203.2	12,203.2	13,714.2	14,282.2	13,985.1	13,079.8
Foreign equity	17,143.2	17,678.8	24,064.6	24,064.6	24,808.0	26,484.3	27,648.1	26,752.2
Guaranteed fixed-income	12,375.6	8,679.8	5,456.7	5,456.7	5,311.3	4,982.8	4,779.7	4,790.3
Guaranteed equity[7]	9,966.6	15,475.7	15,417.5	15,417.5	15,203.6	14,664.1	14,294.3	14,331.2
Global funds	12,683.3	20,916.8	35,511.5	35,511.5	39,908.6	42,633.5	44,676.3	43,926.0
Passive management	17,731.1	23,601.6	19,477.8	19,477.8	18,097.7	16,686.8	16,580.5	16,518.2
Absolute return	11,228.1	12,215.2	16,705.9	16,705.9	17,269.0	17,139.7	16,307.1	15,133.4

1 Sub-funds which have sent reports to the CNMV excluding those in process of dissolution or liquidation.
2 As from July 2015, data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.
3 Available data: October 2018.
4 Fixed income euro, Foreign fixed-income, Monetary market funds and Short-term monetary market funds.
5 Mixed euro fixed-income and Foreign mixed fixed-income.
6 Mixed euro equity and Foreign mixed equity.
7 Guaranteed equity and Partial guarantee.

Financial mutual funds: details of investors and total net assets by investor type

TABLE 3.7

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[1]
INVESTORS								
Total financial mutual funds	7,682,947	8,253,611	10,287,454	10,287,454	11,019,934	11,435,155	11,332,911	11,347,248
Individuals	7,494,162	8,059,916	10,080,255	10,080,255	10,804,999	11,218,135	11,120,683	11,135,151
Residents	7,422,330	7,985,404	9,994,395	9,994,395	10,716,077	11,127,615	11,029,299	11,042,959
Non-residents	71,832	74,512	85,860	85,860	88,922	90,520	91,384	92,192
Legal entities	188,785	193,695	207,199	207,199	214,935	217,020	212,228	212,097
Credit institutions	532	497	515	515	506	635	642	648
Other resident institutions	187,395	192,381	205,804	205,804	213,531	215,461	210,704	210,566
Non-resident institutions	858	817	880	880	898	924	882	883
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	222,144.6	237,862.2	265,194.8	265,194.8	271,264.3	273,774.0	274,645.4	268,116.1
Individuals	181,868.0	195,567.5	218,429.6	218,429.6	223,612.2	226,346.6	227,261.9	222,253.9
Residents	179,232.4	192,743.0	215,290.8	215,290.8	220,446.1	223,127.5	224,043.9	219,080.7
Non-residents	2,635.6	2,824.5	3,138.8	3,138.8	3,166.1	3,219.0	3,218.0	3,173.2
Legal entities	40,276.6	42,294.8	46,765.1	46,765.1	47,652.1	47,427.4	47,383.5	45,862.2
Credit institutions	483.0	374.3	342.2	342.2	369.7	346.2	450.5	446.9
Credit institutions	39,071.0	41,212.4	45,518.8	45,518.8	46,318.5	46,033.0	45,887.6	44,405.3
Non-resident institutions	722.6	708.1	904.1	904.1	963.9	1,048.1	1,045.5	1,010.0

1 Available data: October 2018.

Subscriptions and redemptions of financial mutual funds by category[1, 2]

