CNMV
Comisión Nacional del Mercado de Valores

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

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Abbreviations

ABS	Asset Backed Securities
AIAF	Asociación de Intermediarios de Activos Financieros (Spanish market in fixed-income securitie)
ANCV	Agencia Nacional de Codificación de Valores (Spain's national numbering agency)
ASCRI	Asociación española de entidades de capital-riesgo (Association of Spanish venture capital firms)
AV	Agencia de valores (broker)
AVB	Agencia de valores y bolsa (broker and market member)
BME	Bolsas y Mercados Españoles (operator of all stock markets and financial systems in Spain)
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)
CCP	Central Counterparty
CDS	Credit Default Swap
CEBS	Committee of European Banking Supervisors
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CESFI	Comité de Estabilidad Financiera (Spanish government committee for financial stability)
CESR	Committee of European Securities Regulators
CMVM	Comissão do Mercado de Valores Mobiliários (Portugal's National Securities Market Commission)
CNMV	Comisión Nacional del Mercado de Valores (Spain's National Securities Market Commission)
CSD	Central Securities Depository
EAFI	Empresa de Asesoramiento Financiero (financial advisory firm)
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
ECLAC	Economic Commission for Latin America and the Caribbean
ECR	Entidad de capital-riesgo (venture capital firm)
EIOPA	European Insurance and Occupational Pensions Authority
EMU	Economic and Monetary Union (euro area)
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange traded fund
EU	European Union
FI	Fondo de inversión de carácter financiero (mutual fund)
FIAMM	Fondo de inversión en activos del mercado monetario (money-market fund)
FII	Fondo de Inversión Inmobiliaria (real estate investment fund)
FIICIL	Fondo de instituciones de inversión colectiva de inversión libre (fund of hedge funds)
FIL	Fondo de inversión libre (hedge fund)
FIM	Fondo de inversión mobiliaria (securities investment fund)
FSB	Financial Stability Board
FTA	Fondo de titulización de activos (asset securitisation trust)

FTH	Fondo de titulización hipotecaria (mortgage securitisation trust)
IAASB	International Auditing and Assurance Standards Board
IAS	International Accounting Standards
IASB	International Accounting Standards Board
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
IOSCO	International Organization of Securities Commissions
ISIN	International Securities Identification Number
LATIBEX	Market in Latin American securities, based in Madrid
MAB	Mercado Alternativo Bursátil (alternative stock market)
MEFF	Spanish financial futures and options market
MFAO	Mercado de Futuros del Aceite de Oliva (olive oil futures market)
MIBEL	Mercado Ibérico de Electricidad (Iberian electricity market)
MiFID	Markets in Financial Instruments Directive
MMU	CNMV Market Monitoring Unit
MoU	Memorandum of Understanding
OECD	Organisation for Economic Co-operation and Development
OICVM	Organismo de inversión colectiva en valores mobiliarios (UCITS)
OMIP	Operador do Mercado Ibérico de Energía (operator of the Iberian energy derivatives market)
P/E	Price/earnings ratio
RENADE	Registro Nacional de los Derechos de Emisión de Gases de Efectos Invernadero (Spain's national register of greenhouse gas emission permits)
ROE	Return on Equity
SCLV	Servicio de Compensación y Liquidación de Valores (Spain's securities clearing and settlement system)
SCR	Sociedad de capital-riesgo (Venture capital company)
SENAF	Sistema Electrónico de Negociación de Activos Financieros (electronic trading platform in Spanish government bonds)
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)
SGFT	Sociedad Gestora de Fondo 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-end investment company)
SII	Sociedad de Inversión Inmobiliaria (real estate investment company)
SIL	Sociedad de Inversión Libre (hedge fund in the form of a company)
SIM	Sociedad de Inversión Mobiliaria (securities investment company)
SME	Small and medium-sized enterprise
SON	Sistema Organizado de Negociación (multilateral trading facility)
SV	Sociedad de Valores (broker-dealer)
SVB	Sociedad de Valores y Bolsa (broker-dealer and market member)
TER	Total expense ratio
UCITS	Undertaking for Collective Investment in Tradable Securities

I Market Survey (*)

(*) This article has been prepared by staff of the CNMV Research, Statistics and Publications Department.

1 Overview

Figures for the opening months of 2011 confirmed the persistence of world recovery under the leadership of the fast-growing emerging economies. Rising prices of energy and non-energy commodities continued to push up inflation rates across main world regions, prompting a series of economies, advanced and emerging, to increase their interest rates. Notable among the first group was the euro area, whose April hike marked the end of an almost two-year period of status quo. In the United States, meantime, the mooted hike was put on hold in view of the recent cooling of activity.

International financial markets confronted a new wave of turmoil as of April after an opening quarter in which the good economic outlook had facilitated a rally in stock prices and falling risk premiums. The spark this time round was Portugal's request for EU financial help and, above all, mounting uncertainty over the sustainability of Greece's public finances.

The second-quarter run-down in international equity prices was partly about the instability of European debt markets, but in certain indices it also reflected shifting expectations about the strength of domestic growth. Market volatility, meantime, remained subdued.

In debt markets, the latest round of turbulence triggered a fresh "flight to quality" among the investor public, which drove down the yields of U.S., German and UK bonds on perceptions of their "safe haven" status. The decline in sovereign spreads of the year's first months gave way to a renewed surge that was especially intense in Greece, Portugal and Ireland. And sovereign risk contagion from these peripheral to other euro-area countries attained significant levels. We should mention here the divergent experience of Spanish risk premiums, whose performance since end-February more closely resembles that of fiscally sounder countries like Italy than that of Greece, Portugal or Ireland.

In currency markets, the euro continued its steady appreciation against the dollar dating back to mid-2010, with brief interruptions in the month of November, coinciding with the Irish debt problem, and in May 2011 as concerns rekindled about Greece's public debt. In the year's middle weeks, the worsening outlook for the U.S. economy and doubts about the imminence of otherwise of agreement on a new financial assistance package for Greece exerted contrasting effects on euro exchange rates, which by mid-June were up to 1.43 dollars from the 1.3 dollars of the year's outset.[1]

1 The closing date for this report is 15 June, 2011.

Summary of financial indicators

TABLE 1

	Q3 10	Q4 10	Q1 11	Q2 11*
Short-term interest rates (%)[1]				
Official interest rate	1.00	1.00	1.00	1.25
Euribor 3 month	0.88	1.02	1.18	1.45
Euribor 12 month	1.42	1.53	1.92	2.14
Exchange rates[2]				
Dollar/euro	1.36	1.34	1.42	1.43
Yen/euro	113.70	108.6	117.6	115.5
Medium and long government bond yields[3]				
Euro area				
3 year	0.77	1.16	1.82	1.77
5 year	1.36	1.91	2.53	2.25
10 year	2.33	2.90	3.24	3.02
United States				
3 year	0.73	0.98	1.15	0.72
5 year	1.40	1.92	2.10	1.60
10 year	2.64	3.29	3.41	3.00
Credit risk premiums: BBB-AAA spread (basis points)[3]				
Euro area				
High yield	510	462	388	397
BBB	176	170	151	149
AAA	18	14	23	8
United States				
High yield	563	461	400	445
BBB	181	145	122	131
AAA	49	37	46	48
Equity markets				
Performance of main world stock indices (%)[4]				
Euro Stoxx 50	6.8	1.6	4.2	-6.2
Dow Jones	10.4	7.3	6.4	-3.4
Nikkei	-0.1	9.2	-4.6	-1.9
Other indices (%)				
Merval (Argentina)	21.0	33.3	-3.8	-4.2
Bovespa (Brazil)	13.9	-0.1	-1.0	-10.2
Shanghai Comp (China)	10.7	5.7	4.3	-7.6
BSE (India)	12.5	0.4	-5.4	-5.6
Spanish stock market				
Ibex 35 (%)	13.5	-6.2	7.3	-6.1
P/E of Ibex 35[5]	10.0	9.7	10.4	9.9
Volatility of Ibex 35 (%)[6]	29.6	26.9	26.8	21.0
SIBE trading volumes[7]	3,260	4,596	3,859	3,830

Source: CNMV, Thomson Datastream, Bloomberg, Reuters, Banco de España, Bolsa de Madrid, MEFF and AIAF.
* Latest available data at the time of preparing this report.

1 Monthly average of daily data. The official interest rate corresponds to the marginal rate at weekly auctions at the period close. Data for the second quarter correspond to the average from 1 to 15 June.
2 Data at period end. Data for the second quarter of 2011 correspond to 15 June.
3 Monthly average of daily data. Data for the second quarter 2011 run from 1 to 15June.
4 Cumulative quarterly change in each period.
5 Price-earnings ratio.
6 Implied at-the-money (ATM) volatility on nearest expiry at period end.
7 Daily average in million euros.

In Spain, Quarterly National Accounts data for the first quarter of 2011 bore out the firming recovery of the national economy, with the external sector strongly to the fore. GDP growth came in at 0.8% year on year, two decimal points higher than in the previous quarter though still lagging behind Europe's central economies. Inflation, meantime, gained pace on accelerating commodity and fresh food prices, and by May was up to 3.5%. The performance of public finances was broadly satisfactory with budgetary execution proceeding more or less to plan, despite compliance disparities between levels of government. The labour market, finally, has yet to show any clear signs of reactivation.

The domestic fixed-income market suffered from the upswing in uncertainty provoked by another installment of the European sovereign crisis, though the impact was smoother than in the episodes of 2010. The yield spread between Spanish and German long-term bonds, which had been narrowing to early April, began a new ascent that carried it to mid-June levels similar to those of end-2010 (ahead of 250 bp). Gross issuance of private debt instruments was up 15.9% compared to the same period last year, as financial institutions stepped up their recourse to the capital markets. Overall, Spanish companies tended to borrow more on international markets and make less call on government guarantee programmes. The public sector, meantime, was again the single biggest issuer in the Spanish fixed-income market, as it has been since the start of the crisis.

Spanish equity markets also moved to the rhythm of European debt market turbulence. The Ibex 35 contracted 6.1% in the second quarter on the heels of a first-quarter gain of 7.3%, earning it a year-to-date advance of 0.8% at the closing date for this report, compared to the considerable tumble (-18.4%) taken in the same period of 2010. The market's implied volatility held at historical lows if we exclude the March spike that followed the Japanese earthquake and subsequent nuclear scare. Stock market issuance and turnover have been low-key this year after the upswings of 2010. Finally, markets have stayed comfortably liquid despite a small deterioration in these past weeks.

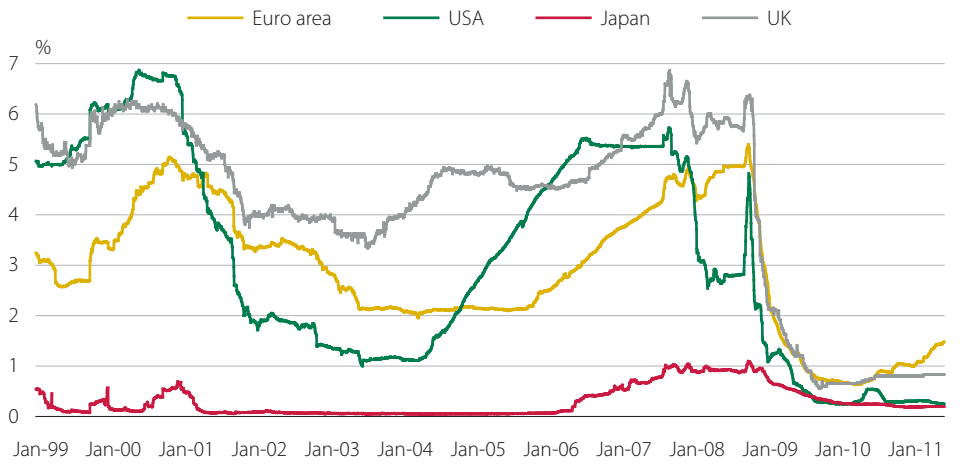
2 International financial background

2.1 Short-term interest rates

Interbank rates have held more or less flat in main world economies since the start of 2011, the exception being the euro area (see figure 1). In this case, the run-up in rates since mid-2010 foreshadowed the shift in the area's monetary stance that finally took place in early April 2011, when the ECB announced that it would raise its key rate by 25 basis points (bp) to 1.25% after almost two years of status quo. Euro-area interbank rates climbed by just over 40 bp at three months, 48 bp at six months and 61 bp in the twelve-month tenor as far as 1.4%, 1.7% and 2.1% respectively in June 2011 (see table 2). In the United Kingdom, the increase was 10 bp approximately across these same maturities, while U.S. and Japanese rates stayed essentially unchanged.

Three-month interest rates[1]

FIGURE 1



Source: Thomson Datastream.

1 Data to 15 June.

Short-term interest rates[1]

TABLE 2

%	Dec 07	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11[2]
Euro area								
Official[3]	4.00	2.50	1.00	1.00	1.00	1.00	1.00	1.25
3 month	4.84	3.27	0.71	1.02	0.88	1.02	1.18	1.45
6 month	4.81	3.34	1.00	1.25	1.14	1.25	1.48	1.73
12 month	4.79	3.43	1.24	1.53	1.42	1.53	1.92	2.14
United States								
Official[4]	4.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3 month	4.97	1.80	0.25	0.30	0.29	0.30	0.31	0.25
6 month	4.82	2.15	0.45	0.46	0.48	0.46	0.46	0.40
12 month	4.42	2.36	1.00	0.78	0.80	0.78	0.78	0.72
United Kingdom								
Official	5.00	2.00	0.50	0.50	0.50	0.50	0.50	0.50
3 month	5.26	2.99	0.65	0.80	0.80	0.80	0.83	0.83
6 month	5.34	3.12	0.95	1.05	1.06	1.05	1.15	1.14
12 month	5.47	3.25	1.45	1.50	1.50	1.50	1.62	1.61
Japan								
Official[5]	0.50	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3 month	0.98	0.91	0.28	0.18	0.22	0.18	0.20	0.20
6 month	1.03	1.01	0.48	0.35	0.43	0.35	0.35	0.34
12 month	1.10	1.12	0.70	0.57	0.66	0.57	0.57	0.56

Source: Thomson Datastream.

1 Average daily data except official rates, which correspond to the last day of the period.

2 Average data from 1 to 15 June.

3 Marginal rate at weekly auctions.

4 Federal funds rate.

5 Monetary policy rate.

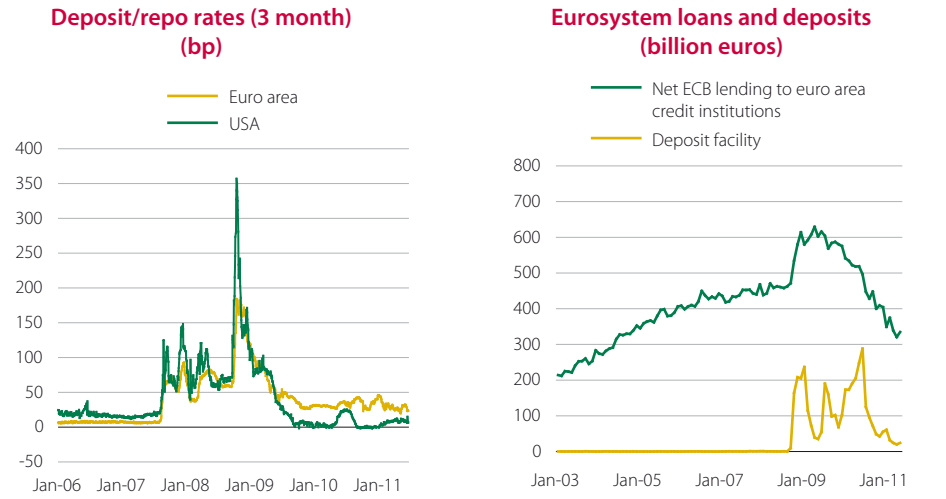
Spreads between interbank market deposit and repo rates have undergone few changes in recent months. Three-month spreads hovered around 10 bp in the Unit-

ed States but were closer to 20 bp in the euro area, as a consequence of the instability emanating from sovereign debt markets.

Euro-area financial institutions again made less call on Eurosystem funding in the first three months of 2011, after the highs reached in mid-2009. Borrowings from this source are now approaching their 2004 levels, at just over 300 billion euros (see figure 2). Recourse to the marginal deposit facility has also tailed off since the peaks reached in May 2010 during the first round of the Greek debt crisis.

Interbank spreads and Eurosystem financing

FIGURE 2



Source: Thomson Datastream. Spread data to 15 June. Eurosystem data to May.

Expectations are that short-term official rates in the euro area will move up 25 bp in the third quarter, while U.S. rates stay flat. Panning out to a year, forward rates augur hikes of around 25 bp in the United States and 50 bp in the euro area (see table 3).

Three-month forward rates (FRAs)[1]

TABLE 3

%

	Dec 07	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11[2]
Euro area								
Spot	4.68	2.89	0.70	1.01	0.89	1.01	1.24	1.49
FRA 3x6	4.52	2.17	0.82	1.04	1.08	1.04	1.58	1.70
FRA 6x9	4.42	1.97	1.21	1.13	1.26	1.13	1.88	1.80
FRA 9x12	4.33	2.13	1.61	1.23	1.28	1.23	2.12	1.87
FRA 12x15	4.30	2.22	1.90	1.34	1.33	1.34	2.35	1.93
United States								
Spot	4.70	1.43	0.25	0.30	0.29	0.30	0.30	0.25
FRA 3x6	4.15	1.07	0.42	0.39	0.37	0.39	0.38	0.36
FRA 6x9	3.69	1.16	0.77	0.47	0.43	0.47	0.48	0.43
FRA 9x12	3.45	1.29	1.23	0.61	0.50	0.61	0.65	0.49
FRA 12x15	3.36	1.45	1.59	0.78	0.60	0.78	0.90	0.62

Source: Thomson Datastream.

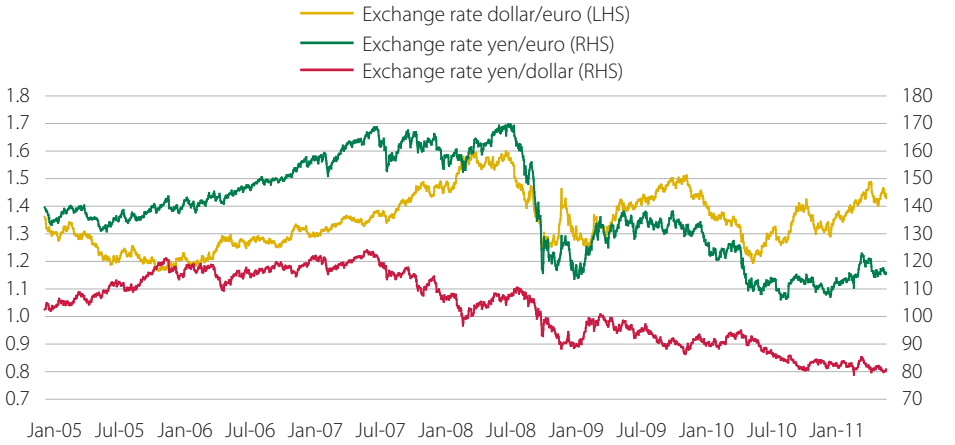
1 Data at period end.

2 Data at 15 June.

2.2 Exchange rates

In currency markets, the dominant note was the euro's prolonged ascent against the U.S. dollar, which has lasted since mid-2010 with two interruptions in November 2010 and May 2011 (coinciding respectively with the Irish debt crisis and the new instability outbreak in Greece). Subsequently, exchange rates have been pulled different ways by the worsening prospects for U.S. activity and doubts about the imminence of an agreement conceding a new financial assistance package to the Greek economy. Finally, Europe's currency advanced from 1.3 dollars at the start of the year to 1.43 dollars in mid-June, and from 112 to 116 yens (see figure 3).

Dollar/euro and yen/euro exchange rates FIGURE 3



Source: Thomson Datastream. Data to 15 June.

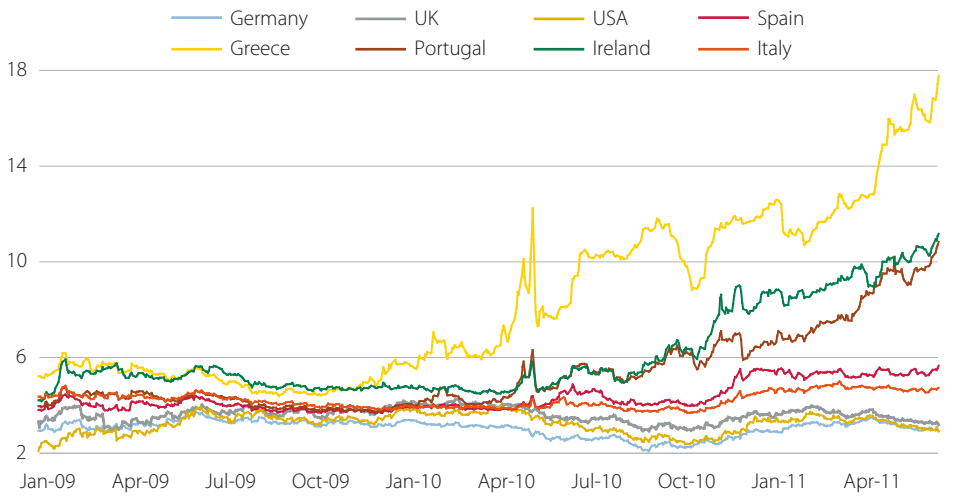
2.3 Long-term interest rates

The moderately upbeat prospects for the world economy endorsed by corporate earnings reports and activity indicators published in the first quarter of 2011 sent long government yields substantially higher in key advanced economies. As of mid-April, however, investors began to turn in growing number to German, U.S. and British bonds on account of their "safe haven" status, reducing their yields while pushing up those of the economies betraying most signs of fragility. Note that Spanish debt was largely unaffected, in contrast to the experience of previous turmoil, with yields holding in the 5.2%-5.5% corridor over the first half of the year (see figure 4).

As we can see from table 4, despite their shared consideration as safe-haven assets, the government bonds of the main advanced economies displayed divergences in yield. In the euro area and the United Kingdom, the increase in short-term yields (three and five years) over the first quarter of 2011 was steeper than the fall in longer bond yields that followed in the second quarter, causing a degree of flattening of the ten/three-year spread. Conversely, long government yields in the U.S. and Japan traced similar movements in both periods, leaving the curve slope essentially unaltered.

Long-term government bond yields (ten years)

FIGURE 4



Source: Thomson Datastream. Data to 15 June.

By mid-June 2011, the ten-year bonds of the euro area, United Kingdom, United States and Japan were yielding 3.0%, 3.3%, 3.0% and 1.1% respectively.

Medium and long government bond yields[1]

TABLE 4

%

	Dec 07	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11[2]
Euro area								
3 year	3.96	2.07	1.55	1.16	0.77	1.16	1.82	1.77
5 year	4.04	2.50	2.27	1.91	1.36	1.91	2.53	2.25
10 year	4.27	3.04	3.22	2.90	2.33	2.90	3.24	3.02
United States								
3 year	3.12	1.07	1.37	0.98	0.73	0.98	1.15	0.72
5 year	3.49	1.51	2.33	1.92	1.40	1.92	2.10	1.60
10 year	4.10	2.40	3.59	3.29	2.64	3.29	3.41	3.00
United Kingdom								
3 year	4.48	2.60	1.67	1.14	0.93	1.14	1.76	1.24
5 year	4.61	2.80	2.69	2.07	1.71	2.07	2.56	2.05
10 year	4.63	3.33	3.94	3.61	3.12	3.61	3.63	3.27
Japan								
3 year	0.78	0.60	0.21	0.25	0.15	0.25	0.28	0.21
5 year	1.04	0.80	0.47	0.46	0.30	0.46	0.50	0.42
10 year	1.53	1.31	1.26	1.18	1.05	1.18	1.24	1.13

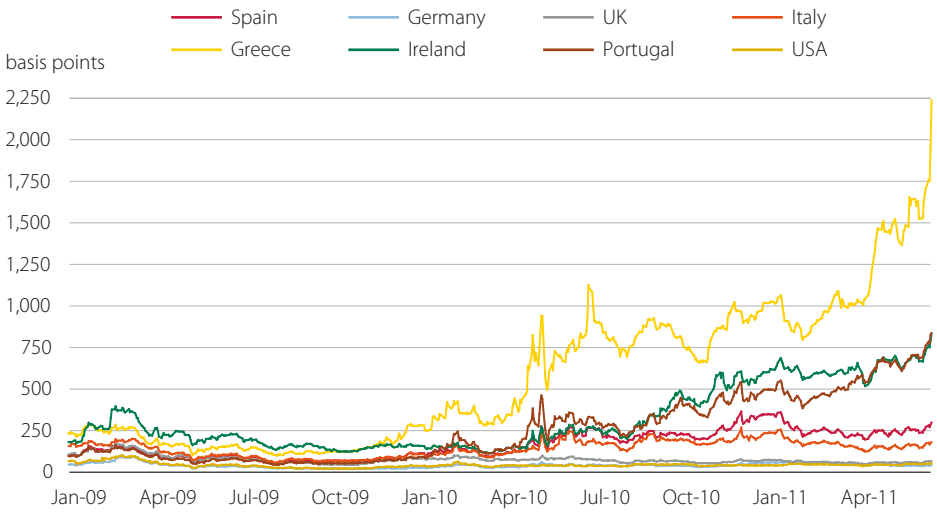
Source: Thomson Datastream.