TABLE 3.8

Million euro	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
SUBSCRIPTIONS								
Total financial mutual funds	159,036.2	113,274.7	151,586.4	26,147.6	46,229.8	48,437.9	34,408.7	23,005.0
Fixed-income	66,789.7	53,163.3	59,088.5	10,458.6	18,942.1	18,772.2	15,737.5	8,699.0
Mixed fixed-income	36,441.2	11,065.3	20,513.3	3,312.3	5,216.0	6,323.9	3,908.0	2,410.4
Mixed equity	13,771.0	4,250.6	10,452.2	1,669.3	2,932.9	4,351.9	2,295.2	2,037.0
Euro equity	6,719.9	3,716.3	9,452.9	1,421.0	4,184.1	2,908.8	1,731.3	1,215.5
Foreign equity	11,236.2	7,167.6	14,866.5	2,273.9	5,632.3	4,907.1	2,891.3	2,768.8
Guaranteed fixed-income	562.4	2,005.3	986.9	91.5	183.1	110.9	167.1	171.2
Guaranteed equity	1,993.2	7,942.5	2,413.1	234.3	314.3	346.2	490.0	358.8
Global funds	9,636.1	8,914.5	21,571.9	3,612.7	6,060.3	7,502.4	5,118.3	4,014.5
Passive management	3,350.5	10,195.7	2,374.0	491.5	489.0	752.9	356.9	559.7
Absolute return	8,363.0	4,853.2	9,867.1	2,582.5	2,275.8	2,461.5	1,713.1	770.1
REDEMPTIONS								
Total financial mutual funds	135,569.6	99,492.3	130,248.0	22,689.0	40,584.7	39,524.8	32,389.8	22,161.3
Fixed-income	72,141.1	45,549.5	62,087.2	10,392.2	18,873.1	19,828.2	15,838.0	9,449.9
Mixed fixed-income	15,273.7	14,242.9	18,011.6	3,069.6	4,503.4	5,597.7	3,962.0	3,002.9
Mixed equity	5,617.2	7,280.8	4,942.6	859.1	1,442.6	2,483.3	1,749.7	1,298.8
Euro equity	6,251.0	4,259.2	6,908.0	774.7	3,641.1	1,051.1	1,475.6	1,340.1
Foreign equity	7,175.7	6,821.0	10,363.6	1,251.2	4,517.0	3,363.2	2,092.2	1,763.1
Guaranteed fixed-income	7,369.8	5,208.0	3,876.9	1,023.2	530.9	309.4	399.8	170.2
Guaranteed equity	4,593.0	2,464.1	3,001.5	688.7	853.4	607.8	810.1	544.7
Global funds	3,830.8	5,334.6	8,587.6	1,970.9	2,421.5	2,667.2	2,414.6	2,268.8
Passive management	9,614.7	4,405.7	6,954.8	1,225.7	1,939.2	1,899.6	1,737.9	807.1
Absolute return	3,551.6	3,906.8	5,488.2	1,433.6	1,836.6	1,717.2	1,909.9	1,515.7

1 Estimated data.
2 As from July 2015, data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Change in assets in financial mutual funds by category: Net subscriptions/redemptions and return on assets[1]

TABLE 3.9

Million euro	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III
NET SUBSCRIPTIONS/REDEMPTIONS								
Total financial mutual funds	22,763.6	13,823.2	21,325.0	3,443.9	5,642.3	8,913.3	2,014.0	856.1
Fixed-income	-4,816.1	8,243.5	-3,638.0	-880.7	265.0	-1,145.9	30.0	-887.2
Mixed fixed-income	20,903.0	-4,750.8	2,890.5	731.0	686.6	731.3	448.9	-295.7
Mixed equity	8,227.3	-5,194.5	5,498.6	761.2	1,516.4	1,878.4	40.4	634.5
Euro equity	467.2	-538.0	2,549.7	691.1	495.1	1,768.8	257.4	-124.6
Foreign equity	4,110.2	-32.5	4,514.0	1,005.7	1,114.5	1,638.4	813.6	961.8
Guaranteed fixed-income	-8,093.5	-3,699.6	-3,262.6	-1,047.6	-388.7	-198.5	-262.9	-168.1
Guaranteed equity	-2,396.4	5,465.9	-309.5	-349.3	-498.1	-268.5	-368.1	-245.6
Global funds	5,787.9	7,801.3	13,405.9	2,109.0	3,629.5	5,055.6	2,695.5	1,836.9
Passive management	-6,274.9	5,603.4	-4,585.0	-738.1	-1,450.3	-1,275.4	-1,447.8	-77.2
Absolute return	4,802.6	943.5	4,287.3	1,161.6	298.3	729.0	-193.1	-794.1
RETURN ON ASSETS								
Total financial mutual funds	680.1	1,909.9	6,022.6	1,449.2	1,086.6	-2,837.8	499.0	25.4
Fixed-income	69.3	399.3	-24.1	53.0	1.9	-92.6	-474.0	-57.8
Mixed fixed-income	-425.2	25.1	451.4	160.7	50.2	-370.6	-233.8	-40.9
Mixed equity	-294.8	2.2	577.8	162.0	115.9	-404.8	139.2	108.3
Euro equity	224.2	110.8	987.8	65.7	-45.0	-257.8	254.6	-172.4
Foreign equity	766.6	568.4	1,872.3	445.4	505.0	-894.8	863.3	202.1
Guaranteed fixed-income	52.1	3.9	39.4	17.8	17.1	53.2	-65.6	-35.0
Guaranteed equity	166.6	43.1	251.3	75.7	5.8	54.6	-171.4	-124.2
Global funds	9.3	432.1	1,190.3	286.1	443.7	-657.9	249.0	206.3
Passive management	185.5	281.5	472.9	115.7	-44.3	-101.1	36.9	-21.4
Absolute return	-72.7	43.7	203.4	67.1	36.2	-165.9	-99.1	-38.4

1 As from July 2015, data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Return on assets in financial mutual funds. Breakdown by category[1]

TABLE 3.10

				2017		2018		
% of daily average total net assets	2015	2016	2017	III	IV	I	II	III
MANAGEMENT YIELDS								
Total financial mutual funds	1.41	1.91	3.41	0.82	0.67	-0.82	0.43	0.25
Fixed-income	0.85	1.24	0.59	0.23	0.16	0.00	-0.55	0.05
Mixed fixed-income	0.14	1.26	2.22	0.66	0.40	-0.59	-0.26	0.16
Mixed equity	-0.12	1.45	4.36	1.15	0.88	-1.41	0.92	0.73
Euro equity	4.41	3.38	11.14	1.04	0.07	-1.56	2.24	-0.75
Foreign equity	6.80	5.55	10.80	2.54	2.64	-3.20	3.75	1.15
Guaranteed fixed-income	1.25	0.79	1.14	0.43	0.44	1.12	-1.19	-0.63
Guaranteed equity	2.75	1.09	2.18	0.64	0.15	0.50	-1.02	-0.71
Global funds	1.25	3.95	5.39	1.23	1.64	-1.45	0.87	0.77
Passive management	1.65	2.11	2.81	0.70	-0.08	-0.39	0.37	0.02
Absolute return	0.29	1.41	2.32	0.66	0.46	-0.76	-0.37	-0.02
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	1.00	0.95	0.91	0.23	0.23	0.21	0.22	0.22
Fixed-income	0.66	0.58	0.54	0.14	0.13	0.11	0.11	0.12
Mixed fixed-income	1.15	1.12	1.05	0.26	0.26	0.25	0.24	0.24
Mixed equity	1.41	1.40	1.34	0.34	0.33	0.31	0.32	0.32
Euro equity	1.76	1.75	1.71	0.42	0.42	0.37	0.37	0.37
Foreign equity	1.71	1.71	1.69	0.42	0.42	0.36	0.36	0.36
Guaranteed fixed-income	0.84	0.68	0.48	0.12	0.11	0.10	0.10	0.09
Guaranteed equity	1.05	0.70	0.58	0.14	0.14	0.13	0.14	0.13
Global funds	1.06	1.26	1.07	0.26	0.27	0.25	0.25	0.25
Passive management	0.64	0.56	0.52	0.13	0.13	0.12	0.12	0.12
Absolute return	0.99	0.96	0.91	0.22	0.23	0.20	0.20	0.20
EXPENSES. DEPOSITORY FEE								
Total financial mutual funds	0.09	0.08	0.08	0.02	0.02	0.02	0.02	0.02
Fixed-income	0.08	0.07	0.07	0.02	0.02	0.02	0.02	0.01
Mixed fixed-income	0.09	0.09	0.09	0.02	0.02	0.02	0.02	0.02
Mixed equity	0.11	0.11	0.10	0.03	0.02	0.02	0.02	0.02
Euro equity	0.12	0.12	0.11	0.03	0.03	0.02	0.02	0.02
Foreign equity	0.12	0.12	0.10	0.03	0.02	0.02	0.02	0.02
Guaranteed fixed-income	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.01
Guaranteed equity	0.08	0.06	0.05	0.01	0.01	0.01	0.01	0.01
Global funds	0.08	0.10	0.09	0.02	0.02	0.02	0.02	0.02
Passive management	0.07	0.06	0.06	0.01	0.01	0.01	0.01	0.01
Absolute return	0.08	0.08	0.07	0.02	0.02	0.02	0.02	0.02

1 As from July 2015, data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.

Quarterly returns of mutual funds. Breakdown by category[1]