1 Monthly average of daily data.

2 Data to 15 June.

The debt markets of euro-area peripheral countries, which initially appeared to have left behind the turbulences of 2010, began to tighten gradually as of end-February. The problems of the beleaguered Portuguese economy, which turned to the EU for assistance in the month of April, and resurgent concerns about the sustainability of Greek public finances added to the flames, and pushed the sovereign spreads of Greece, Ireland and Portugal to record levels. The spread on Spanish debt, based on CDS data, also tended to widen, albeit far more moderately than in these three nations and closer on a par with Italy (see figure 5).

Sovereign credit spreads (five-year CDS) FIGURE 5



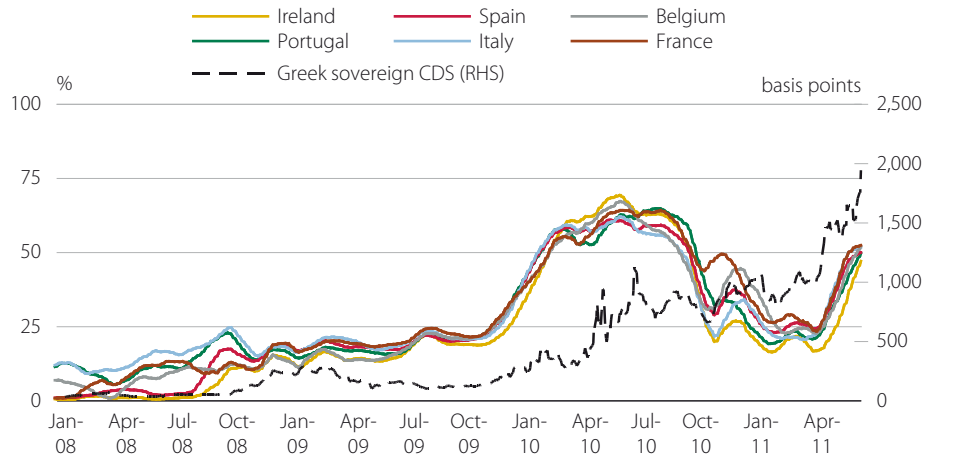
Source: Thomson Datastream. Data to 15 June.

As in previous turbulence episodes affecting European public debt markets, the contagion from the most pressured economies to others within the euro area has been considerable year to date. As figure 6 shows, contagion indicators reached their high point in May, when around 50% of the sovereign spread variance of European nations attributable to newsflow may have traced to contemporaneous shocks in Greek credit risk.[2] The peak contagion levels of this latest crisis round would be some way below those recorded during the debt market tensions of May 2010.

2 To arrive at the contagion estimates presented below we constructed an autoregressive vector model to calculate the spillover effects of one financial asset on another, starting from the specification used by F. X. Diebold and K. Yilmaz (2009), "Measuring Financial Asset Return and Volatility Spillovers, with Application to Global Equity Markets", in *The Economic Journal*, 119, pp. 158-171. Input data comprise the daily CDS spreads of the European sovereign bonds under study over the period running from January 2007 to June 2011. Note that contagion estimates may be subject to model specification errors and results should therefore be interpreted with caution.

Contagion of the Greek crisis to other European economies[1]

FIGURE 6



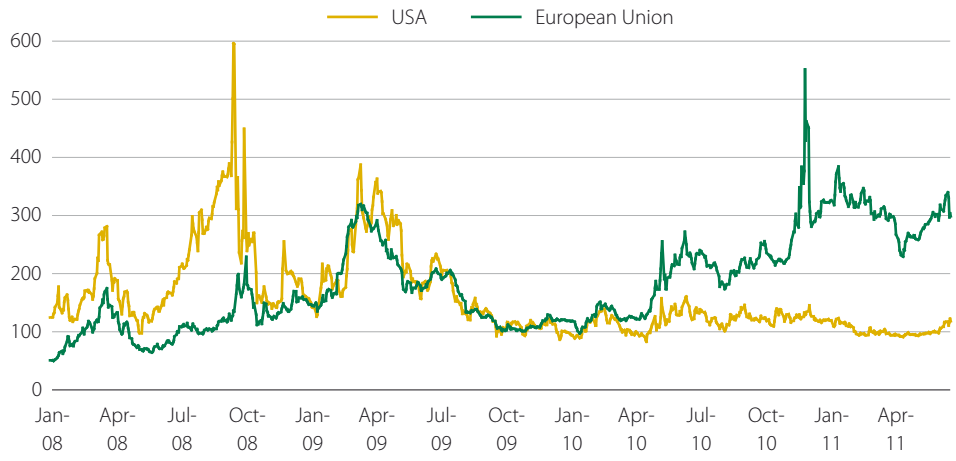
Source: CNMV.

1 The figure shows the percentage of variance in the CDS spreads of various European countries that is not ascribable to historical information but to contemporaneous shocks in Greece's credit risk. The resulting contagion indicator is increasing with the intensity of the effect produced by specific shocks in Greek sovereign spreads. The scale of contagion on a given day is calculated from available data for the 100 days preceding the current date, with the series also filtered by 30-day moving averages.

Sovereign risk contagion from Europe's most fragile economies has been a determining factor not only for the sovereign spreads of certain European nations but also for financial institutions in the region. As we can see from figure 7, the credit risk premiums of the European bank sector have moved sharply higher since the outbreak of the sovereign debt crisis in early 2010. Indicators show that while at the start of the financial crisis contagion was spread from the banks to sovereign debt, since 2010 it has switched direction with the predominant source being the public sector (see figure 8).

Bank sector credit risk spreads, CMA (five-year CDS)

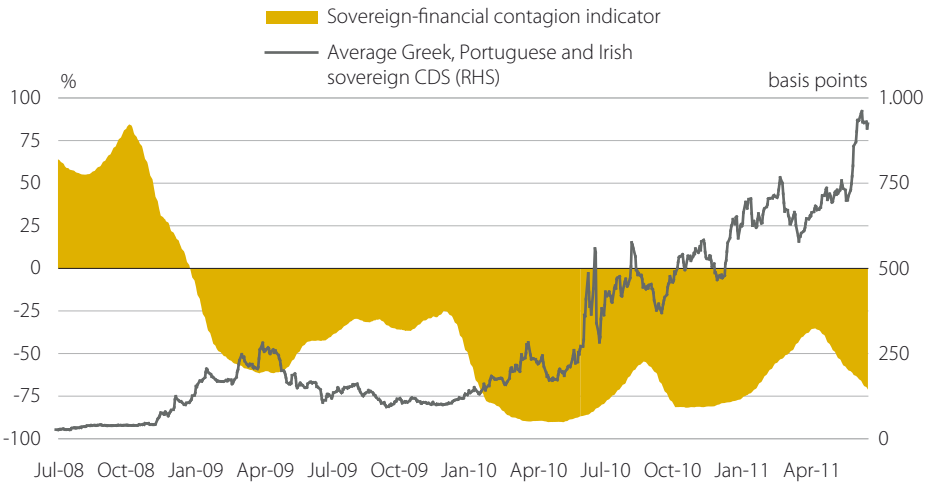
FIGURE 7



Source: Thomson Datastream, indices drawn up by CMA. Data to 15 June.

Sovereign-financial contagion indicator[1]

FIGURE 8



1 This figure shows the percentage of variance in the average CDS of the European banks sector and Greek, Portuguese and Irish sovereign bonds that is not attributable to their historical information but to contemporaneous return shocks. The resulting contagion indicator is decreasing with the increase in relative intensity of the impact of specific sovereign risk shocks on financial sector CDS. Positive values indicate a net contagion effect from the European banking sector to the three countries' sovereign sector, while with negative values the source of the contagion is the sovereign risk carried by the study nations. Contagion on a given day is calculated from available data for the 60 days preceding the current date, with the series also filtered by 30-day moving averages.

Although European debt market tensions have not driven up the risk premiums of European and U.S. private borrowers to any notable extent (see table 5), they have certainly made large inroads into their issue volumes. Net international issuance has in effect been heading lower since the start of this year due to the cutting back of sovereign issuance and the lull in securitisations. Corporate issuance in contrast has expanded slightly (see figure 9). By borrower region, we observe that net issuance has contracted far more intensely in the United States. By type of borrower, the salient development has been the incipient rise in the net issue volumes of the financial and non financial private sector.

Corporate bond risk premiums[1]

TABLE 5

Spread over 10-year government bonds, basis points

	Dec 07	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11[2]
Euro area								
High yield	462	2,181	714	462	510	462	388	397
BBB	163	621	242	170	176	170	151	149
AAA	82	160	28	14	18	14	23	8
United States								
High yield	541	1,923	582	461	563	461	400	445
BBB	222	737	189	145	181	145	122	131
AAA	105	315	51	37	49	37	46	48

Source: Thomson Datastream.

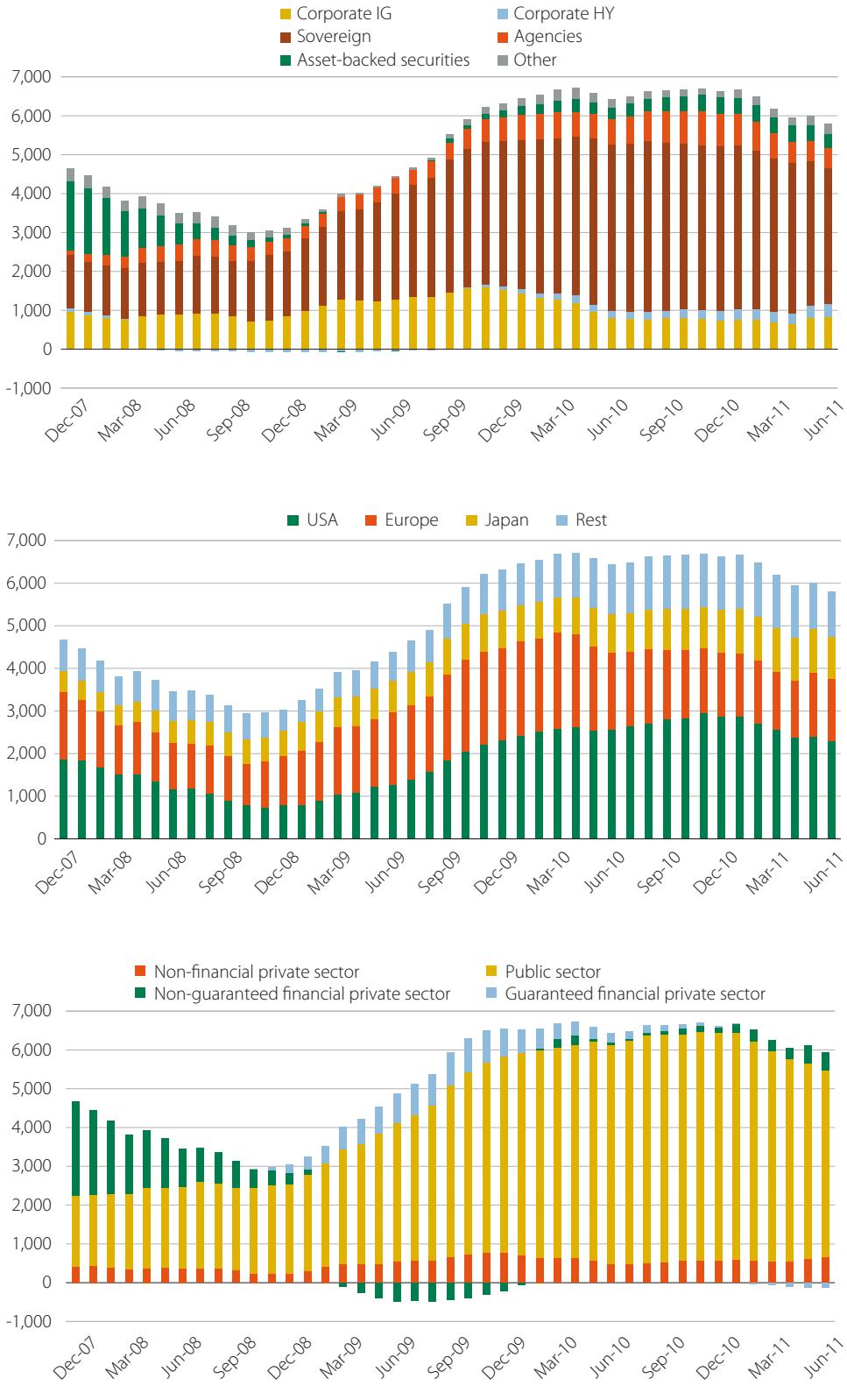
1 Monthly average of daily data.

2 Data to 15 June.

Net debt issuance in international markets (billion dollars)

FIGURE 9

By financial instrument, region and type of issuer, in cumulative twelve-month figures



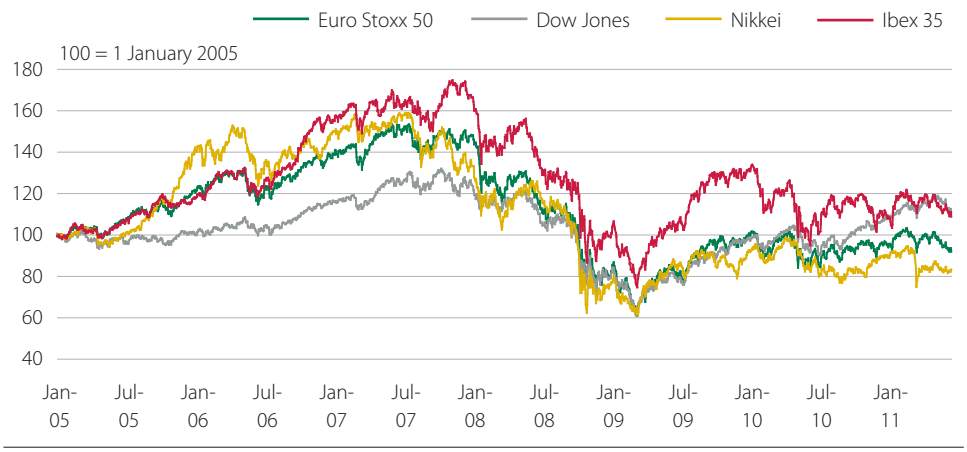
Source: Dealogic. Data to 15 June.

2.4 International stock markets

If we except Japan, leading stock indices managed appreciable gains (2% to 7%) in the first quarter of 2011. Since then, however, the Portuguese rescue, the return of the Greek sovereign debt crisis and cooler growth prospects in the United States have sent prices heading quite sharply lower. For Europe, the experience was basically a re-run of earlier debt market crises, with the German index gaining 1% and the remainder shedding between 4.4% and 6.8% (the Ibex 35 shed 6.1%). U.S. indices also fell to a smaller extent (between 3.4% and 5.4%) on downbeat forecasts for the national economy, while Japanese indices dropped between 1.9% and 5.1% (see figure 10 and table 6).

To mid-June, most reference indices held to a fairly smooth course, with variations ranging, in Europe, from the -2.7% of the UK's FTSE and the 2.9% of the German Dax and, in America, from the -0.8% of the Nasdaq to the 2.8% of the Dow Jones. This contrasts with the year-to-date slides of Japanese indices, running from 6.4% to 8.2%.

Performance of main stock indices[1] FIGURE 10



Source: Thomson Datastream.

1 Data to 15 June.

Index volatilities held below 20%, similar to the levels observed in times of normality. The exception was again Japan, where volatility spiked at over 50% after the March earthquake before settling back to more manageable levels.

Performance of main stock indices[1]

TABLE 6

%	2007	2008	2009	2010	Q3 10	Q4 10	Q1 11	Q2 11 (to 15 June) % Q	%/Dec	% y/y[2]
World										
MSCI World	7.1	-42.1	27.0	9.6	13.2	8.6	4.3	-3.8	0.3	15.8
Euro area										
Euro Stoxx 50	6.8	-44.4	21.1	-5.8	6.8	1.6	4.2	-6.2	-2.2	0.6
Euronext 100	3.4	-45.2	25.5	1.0	7.5	2.8	3.2	-4.4	-1.3	3.3
Dax 30	22.3	-40.4	23.8	16.1	4.4	11.0	1.8	1.0	2.9	15.2
Cac 40	1.3	-42.7	22.3	-3.3	7.9	2.4	4.8	-4.6	0.1	4.0
Mib 30	-8.0	-48.7	20.7	-8.7	6.2	1.1	6.4	-6.8	-0.9	1.0
Ibex 35	*7.3*	*-39.4*	*29.8*	*-17.4*	*13.5*	*-6.2*	*7.3*	*-6.1*	*0.8*	*2.0*
United Kingdom										
FTSE 100	3.8	-31.3	22.1	9.0	12.8	6.3	0.1	-2.8	-2.7	10.1
United States										
Dow Jones	6.4	-33.8	18.8	11.0	10.4	7.3	6.4	-3.4	2.8	14.3
S&P 500	3.5	-38.5	23.5	12.8	10.7	10.2	5.4	-4.6	0.6	13.5
Nasdaq-Cpte	9.8	-40.5	43.9	16.9	12.3	12.0	4.8	-5.4	-0.8	14.1
Japan										
Nikkei 225	-11.1	-42.1	19.0	-3.0	-0.1	9.2	-4.6	-1.9	-6.4	-3.2
Topix	-12.2	-41.8	5.6	-1.0	-1.4	8.4	-3.3	-5.1	-8.2	-6.2

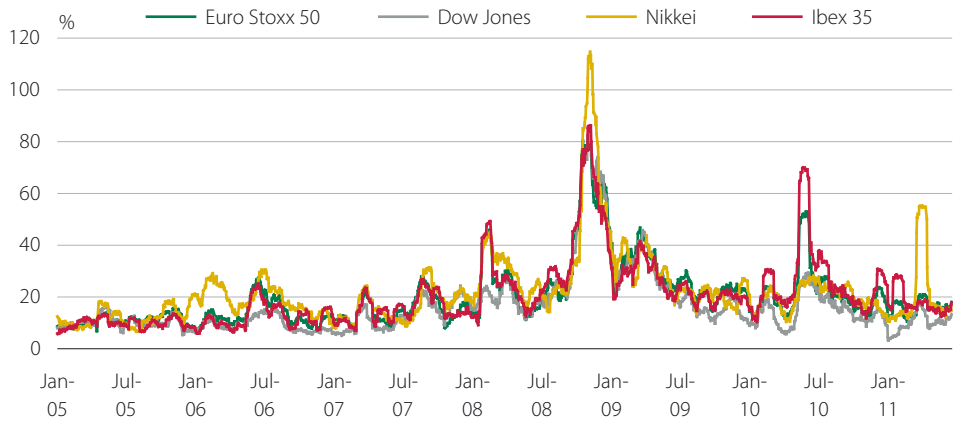
Source: Datastream.

1 In local currency.

2 Year-on-year change to reference date

Historical volatility of main stock indices[1]

FIGURE 11



Source: Thomson Datastream.

1 Data to 15 June.

Dividend yields on most leading world indices surpassed the levels recorded in the closing months of 2010. The differences between Europe, on one hand, and the U.S. and Japan on the other, were much as in previous quarters, with the latter two coun-

tries reporting mid-June yields in the neighbourhood of 2.3% against a European result that ranged from the 3.3% of the Dax 30 to the 7% of the Ibex 35 (see table 7).

Dividend yield of main stock indices

TABLE 7

%

	2006	2007	2008	2009	2010	Sep 10	Dec 10	Mar 11	Jun 11[1]
S&P 500	1.9	2.2	3.5	2.3	2.2	2.4	2.2	2.2	2.4
Topix	1.1	1.5	2.7	1.8	1.9	2.0	1.9	2.1	2.2
Euro Stoxx 50	3.5	3.7	7.5	4.2	4.8	4.8	4.8	5.3	5.9
Euronext 100	3.3	3.8	7.9	4.2	4.3	4.4	4.3	4.9	5.3
FTSE 100	3.8	3.9	5.8	3.7	3.8	4.0	3.8	3.4	3.5
Dax 30	2.3	2.5	5.4	3.5	2.9	3.1	2.9	3.3	3.3
Cac 40	3.8	4.3	8.1	5.0	5.2	5.3	5.2	5.7	6.3
Mib 30	3.7	3.8	8.6	3.4	3.8	3.8	3.8	3.8	4.1
Ibex 35	3.0	3.1	6.2	3.9	5.9	5.6	5.9	7.6	7.0

Source: Thomson Datastream.

1 Data to 15 June.

The price/earnings ratios (P/E) of main stock indices performed somewhat erratically in the first-half period reflecting both share price fluctuations and revised earnings expectations. In all, P/Es tended to stabilise or turn down slightly (the exception being the Ibex 35), despite fairly widespread share price gains, due to the upward revision of corporate earnings forecasts. In the second quarter, share price falls caused further erosion in earnings multiples. The exception was again the Japanese indices, where the revise-down of earnings added just under a point via the price side of the ratio. By region, Japanese and U.S. bourses maintained their lead, with ratios ahead of 12 times compared to the 10 times or so recorded in Europe (see table 8). Historically speaking, P/E levels everywhere remained relatively low (see figure 12).

P/E[1] of main stock indices

TABLE 8

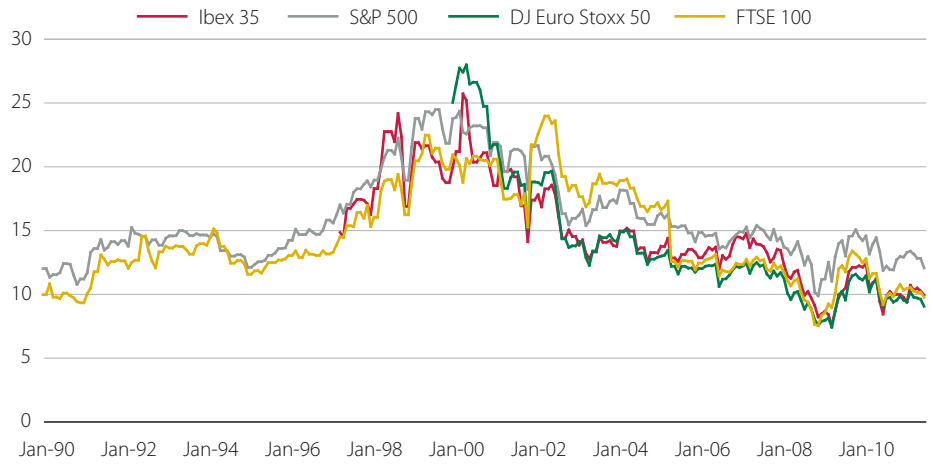
	2006	2007	2008	2009	2010	Sep 10	Dec 10	Mar 11	Jun 11[2]
S&P 500	15.1	14.7	11.3	14.6	13.1	12.4	13.1	13.1	12.1
Topix	17.8	15.1	15.6	19.3	13.6	13.4	13.6	12.0	12.7
Euro Stoxx 50	12.2	11.6	7.8	11.5	9.5	9.5	9.5	9.6	9.1
Euronext 100	12.9	12.3	8.3	12.7	10.6	10.7	10.6	10.6	10.2
FTSE 100	12.4	12.1	8.3	12.5	10.5	10.2	10.5	10.1	9.8
Dax 30	12.8	12.3	8.8	12.7	10.8	10.3	10.8	10.3	9.9
Cac 40	12.7	11.8	8.0	12.1	10.0	10.0	10.0	10.0	9.5
Mib 30	13.1	11.5	7.6	12.4	10.0	10.1	10.0	10.1	9.8
Ibex 35	14.3	13.0	8.7	12.3	9.7	10.0	9.7	10.4	9.9

Source: Thomson Datastream.

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

2 Data to 15 June.

P/E[1] of main stock indices FIGURE 12

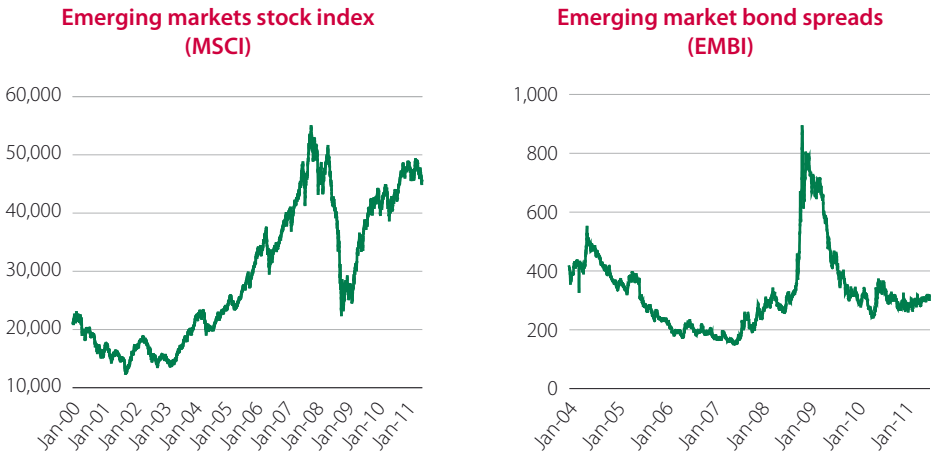


Source: Thomson Datastream. Data to 15 June.

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

Emerging stock markets fared differently after the bull run of 2010. The strongest performers were the East European indices, while Latin America brought up the rear with losses that ranged from the 5.2% of the Chilean IGPA to the 13.9% of Peru's IGRA. Indeed of this group only Venezuela ended the period in positive territory. Asian markets experienced mixed first-half fortunes. Leading indices all reported significant losses, headed by the -11% of India's BSE, while others held up fairly well (see table 9). Overall, the aggregate equity and bond indices of the main emerging markets have settled at more or less at their pre-crisis levels (see figure 13).

Risk valuation in emerging economies FIGURE 13



Source: Thomson Datastream and Bloomberg. Data to 15 June.

Performance of other international stock indices

TABLE 9

	Index	2007	2008	2009	2010	Q4 10	Q1 11	Q2 11 (to 15 June) % Q	%/ Dec	% annual
Latin America										
Argentina	Merval	2.9	-49.8	115.0	51.8	33.3	-3.8	-4.2	-7.9	39.5
Brazil	Bovespa	43.7	-41.2	82.7	1.0	-0.2	-1.0	-10.2	-11.1	-4.4
Chile	IGPA	13.8	-19.6	46.9	38.2	2.8	-4.8	-0.4	-5.2	16.4
Mexico	IPC	11.7	-24.2	43.5	20.0	15.7	-2.9	-5.7	-8.4	8.1
Peru	IGRA	36.0	-59.8	99.2	66.4	30.8	-6.1	-8.2	-13.8	39.7
Venezuela	IBC	-27.4	-7.4	57.0	18.6	0.1	7.6	15.1	23.9	24.7
Asia										
China	Shanghai Comp.	96.7	-65.4	80.0	-14.3	5.7	4.3	-7.6	-3.7	5.3
India	BSE	59.7	-55.3	85.0	15.7	0.4	-5.4	-5.6	-10.7	2.8
South Korea	Korea Cmp. Ex	32.3	-40.7	49.7	21.9	9.5	2.7	-1.0	1.7	23.5
Philippines	Manila Comp.	21.4	-48.3	63.0	37.6	2.5	-3.5	3.6	0.0	28.0
Hong Kong	Hang Seng	39.3	-48.3	52.0	5.3	3.0	2.1	-5.0	-3.0	11.4
Indonesia	Jakarta Comp.	52.1	-50.6	87.0	46.1	5.8	-0.7	3.1	2.5	34.1
Malaysia	Kuala Lumpur Comp.	31.8	-39.3	45.2	19.3	3.8	1.7	0.7	2.5	19.9
Singapore	SES All-S'Pore	18.7	-49.2	64.5	10.1	3.0	-2.6	-1.6	-4.2	8.4
Thailand	Bangkok SET	26.2	-47.6	63.2	40.6	5.9	1.4	-1.6	-0.2	32.0
Taiwan	Taiwan Weighted Pr.	8.7	-46.0	78.3	9.6	8.9	-3.2	1.7	-1.6	18.5
Eastern Europe										
Russia	Russian RTS Index	19.2	-72.4	128.6	22.5	17.4	15.5	-6.1	8.4	37.4
Poland	Warsaw G. Index	10.4	-51.1	46.9	18.8	5.0	2.6	1.1	3.7	19.9
Romania	Romania BET	22.1	-70.5	61.7	12.3	-1.3	12.5	-5.6	6.2	12.7
Bulgaria	Sofix	44.4	-79.7	19.1	-15.2	-6.4	22.9	-7.3	13.9	10.1
Hungary	BUX	5.6	-53.3	73.4	0.5	-8.2	8.1	-1.0	7.0	6.4
Croatia	CROBEX	63.2	-67.1	16.4	5.3	10.2	8.5	-1.7	6.7	15.4

Source: Thomson Datastream.

According to the World Federation of Exchanges (WFE), worldwide stockmarket turnover dropped by 1.1% year on year between January and May 2011 as far as 26.9 trillion dollars, compared to the 1.8% growth of full-year 2010. That said, each world region had its own story, with trading volumes rising substantially in Asia (except for India) and generalised falls in the United States and Europe which at times exceeded 10% in year-on-year terms (see table 10).

Turnover on main international stock markets TABLE 10

Billion euros

Exchange	2007	2008	2009	2010	Q3 10	Q4 10	Q1 11	Q2 11[4]
United States [1]	32,758	48,488	22,451	23,188	5,415	5,020	5,283	3,227
New York	21,177	23,042	12,627	13,553	3,218	3,038	3,207	1,861
Tokyo	4,713	3,816	2,656	2,872	657	723	894	433
London[2]	7,545	4,374	1,270	2,084	475	461	571	331
Euronext	4,102	3,028	1,383	1,533	348	343	429	243
Deutsche Börse	3,144	3,211	1,084	1,237	280	257	324	211
BME [3]	1,666	1,243	886	1,037	215	294	247	191

Source: Federación Internacional de Bolsas de Valores y CNMV.

1 As of 2009, the sum of the New York Stock Exchange (NYSE), Euronext and Nasdaq OMX; previously the New York Stock Exchange, Nasdaq and the American Stock Exchange.

2 Incorporating Borsa Italiana as of 2010.

3 Bolsas y Mercados Españoles. Not including Latibex.

4 Data for April and May except BME, which includes the first fortnight in June.

3 Spanish markets

3.1 Fixed-income markets

Domestic fixed-income markets again moved to the tune of events in European sovereign debt. Markets relaxed their risk perception of Spanish debt in the opening quarter of 2011 only to tense it back up to the levels of end-2010.

Short-term interest rates on Spanish debt eased by between 64 bp and 131 bp, depending on the term, in the first quarter of 2011 after the highs reached in December 2010 (see table 11). However, the Portuguese debt crisis which erupted in April plus renewed concerns about Greece's public finances sent yields rising once more in the second quarter, particularly in the twelve-month tenor. The result was that three-, six- and twelve-month Letras del Tesoro closed the period at 1.37%, 1.90% and 2.59% respectively.

Short-term private debt securities traced a not dissimilar course, with falling yields in the opening quarter giving way to a renewed upward trend. Movements, however, were appreciably smoother than those of government bills in the same maturities (see table 11).

Three-, five- and ten-year government bonds performed broadly in line with shorter-dated instruments, that is, declines in the first quarter (of between 13 bp and 47 bp depending on the tenor) followed by rises in the second (of between 15 bp and 61 bp, see figure 14), which in any case were less pronounced that in the closing stretch of 2010. By mid-June, three-, five- and ten-year governments were yielding 4.0%, 4.6% and 5.4% respectively.

Short-term interest rates[1]

TABLE 11

%

	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11
Letras del Tesoro							
3 month	2.00	0.42	1.60	0.65	1.60	0.96	1.37
6 month	2.09	0.65	2.71	1.14	2.71	1.40	1.90
12 month	2.10	0.88	3.09	1.72	3.09	2.10	2.59
Commercial paper[2]							
3 month	3.09	0.76	1.37	1.21	1.37	1.29	1.54
6 month	3.63	1.25	2.52	2.21	2.52	2.03	2.10
12 month	3.74	1.63	3.04	2.68	3.04	2.66	2.50

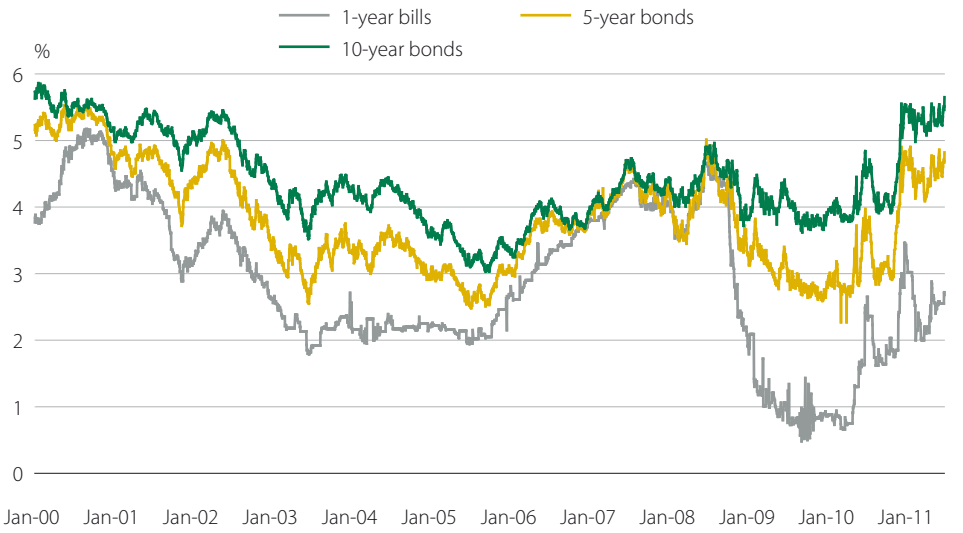
Source: Thomson Datastream and CNMV.

1 Average daily data. June data are the average for the period 1/6 to 15/6.

2 Interest rate at issue. Monthly average. June data are the average for the period 1/6 to 15/6.

Spanish government debt yields[1]

FIGURE 14



Source: Thomson Datastream.

1 Data to 15 June.

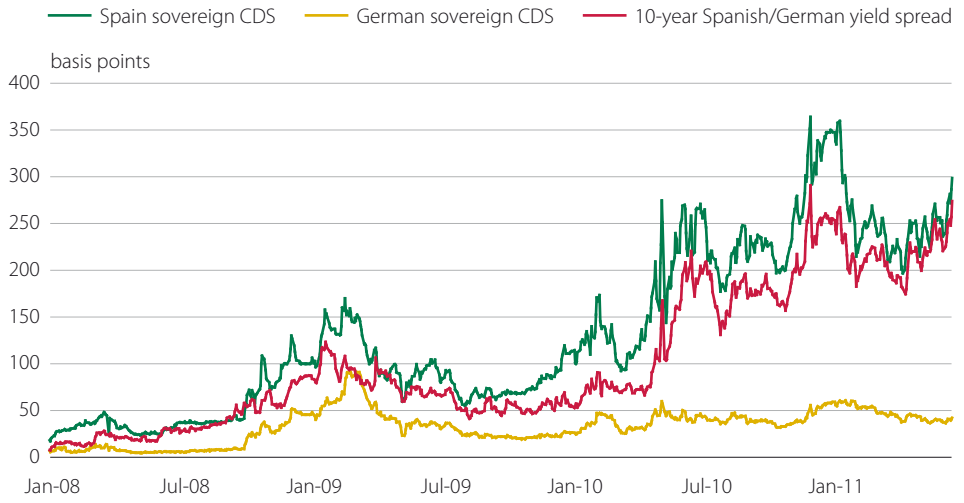
Spain's risk premium moved lower with occasional interruptions from the start of the year to the month of April, concretely to the days preceding Portugal's petition for financial aid. As we can see from figure 15, the yield spread over the German bond dropped from the 255 bp of end-2010 to a mid-April level of 175 bp, while the five-year CDS of the Spanish bond fell from 348 bp to 197 bp. Soon afterwards, however, perceptions of domestic sovereign risk were once more testing the levels of end-2010, in the case of yield spreads, and even lower values in the case of CDS, as uncertainty returned with force to Europe's debt markets.

Indicators of the contagion reaching Spain from the most heavily pressured sovereign debt markets show that fallout from Portuguese and Irish sovereign risk descended significantly in the first three months, while Greece's new lurch into crisis in the second quarter caused a resurgence of contagion from this source. As we can

see from figure 16, the percentage of the variance in Spanish sovereign spreads tracing to contemporaneous shocks in Greek credit risk stretched to 50% in early May, just a little below the highs reached during the first Greek crisis (in May 2010).

Risk premium of Spanish government debt[1]

FIGURE 15

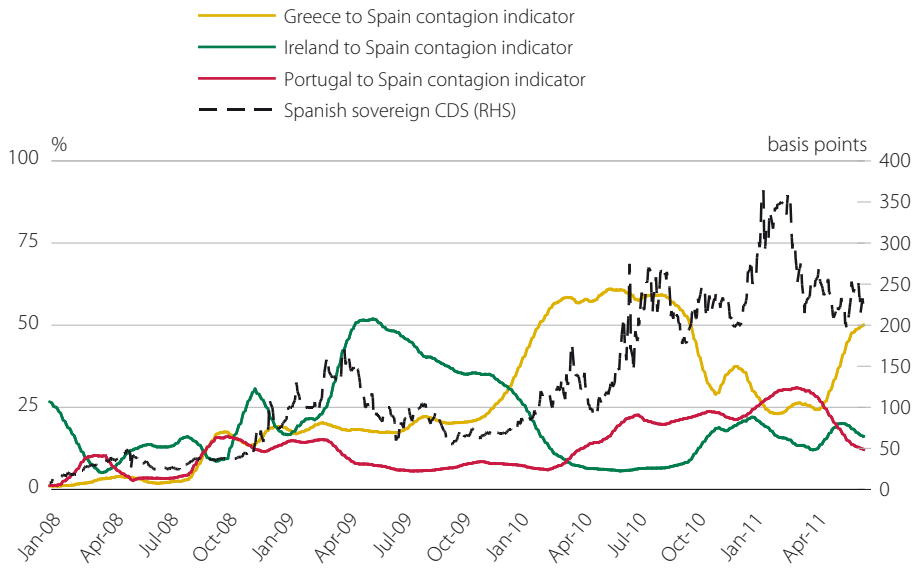


Source: Thomson Datastream.

1 Data to 15 June.

Contagion to Spain from peripheral Europe[1]

FIGURE 16



Source: CNMV.

1 This figure shows the percentage of the variance in Spanish CDS spreads that is not explained by historical information but by contemporaneous shocks in the credit risk of the named economies. Indicators are increasing with the intensity of the effect produced by specific shocks in the sovereign risk of these European economies. Contagion on a given day is calculated from available data for the 100 days preceding the current date, with the series also filtered by 30-day moving averages.

Long-term yields in corporate debt markets have tended to shadow public debt yields, i.e., first-quarter falls followed by second-quarter growth which, in some maturities, carried them above the levels of December 2010 (see table 12).

Medium and long-term corporate bond rates[1] TABLE 12

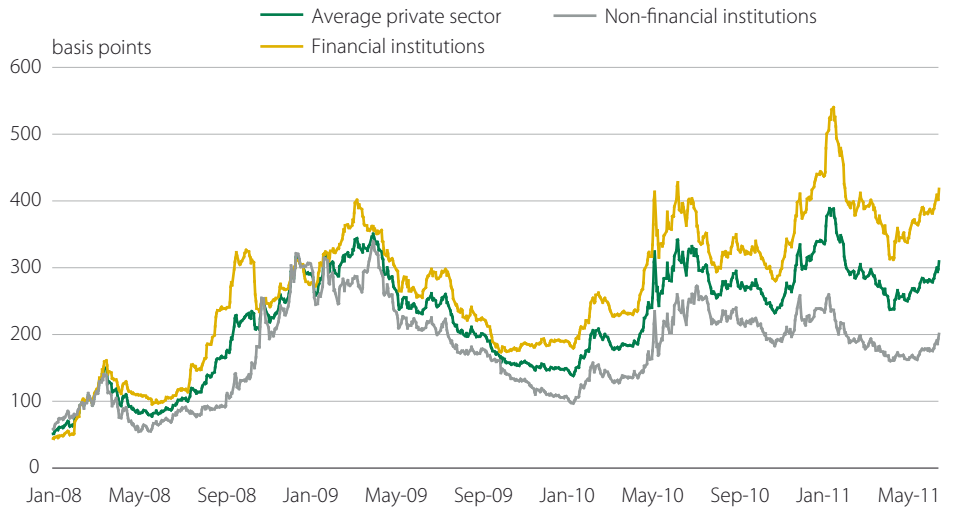
%	Dec 08	Dec 09	Dec 10	Sep 10	Dec 10	Mar 11	Jun 11
Private fixed income							
3 year	5.45	3.14	4.31	3.53	4.31	3.79	4.52
5 year	5.99	4.30	5.44	4.15	5.44	4.75	5.11
10 year	6.08	4.88	6.42	5.42	6.42	5.98	6.51

Source: Reuters and CNMV.

1 Average daily data.

The credit spreads of Spanish private-sector issuers, both financial and non financial, also mirrored the progress of sovereign risk premiums, dropping in the first quarter then rising in the second. The bank sector again had to contend with investors' higher risk perceptions, to the extent that the average spreads of Spanish financial entities were up to 400 bp at mid-June compared to the 193 bp of non financial borrowers (see figure 17).

Aggregate risk premium[1] based on the five-year CDS of Spanish issuers FIGURE 17



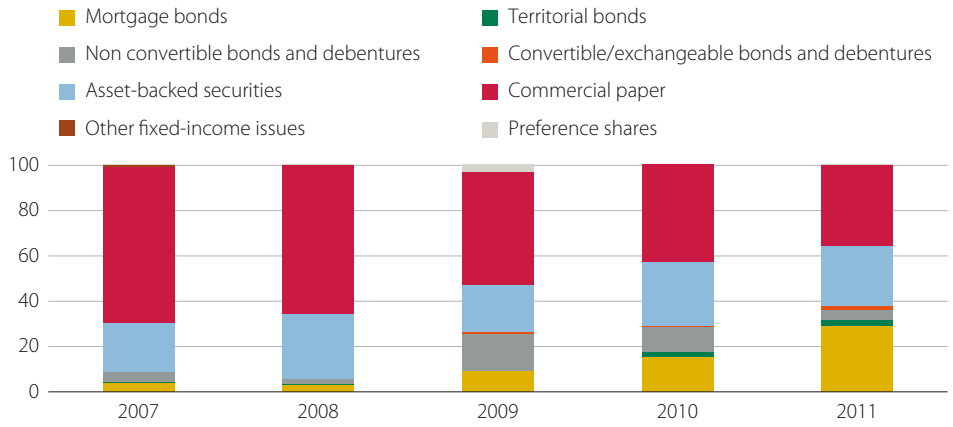
Source: Thomson Datastream and CNMV. Data to 15 June.

1 Simple average.

The volume of private fixed-income issues registered with the CNMV over the first half of 2011 was up 15.9% with respect to the same period last year. In all, Spanish issuers placed securities worth 126.46 billion euros against the 109.08 billion of one year before (see table 13). Meantime, non financial companies' share of the fixed-income market faded to just 0.26% of the total issued (1.6% in 2010). Market growth was primarily led by mortgage bonds and asset-backed securities, offsetting the downturn in issuance of commercial paper and non convertible bonds and debentures. Commercial paper retained its primacy in absolute terms with 44.80 billion, but accounted for just 35% of the first-half total compared to 43% in 2010 (see figure 18).

Private fixed-income issuance by instrument

FIGURE 18



Source: CNMV. Data to 15 June 2011

Gross fixed-income issues filed[1] with the CNMV

TABLE 13

				2010				2011	
	2008	2009	2010	Q1	Q2	Q3	Q4	Q1	Q2[2]
FACE VALUE (million euros)	**476,276**	**387,476**	**226,449**	**51,667**	**57,410**	**61,635**	**55,737**	**77,161**	**49,297**
Mortgage bonds	14,300	35,574	34,378	4,650	10,892	10,317	8,519	19,254	17,505
Territorial bonds	1,820	500	5,900	400	4,700	300	500	2,935	300
Non convertible bonds and debentures	10,490	62,249	24,356	8,733	6,811	1,287	7,525	2,578	3,121
Convertible/exchangeable bonds and debentures	1,429	3,200	968	0	0	0	968	682	1,500
Asset-backed securities	135,253	81,651	63,261	2,875	15,699	28,190	16,497	26,585	6,993
Domestic tranche	132,730	77,289	62,743	2,875	15,205	28,190	16,473	23,706	6,584
International tranche	2,522	4,362	518	0	494	0	24	2,879	410
Commercial paper[3]	311,738	191,342	97,586	35,010	19,307	21,541	21,728	24,928	19,878
Securitised	2,843	4,758	5,057	995	930	1,723	1,409	546	563
Other	308,895	186,583	92,529	34,015	18,377	19,818	20,319	24,382	19,315
Other fixed-income issues	0	0	0	0	0	0	0	0	0
Preference shares	1,246	12,960	0	0	0	0	0	200	0
Pro memoria:									
Subordinate debt issues	12,950	20,989	9,154	3,284	1,984	1,839	2,048	5,408	2,472
Covered issues	9,170	4,794	299	299	0	0	0	10	0

abroad by Spanish issuers

				2010				2011	
Million euros	2008	2009	2010	Q1	Q2	Q3	Q4	Q1	Q2[4]
Long-term	39,894	47,230	51,107	15,673	9,309	16,072	10,053	21,311	7,873
Preference shares	0	3,765	0	0	0	0	0	0	0
Subordinated debt	70	2,061	0	0	0	0	0	0	0
Bonds and debentures	39,360	41,404	50,807	15,673	9,009	16,072	10,053	21,311	7,873
Asset-backed securities	464	0	300	0	300	0	0	0	0
Short-term	72,472	102,456	76,624	21,121	14,879	21,991	18,633	26,542	6,681
Commercial paper	72,472	102,456	76,624	21,121	14,879	21,991	18,633	26,542	6,681
securitised	425	108	248	95	67	37	49	97	40
Total	**112,366**	**149,686**	**127,731**	**36,794**	**24,188**	**38,063**	**28,686**	**47,853**	**14,554**

Source: CNMV and Banco de España.

1 Including those admitted to trading without an issue prospectus

2 Available data to 15 June 2011

3 Figures for commercial paper correspond to amounts placed

4 Available data to 30 April 2011

Financial institutions have been eager issuers of mortgage bonds with 36.76 billion placed to 15 June, more than in the whole of 2010.

Meantime, issue volumes of non convertible bonds and debentures contracted 63.3% with respect to last year to 5.70 billion euros. Financial institutions also reduced their take-up of the government's guarantee facility, despite it being extended to 30 June 2011. Only 3.86 billion euros of guaranteed debt was issued in the period contrasting with the 6.90 billion of first-half 2010.

The entry of new measures envisaged in Royal Decree-Law 2/2011 to reinforce the capital base of credit institutions has rekindled the banks' interest in issuing instruments which firm up their core capital ratios. In the first half of 2011, specifically, they issued preference shares for a total amount of 200 million euros (against not a single issue in 2010), as well as 2.18 billion euros in subordinated debentures obligatorily convertible to shares (compared to just 968 million euros in 2010).

Securitisation too staged a minor comeback in the first half of 2011. Issuance of asset-backed securities, at 33.58 billion euros, was 80.8% more than to June 2010 and over half of the full-year total (63.26 billion euros). One of the big movers in this respect was the Fondo de Titulización del Déficit del Sistema Eléctrico (Electricity Tariff Deficit Asset Securitisation Fund) which issued notes for the value of seven billion euros. Most of the assets issued in securitisation transactions were retained by the originators.

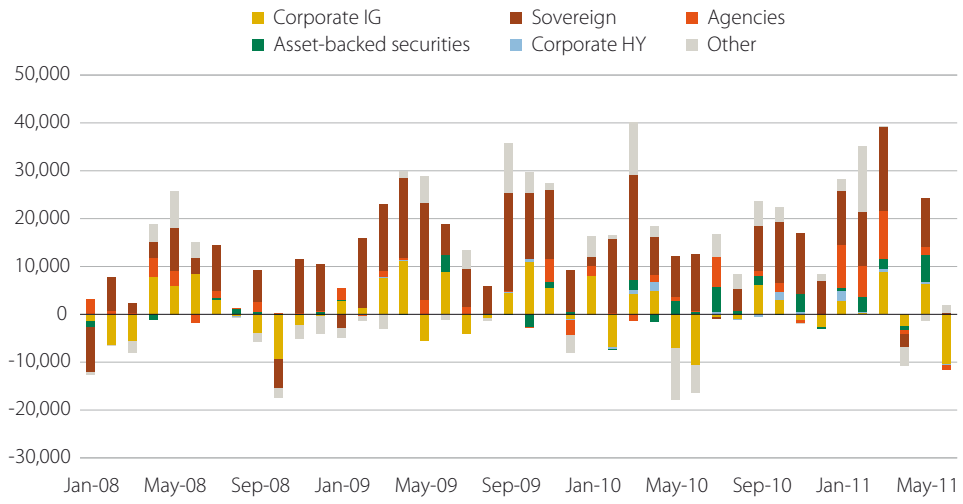
The decline in domestic fixed-income issuance has contrasted in recent years with the expansion of foreign debt financing (see table 13). Spanish companies' long-term issuance on foreign markets to 30 April this year (mainly bonds and debentures) summed 29.38 billion euros, while short-term issues (mainly commercial paper) came to 33.22 billion.