TABLE 3.11

				2017	2018			
In %	2015	2016	2017	IV	I	II	III	IV[2]
Total financial mutual funds	0.89	0.98	2.42	0.33	-1.04	0.23	0.02	-2.09
Fixed-income	0.10	0.52	-0.13	-0.08	-0.26	-0.68	-0.09	-0.21
Mixed fixed-income	0.16	0.27	1.10	0.12	-0.84	-0.53	-0.10	-1.32
Mixed equity	0.15	1.19	3.23	0.57	-1.69	0.62	0.43	-2.74
Euro equity	3.44	2.61	11.16	-0.23	-1.77	1.88	-1.29	-6.61
Foreign equity	7.84	4.15	8.75	1.27	-3.51	3.59	0.88	-5.77
Guaranteed fixed-income	0.27	-0.03	0.72	0.30	1.02	-1.30	-0.75	-0.20
Guaranteed equity	1.07	0.19	1.61	0.03	0.35	-1.16	-0.86	-0.62
Global funds	2.45	1.99	4.46	1.31	-1.58	0.66	0.49	-2.77
Passive management	0.53	1.16	2.13	-0.20	-0.51	0.23	-0.15	-1.60
Absolute return	0.12	0.38	1.44	0.23	-0.93	-0.57	-0.23	-1.61

1 As from July 2015, data on side-pocket sub-funds are only included in aggregate figures, and not in each individual category.
2 Available data: October 2018.

Hedge funds and funds of hedge funds

TABLE 3.12

	2015	2016	2017	2017 III	2017 IV	2018 I	2018 II	2018 III[1]
HEDGE FUNDS								
Investors/shareholders	3,089	2,930	3,656	3,444	3,656	3,973	4,077	4,296
Total net assets (million euro)	1,764.8	1,889.2	2,298.2	2,192.0	2,298.2	2,329.7	2,335.3	2,411.6
Subscriptions (million euro)	596.6	425.5	663.9	107.8	195.6	176.0	85.3	129.1
Redemptions (million euro)	260.5	376.6	607.2	82.4	108.5	128.1	110.6	53.2
Net subscriptions/redemptions (million euro)	336.1	48.9	56.7	25.4	87.1	48.0	-25.3	76.0
Return on assets (million euro)	56.3	75.5	149.4	26.6	19.0	-16.5	30.9	0.4
Returns (%)	4.83	4.32	7.84	1.03	0.80	-0.91	1.35	-0.18
Management yields (%)[2]	6.17	4.68	9.51	1.85	1.31	-0.38	1.68	0.23
Management fee (%)[2]	2.34	2.25	2.59	0.56	0.47	0.85	0.38	0.20
Financial expenses (%)[2]	0.51	0.10	0.00	0.00	0.00	0.00	0.00	0.00
FUNDS OF HEDGE FUNDS								
Investors/shareholders	1,265	1,237	3,596	3,534	3,596	3,605	2,797	2,802
Total net assets (million euro)	319.8	293.7	468.7	472.0	468.7	470.0	469.0	470.8
Subscriptions (million euro)	8.3	0.0	205.4	144.4	12.0	3.4	0.5	–
Redemptions (million euro)	54.9	28.1	22.1	0.0	14.3	0.4	0.2	–
Net subscriptions/redemptions (million euro)	-46.6	-28.1	183.4	144.4	-2.3	3.1	0.3	–
Return on assets (million euro)	21.0	2.1	-8.3	0.6	-1.0	-1.8	-1.3	–
Returns (%)	6.16	0.90	-1.66	0.36	-0.13	-0.37	-0.27	0.10
Management yields (%)[3]	6.61	-0.95	-0.24	0.51	0.43	0.08	0.18	–
Management fee (%)[3]	0.48	0.82	1.45	0.36	0.42	0.40	0.40	–
Depository fee (%)[3]	0.04	0.06	0.06	0.01	0.02	0.01	0.02	–

1 Available data: August 2018.
2 % of monthly average total net assets.
3 % of daily average total net assets.

Management companies. Number of portfolios and assets under management[1]