Figures 19 and 20 track the net debt issuance (after redemptions) of Spanish companies since 2008 with a breakdown by instrument and type of issuer. We can see that sovereign debt issues were again to the fore in the first half of 2011. Private sector issuance, responding mainly to financial entities, expanded over the first quarter, particularly in mortgage bonds and investment grade corporate debt instruments, but receded again towards the end of the period due to a relative upswing in redemption volumes. Once again, net non financial private-sector issuance was little more than a trickle.

Net long-term debt issuance of Spanish issuers[1]

FIGURE 19

By financial instrument, in billion dollars



Source: Dealogic and CNMV. Data to 15 June 2011.

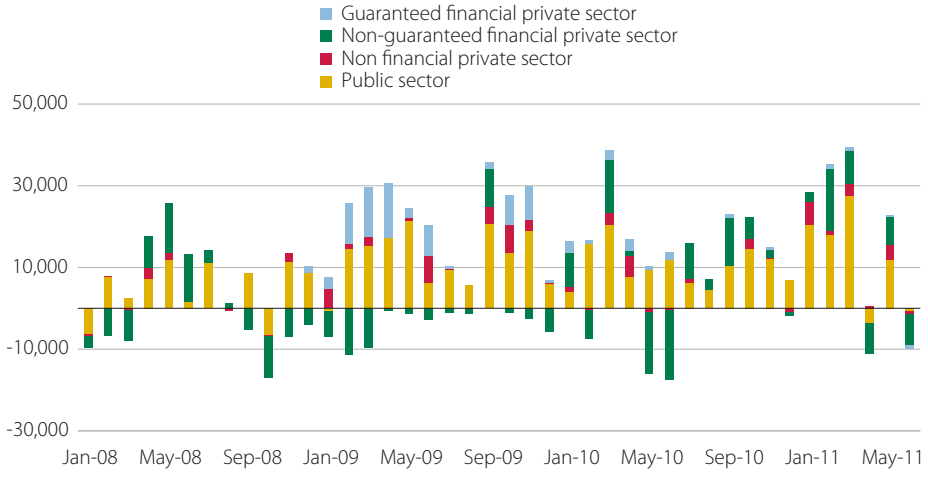
1 The "Others" category includes mortgage bonds, preference shares and other long-term debt securities.

IG: Investment Grade, HY: High Yield.

Net long-term debt issuance of Spanish issuers

FIGURE 20

By borrower sector, in billion dollars



Source: Dealogic and CNMV. Data to 15 June 2011.

3.2 Equity markets

3.2.1 Prices

The performance of the Ibex 35 was heavily conditioned by events on Europe sovereign debt markets, just as it was through all of 2010. Hence the index managed a first-quarter gain of 7.3% after the late 2010 agreement on the Irish rescue, compared to the 17.4% price slide of last year (see table 14). But this more bullish mood was cut short by a new round of turmoil in the month of April, coinciding with the

Portuguese rescue, aggravated not long after by concerns about a possible restructuring of Greece's public debt. These incidents contributed without doubt to the index's 6.1% losses in the second quarter, somewhat deeper than those experienced in other key European markets. The downturn that followed the new Greek crisis wiped out most of the earlier advance, leaving the index with a first-half gain of just 0.8% (see table 14).

Performance of Spanish stock indices TABLE 14

								Q2 11 (to 15 June)		
%	2007	2008	2009	2010	Q3 10[1]	Q4 10[1]	Q1 11[1]	% Q	%/Dec	% y/y
Ibex 35	7.3	-39.4	29.8	-17.4	13.5	-6.2	7.3	-6.1	0.8	2.0
Madrid	5.6	-40.6	27.2	-19.2	12.9	-7.5	7.5	-6.5	0.5	0.2
Ibex Medium Cap	-10.4	-46.5	13.8	-5.6	13.7	-0.5	6.3	-6.6	-0.7	6.9
Ibex Small Cap	-5.4	-57.3	17.6	-18.3	3.6	-4.3	17.4	-8.9	7.0	5.1
FTSE Latibex All-Share	57.8	-51.8	97.2	9.0	1.5	8.3	-3.2	-11.0	-13.9	-8.3
FTSE Latibex Top	33.7	-44.7	79.3	9.7	-2.2	7.3	-3.9	-9.0	-12.5	-8.8

Source: Thomson Datastream.

1 Change vs. previous quarter.

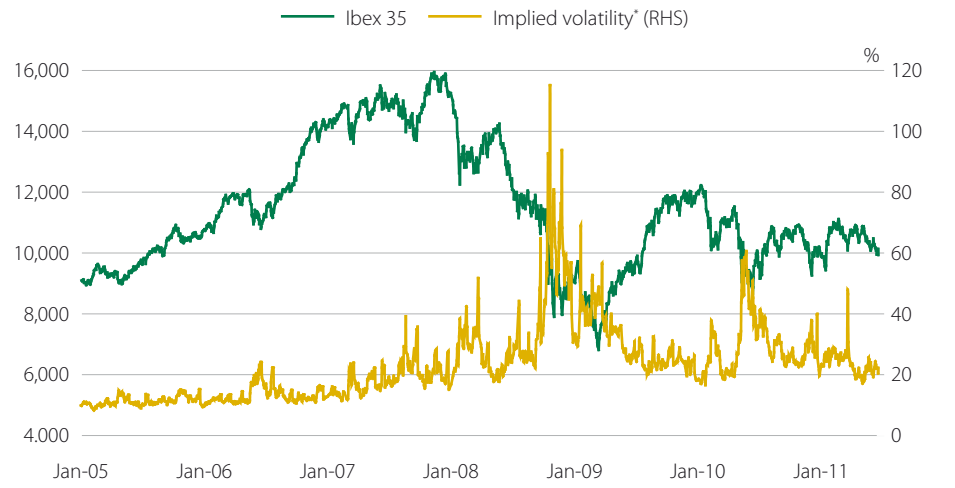
The Spanish stock market's small and medium cap indices followed a similar pattern to the Ibex 35, namely a first-quarter advance giving way to a run-down in prices. In the case of small caps, however, index fluctuations were a lot more accentuated, above all in the opening quarter. Specifically, the medium cap index posted a first-quarter gain of 6.3% and a second-quarter decline of 6.6%, which left it 0.7% in negative territory. Meanwhile, the small cap index soared 17.4% in the first quarter before falling back by 8.9%, leaving it 7% up on its start-out price. Conversely, the FTSE Latibex indices shed over 12% in the first-half period, reflecting the bearish mood of Latin American stock markets. This divergence between indices was also apparent in 2010 (see table 14).

The implied volatility of the Ibex 35 has been receding gradually since end-2010, except for a March spike of nearly 50% following the Japan earthquake and nuclear accident (see figure 21). By the period end, volatility was down to just over 20%, compared to a historical average since 1999 of 24.3%.

All sectors of the Madrid General Index posted sizeable gains in the opening quarter, exceeding 10% in most cases, against a backdrop of more settled sovereign debt markets. But the deterioration of Portugal and Greece's public finances in the months that followed bore down on all index sectors with the exception of consumer goods (see table 15). Second-quarter losses were steepest in real estate (-20.6%) followed by the banks (-11.4%), technology and telecommunications (-9.2%) and basic materials, industry and construction (-9%). The period closed with two IGBM sectors – technology and telecommunications (-5.3%) and the banks (-3%) – down on their start-out prices, while more procyclical sectors like energy or consumer goods and services posted gains in the interval of 4% to 7%.

Performance of Ibex 35 and implied volatility

FIGURE 21



Source: Thomson Datastream y MEFF.

* Implied at-the-money (ATM) volatility on nearest expiry. Data to 15 June.

Performance of the Madrid Stock Exchange by sector and leading shares[1]

TABLE 15

anual % unless otherwise indicated

						Jun 2011[3]		
	Weighting[2]	2010	Q3 10	Q4 10	Q1 11	% Q	%/Dec 10	% y/y
Financial and real estate services	**38.51**	**-31.7**	**12.0**	**-15.9**	**10.6**	**-10.8**	**-1.4**	**-11.7**
Real estate and others	0.15	-53.3	-11.9	-29.8	29.5	-20.6	2.8	-37.3
Banks	35.54	-33.1	12.3	-16.8	9.4	-11.4	-3.0	-14.0
BBVA	10.88	-38.2	18.6	-20.5	16.7	-13.5	0.9	-9.1
Santander	21.17	-30.5	10.3	-13.8	7.5	-9.2	-2.4	-12.2
Oil and energy	**18.88**	**-8.6**	**14.0**	**4.8**	**12.1**	**-3.8**	**7.8**	**17.4**
Iberdrola	8.11	-7.7	21.0	5.0	7.1	-3.3	3.5	16.8
Repsol YPF	5.71	11.3	13.5	10.3	16.0	-8.9	5.7	25.7
Basic materials, industry and construction	**7.87**	**-15.2**	**10.8**	**0.3**	**12.4**	**-9.0**	**2.2**	**7.5**
Construction	4.35	17.7	15.8	-1.3	15.8	-8.9	5.5	13.8
Technology and telecommunications	**24.19**	**-12.8**	**19.2**	**-5.8**	**4.4**	**-9.2**	**-5.3**	**-0.8**
Telefónica	22.34	-13.1	20.2	-6.6	5.0	-10.1	-5.6	-1.2
Consumer goods	**6.85**	**17.0**	**18.5**	**-2.2**	**4.1**	**2.9**	**7.1**	**22.3**
Inditex	4.48	29.1	23.5	-3.8	1.9	6.4	8.4	27.5
Consumer services	**3.70**	**-0.1**	**16.8**	**2.6**	**11.3**	**-6.5**	**4.1**	**17.2**

Source: Thomson Datastream and Bolsa de Madrid.

1 Shares capitalising at more than 3% of the IGBM.

2 Relative weight (%) in the IGBM as of January 2011.

3 Data to 15 June.

In the second quarter, price falls at the country's largest telecommunications operator and its top two banks accounted for over 75% of the IGBM slide, while the index's advance to mid-year (a modest 0.5%) owed to the improved relative performance of non financial companies, particularly two oil and energy firms and a specialist in consumer goods, which offset the steep losses of one telecom and one banking major (see table 16).

Shares with greatest impact on IGBM change[1]

TABLE 16

Share	Sector	Jun 2011[2] Change (pp)		Contribution to change (%)	
Negative impact		%Q	%/Dec 10	%Q	%/Dec 10
Telefónica	Technology and telecommunications	-2.08	-1.24	33	-121
Banco Santander	Financial and real estate services	-1.48	-0.51	24	-50
BBVA	Financial and real estate services	-1.19	0.10	19	9
Repsol YPF	Oil and energy	-0.50	0.33	8	32
Iberdrola	Oil and energy	-0.22	0.29	3	28
Positive impact					
Inditex	Consumer goods	0.33	0.38	-5	37

Source: Thomson Datastream y Bolsa de Madrid.

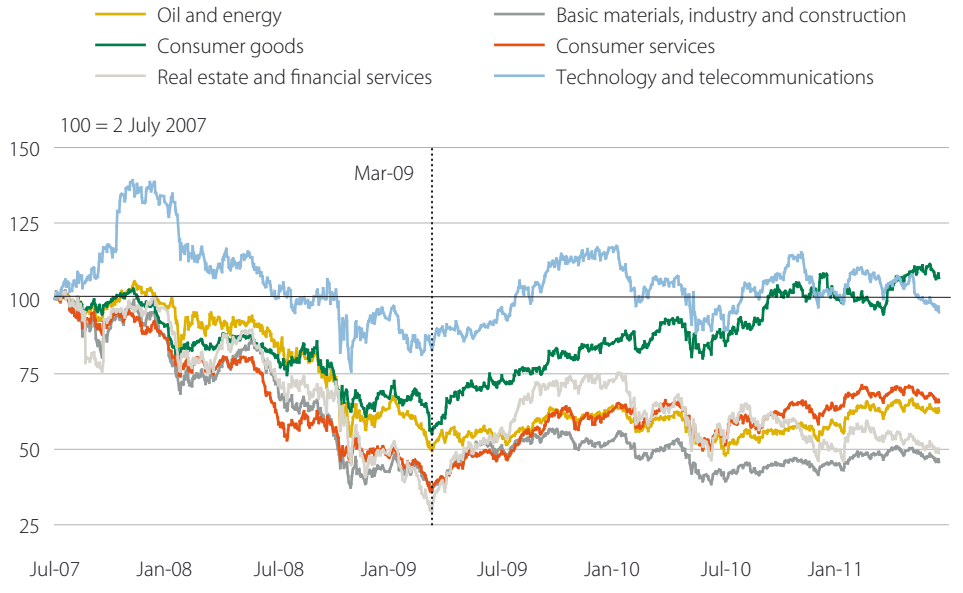
1 The shares listed are those having most impact (equal to or more than 0.15 points in absolute terms) on the quarterly change in the IGBM.

2 Data to 15 June.

Taking a wider look, at the closing date for this report, only one IGBM sector, consumer goods, was trading above the levels posted before the subprime crisis in summer 2007 (see figure 22). The technology and telecommunications sector was trading a little short of pre-crisis levels while all other sectors were substantially behind. The largest falls since the crisis onset correspond to basic materials, industry and construction (-54%) and, secondly, financial and real estate services (-51%), which has suffered more than the rest from the unstable climate dominating European sovereign debt markets since early 2010. Figure 23 illustrates how contagion from the public sector to the financial sector has become magnified in the interim period, except for the opening months of 2011 when its direction was briefly reversed, possibly on concerns about the budgetary burden of completing the restructuring of the domestic financial system.

Performance of IGBM sector indices[1]

FIGURE 22

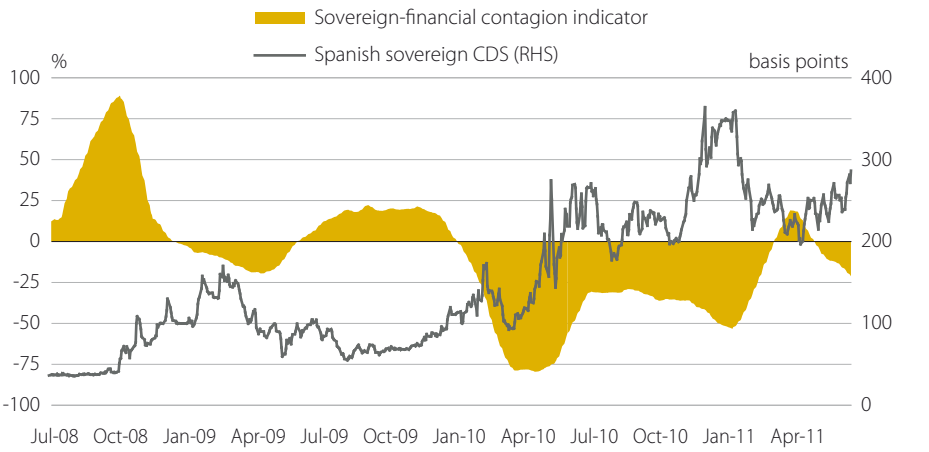


Source: Bolsa de Madrid.

1 Data to 15 June.

Sovereign-financial contagion indicator[1]

FIGURE 23



Source: CNMV.

1 This figure shows the percentage of the variance in the average CDS of Spanish financial institutions and the Spanish government bond that is not attributable to their historical information but to contemporaneous return shocks. The resulting contagion indicator is decreasing with the increase in relative intensity of the impact of specific sovereign risk shocks on financial sector CDS. Specifically, negative values denote a net contagion effect of sovereign risk on the financial sector. Contagion on a given day is calculated from available data for the 60 days preceding the current date, with the series also filtered by 30-day moving averages.

The distribution of IGBM companies according to movements in price varied considerably from the first to the second quarter, when the predominance of negative returns harked back to the closing quarter of 2010. Specifically, the percentage of companies registering share price falls vs. the previous quarter climbed from 19% in the first quarter to 77% in the second (61% in the closing quarter of 2010). We can also see that a far smaller proportion managed gains of over 10% - 3% of the total compared to 54% in the first three months - and, for the first time since the last quarter of 2009, not a single company was able to report gains of over 25%, against the 20% who did so in the opening quarter (see table 17).

Performance range of IGBM companies

TABLE 17

% total IGBM companies

	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11[1]
≥ 25%	1.7	6.7	1.7	19.7	0.0
10% to 25%	1.7	32.8	12.6	34.2	2.5
0% to 10%	6.7	26.1	25.2	27.4	20.3
≤ 0%	89.9	34.5	60.5	18.8	77.1
Pro memoria: total no. of companies					
	119	119	119	117	118

Source: Thomson Datastream.

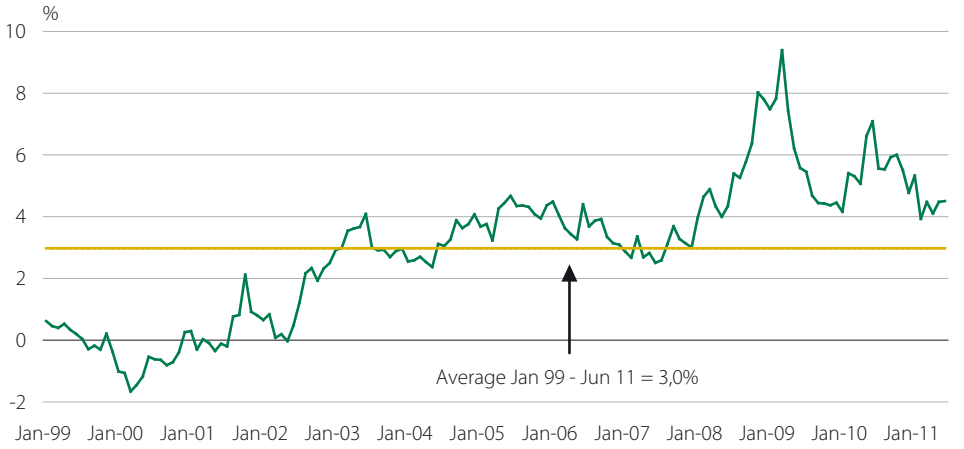
1 Data to 15 June.

The price/earnings ratio (P/E) of the Ibex 35 held close to the 10x mark over the first half of 2011, with the slight increase of the opening quarter subsequently offset to

some extent. This contrasts with the experience of other leading international exchanges, where ratios headed moderately lower. The result is that the P/E of the Spanish market, which at end-2010 was near the bottom of the table, now stands in the upper range (see table 8).

The earnings yield gap (indicating the risk premium on equity investment versus long-term government bonds) narrowed slightly in the first quarter and held more or less flat throughout the second. A closer look reveals that its performance in both quarters owed primarily to movements in the P/E ratio rather than the more moderate movements in government yields, which will nevertheless have gained in importance over the closing month. By mid-June, the gap stood at 4.5%, ahead of the 4.3% of end-March and below the 4.9% of the 2010 close (see figure 24). In all, this indicator's levels are is still well above the historical average in place since January 1999 (3%).

Earnings yield gap[1] of the Ibex 35 FIGURE 24



Source: Thomson Datastream and CNMV.

1 Difference between stock market yield, taken as earnings/price, and ten-year bond yields. Monthly data to June 15 2011.

3.2.2 Trading and liquidity

Turnover on the Spanish stock market contracted 10% in year-on-year terms over the first half of 2011 (data to 15 June), after the 17% surge of 2010 (see table 18). According to the average daily trading figures, second-quarter turnover came to 3.83 billion euros, on a par with the preceding quarter but considerably short of the 4.60 billion registered in the closing quarter of last year.[3]

3 Average turnover in 2007, 2008 and 2009 and 2010 came to 6.59, 4.89, 3.49 and 4.05 billion euros respectively.

Turnover on the Spanish stock market

TABLE 18

Million euros

	2008	2009	2010	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11[1]
All exchanges	1,243,387	886,135	1,037,282	229,120	298,811	215,183	294,168	246,992	191,439
Electronic market	1,235,330	880,544	1,032,447	227,866	297,495	214,267	292,819	245,990	190,465
Open outcry	207	73	165	17	13	54	82	20	9
of which SICAV[2]	25	20	8	3	4	1	0	2	3
MAB[3]	7,060	5,080	4,145	1,089	1,141	768	1,147	880	889
Second market	32	3	3	0	1	1	1	1	0
Latibex	758	435	521	147	162	93	119	102	76
Pro memoria: non resident trading (% all exchanges)									
	66.0	64.6	75.3	64.8	85.2	67.3	78.1	n.a.	n.a.

Source: CNMV and Directorate-General of Trade and Investments.

1 Cumulative data from 1 April to 15 June..

2 Open-ended investment companies.

3 Alternative investment market. Data since the start of trading on 29 May 2006.

n.a.: data not available at the closing date for this report.

Equity issuance in domestic markets receded 21% in year-on-year terms over the first half of 2011, breaking off the recovery initiated in 2010 (+41%). The first quarter was busier than the second in contrast to the experience of last year (see table 19). Operations since the start of the year have been exclusively due to capital increases.

Equity issuance[1]

TABLE 19

				2010				2011	
	2008	2009	2010	Q1	Q2	Q3	Q4	Q1	Q2[2]
CASH AMOUNTS[3] (million euros)	**16,349**	**11,391**	**16,013**	**241**	**5,115**	**2,323**	**8,333**	**3,237**	**1,002**
Capital increases	16,340	11,389	15,407	241	4,581	2,323	8,262	3,237	1,002
Of which, rights offerings	292	17	959	15	924	6	14	0	5
National tranche	292	15	62	15	27	6	14	0	5
International tranche	0	2	897	0	897	0	0	0	0
Public offerings	10	2	606	0	534	0	71	0	0
National tranche	10	2	79	0	8	0	71	0	0
International tranche	0	0	527	0	527	0	0	0	0
NUMBER OF FILINGS[4]	**54**	**53**	**69**	**10**	**18**	**12**	**29**	**17**	**18**
Capital increases	53	53	67	10	17	12	28	17	17
Of which, rights offerings	2	2	12	2	4	2	4	0	1
Of which, bonus issues	18	11	15	1	4	3	7	2	4
Public offerings	2	1	3	0	2	0	1	0	1
NUMBER OF ISSUERS[4]	**39**	**34**	**46**	**10**	**13**	**10**	**23**	**13**	**13**
Capital increases	38	34	45	10	13	10	22	13	12
Of which, rights offerings	2	2	12	2	4	2	4	0	1
Public offerings	2	1	2	0	1	0	1	0	1

Source: CNMV.

1 Incorporating issues admitted to trading without a prospectus being filed.

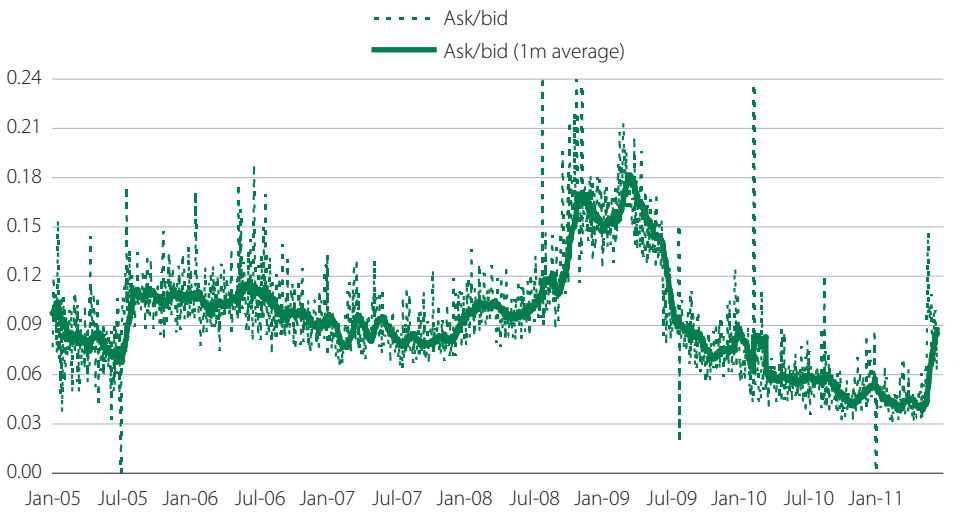
2 Cumulative data from 1 April to 15 June.

3 Excluding amounts recorded in respect of cancelled transactions.

4 Including all transactions registered, whether or not they eventually went ahead.

Finally, liquidity conditions in the Spanish stock market improved slightly until the first half of May when a deterioration set in that drove them back to the levels of first-quarter 2010. The average bid/ask spread of the Ibex 35, which had dropped from just under 0.06% at end-2010 to around 0.04% in the middle of May 2011, subsequently headed back up to mid-June levels of close-on 0.09% (see figure 25). As this is roughly the average of the past six years (0.09%), we can say that liquidity conditions on national equity markets remain broadly satisfactory.

Liquidity indicator (bid/ask spread, %) of the Ibex-35[1] FIGURE 25



Source: Thomson Datastream and CNMV.

1 Data to 15 June.

II Reports and Analyses

High-frequency trading and its effects on secondary markets

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1 Introduction

Over recent years secondary markets in shares have undergone the greatest changes in their competitive environment since they were created at the start of the 17th century. This transformation is the result of a combination of legislative changes, strategic movements of markets, with a significant process of business consolidation, and progress in trading systems and telecommunications which have led to substantial evolution in trading strategies.

These changes have often been driven by the combination of private and public initiatives with the aim of extending competition in securities markets and their activity base and to make them accessible to a greater number of investors. This has resulted in global regulated markets operated by increasingly large business groups, the appearance of multilateral trading facilities which compete with regulated markets and growing investments in technology in order to develop trading systems which allow increasingly faster transactions. From the point of view of demand, the new facilities offered by electronic systems and communications make it possible to adapt traditional trading strategies to the practically immediate nature of order transmission and execution.

In this context, trading strategies have evolved and adapted to the new environment. The capacity to access the market quickly and to react swiftly to price movements has become a source of competitive advantage and profit generation. In order to take advantage of the new possibilities, high frequency traders appeared at the start of this century. The main difference of these traders compared with other players is the speed with which they place orders and execute them or cancel them and the use of algorithms which automatically determine the conditions and timing for entering and leaving the market.

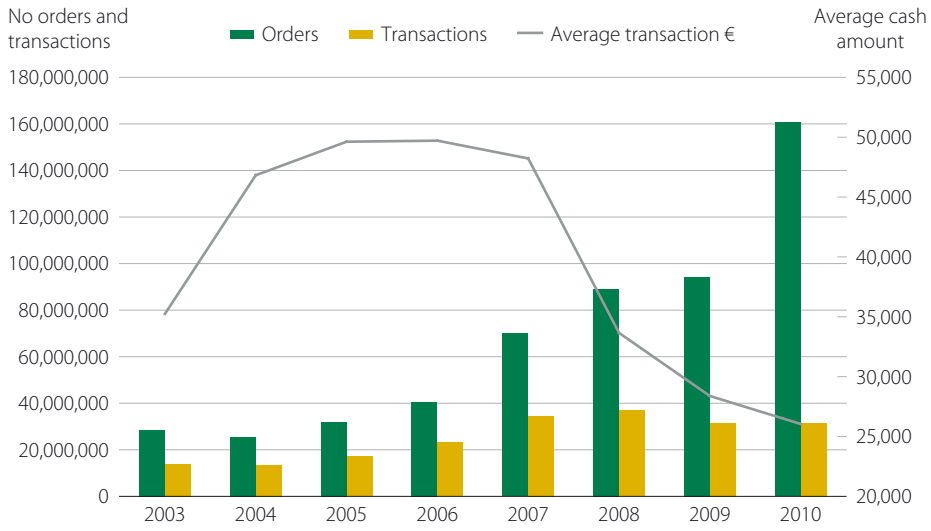
This article describes the main characteristics of high-frequency trading and presents the fundamental elements of the current debate about the impact on secondary markets in shares. The article is structured as follows: section 2 describes the essential characteristics of high-frequency trading, section 3 presents its main varieties, section 4 analyses to what extent this activity has favoured the boom in so-called dark pools, section 5 reviews the recent academic literature which analyses the effects of high-frequency trading on markets, section 6 includes the main regulatory initiatives in this area in Europe and in the US, and, finally, conclusions are presented in section 7.

2 Basic aspects of high-frequency trading

High-frequency trading (hereinafter, HFT) may be considered as a subcategory of automated trading. The European Commission (EC)[1] defines automated trading as trading involving the use of computer algorithms to determine any or all aspects of the execution of the trade such as the timing, quantity and price.[2] However, not all algorithmic trading can be classified as high-frequency trading as algorithms are sometimes used to carry out low-frequency trading where investment positions are held for a relatively long time. Gombert and Gsell (2006)[3] introduce a definition of automated trading as trading which emulates a broker's core competence of slicing a big order into a multiplicity of smaller orders and of timing these orders to minimise market impact via electronic means.

Academic studies usually use the ratio between the number of messages (new orders sent to the market, modifications and cancellations) and the trading volume as an approximate variable to identify automated trading.[4] Figure 1, referring to the Spanish electronic market, shows how since 2007 the number of orders sent has increased significantly while the transactions executed have remained stable, and even fell in 2009 and 2010. The same figure shows another of the effects of the in-

Number of orders and transactions and average cash per transaction in the SIBE (integrated Spanish stock exchange) FIGURE 1



Source: Sociedad de Bolsas.

1 European Commission (2010), *Public consultation – Review of the Markets in Financial Instruments Directive (MiFID)*, December 2010. Available at: http://ec.europa.eu/internal_market/consultations/docs/2010/mifid/consultation_paper_en.pdf

2 The algorithms incorporate and analyse historic and real-time information on prices and quantities in order to detect trade possibilities. The definition is included in the public document corresponding to the public consultation on the review of the MiFID directive published on 8 December 2010 by the EC Directorate General Internal Market and Services.

3 P. Gomber and M. Gsell (2009), *Algorithmic trading engines versus human traders - Do they behave different in securities markets?*, Frankfurt, Center for Financial Studies.

4 Proposed, for example, by T. Herdershott, C.M. Jones and A.J. Melkved (2010), *Does algorithmic trading improve liquidity?*, in Journal of Finance, vol. 66, pp. 1-33.

crease in automated trading: the reduction in the average volume of transactions. According to many analysts and market participants, this has led to the transfer of a part of institutional investment to alternative platforms, such as the so-called dark pools, which will be analysed later in section 4.

Similarly, HFT has a unique characteristic with regard to other types of automated trading: the very brief period for which positions are held, which on many occasions is less than one second, and the fact that they are closed out before the end of the session. This characteristic impacts on the subsequent analysis of the cyclical nature in liquidity provision which some authors have found in HFT.

The fact that there is not a unique single notion or definition of HFT is one of the first difficulties when analysing this activity and, as the case may be, adopting possible regulatory measures. However, most experts agree on several common characteristics. These include greater speed both in the decision to enter or leave the market and in the transmission and execution of the order on the trading platform. The US Securities and Exchange Commission (SEC), in a public consultation in January 2010,[5] also includes other characteristics of the trading, such as the use of so-called co-location[6] to minimise order latency (that is, the period of time between the transmission and confirmation of the order by the market), the existence of very short time frames for establishing and settling positions, the submission of numerous orders which are cancelled shortly after submission and the closing of positions before the end of the session so as to eliminate intraday risk.

It is also normally agreed that HFT is not in itself a trading strategy, but a new trading method made possible by advances in electronic trading systems and the fragmentation of liquidity between different trading platforms. Consequently, many participants see the strategies used in high-frequency trading as an evolution from those which have been traditionally used in securities markets, but adapted to the new trading possibilities offered by market infrastructures.

The participants in this type of trading are mostly own account traders, including investment firms (credit institutions and securities broker-dealers and brokers), propriety trading firms, whether registered or not, and quantitative hedge funds. Within these groups, it is normal for investment firms to operate in several HFT categories, as described in section 3, and for propriety trading firms and hedge funds to focus on a single category.

Occasionally, the technical needs imposed by this type of trading lead to processes of consolidation among the firms which trade on their own account. Accordingly, for example, at the end of May 2011, two of the main US firms involved in propriety trading reported a plan to merge based on the need to operate globally and to achieve an optimal size. In the search for greater size, the firms dedicated to proprietary trading in HFT try to reach the necessary scale to amortise the significant investments in computer systems which their activity requires.

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5 SEC, *Concept release on equity market structure,* January 2010. Available at http://www.sec.gov/rules/concept/2010/34-61358.pdf

6 Co-location is a service offered by markets which guarantees access to their order book in the same time conditions for all members which locate their servers in centres set up for this purpose.

With regard to the securities on which high-frequency trading is carried out, activity is primarily focused on the most liquid shares and subsequently extended to other assets such as Treasury bills and currencies, providing they have sufficient liquidity for this type of trading. Furthermore, high-frequency trading is not limited to regulated markets, but is often simultaneously carried out on several trading venues so as to take advantage of arbitrage opportunities.

According to different estimates, high-frequency trading accounts for between 30% and 40% of the volume of European equity markets, while in the US high-frequency trading accounts for over 50% according to calculations by the SEC presented in this public consultation in January 2010. These significant shares show the capacity of high-frequency trading to modify the structure of the markets in which it is carried out as it becomes an important source of business for regulated markets, multilateral facilities and also dark pools.

The nature of the activity itself and its recent appearance make it difficult to give a more accurate estimate of the volume which HFT accounts for in each market. However, the information available suggests that there has been a recent fall in the weight of HFT in the trading of the most developed markets. Accordingly, for example, a recent report published in June 2011 by the consultants TABB Group[7] indicates that the percentage of high-frequency trading in US markets will have fallen to 54% in 2011 after having reached a high of 61% in 2009. This trend, which suggests a saturation of the activity due to the rapid growth in the number of participants, has led to greater difficulties in obtaining profits from HFT. Nevertheless, part of this activity might be in the process of being displaced to emerging markets, which shows that operators are searching for new niches where it is possible to exploit their algorithms with less competition than that which they face in more developed markets.

Table 1 shows the estimated market share of HFT on different trading platforms in the second half of 2010 and, in the case of the US, in May 2011.[8]

Estimated market share of HFT as % of total TABLE 1

Borsa Italiana	20
Bolsas y Mercados Españoles	25-30
Turquoise (SMN)	21
London Stock Exchange	33
Chi-X (SMN)	40
Deutsche Börse	35-40
US (NYSE and NASDAQ)	54

Source: AMF, BME and TABB Group.

7 TABB Group, *Quantitative Research: The World after High-Speed Saturation*.

8 In the case of Bolsas y Mercados Españoles (BME), the estimated figure is that provided by BME to the EC consultation for the review of the MiFID Directive. The other shares are estimates from different sources both from the markets themselves and from independent consultants.

3 Main categories

Most experts agree with the classification of HFT activities used by the SEC in its public consultation in January 2010, which differentiates between four major categories: market-making, taking advantage of arbitrage opportunities, the application of directional strategies and activities based on the exploitation of structural vulnerabilities.

In the case of market-makers which operate with HFT, their main aim is to capture the bid-ask spreads of different listed assets. Unlike traditional market-makers, these participants are not obliged to continually quote bid and ask prices, and so the liquidity they contribute to the market is not guaranteed. This important difference has been seen in specific situations, such as the flash crash of 6 May 2010 in US markets, when HFT operators, who usually generated a significant part of the bid-ask offers, suddenly interrupted their activity.[9]

One of the consequences of the development of HFT is the substitution or displacement of traditional sources of liquidity offered by specialists and market-makers for that from high-frequency trading. However, and as highlighted by Kirilenko *et al* (2010),[10] unlike high-frequency traders, traditional market-makers do maintain their positions over longer periods of time, which has significant implications when evaluating whether their actions reduce or exacerbate market volatility. One of the conclusions of the paper by Kirilenko *et al* (2010) on the flash crash is that in situations of high market volatility, HFT does not only not provide liquidity, but it also competes for liquidity as a consequence of the need to close its positions before the end e of the trading session so as to eliminate intraday market risk. However, with regard to this last point, the existing literature shows differing arguments and evidence, as described in section 5 herein.

With regard to arbitrage activities, the aim is to take advantage of opportunities arising from temporary misalignments in prices of an asset on different trading venues (arbitrage between fragmented markets) or of different types of asset which, in theory, should maintain a certain relationship with each other, such as those which can take place between spot markets, derivative markets and exchange traded funds.

Directional strategies consist of taking short-term long or short positions on securities which, in the opinion of the investor, have temporarily moved away from their fair value. Unlike arbitrage, this type of trading involves taking unhedged long or short positions and therefore involves assuming market risk.

Exploiting structural vulnerabilities in markets relates to taking advantage of faster access to information and quicker transmission of orders to the market than that available for other participants, sometimes through co-location services. This type of activity is, *a priori*, that which generates most misgivings among regulators, especially in those events in which it is associated with unfair access to markets, associated with the presence of advantages for some participants over others.

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9 See A. Kirilenko, A.S. Kyle, M. Samadi and T. Tuzun (2010), *The flash crash: the impact of high frequency trading on an electronic market.*

10 Op. cit.

Exercising the four above-mentioned activities through high-frequency trading requires permanently low capital requirements as a result of the high turnover of positions, often with a holding period of milliseconds, with the exception of directional strategies, where the positions may be maintained for a longer period of time. Another common characteristic is that all these activities are part of a business strategy which aims to exploit potentially very low profits per trade, which makes it necessary to execute a high number of transactions in order to obtain significant final results.

4 High-frequency trading and the surge of dark pools

One of the consequences of the increase in high-frequency trading which has been most highlighted by analysts and by market participants is the displacement of trades by traditional institutional investors (long-only strategies) from regulated markets and multilateral trading facilities (MTF) with pre-trade and post-trade transparency requirements to dark venues, reserved for a limited number of clients, known as dark pools. These platforms are electronic trading systems without pre-trade transparency on prices or volumes and may be operated by investment banks which use crossing systems and regulated markets or MTF which use the waivers to pre-trade transparency established in the MiFID.

This transfer of operations towards dark pools is a direct consequence of the increasing difficulty of executing large transactions on regulated markets and MTF for a twofold reason. Firstly, as a result of the fall in the volume of transactions partly as a result of the fragmentation of the liquidity on several platforms and, secondly, because of the appearance of HFT, with algorithms which are able to detect the possibility of the execution of a large order and take a position against it aiming to anticipate the trade and make it more expensive. In this regard, it cannot be ruled out that a part of the increase in the liquidity offered by HFT traders in markets with pre-trade transparency (lit trade) were not accessible for other participants as it is captured by HFT traders themselves in trades with execution speeds which are impossible for other agents to achieve. This last point could favour the shift of some traditional institutional investors towards dark pools, partly as a consequence of the increase in HFT, which would be consistent with the new negative trend in the evolution of the share of trading volume carried out through HFT on some of the main international markets, as indicated above, and as a consequence of the saturation of HFT firms which makes it increasingly difficult to get profits in mature markets.

In this context, IOSCO,[11] at the end of 2010, began a public consultation on dark pools which analyses the reasons why investors use platforms without transparency. Some of the reasons which are identified in this consultation relate to HFT, including the following: (I) to avoid information leakage on transactions with relation to prices and volumes pending execution, (II) to minimise the market impact costs for price movements before the execution of large orders in markets which have lost

11 IOSCO (2010), *Issues raised by dark liquidity – Consultation Report,* ref. CR05/810, October 2010.

depth and in those in which the size of average transactions is low, which could make it difficult to fully execute the transaction, (III) to ensure better control of the order, and (IV) to avoid the presence of operators which use algorithms or programmes that seek to identify dark orders in transparent markets.

Once the consultation had ended, the IOSCO Technical Committee identified several disadvantages related to the proliferation of dark pools and dark orders in transparent markets. These include the impact of these transactions on price formation and the possible impact that fragmentation may have on the search for information and on the supply of liquidity. Accordingly, the possible relationship between the proliferation of high-frequency trading and the shift of trading activity of the large traditional investors towards dark markets indicated above suggest that the aggregate costs of the displacement of trading towards dark calls must be evaluated and compared with the potential advantages of high-frequency trading.

5 Possible effects of high-frequency trading on market functioning

In general, the possible effects of HFT on market structure can be grouped into four major areas: impact on liquidity and price formation (market quality), equality of access and best execution, operational risks and risks for market integrity. Despite the relatively recent appearance of HFT, literature already exists about its effects on markets, although sometimes with contradictory results. Most academic papers have focused on the effects on quality and price formation, while regulators have paid more attention to issues such as equality of access and risks for market integrity.

Impact on liquidity and price formation

A significant part of the academic literature agrees that automated trading and high-frequency trading have made a positive contribution to improving market quality and to reducing trading costs for participants. The aspects which the different authors have focused on to determine the effects on market quality have been a reduction of the bid-ask spread, the increase in liquidity and the reduction in volatility. For example, Herdershott *et al* (2010)[12] carry out one of the first analyses on the impact of automated trading on market liquidity. Their study focuses on shares listed on the New York Stock Exchange over the period between 2001 and 2006.[13] In this context, the authors find evidence that automated trading increased the liquidity of this market and the information contained in prices, especially in the securities of greatest capitalisation. It also improved the interconnection between different segments of the markets (spot and futures). Another of the conclusions of the paper is that the increase in automated trading has reduced market depth, which increases the impact on prices of the execution of larger orders. As mentioned above, this may be directly related to the shift of part of the trading towards dark pools.

12 Op. cit.

13 The authors indicate that the period analysed corresponds to an upward trend in prices. Therefore, their results may not be directly extrapolated to markets with a downward trend or situations of turmoil.

However, some other recent papers have questioned these positive effects on the quality of market functioning and, in particular, on the liquidity provided by HFT, especially, in phases of high volatility and in specific moments within the session. For example, unlike Herdershott *et al* (2010), Kirilenko *et al* (2010) analyse the behaviour of high-frequency traders and their role in price formation in the context of high volatility and a sudden fall in prices, specifically during the flash crash of 6 May 2010 in US equity markets. Among the conclusions of the paper, the authors highlight the fact that HFT exercises market-maker functions providing very short-term liquidity but holding a very limited asset portfolio. This situation, together with the limitation imposed by losses for market risk, means that firms which carry out HFT, irrespective of the market situation, need to continuously adjust their portfolios so that at the end of the session they have no assets in their books. Therefore, in moments of sharp falls, such as on 6 May 2010, instead of providing liquidity on the buy side of the market which had become very off-balance, they positioned themselves as sellers, thus competing for liquidity with other participants and contributing to amplifying price changes. Kirilenko *et al* (2010) highlight the stabilising role in these situations played by traditional long-term liquidity providers. Their conclusions in general agree with those of the investigation carried out by the SEC, to the extent that the SEC also points to HFT as an accelerator due to the high levels of liquidity which these firms consume at the moment of maximum market volatility.

Herdershott and Riordan (2009),[14] in a study focused on the 30 shares of the German DAX index over 13 sessions in January 2008, indicate that automated trading takes liquidity when it is cheap and provides it when it is expensive. These authors conclude that, in the case of the German stock exchange, automated trading does not provide liquidity in net terms as the automated supply of liquidity accounts for 50% of the total while its demand accounts for 52%. However, they highlight that HFT contributes to improving price efficiency. In this last aspect, Chaboud *et al* (2009)[15] disagree in a study on the foreign exchange market. For these authors, HFT contributes to a lesser extent than other agents to price efficiency because their transactions are usually correlated and with less diversity than those of other participants.

With regard to the pattern of automated trading, Foucault *et al* (2009)[16] show the cyclical nature of the liquidity which this type of trading provides to the market, with two clearly differentiated periods within the session. In particular, these authors put forward a model which makes it possible to rationalise the possible behaviour of high-frequency trading as a possible provider and consumer of liquidity in markets during the course of the same day. Specifically, the model proposed by these two authors differentiates an initial period, where HFT is a net provider of liquidity as it uses limit orders[17] which "offer" liquidity to the other participants, and

14 T. Herdershott and R. Riordan (2009), *Algorithmic trading and information*, Net Institute Working Paper.

15 A. Chaboud, B. Chiquoine, E. Hjalmarsson and C. Vega (2009), *Rise of the machines: Algorithmic trading in the foreign exchange market*, Working Paper, Federal Reserve Board.

16 T. Foucault, O. Kadan and E. Kandel (2009), *Liquidity cycles and make-take fees in electronic markets.*

17 Limit orders are introduced with a limit price so that a purchase proposal cannot be made above that price, nor a sales proposal below that price. They are executed immediately if a counterparty is found at that price or a better price.

a final period in which the need to close out positions requires the use of market orders[18] which take liquidity from other participants. In a related analysis, Brogaard (2010)[19] examines the prices of 120 shares of the NASDAQ in the period 2008-2010 and finds that the orders from HFT provide the best bid and offer prices over most of the trading session. However, if the market depth is considered, the main providers of liquidity continue to be traditional traders which do not carry out high-frequency trading.

Jovanovic and Menkeved (2010)[20] analyse whether HFT can reduce the adverse selection problems associated with passive trading i.e. with the introduction of limit orders. The investors which opt for these orders typically face a problem of this type given that their order may be attacked by purchase orders introduced subsequently by investors with better information. If high-frequency traders also operate through limit orders and are able to update their information quickly, it may be possible that their participation in the market contributes to reducing adverse selection problems reducing bid-ask spreads and favouring an increase in trading volumes. To a certain extent, the role of high-frequency traders would be similar, if that positive contribution is confirmed, to that of traditional specialists and market-makers. A theoretical model analysed by the authors suggests that high-frequency traders may reduce adverse selection problems, increasing welfare, but that they may also aggravate them. This would basically occur if the other market participants see them as informed agents and not as uninformed agents as for traditional market-makers. The empirical part of the paper, which compares the evolution of the trading and prices of two indices following the introduction of high frequency traders in one of them provides an ambiguous result: while the reduction was seen in the bid-ask spreads in the index with high frequency traders, no significant difference was seen with regard to volumes. However, according to the authors, these results suggests that it would be advantageous for trading platforms to charge different fees to high-frequency traders based on the type of order placed, rewarding limit orders (passive trading) with lower fees compared with market orders, which consume liquidity. In general, multilateral trading facilities were the first to implement this system of asymmetric fees, which was subsequently replicated by regulated markets such as the London Stock Exchange.

One of the recent papers which has been most critical about the effects of HFT on markets is that of Zhang (2010),[21] which approaches its analysis with two aims: i) to determine the effects of HFT on volatility, and ii) to discover whether HFT helps or hinders the incorporation of news about fundamental aspects of companies into their share prices. The series used include prices of three thousand shares from the first quarter of 1995 up to the second quarter of 2009. With regard to the first of the above questions, the results obtained suggest that HFT increases share price volatility. Specifically, volatility is positively correlated to HFT after correcting for the effects of the volatility caused by the fundamentals of the companies and by other exogenous factors. In addition, the positive correlation between volatility and inten-

18 Market orders will be traded at the best price offered by the counterparty existing in the trading book at the moment they are introduced, i.e. they are price accepting and search for their immediate execution.

19 J.A. Brogaard (2010), *High frequency trading and its impact on market quality*.

20 B. Jovanovic and A. Menkveld, (2010), *Middlemen in limit-order markets*.

21 X.F. Zhang (2010), *The effect of high frequency trading on stock volatility and price discovery*.

sity of HFT activity is greater the greater the uncertainty in markets, as it is in these circumstances that they are more vulnerable to aggressive HFT strategies or to the withdrawal of the liquidity of high-frequency traders which carry out activities similar to market-makers. Similarly, Zhang (2010) concludes that high-frequency trading hinders the incorporation of fundamental information about companies to their share prices. Specifically, when HFT accounts for a significant volume of trading in a certain period in which a fundamental piece of news about the company is published, its share price reacts more sharply although in the following period the price movement is practically reversed. Consequently, the final result is a certain initial overreaction which increases the price volatility of listed shares. In this context, Zhang proposes the possibility of imposing a fee on high frequency traders if this type of harmful effect on markets is confirmed.

For his part, Smith (2010)[22] carries out an analysis of the price and volume dynamics of seven shares of the companies of greatest liquidity on the NYSE and seven from the NASDAQ for the period between January 2002 and May 2009. This study finds evidence of an increase in the correlation in trading activity in much reduced intervals, of minutes and even seconds, and which traditionally would require longer periods, of hours or even days, to be detected without HFT activity.

Equality of access

From the point of view of market supervision, one of its essential aims is to guarantee access to trading platforms under equal conditions for all potential participants. In this regard, the co-location services offered by regulated markets and MTF, as well as the technological investment made by market members and MTF themselves, may create markets with two-speed access when placing and processing orders. This dual velocity would leave retail investors and even qualified wholesale investors unable to interact with the same speed as the new high-frequency traders. For this reason, supervisors and trading platforms themselves must ensure equality of access to the co-location services for all those participants who request it. Specifically, they must ensure that the maximum access speed is an advantage which is replicable for all market participants i.e. that it can be obtained through investments and technology and is not the result of a differential treatment by markets of a limited number of traders.

Operational risk

Most existing analyses on operational risk come from supervisory bodies and even from the clearing members of high-frequency traders. Specifically, the Federal Reserve of Chicago (2010)[23] addresses questions such as the increase in the speed of access to markets, highlighting the greater potential operating risk of electronic trading systems compared with open outcry trading, which is today reduced to a few commodity derivatives markets in the US. The greater potential operational risk

22 R. Smith (2010), *Is high frequency trading inducing changes in markets microstructure and dynamics?*

23 Federal Reserve Bank of Chicago and Financial Markets Group (2010), *Controlling risk in a lightning-speed trading environment*, Policy Discussion Papers Series.

of electronic markets lies in the possibility of incorporating incorrect orders. In the case of automated trading, the disappearance of human intervention could, according to the aforementioned document of the Federal Reserve of Chicago, increase potential operational risk, especially when some of the entities have direct access to the market without the intervention of a member.

One of the issues which generates the most concern is the so-called 'naked sponsored access' of high-frequency traders, which may lead to significant problems for members through which they access the markets and which are ultimately responsible for their transactions. One of the situations which could take place is that there is an algorithm error which initiates the purchase or sale of a significant volume of assets well above the market's absorption capacity and which would lead to a significant impact on prices. In this case, the entity which has provided the high-frequency trader with access to the market will be responsible for its transactions despite having had no control over them. In January 2010, the SEC published Proposed Rule 15c3-5[24] which bans direct access without a series of controls by the members to prevent the placement of incorrect orders and to ensure that the orders sent comply with legislation. Within the EU, the reform of the MiFID, which is described below, also includes a similar provision.