TABLE 3.13

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[2]
NUMBER OF PORTFOLIOS[3]								
Mutual funds	1,760	1,748	1,676	1,676	1,668	1,628	1,630	1,629
Investment companies	3,333	3,231	2,824	2,824	2,784	2,754	2,725	2,723
Funds of hedge funds	11	7	8	8	8	7	7	7
Hedge funds	37	41	47	47	47	46	49	49
Real estate mutual funds	3	3	3	3	3	3	3	3
Real estate investment companies	6	6	4	4	4	4	4	4
ASSETS UNDER MANAGEMENT (million euro)								
Mutual funds	222,144.6	237,862.2	265,194.8	265,194.8	271,264.3	273,774.0	274,645.4	268,116.1
Investment companies	32,879.4	31,783.2	31,021.1	31,021.1	30,366.6	30,428.1	30,356.4	29,100.1
Funds of hedge funds[4]	319.8	293.7	468.7	468.7	470.0	469.0	470.8	–
Hedge funds[4]	1,764.8	1,889.2	2,298.2	2,298.2	2,329.6	2,335.3	2,411.6	–
Real estate mutual funds	391.0	370.1	360.0	360.0	360.9	309.4	309.4	309.4
Real estate investment companies	702.1	707.3	631.5	631.5	559.6	570.9	568.5	570.0

1 Until March 2016, all assets of investment companies which are co-managed by management companies and other different companies are considered "assets under management".
2 Available data: October 2018
3 Data source: Collective Investment Schemes Registers.
4 Available data for III Quarter 2018: August 2018.

Foreign Collective Investment Schemes marketed in Spain[1, 2]

TABLE 3.14

	2015	2016	2017	2017 III	2017 IV	2018 I[3]	2018 II	2018 III
INVESTMENT VOLUME[4] (million euro)								
Total	108,091.6	114,990.2	150,420.6	141,828.0	150,420.6	160,841.0	–	–
Mutual funds	15,305.1	21,337.5	26,133.9	27,108.5	26,133.9	27,779.0	–	–
Investment companies	92,786.5	93,652.8	124,286.7	114,719.5	124,286.7	133,062.0	–	–
INVESTORS/SHAREHOLDERS								
Total	1,643,776	1,748,604	2,226,991	2,196,847	2,226,991	3,252,167	–	–
Mutual funds	298,733	372,872	445,299	460,374	445,299	637,733	–	–
Investment companies	1,345,043	1,375,732	1,781,692	1,736,473	1,781,692	2,614,434	–	–
NUMBER OF SCHEMES								
Total	880	941	1,013	998	1,013	1,009	1,022	1,031
Mutual funds	425	441	455	452	455	450	446	445
Investment companies	455	500	558	546	558	559	576	586
COUNTRY								
Luxembourg	362	391	429	424	429	425	437	444
France	282	286	292	289	292	288	276	270
Ireland	143	160	184	173	184	187	196	200
Germany	32	32	35	35	35	36	38	41
UK	31	32	33	33	33	33	30	31
The Netherlands	2	2	2	2	2	2	2	2
Austria	23	23	21	23	21	21	24	24
Belgium	4	4	5	5	5	5	5	5
Denmark	1	1	1	1	1	1	1	1
Finland	0	4	8	7	8	8	9	9
Liechtenstein	0	6	3	6	3	3	4	4

1 Until fourth quarter 2017 data on Exchange Traded Funds (ETFs) are not included.
2 With the entry into force of CNMV Circular 2/2017, of 25 October 2016, 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.
3 Data on investment volume and investors/shareholders are estimated with the 96.9% of the entities subject to reporting requirements.
4 Investment volume: participations or shares owned by the investors/shareholders at the end of the period valued at that moment.

Real estate investment schemes[1]

TABLE 3.15

	2015	2016	2017	2017 IV	2018 I	2018 II	2018 III	2018 IV[2]
REAL ESTATE MUTUAL FUNDS								
Number	3	3	3	3	3	2	2	2
Investors	3,918	3,927	1,097	1,097	1,092	483	483	483
Asset (million euro)	391.0	370.1	360.0	360.0	360.9	309.4	309.4	309.4
Return on assets (%)	-6.66	-5.35	-2.60	-0.06	0.24	0.02	-0.01	0.00
REAL ESTATE INVESTMENT COMPANIES								
Number	6	6	4	4	4	4	4	4
Shareholders	583	674	327	327	425	425	423	423
Asset (million euro)	702.1	707.3	631.5	631.5	559.6	570.9	568.5	570.0

1 Real estate investment schemes which have sent reports to the CNMV, excluding those in process of dissolution or liquidation.
2 Available data: October 2018.