The flash crash of 6 May 2010 provides a recent example of severe disturbances in price formation triggered by the placement of automated orders, specifically through the programmed execution of a sales order of S&P 500 e-mini futures contracts in said session. According to the investigations conducted by the SEC, in previous sessions two similar orders were executed without these having a significant effect on price formation, but while on those occasions the sales order were completed over five hours of the session, on 6 May the order was fully executed in only 20 minutes. Accordingly, it seems that on that day high-frequency traders initially provided liquidity in the buyside, but the need to close their portfolio led them to take all the liquidity present and to trigger and exacerbate the price falls through the selling orders, which translated to the spot market of S&P 500 shares.

Furthermore, a significant number of transactions which high-frequency traders carry out may strain the capacity of settlement infrastructures, even though most of these transactions are closed before the end of the session. A possible problem related to this issue would be the bankruptcy of a high-frequency trader with a high level of intraday activity before it has been able to manage to close its transactions.

Central counterparties, such as Eurex Clearing, have offered a risk management service since the end of 2010 which allows members to control market and operational risks by pre-setting defined limits based on parameters such as the margins required for positions pending settlement. The aim is to try to mitigate one of the potential risks which high-frequency trading may bring for market members through which these traders settle their transactions, which, as indicated above, usually involve significant intraday volumes.

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24 http://www.sec.gov/rules/proposed/2010/34-61379.pdf

Risks for market integrity

The current revision of Directive 2003/6/EC on Market Abuse covers most of the practices traditionally used to give misleading signals to the market. In addition, the revision also includes a definition of "attempt of market manipulation" so that manipulating behaviour can be sanctioned irrespective of whether evidence is found of its effect on prices, which is not always possible to find. Specifically, ESMA may determine what manipulative behaviours or practices may be considered as manipulation or an attempt at market manipulation.

The possible manipulative behaviours described below are included within those which send incorrect or misleading signals to the market and are not exclusive of HFT, although the speed of this type of trading clearly facilitates their execution.

Spoofing: this practice consists of placing an order with the intention not to execute it, but to change the bid-ask spread.

Layering: this is a variant of spoofing in which a participant incorporates a large number of limit orders at different prices on one side of the market (purchase or sale) with the intention of making it seem that there is pressure on one side of the market so as to trade on the other side immediately cancelling the orders previously sent.[25]

Momentum ignition: this consists of sending orders and executing trades simultaneously with the dissemination of rumours so as to trigger a change in prices.

Anticipation strategies: the aim is to search for large transactions which have not yet been executed so as to immediately take positions so as to benefit from their impact on prices.

In addition to these general practices which are not exclusively related to HFT, supervisors are progressively paying more attention to the use of so-called 'aggressive algorithms', which, taking advantage of their greater speed in placing and cancelling orders, try to trigger movements in the market from which they can benefit as a result of their greater speed in processing orders.

One of the differentiating characteristics of the new micro-structure of share markets is the fragmentation of liquidity into several trading platforms located in different countries, as indicated above. With regard to the supervision and sanctions of market abuse, it is perfectly possible for there to be an attempt at manipulating one specific regulated market so as to obtain advantages in another regulated market or on a multilateral trading facility subject to a different jurisdiction. In this case, it is essential to have cooperation between the different supervisors involved so as to complete the investigation and the possible sanctions on the participants.

Finally, a series of general issues about high-frequency trading in securities markets need to be addressed.

25 Recently, the SEC fined a small HFT firm after gathering evidence of this type of activity on more than 46,000 occasions with profits of some 575,000 US Dollars between November 2006 and the end of January 2007.

The first item which needs to be considered arises from the evidence of the extremely brief holding period of the investment positions that characterises these trading techniques which, as indicated above, are often lower than one second.[26] Consequently, the brief time horizon of high-frequency investors may not be suitable for incorporating into prices the fundamental information of a much longer term bias and which drives the value of listed shares . In this regard, the European Central Back highlighted in its response to the European Commission[27] on the public consultation to the review of the MiFID Directive, that "the existence of players with very short horizons may lead to the prices in the markets being driven by short-term objectives and may therefore reflect fundamentals less efficiently".

Furthermore, and from a conceptual point of view, it may be necessary to address the original essence of secondary markets as providers of liquidity to investors in securities and whether this function is met by transactions in which positions are held for a very short time. One issue which has not been addressed in the existing empirical studies to date is the possibility that the liquidity provided by high-frequency trading has an "endogamic nature" i.e. a large part of the volume generated corresponds to cross transactions between different firms which follow HTF strategies without other investors participating. If these types of transactions account for most HFT trading, the potential beneficial effects of the activity on other investors would be practically non-existent.

6 Regulatory initiatives in the European Union and the United States

In December 2010, the EU launched a public consultation on the review of the MiFID Directive with proposals which include possible measures related to automated trading. Specifically, the EU puts forward the possibility of carrying out the following reforms to the Directive with regard to HFT:

– The current wording of article 2.1 d) of the MiFID may leave firms which carry out HFT outside its scope of application, providing they do not act as market makers and operate on their own account. Therefore, the EU proposes that all agents which perform HFT and whose activity exceeds certain predetermined limits must be authorised as investment firms subject to supervision and compliance with organisational and capital requirements.

– Firms that carry out HFT will have to inform the competent authority of the algorithm which they use, explaining its design, purpose and functioning.

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26 On an aggregate level, A.G. Haldane (2010, *Patience and Finance*) points out that the period for holding shares has fallen significantly since the middle of the 1970s. In the case of the New York Stock Exchange, this has gone from seven years in 1940, which remained practically unchanged over the following three decades, to two years in 1985, one year at the end of 2000 and seven months in 2007. This data is consistent with that obtained by Zhang (2010), who observes a differentiation between the turnover of the portfolios of institutional investors, which has remained virtually unchanged since 1985, and that of investors as a whole, which has increased significantly with the explosion of the volume of transactions linked to HFT in 2007.

27 http://www.ecb.int/pub/pdf/other/ecpublicconsultationreviewmifideurosystemcontribution201102en.pdf

– A series of specific organisational requirements are introduced for HFT, which include systemic risk controls. For the operators of regulated markets and multilateral trading facilities, a series of requirements is proposed with regard to HFT. The most important are as follows:

  - Controls are established to mitigate the possibility of errors by high-frequency traders. Specifically, the proposal is to introduce so-called circuit breakers, which suspend trading for a specific period when there are price changes greater than the pre-set parameters.

  - Guarantees are required with regard to access to co-location services under equal conditions.

  - It must be ensured that the orders sent to their book remain there for a pre-set minimum period before being cancelled. Similarly, the ratio of orders to transactions executed by the different participants may not exceed a pre-set limit.

  - It must be ensured that those high-frequency traders which regularly use a significant number of transactions in a financial instrument continue providing liquidity under similar conditions to those of traditional market-makers.

  - Investment firms which facilitate sponsored access of orders for high-frequency traders must have implemented mechanisms and filters which prevent errors or attempts at bad practices.

Making it mandatory to inform supervisors about the details and functioning of the algorithms used by participants would make it necessary to strengthen the confidentiality safeguards as these are intellectual property of great value for business generation and firms' competitiveness. Furthermore, given the complexity of the algorithms to be analysed, supervisors would probably need to strengthen their staff with specialised personnel. Another aspect to be considered is the fact that the algorithms used are dynamic and are modified and calibrated continuously so as to adapt them to the current market conditions. Therefore, supervisors must also be prepared to review them frequently.

In January 2010, that is, before the flash crash of 6 May, the US SEC had already implemented the public consultation which analysed the recent changes in market structures, as well as the adaptation of current legislation to address the new trading situation. One of the sections specifically refers to high-frequency trading and its effects on investors with a long-term horizon and on market quality. The SEC recognises that there may be a divergence of interests between investors with a short time horizon, such as HFT investors, and those which hold their investments over the long term. In this regard, the supervisor supports long-term investment and suggests evaluating the algorithms of HFT in order to determine "whether they are correctly designed to operate in high stress conditions in markets".

Based on the responses, the SEC may undertake legislative reforms to address the new structure of markets so as to have a level playing field for all participants. This

reform would be implemented with a prior regulation proposal which would be submitted to public consultation by the affected agents.

7 Conclusions

Over the last two decades, secondary share markets have undergone the most significant changes since their creation over 400 years ago. The growing use of electronic trading systems and the legislative reviews undertaken in Europe and the US have facilitated, on the supply side, concentration in the sector and the appearance of new competitors to traditional stock exchanges. Traders have access to a greater number of markets and platforms and thanks to new technological developments, they have transformed their trading techniques, above all with the appearance of high-frequency trading.

The advances in trading systems and in telecommunications make it possible to implement algorithms which automatically manage aspects which until now had been the reserve of trader decisions. As a result, the manner shares are traded has evolved, with even the sources of liquidity changing, which have moved from traditional market-makers to high frequency traders.

Since the appearance of high-frequency trading at the beginning of the century, its rapid growth has led to it accounting for a significant volume of total trading on share markets. Its recent appearance and the complexity in obtaining precise information about their transactions make any analysis of its effects on the market difficult. Although some of the academic contributions agree on its positive effects, other more recent studies raise questions on this premise. Among its positive effects, several experts agree on the increase in liquidity, since in many cases high-frequency traders have replaced traditional market-makers as liquidity providers.

However, analyses focused on periods of high volatility and significant price changes have found evidence that high frequency traders moved from liquidity providers to competitors as liquidity takers, driven by the need to close out positions in order to balance their portfolios before the end of the trading session. In fact, some specialists have questioned whether liquidity offered by HFT is essentially endogamic, given the possibility that most transactions in which high-frequency traders participate are closed against other high-frequency traders, with little access to this type of liquidity by other agencies which do not use this type of trading technology.

Another of the possible effects of the increase in high-frequency trading is the displacement of large orders from institutional investors towards platforms with a low level or a lack transparency, such as dark pools. This phenomenon would be associated with a reduction in the average size of the orders and executions associated with the growth of HFT and the trading strategies of these agents, which can detect the need to execute large orders and take an opposite position.

With regard to the possibility that HFT can be used to conduct market abuse , we should point out firstly that most of the possible practices are already included in the current Market Abuse Directive. In addition, the current review of this Directive

establishes the possibility of including attempts at manipulation as sanctionable behaviour, irrespective of whether there is any impact on prices or not. This would, for example, make the placement of orders with the sole intention of sending misleading signals about supply and demand conditions a punishable activity.

One of the issues which generates most controversy with regard to HFT is the possibility that there are markets with two speeds of access to trading: on the one hand, retail investors and traditional institutional investors with a longer time horizon and with less capacity to operate in high-speed trading environments and, on the other hand, high-frequency traders. One possible solution suggested from the sector itself is a generalisation of high-frequency trading, adapted to the operator's investor profile, among traditional institutional participants or, at least, the use of algorithms which allow them to execute large orders without being detected by high frequency traders.

In short, the appearance of high-frequency trading has substantially modified the structure and functioning of securities market in a period in which there have also been significant legislative changes and a widening of the supply of trading platforms. The fact that the changes are new and the difficulty in accessing information hinder analyses about the effects of HFT on markets and the available studies to date are in general inconclusive with mixed results. Supervisors, aware of the profound implications that HFT may have on the functioning of markets, have initiated public consultations to learn about these operations in more detail and their implications and they are evaluating legislative solutions that guarantee equality of access and which prevent any attempt at price manipulation.

Investment of Spanish households: a comparison with the United States and Italy

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1 Introduction

Since 2002 the Bank of Spain has been performing the Spanish Survey of Household Finances (Spanish acronym: EFF, Encuesta Financiera de las Familias), which to date consists of three editions, corresponding to 2002, 2005 and 2008. This survey provides detailed information about the asset and financial position of households so that the socio-demographic characteristics of the members of a household can be compared with, for example, their incomes, real and financial assets, debts and expenses.[1]

The same authors, in a previous paper (Ispierto and Villanueva, 2010)[2] use the data from the first two waves of the EFF to outline the investor profile of Spanish households in different financial assets. The main results obtained in that paper include the fact that the investors in listed shares, in terms of wealth, age and educational level, have similar characteristics to investors in mutual funds. In contrast, the Spanish households which invest in fixed-income assets tend to have a head of household with an average age greater than the others and with a lower average level of net wealth. In general terms, the paper found that net wealth was the most determinant variable when investing in financial assets, that net wealth had a much smaller effect in the investment in real assets and that, furthermore, education had a similar positive effect on holding financial assets, although to a lesser extent.

This article analyses whether the above-mentioned results from that paper are comparable with those obtained for other economies. To do this, we use data from similar surveys carried out in Italy and the United States. Specifically, for the United States we use the Survey of Consumer Finances (SCF) as the reference database, which is prepared with the support of the Federal Reserve. For Italy, we use the survey carried out by the Bank of Italy, *Indagine sui Bilanci delle Famiglie* (IBF).

The selection of these two economies as a reference for comparison is mainly due to the availability of the data, as the basic aspects of the surveys available for these two countries are similar to the EFF. Furthermore, this selection makes it possible to compare the investment decisions in Spanish households with those of the families of a country - the United States - whose financial culture and markets are generally more developed than in Spain, and with another country, Italy, which shares more similarities with Spain.

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1 For a more in-depth description of the methods and contents of the Survey, see O. Bover (2004), *The Spanish Survey of Household Finances: description and methods of the 2002 wave*, in Bank of Spain, Documentos Ocasionales, No 0409.

2 See A. Ispierto and M.V. Villanueva (2010), *Perfil inversor de los hogares españoles: análisis de la Encuesta Financiera de las Familias*, in CNMV, Working Paper No 40.

Using information from the three surveys, the second section describes, firstly, the most significant characteristics and differences between investment in real and financial assets by households in each one of the countries and, subsequently, the third section analyses the effect which the different characteristics of the households have on the proportion of households which invest and on the quantities invested. The characteristics selected in this article are age, education and employment position of the head of household, on the one hand, and net wealth of the household, on the other. Finally, section four analyses in more detail the investors in listed shares, fixed income assets and mutual funds so as to determine the profile of investors in these assets.

2 Investment decision of Spanish households: general characteristics

2.1 Composition of the assets of the households

This section describes the general patterns of investment both in real and financial assets of households in Spain, the United States and Italy. As shown in figure 1, Spain is the country where the highest percentage of households own their own home (over 80% of households, compared with a little under 70% in the United States and Italy) and is, in turn, the country where most households own other real estate assets. Similarly, the median amount invested in these two assets is greater than in the other countries (see table 2). In addition, with regard to the distribution of these amounts, in Spain there is less spread if compared with the other countries studied (see the ratio between the third and the first quartile). Unlike Spain and the United States, the Italian survey reflects that most Italian families own other real assets, such as works of art or jewels, although with a lower median amount.

With regard to the percentage of the aggregate portfolio made up by real assets for the population as a whole, we can observe that from the three countries studied, the United States is the country which allocates the lowest proportion to investment in real assets (see table 3). Within this type of asset, it should be pointed out that the investments associated with own account activities have a significantly greater weight in the United States than in the other two countries.

Spain is the country with the highest percentage of households which own financial assets. However, this is mainly due to the high number of households which have payment deposits.[3] However, if we compare the holdings of different financial assets individually between the three countries, we can see that in general terms the United States has the highest number of households which invest in the different types of financial assets, and is also the country in which the median amount invested in financial assets as a whole is highest. However, if we study these assets individually, we can see that there are some whose median amount invested in the US is lower than in the rest, such as in fixed-income assets or payment deposits and

3 Payment deposits correspond to accounts, passbook accounts and other deposits which can be used to make payments using cards or cheques.

non-payment deposits.[4] For example, it is noteworthy that more than half of households in the United States own the latter type of asset, compared with less than 20% in Spain,[5] while the median amounts invested in this asset are substantially lower than those for Spain and Italy. The situation for payment deposits is very similar. This means that the weight of these two assets together within the financial portfolio in the United States is around 15%, while in Italy[6] and Spain it is a little over 50% and 40% respectively (see table 3).

Percentage of households which invest in each type of asset TABLE 1

	Spain	USA	Italy
Real assets	**87.4**	**73.2**	**95.8**
Main residence	81.3	69.1	68.1
Other real estate properties	34.5	18.1	22.4
Businesses for work on own account	11.1	11.5	15.3
Other real assets (jewels, works of art, etc.)	19.3	7.5	88.7
Financial assets	**96.5**	**92.6**	**82.9**
Listed shares	11.4	20.7	6.8
Unlisted shares	2.2	0.1	0.7
Fixed-income	1.5	18.8	12.0
Public	0.5	18.4	7.4
Private	0.9	0.9	5.7
Mutual funds	8.7	25.7	8.1
Fixed-income	2.9	13.9	3.2
Equity	3.5	13.3	3.2
Mixed	1.8	2.7	3.7
Guaranteed	2.5	n.a.	n.a.
Other	0.5	7.8	n.a.
Payment deposits[1]	92.5	88.1	85.9
Non-payment deposits[1]	18.2	54.3	6.6
Pension schemes[2]	27.9	49.3	8.1
Insurance	1.7	24.2	
Other financial assets	3.6	10.1	4.4

Source: CNMV.

1 Payment deposits in Italy include savings accounts, while in Spain and the United States these are included in non-payment deposits.

2 The figure corresponding to pension schemes and insurance in Italy refers to the percentage of households which made contributions in 2004, as the IBF does not have information corresponding to the total number of households which own these assets.

4 Non-payment deposits correspond to term, sight or savings accounts and deposits which cannot be used to make payments using cards or cheques.

5 The percentage in Italy is not comparable with that in the other two countries because, as mentioned in table 1, it does not include savings accounts. With data from the 2008 IBF, where savings accounts can be isolated, we can observe that the percentage holding non-payment deposit accounts changed from 7.2%, if these are not included, up to 22% if they are included. Accordingly, only taking into account the data of the 2008 Italian IBF, we can state that ownership of non-payment deposits in Italy and Spain is not very different.

6 As indicated, in Italy the total financial assets do not contain the value of pension plans and investment insurance as these figures are not available in the IBF. According to data obtained from the Financial Accounts of Italy, these assets account for around 15% of total financial assets at year-end 2004.

Fixed-income assets also deserve a special mention as the proportion of Spanish households which own this type of asset is approximately ten times lower than in Italy and the United States. However, the median amounts invested in Spain are higher than in Italy and much higher than in the United States, where the median is lower than 900 euros. With regard to the type of fixed-income assets, it is important to highlight the fact that in the United States most of these households invest in public debt, although generally in very low amounts. However, in Italy, the figure corresponding to the percentage of households investing in public and private debt is relatively similar, and the amounts invested in the two assets are relatively high[7] (in both cases the median is around 15 thousand euros). These results mean that the weight of fixed-income assets in the portfolio of financial assets of Italian households is much higher than that in the United States and even more so than in Spain.

Median amount and spread* of the investment of households for each type of asset TABLE 2

Amounts in euros at year-end 2005[1]

	Spain		USA		Italy	
	Median	**p75/p25**	**Median**	**p75/p25**	**Median**	**p75/p25**
Real assets	**210,354**	**2.7**	**153,358**	**3.7**	**129,438**	**9.8**
Main residence	180,303	2.1	140,213	3.1	152,880	2.5
Other real estate properties	105,075	5.8	78,651	11.5	81,536	8.8
Businesses for work onown account	60,101	10.2	87,633	16.7	50,960	5.0
Other real assets (jewels, works of art, etc.)	2,592	6.7	13,145	10.0	2,038	5.0
Financial assets	**6,010**	**16.0**	**21,558**	**43.5**	**9,733**	**5.8**
Listed shares	6,240	6.9	13,145	17.5	10,192	4.2
Unlisted shares	12,362	15.0	21,908	6.2	10,192	5.0
Fixed-income	24,040	7.0	876	24.8	16,298	3.3
Public	n.a.	n.a.	876	20.0	15,288	3.0
Private	n.a.	n.a.	26,290	9.7	13,608	3.5
Mutual funds	18,000	6.4	31,548	14.8	15,288	3.0
Fixed-income	15,225	6.7	14,898	10.4	n.a.	n.a.
Equity	14,000	8.3	35,053	11.8	n.a.	n.a.
Mixed	18,000	4.0	17,527	9.2	n.a.	n.a.
Other	18,030	4.2	39,435	9.2	n.a.	n.a.
Payment deposits	3,000	9.3	1,753	8.3	6,115	3.8
Non-payment deposits	12,020	6.4	4,382	20.0	8,154	4.8
Pension schemes	6,010	7.2	30,672	11.3	n.a.	n.a.
Insurance	47,466	7.0	5,258	9.0	n.a.	n.a.
Other financial assets	3,700	12.0	3,505	16.0	15,288	8.0

Source: CNMV.

* The ratio between the third and first quartile (p75 and p25 respectively) has been used as the spread measure.

1 The data from the United States has been transformed by applying the inflation between 2004 and 2005 (3.37%) and subsequently using the exchange rate at 31 December 2005 (0.84776 euros/dollar). The Italian data has been transformed by applying the inflation between 2004 and 2005 (of 1.92%).

7 In Spain it is not possible to distinguish the quantity that corresponds to private fixed income and the quantity that corresponds to public fixed income from the total amount invested in fixed income.

With regard to mutual funds, we can observe that in the United States a high percentage of households have some kind of mutual fund (25% of the population compared with 8% in Italy and Spain). It should be mentioned that this item includes monetary mutual funds (specifically in the category of fixed-income funds), which in the United States, unlike in Spain and Italy, in many cases have characteristics more similar to those of deposits than those of other mutual funds.[8] Part of the differences in holdings of mutual funds between the three countries analysed are precisely due to monetary funds, which in the United States are more widespread (10.8% of the population own this asset). For its part, the quantities invested in mutual funds as a whole in the United States are also much greater than in Spain and Italy (the median values approximately double those in the other two countries). It is worth mentioning, however, that the spread of said quantities around the median is also much greater in the United States (the ratio between the third and first quartile is 14.8) than in Spain and Italy.

Distribution of the portfolio in real and financial assets of households TABLE 3

% of total

	Spain	USA	Italy[1]
Real assets over total	**89.0**	**62.1**	**89.0**
Financial assets over total	**11.0**	**37.9**	**11.0**
Distribution of real assets	**100.0**	**100.0**	**100.0**
Main residence	66.2	53.0	67.6
Other real estate properties	23.8	18.2	19.1
Businesses for work on own account	9.4	27.2	10.9
Other real assets (jewels, works of art, etc.)	0.6	1.6	2.5
Distribution of financial assets	**100.0**	**100.0**	**100.0**
Listed shares	**11.1**	**17.4**	**7.9**
Unlisted shares	**9.2**	**0.1**	**1.7**
Fixed-income	**1.7**	**5.8**	**17.1**
Public	n.a.	4.7	10.4
Private	n.a.	0.9	6.7
Mutual funds	**13.2**	**26.0**	**11.5**
Fixed-income	3.9	6.3	n.a.
Equity	3.5	9.8	n.a.
Mixed	2.1	1.1	n.a.
Guaranteed	3.1	n.a.	n.a.
Other	0.5	8.9	n.a.
Payment deposits	**26.6**	**4.8**	**49.3**
Non-payment deposits	**14.7**	**9.4**	**4.5**
Pension schemes	**15.3**	**31.5**	**n.a.**
Insurance	**4.7**	**2.9**	**n.a.**
Other financial assets	**3.5**	**2.0**	**8.0**

Source: CNMV.

1 The percentages corresponding to each one of the financial assets in Italy are overvalued due to the lack of data relating to investment pensions and insurance. For the same reason, the weight of financial assets compared with real assets is undervalued.

8 For further details, see M.V. Villanueva (2009), *Las características de los fondos de inversión monetarios en distintas jurisdicciones*, in CNMV, Working Paper No 36.

With regard to pension schemes, both diffusion among investors and the quantities invested are much greater in the United States than in the two European countries, which probably reflects the significant differences in the coverage of the respective public pension system.[9]

3.2 Diversification

As indicated, households in the United States invest most in financial assets: while these own as a median three types of different financial assets, in Spain and Italy they only own one type[10] (see *pro memoria* of table 4). Specifically, in Spain and Italy, 52.7% and 56.6% of total households respectively only own one type of financial asset, which in practically all cases corresponds to payment deposits. Similarly, only 6.2% of households in Spain and 4% in Italy invested in more than three types of financial assets, while the figure for the United States is 36%. With regard to households which do not own any financial assets, we can observe that Spain has the lowest percentage of the three countries, only 1.8%, while in Italy the figure is relatively high (13.6%).

Diversification: number of investors in an asset which own other assets TABLE 4

% of total investors

	Spain			United States			Italy		
	Investors in:			Investors in:			Investors in:		
	Listed shares	Fixed-income	Mutual funds	Listed shares	Fixed-income	Mutual funds	Listed shares	Fixed-income	Mutual funds
Listed shares	100.0	38.7	41.3	100.0	37.9	40.6	100.0	22.7	27.1
Unlisted shares	4.8	12.3	3.4	0.1	0.0	0.1	4.3	4.9	4.2
Fixed-income	5.0	100.0	5.8	35.7	100.0	26.9	33.7	100.0	38.7
Mutual funds	30.6	33.7	100.0	53.1	37.4	100.0	30.4	29.2	100.0
Fixed-income	13.5	4.9	38.9	33.2	21.0	52.9	12.5	11.2	36.2
Equity	22.5	20.8	43.0	31.9	21.9	49.7	18.5	15.1	43.8
Mixed	5.0	7.2	17.2	7.3	5.2	10.1	10.0	10.7	44.0
Payment deposits	99.4	99.5	98.3	98.5	97.7	99.0	100.0	99.1	99.9
Non-payment deposits	26.3	34.5	25.2	72.9	75.6	64.3	9.2	10.7	5.8
Pension schemes	3.7	9.0	4.2	35.6	35.5	37.2	22.1	17.0	22.9
Insurance	63.3	59.4	55.9	78.1	73.7	70.3			
Nothing else (except payment deposits)	22.7	17.0	22.7	2.6	3.8	5.2	30.6	48.5	37.1
Neither of the other two main assets	65.5	43.4	54.8	29.3	41.7	43.3	48.7	63.7	51.7
***Pro-memoria*: Percentage of households which own a specific number of different financial assets**									
Average		1.7			2.9			1.3	
none		1.8			6.7			13.6	
1		52.7			17.4			56.6	
2		27.3			19.8			19.3	
3		11.9			20.0			6.5	
>3		6.2			36.0			4.0	

Source: CNMV.

9 It should be remembered, however, that the figure for Italian households which have pension schemes is only a lower limit as it only includes households which contributed money to a pension scheme in 2004.

10 Bear in mind that the maximum number of financial assets possible is eight for Spain and the United States, while for Italy it is seven, as investments in pension schemes and insurance are not differentiated.

Of the households which own listed shares, fixed-income assets or mutual funds, Table 4 shows the percentages corresponding to the households which also own another type of asset. It should be pointed out that in the United States investors in listed shares are those with most diversification. Only 2.6% of them do not invest in any other financial asset (excluding payment deposits) and 29.3% do not own either fixed-income assets or mutual funds, with the percentages being much lower than those seen in the other two countries. It should be pointed out, for example, that in Spain 65.5% of investors in listed shares do not have either fixed-income assets or mutual funds (this figure is 29.3% in the United States and 48.7% in Italy).

Furthermore, Italian households which own fixed-income assets are, in comparison with the other countries, those with less diversification. Accordingly, less than half of these households own no other financial assets (without including payment deposits) and practically two-thirds do not own either listed shares or mutual funds. On the contrary, in the United States practically all investors in fixed-income assets have another financial asset, although in many cases these are assets other than listed shares or mutual funds (in most cases the assets are investment insurance or non-payment deposits).

3.3 Total investment and proportion of households according to their socio-demographic characteristics

This section aims to identify how different characteristics of the households (age, employment situation and educational level of the head of household and percentile of net wealth of the household) affect, on the one hand, the decision to invest in real and financial assets and, on the other hand, the distribution of the total invested in these assets. Given that the conclusions relating to the characteristics analysed may be directly influenced by the level of net wealth, the distribution of the total invested by the households of the three countries has been analysed bearing in mind this fact. Therefore, the holdings, in percentage, have been calculated for each one of the different groups of age, education and employment situation within each one of the different levels of net wealth.[11]

With regard to real assets, while in Italy the decision to invest in each one of the different categories of these assets seems to bear no relation with the educational level, a slight positive bias can be seen towards university graduates in the case of Spain and the United States. In the three countries, we can see that the percentage of young households which own real estate properties (both main residence and other real estate properties) is low compared with the other households.

Nevertheless, the most influential variable in making the decision to invest or not in real assets is the level of net wealth, with this effect being slightly lower in Spain than in the other two countries (Spain is the country where a greater percentage of

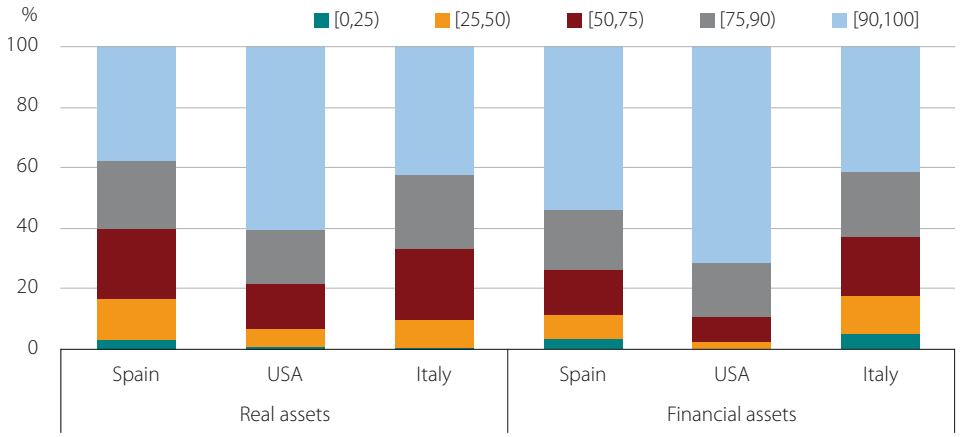
11 The households have been divided into five groups according to their level of net wealth: those belonging to the first quartile, those located between the first quartile and the median, those located between the median and percentile 75, those located between percentile 75 and percentile 90, and those which are above percentile 90. The results are available in Ispierto and Villanueva (2011), *La inversión de los hogares españoles: una comparación con EE.UU e Italia*, in CNMV, Working Paper No 45.

households belonging to the 25% with the lowest level of net wealth own real assets, with the exception of the category "other real assets" in the case of Italy). These results are in line with those obtained in Bover *et al.* (2005),[12] where, according to the data from the wave of the EFF corresponding to 2002, we can see that in Spain for the 20% of households with lowest income the percentage of households owning the home in which they live is much higher than in the United States, Italy and the United Kingdom. Similarly, Bover *et al.* (2005) also find a relatively high percentage of Spanish households which own additional real estate properties other than the main residence.

This wealth effect can also be seen when the distribution of the total investment in real assets is analysed according to characteristics. Accordingly, figure 1 shows that there is a growing relationship between the level of net wealth and the quantity invested in real assets. Nevertheless, there are significant differences between the different economies. On the one hand, in Spain a greater amount is invested in real assets by households with a lower level of net wealth when compared with the United States and Italy. On the other hand, the concentration of investment in this type of asset in the last decile of net wealth is much higher in the United States than in Spain and Italy.

With regard to the other characteristics, and always bearing in mind the proportion of households which belong to each group, there are no significant differences for each net wealth percentile between the investment in real assets made in each country.

Distribution of total investment of households in real and financial assets according to net wealth percentile FIGURE 1



Source: CNMV.

With regard to financial assets, and unlike the situation with real assets, there is a positive relationship between the educational level of the head of household and the proportion of households which own these assets (see figure 2). In general, a greater percentage of households whose head has university studies decide to invest in this

12 See O. Bover, C. Martínez-Carrascal and P. Velilla (2005), "La situación patrimonial de las familias españolas: una comparación microeconómica con Estados Unidos, Italia y el Reino Unido", in Bank of Spain, *Boletín Económico*. 4/2005 pp.111-133.

type of asset. In the case of Italy this effect is less pronounced as most investors in financial assets are among the households which have undertaken both secondary and university studies.

As shown in figure 2, in Italy and Spain (and not in the United States), the relationship between the decision to invest in fixed income assets and the level of studies of the head of household is less pronounced than for the case of listed shares or mutual funds. With regard to the same asset, we can see that the age of the head of household has the opposite effect in Spain and Italy than in the United States: in the first two countries, a greater percentage of households whose head is over 55 invest in this type of asset, while in the United States it is households with a head of household up to 54 that invest most in this type of asset.

As in the case of investment in real assets, the level of net wealth is the most influential variable when taking the decision to invest in financial assets, with this relationship being more pronounced than in the case of real assets. On observing the distribution of the total invested in financial assets, we can see a growing pattern with the level of net wealth, which is especially marked in the United States, where 10% of the richest households own over 70% of the total investment in financial assets (see figure 1). This growing pattern is more pronounced than in the case of real assets both in Spain and in United States, whereas in Italy the distribution of financial assets is a little less concentrated in the higher levels of net wealth. It is noteworthy that in Italy, the households belonging to the first quartile of net wealth own 5.3% of the total financial assets, but only 0.3% of total real assets.

With regard to the other characteristics, it is noteworthy that the households with university studies have a high percentage of total investment, above all in the United States, although it is worth noting that the United States also has a greater proportion of this type of household.[13] However, if controlled by net wealth percentiles, we can see that these households tend to belong to a greater extent to the high net wealth percentiles. Even so, the effect of education is still significant within each percentile, with this effect strongest in the United States and most moderate in Italy.

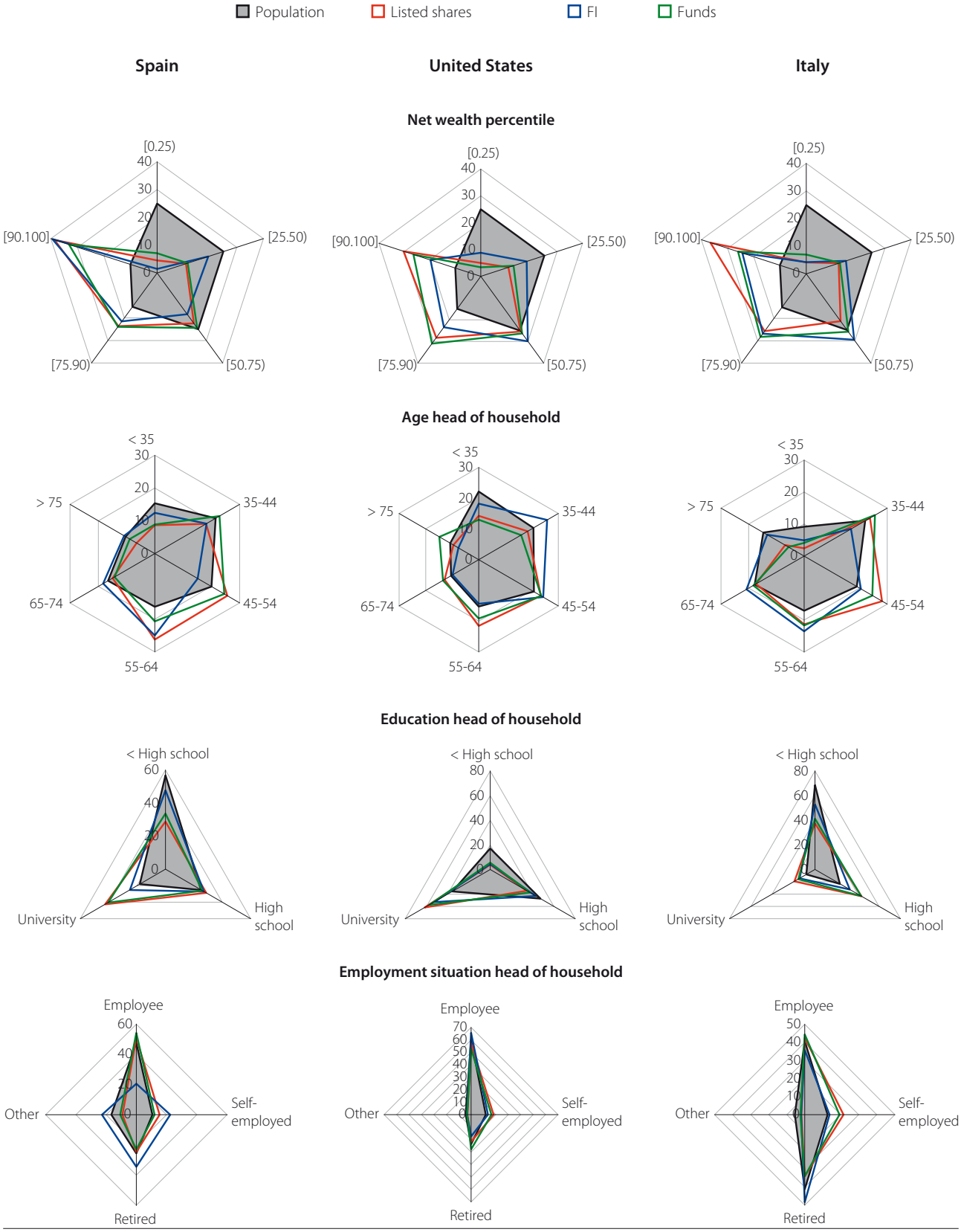
The effect of age is similar in the United States and Spain, where middle-aged households (head of household between 45 and 64 years old) are those which invest the highest quantities in financial assets, above all to the detriment of young households (head of household under 45 years old). This does not seem to happen in Italy, where, as with the other characteristics, the distribution is spread more evenly among the groups. However, it is important to mention that this characteristic is partly influenced by the fact that more middle-aged households are located in high net wealth percentiles, if compared with the other groups.

13 Households whose head holds a university degree account for 35% of the total in the United States, while in Spain and Italy these percentages are 15 and 8% respectively.

Distribution of total households of the population and households which invest in the different financial assets according to characteristics of the household

FIGURE 2

% of total



Source: CNMV.

4 Characteristics of the investor in listed shares, fixed-income assets and mutual funds

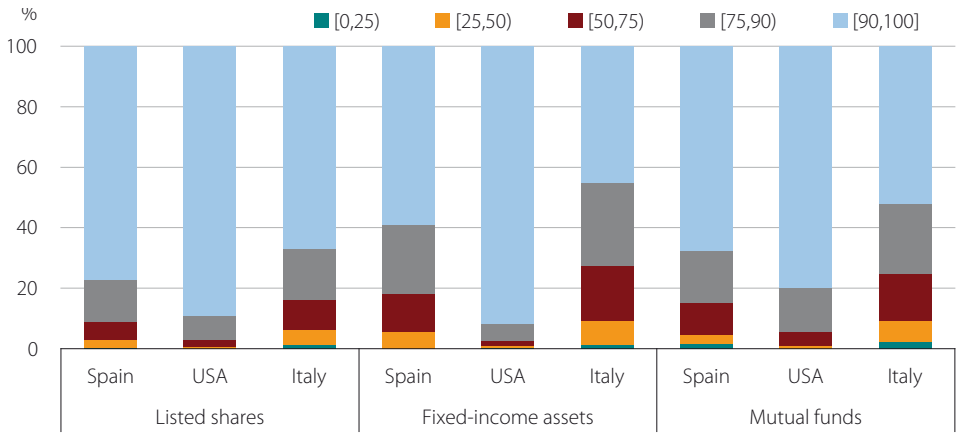
This section aims to analyse in some detail the socio-demographic characteristics which appear to affect both the decision to invest in listed shares, fixed-income assets and mutual funds and the amount of the investments in these assets. Firstly, we examine the distribution of total investment based on the different characteristics of the household. Secondly, we analyse differences between the characteristics of all households which invest in each investment asset compared with those of the total population.

In general, the amount invested in listed shares follows the same patterns observed in the case of total investment in financial assets, but in a more marked manner. The variables which in this case have greatest effect on the quantities invested in listed shares are, firstly, net wealth and, secondly, educational level. The effect of wealth is especially notable in the United States, where 89% of total investment in listed shares is in the hands of households located in the last decile of net wealth (see figure 3). With regard to the effect of education, in the United States and Spain most investment in listed shares is in the hands of households whose head holds a university degree, while in Italy it is spread, as is the case with other assets, among households with both secondary and university studies. With regard to age, the results are very similar to those for total financial assets.

The pattern of influence of the determining characteristics for the quantities invested in fixed-income assets differs between Spain and Italy, on the one hand, and the United States, on the other. While in Spain and Italy we can see that the growing relationship between the quantities invested and the level of net wealth is less sharp than in the case of listed shares, in the United States almost all investment in fixed income (almost 90%) is in the hands of the 10% of households with greatest net wealth.[14] With regard to education, in the United States over 80% of the total is in the hands of households which hold a university degree, while in Spain and Italy this investment is more evenly spread. In those two countries, the effect of education on the quantities invested in fixed-income assets is less accentuated than in the case of listed shares, while in the United States it is more accentuated.

14 Even though almost all investments in fixed-income assets are in the hands of this group, the quantities invested account for a low proportion within their financial portfolio. This exaggerated result is basically a consequence of the fact that for households with lower levels of net wealth, the quantities invested in fixed income are extremely low if we compare them with the quantities invested in other assets, such as listed shares or mutual funds. As an example, the median investment in fixed income of the first four groups of net wealth (excluding the 10% of households with greatest wealth) is approximately 10 times lower than that of the investment in listed shares and 25 times lower than that of mutual funds.

Distribution of total investment of households in listed shares, fixed-income assets and mutual funds according to net wealth percentile FIGURE 3



Source: CNMV.

On the other hand, there seems to be a positive relationship between the quantities invested in fixed income and the age of the head of household. In the case of Spain, the households with a head over 65 years old and an average level of net wealth invest more in these assets than in the other financial assets.[15] We can find similar results in Italy, whereas in the United States, while still the country with greatest investment in fixed income by the oldest households, this investment is concentrated in the households with greatest net wealth.

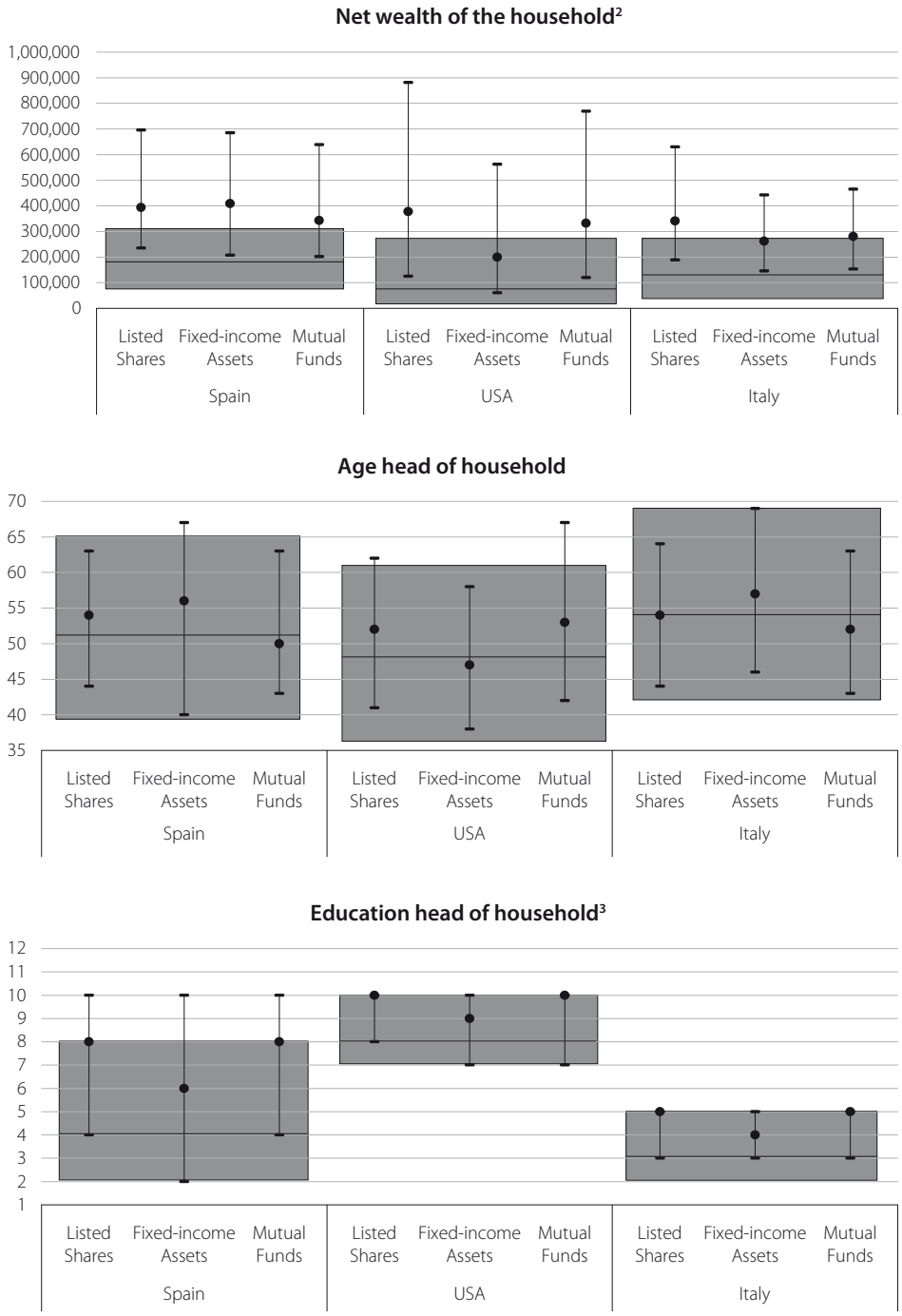
The distribution of the total invested in mutual funds is similar to that of listed shares, although in the three countries the distribution according to net wealth is somewhat less biased towards the households with the highest levels of wealth. The same happens with educational level: in the three countries the effect of educational level on the total quantity invested is lower than in the case of listed shares. However, in Italy and Spain this effect is greater than in the case of investment in fixed-income. The patterns for age are the same as for listed shares: middle-aged households are those which invest most, partly due to them belonging to a greater extent to the highest levels of net wealth.

Furthermore, if we compare the characteristics of the set of investors in listed shares and those of all households of the population, in all three countries we can see that these investors have a slightly higher age than the population as a whole (except in Italy), a higher educational level and substantially higher net wealth (see figure 4). The differences between the countries are very small. In addition to the differences mentioned above regarding age, in Spain the differences of education between the set of investors in listed shares and the population as a whole are greater than in the other two countries. The spread in the distribution of net wealth for investors in listed shares in the United States is much greater than in Spain, which in turn is greater than in Italy.

15 For households whose head is over 65 and which are located between percentiles 25 and 75, the investment in fixed income, in median terms, represents around three-quarters of the total invested by the households in financial assets, while for all households this figure is approximately 25%.

Distribution of the main characteristics of the households which hold listed shares, fixed-income assets and mutual funds[1]

FIGURE 4



Source: CNMV.

1 The figures show the first, second (median) and third quartile for all investors in each one of the assets and for all households of the population (grey box).

2 2005 euros.

3 In Spain, the values are located in an interval which goes from 1 to 12, where values between 1 and 5 correspond to education lower than high school, values between 6 and 9 to high school and values between 10 and 12 to university education. In the United States, this variable has been substantially modified to standardise it with the other countries and differs from that obtained in the survey. Accordingly, the variable is codified between 1 and 12, where studies lower than high school correspond to values from 1 to 6, high school corresponds to values 7 and 8 and university studies to values between 9 and 12. The variable in Italy is obtained directly from the survey and its values go from 1 to 8, with the values between 1 and 4 indicating studies lower than high school, while 5 corresponds to high school and 6 to 8 to university studies.

Analysing the set of investors in fixed-income assets, we can point out that the average age of investors is above that of the rest of the population (except in the USA, where it is slightly lower), as also happens with education and net wealth, although in the last case the difference is not as high as that seen for investors in the other financial assets analysed (except in Spain, where there is no difference).[16] It should be pointed out that in Spain the investors located between the first and third quartile are households of practically all ages, with those with a head of household of an advanced age being slightly more numerous (25% of investors are over 67). Unlike the case with the other financial assets analysed, in Spain the households with less than a high school education represent a significant proportion (48% of investors).

Finally, we should point out the differences between the three countries analysed in the weight of fixed income within the financial portfolio. Investors in fixed-income assets, in average terms, have 50% of their financial portfolio invested in this type of asset in Italy, 34% in Spain and only 10% in the United States. In other words, as has been mentioned throughout the document, in the United States holdings of this asset account for a relatively low percentage compared with the investment in other types of financial assets. For many households in Italy, investment in fixed-income assets is the main financial investment, with half of households having only this financial asset.

As can be seen for the other financial assets analysed, investors in mutual funds are on average older than the population (except in the case of Italy). In this regard, the case of United States is noteworthy, where the differences in age between the investors and the population are very significant. In addition, both the education and the wealth of these investors are greater than those of the rest of the households in all three countries. In the case of listed shares, many investors in mutual funds hold a university degree in Spain, 39%, a fairly high percentage bearing in mind that graduates account for 15% of the Spanish population. Similarly, investors in mutual funds in Italy, as with investors in fixed-income assets, have a net wealth lower than that of investors in listed shares, although in all cases greater than the population as a whole. With regard to financial portfolio of investors in mutual funds, the amount invested in this type of instrument is relatively high and greater than that seen for investors in the other financial assets studied, especially in Spain, where the quantity invested in mutual funds accounts for on average 45% of total financial assets, and in the United States, where it accounts for 35%.

5 Conclusions

The Survey of Household Finances (EFF) contains individualised information on the investment position of Spanish households. There are similar surveys in other countries which allow us to compare on an international level the behaviour of

16 For the case of the United States, if public and private fixed income are analysed separately, we can see that private fixed income, which accounts for a lower proportion (see table 1), is very much influenced by the level of wealth whereas investment in public fixed income is a lot less influenced by wealth. Accordingly, for example, of all the households which hold private fixed income, over 62% belong to the last decile of net wealth, while this percentage is 19% in the case of public fixed income.

households when investing in different types of assets. Specifically, we have used the household surveys performed in the United States and Italy, the Survey of Consumer Finances (SCF) and the *Indagine sui Bilanci delle Famiglie* (IBF), respectively.

From a first analysis, we can conclude that in the United States, in general, households tend to invest to a greater extent in financial assets, and they also invest greater quantities. One exception would be bank deposits, which although held by more households than in Italy and Spain, they account for a much lower percentage of the portfolio in the United States. Accordingly, we can state that US households invest more in those financial assets which are the main study focus of this paper (listed shares, fixed-income assets and mutual funds). On the other hand, the United States is the country where the lowest percentage of households own their own home.

Given that the surveys analysed make it possible to relate different socio-demographic characteristics of households with the investments made, we have used this information to determine the similarities and differences between countries. Of all the household characteristics studied in this article (age, education and employment situation of the head of household and net wealth of the household), for all three countries the net wealth of the household is the most influential variable, both in the decision to invest in financial assets and in the quantities invested. In particular, Spain is the country where the wealth effect when deciding to invest in listed shares, fixed-income assets or mutual funds is greatest (50% of the households with lowest wealth hardly invest in these assets). On the other hand, with regard to the total quantities invested in these assets, this effect is much more noticeable in the United States than in Spain, and more noticeable in Spain, in turn, than in Italy. With regard to real assets, we can see that, while a relatively high percentage of Spanish households belonging to the first quartile of net wealth own real estate property, in the United States and Italy this value is much lower, especially in Italy.

Of the other household characteristics, the only one which seems to have an effect on the investment in financial assets, after controlling for level of wealth, is the educational level of the head of household. Accordingly, we can see that the higher the level of education, the greater the tendency to invest in listed shares, fixed-income assets or mutual funds. Specifically, in the United States and Spain, those households whose head has a university degree tend to invest more in these assets. In Italy, this effect is much more moderate as investments are largely made both by households with university studies and with secondary studies.

Similarly, other important conclusions can be drawn with regard to investment in listed shares, fixed-income assets and mutual funds. Firstly, investors in the United States diversify more than in the other countries, in the sense that they have a greater number of different financial assets, with the case of investors in listed shares being especially noteworthy. Secondly, in the three countries the profile of investors in listed shares and mutual funds is very similar, with the effect being somewhat more moderate for educational level and net wealth for this asset. This is especially true for Italy, where the level of net wealth of investors and mutual funds is substantially lower than that of investors in listed shares.

Finally, it is important to point out that investment in fixed-income assets shows fairly uneven characteristics between countries. On the one hand, both in the Unit-

ed States and in Italy, unlike in Spain, a substantial number of households invest in these assets. However, the quantities invested by households in the United States are generally much lower than those invested in Spain and Italy. On the other hand, the investor profile is somewhat different in the three countries: (i) a substantial part of Italian and Spanish investors are older, unlike in the United States, where these households are much younger; and (ii) the net wealth of the households which hold fixed-income assets in the United States and Italy is significantly lower than that of investors in listed shares and mutual funds, although greater than that of the population as a whole.

Economic and financial performance of listed companies in 2010

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1 Introduction

This article contains an analysis of the key highlights of the financial information contained in the 2010 reports[1] submitted to the CNMV by issuers.

The aggregate information analysed relates to the turnover, results, financial position, cash flows, number of employees and dividends paid. The companies analysed, totalling 177, operate in the following sectors: energy (11 companies), retail and services (46 companies), construction and real estate (33 companies), manufacturing (51 companies), banking (11 entities), savings banks (23 entities) and insurance companies (2 companies).

The data for analysis are obtained from the consolidated or individual periodic financial reports,[2] submitted to the CNMV by the issuers of shares or debt that are listed on a regulated Spanish market,[3] where Spain is the home Member State. The aggregate figures exclude issuers that are subsidiaries of another listed group. However, when such issuers carried on their activity in a sector other than that of the parent company, their financial data are included in the figures for their sector.[4]

In section 2 of this article we analyse the development of turnover, in section 3 we analyse the performance of earnings, and in section 4 we analyse the return on equity and investment. In section 5, we look at the debt of non-financial companies and in section 6 we analyse the development of cash flows. In section 7 and 8, we present the development of the workforce and dividends paid respectively. Our main conclusions are presented in section 9.

2 Net turnover

Figure 1 shows the year-on-year rates of change in net turnover for the period between the first half of 2006 and the second half of 2010.[5] As shown in figure 1, the year-on-year rate of change in the second half of 2010 was positive (5.2%), unlike in the second half of 2009 (-9.8%). This positive figure confirms the reversal in the trend which began in the first half of 2010, in which a positive year-on-year rate of growth was recorded for the first time since the start of the crisis.

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1 Pursuant to the provisions of Article 35 of the Securities Market Act 24/1988 of 28 July, when Spain is the home Member State, issuers whose shares or debt securities are admitted to trading on an official secondary market or on another regulated market in the European Union must publish and disseminate a half-yearly financial report for the first six months of the year and a second half-yearly financial report covering the full financial year.

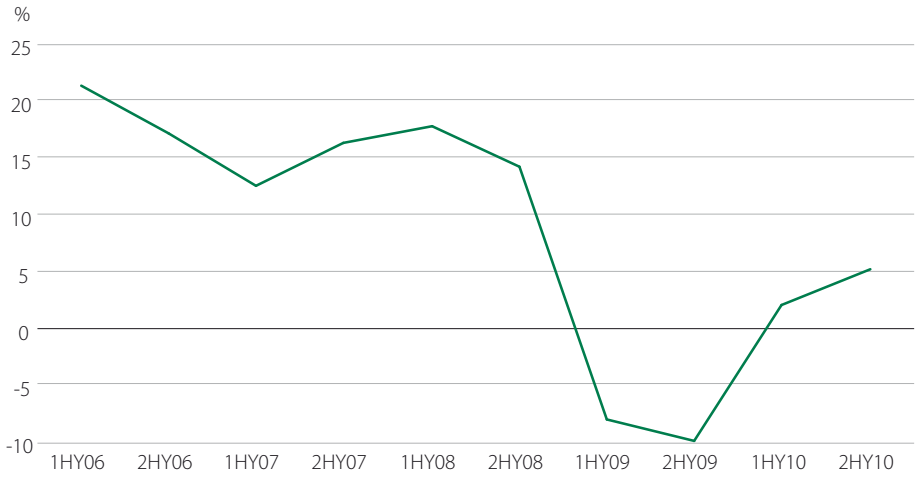
2 Submitted in the form stipulated in Circular 1/2008.

3 Except for entities that have issued preferred shares and other special purpose entities constituted for the issuance of fixed-income securities and the Spanish Official Credit Institute (Spanish acronym: ICO).

4 Data relating to periods other than the second half of 2010 have been calculated for the representative sample of the companies that were listed in the reference period.

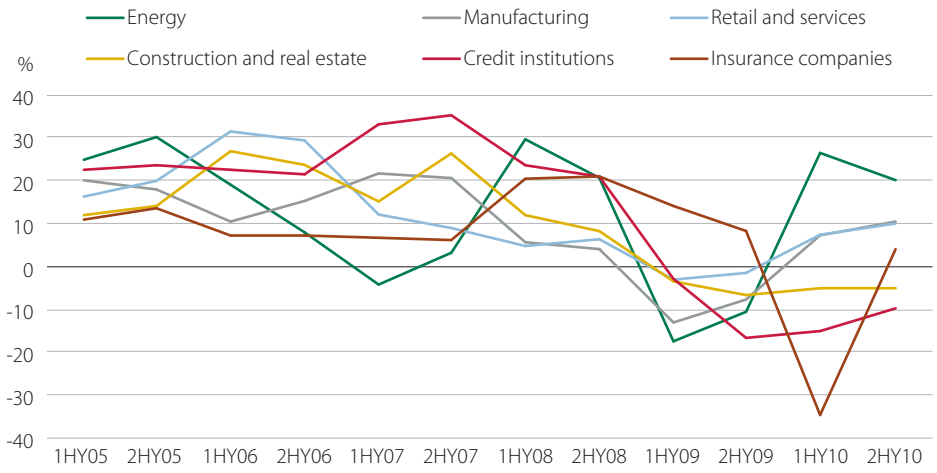
5 For credit institutions, net turnover has been taken to comprise interest income and similar income, and for insurance companies, premium income for the year from life and non-life insurance, net of reinsurance.

Rate of change in net turnover FIGURE 1



Source: CNMV.

Rate of change in net turnover by industry FIGURE 2



Source: CNMV.

Figure 2 shows the development of turnover in the different sectors. The most noteworthy aspects are described below:

– **Energy.** Turnover increased by 20% compared with the previous year. This was mainly due to: (i) the increase in the average price of crude oil - in 2010 the average price of a barrel of Brent rose by 29.2%, together with an average 4.8% rise of the dollar against the euro, (ii) certain recovery in energy demand (iii) recording the sales to suppliers of last resort as revenue from 1 July 2009,[6] and (iv) the accounting effects of business combinations in the sector.

6 Costs were previously offset by revenue. The publication of Royal Decree 485/2009 led to the change in the recording of sales to final consumers, affecting all companies in the sector, although to a different extent.

– **Manufacturing.** The performance of companies in this sector was uneven although, in general, positive with a growth rate of 10.3%. There was clear improvement in the sub-sectors of base metals and the paper and cardboard industry as a result of the reactivation of demand in steel and paper markets and a recovery in prices. As a negative aspect, the possible regulatory change with regard to renewable energies has led to a marked fall in sales of one of the main companies in the sector.

– **Retail and services.** Aggregate net turnover in this sector rose by 9.5%, with uneven performance of the different companies making up the sample. It should be pointed out that 60% of the total revenue of the sector corresponded to one single company, whose growth came from the positive contribution in Latin America as domestic sales fell as a result of lower consumption by its customers and a high level of competition in its business.

– **Construction and real estate.** The strong impact of the economic crisis on the construction and real estate sector in Spain has still not allowed it to reactivate and it is the only non-financial sub-sector which saw its turnover fall in 2010 (-5.1%). This reduction was the result of a 30.5% fall for real estate companies and a 3.5% fall for companies in the construction sector. The reduction in the net turnover of construction companies was generally due to lower revenue in the domestic market, which was partially offset by greater international activity. In the case of real estate firms, sales fell generally as a result of the fall in the residential development business, and its performance is dependent on the sales made to financial institutions in the context of refinancing processes.

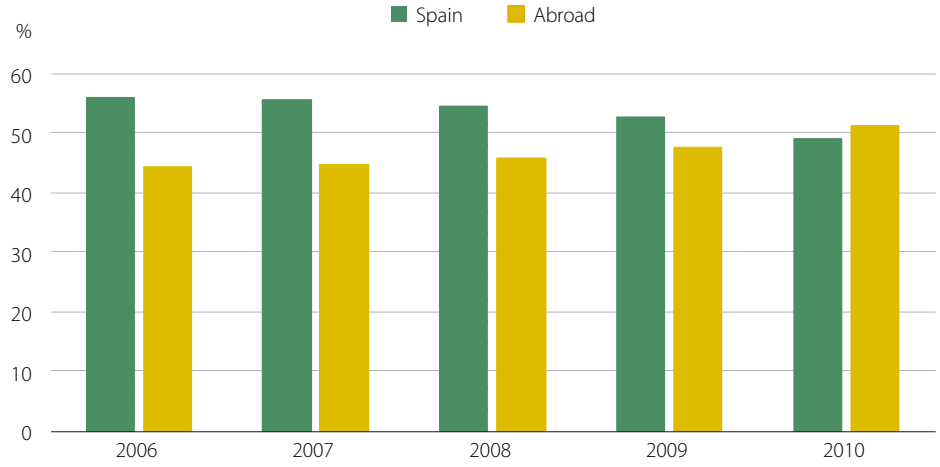
– **Credit institutions.** Aggregate revenue from interest and similar revenue recorded by credit institutions fell by 9.8% in 2010 compared with the previous year. This fall was basically due to the fall in the banking business and the reduction in interest rates of mortgage portfolios as a result of the fall in base rates at the start of 2008. Interest rates remained at very low levels over the year.

– **Insurance companies.** The amount of premiums allocated to the year, net of reinsurance, grew by 3.8% year-on-year despite the difficult economic environment and the fall in the credit insurance business. This was due to the re-insurance accepted, the sustained development of international business, mainly in America, and the increase in the volume of business in Spain thanks to a rally in life assurance of one of the companies in the sample.

Figure 3 shows the geographical turnover distribution of non-financial companies in the last five years.

In 2010, the percentage of turnover from business abroad rose by 3.6 percentage points compared with the end of 2009, up to 51%. As can be seen, the relative weight of sales generated abroad exceeded, for the first time, the turnover generated in Spain. This was largely due to corporate operations carried out by listed Spanish companies in the period 2004-2006, and to the development of companies or businesses in foreign markets and the search for opportunities abroad as a result of the weakness of demand in Spain.

Net turnover: weight of activity abroad FIGURE 3



Source: CNMV.

Table 1 shows the geographical distribution of the net turnover of non-financial companies by sector. As can be seen in this table, business abroad continued gaining relative importance in 2010 in all businesses. The most significant changes took place in the retail and services sector and the construction sector, which recorded a greater fall in domestic revenue.

Net turnover of listed non-financial companies: percentage of net turnover from foreign operations TABLE 1

	2006	2007	2008	2009	2010
Energy	37.8	41.8	42.5	43.3	44.8
Manufacturing	59.8	55.2	59.3	62.6	65.8
Retail and services	54.8	52.3	50.1	51.1	57.1
Construction and real estate	28.9	33.2	36.2	38.4	44.5
Subtotal, non-financial companies	44.2	44.7	45.5	47.4	51.0

Source: CNMV.

3 Profit/Loss

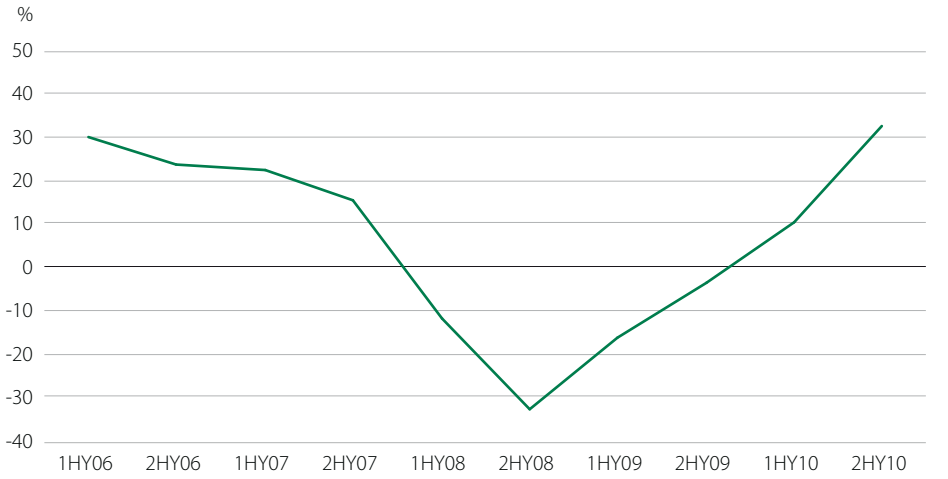
Figure 4 shows the year-on-year rates of change in the aggregate profit/loss before tax on listed companies for continuing operations from the first half of 2006.[7] The figure shows that the second half of 2010 saw a significant rise in profits (32.9%), which confirms the positive change in the trend, which began in the first half of the year. However, a significant part of the recorded increase was due to accounting

7 Profit or loss before tax, excluding the results of discontinued operations, which are generally significant business lines or geographical areas which the company has either disposed of, or plans to dispose of, within the next 12 months.

gains for a gross amount of 5,802 million euros recorded by two companies in the sample which belong to the retail and services sector and the construction and real estate sector. These gains, which did not result in a cash inflow to the companies, were the result of corporate operations which involved an increase or decrease in the level of significant influence in investee companies, and which involved the re-measurement at market prices of the retained or pre-existing shareholding in accordance with the new accounting standards applicable to these types of operations.[8] If we exclude this effect, the rate of change in profits before tax in 2010 would have been 21.7%.

Figure 5 shows the trend for profit/loss before tax for different sectors. As can be seen, the trend was favourable for all the sectors, but especially so for manufacturing companies and construction and real estate companies. Table 2 shows the key margins of the income statement corresponding to 2010 and 2009. This information shows that the figures analysed developed positively in all sectors, except for the profit/loss for the year in the case of credit institutions.

Year-on-year rate of change of profit before tax FIGURE 4

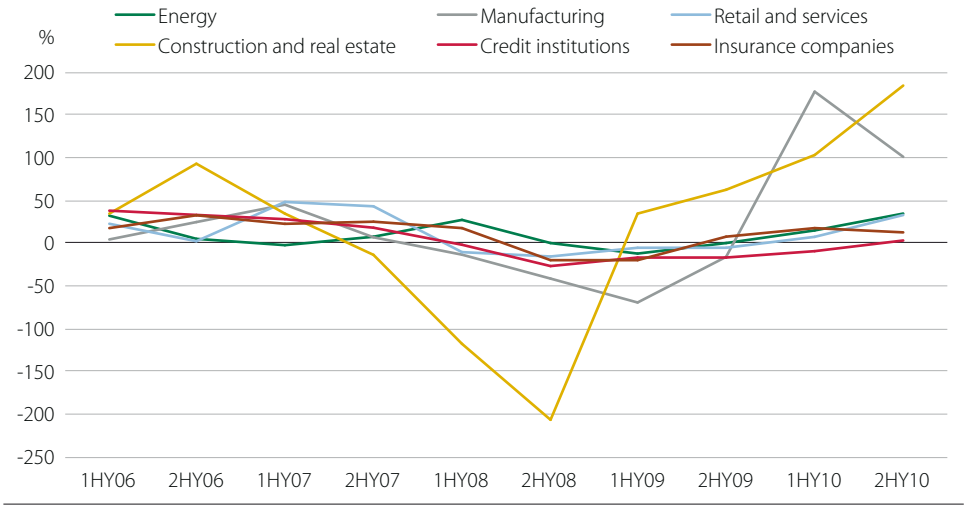


Source: CNMV.

8 In January 2008, the IASB published the revised IFRS 3 on business combinations, the revised IAS 27 on consolidated and separate financial statements, the revised IAS 28 on investments in associates and the revised IAS 31 on interests in joint ventures, applicable for financial years starting from 1 July 2009. This modification of the accounting standards involves substantial changes in the accounting registration of the acquisition or disposal of minority interests when control is held, and in the changes of interests which involve an increase or decrease in the level of significant influence. This may involve recording very significant results as a result of re-measurements of previous existing or residual held interests.

Year-on-year rates of change of profit before tax by industry

FIGURE 5



Source: CNMV

EBITDA,[1] operating profit/loss and profit/loss for the year

TABLE 2

	EBITDA			Operating profit/loss			Profit/loss for the year		
Million euros	**2009**	**2010**	**Change (%)**	**2009**	**2010**	**Change (%)**	**2009**	**2010**	**Change (%)**
Energy	28,487	34,974	22.8	18,034	23,315	29.3	11,472	15,761	37.4
Manufacturing	5,147	7,085	37.7	2,926	4,737	61.9	1,433	3,329	132.3
Retail and services	29,779	34,196	14.8	17,931	21,830	21.9	11,270	14,354	27.4
Construction and real estate	4,643	8,936	92.5	1,595	5,658	254.7	1,085	1,798	65.7
Credit institutions	–	–	–	23,564	24,405	3.6	19,512	18,415	-5.6
Insurance companies	–	–	–	–	–	–	1,074	1,273	18.5
Total[2]	**67,775[3]**	**85,012[3]**	**25.4[3]**	**63,943[4]**	**79,937[4]**	**25.0[4]**	**44,518**	**53,096**	**19.3**

Source: CNMV.

1 EBITDA = Operating profit/loss + depreciation/amortisation of fixed assets

2 For groups, the total only includes the consolidated data provided by the parent company, excluding any other listed company in the group. The total differs from the sum of the values shown for each sector as a result of the adjustments made.

3 Excluding credit institutions and insurance companies.

4 Excluding insurance companies.

The number of companies presenting net losses fell compared with the previous year (47 companies in 2010 compared with 54 in 2009). Similarly, the aggregate amount of losses fell by 54.8%, from 6,654 million euros in 2009 to 3,001 million euros in 2010. In this regard, it should be pointed out that 16 companies, whose aggregate losses in the previous year totalled 1,352 million euros, recorded profits in 2010 for a total amount of 2,170 million euros.

Real estate companies continued to record most of the losses. Between 2008 and 2010 the sector accumulated losses of 14 billion euros, of which 2,317 million euros were generated by 15 of the 24 companies included in 2010.

By sector, the highlights are as follows:

– **Energy**. The improvement in results was largely due to non-recurring operations involving the sale of assets in three companies of the sub-sector, which generated approximate gains of 5,029 million euros. In addition, the result was favourably affected by the rise in the price of raw materials and the recovery in energy demand. Moreover, the statistical effects resulting from the consolidation of two companies in the sample also contributed to the increase in results attributable to the year.

– **Manufacturing.** 2010 saw a significant improvement in the margins of companies as a result of the finalising of the restructuring processes carried out in previous years, which have allowed them to adapt their fixed cost structure to the new demand conditions. Accordingly, EBITDA, operating profit/loss and the profit/loss for the year in the sector increased in 2010 by 37.7%, 61.9% and 132.3% respectively, while turnover increased by 10.3%. In this sector, it is important to point out the positive performance of paper companies and base metal companies, which thanks to the rise in prices and the increase in demand, improved their results significantly compared with the previous year.

– **Retail and services.** Companies in this sector performed unevenly in 2010, with a similar number of companies which improved their results to those which obtained worse results. The increase in operating profit (21.9%) was greater than the increase in sales (9.5%) mainly due to other revenue resulting from changes in the ownership of investee companies. In this regard, as mentioned above, one company in the sample, which accounts for 70.2% of the total results for the sector, re-measured its pre-existing shareholding in an investee company, recording a gain of 3,797 million euros.

– **Construction and real estate.** This sector as a whole improved its intermediate margins - EBITDA, operating profit/loss and profit/loss for the year - by 92.5%, 254.7% and 65.7% respectively. The increase in the operating profit was much greater than the profit for the year as a result of the recognition in 2009 of non-recurring profits of 3,033 million euros corresponding to disposals of shareholdings by various construction companies, which were recorded as discontinued operations.[9]

  In addition, margins in 2010 were affected by the sale of 10% of the capital of an investee company, which generated accounting gains for a gross amount of 2,005 million euros as a result of the re-measurement of the retained shareholding. If we eliminate the accounting adjustment of this re-measurement, which does not involve cash generation for the company, the operating margins of the sector as a whole would have improved by 49.3% (EBITDA) and 129% (EBIT).

  By sub-sector, it should be pointed out that the results for construction companies improved in general, showing positive margins. In contrast, those corresponding to the real estate sector continued to be negative, although with an

9 Taxes and profit/loss from discontinued operations (net of taxes) are included between "profit/loss before tax" and "profit/loss for the year" in the income statement.

adjustment which was less intense than in the period 2007-2009.[10] The debt of listed real estate companies continued affecting their income statement, with their financial expenses accounting for approximately 49% of their turnover.

– **Credit institutions.** The transfer of the falls in interest rates to the credit investment portfolio, the increase in risk premiums of new issues of wholesale financing and the intensification of competition to acquire customer deposits had a negative impact on interest margins for banks and, especially, savings banks over the year. The rates of change of 3.7% and -22.3% respectively, were much lower than the 32.9% and 9.3% recorded in 2009.

  The significant increase in allocations to provisions for impairment in previous years reversed in 2010, with a fall of 13.4% in the case of banks and 45.4% in the case of savings banks. The aforementioned provisions absorbed 25% and 19% of the gross margin respectively.

  In previous years, credit institutions used cost reduction policies to partially offset the effects of the reduced increase in their activity and the increase in delinquency on their results. In contrast, in 2010 operating expenses increased by 9.5% in banks, above the 1.7% growth in gross margin, mainly due to the investment plans in emerging countries leading to greater general and administration expenses of the new acquisitions. These expenses increased by 4.7% in savings banks as a result of the costs and provisions associated with the branch closure plans, compared with a 7.5% reduction in the gross margin. This increase in operating expenses led to worsening efficiency ratios[11] in both cases, which at the close of 2010 stood at 43.8% for banks and 52.1% for savings banks, compared with 40.7% and 46% respectively in the same period the previous year.

– **Insurance companies.** Net profit for the year increased by 18.5% mainly due to the positive performance of the results of the credit insurance business in one of the companies of the sample. This was a consequence of the reduction in claims as a result of portfolio selection policies, repricing and the "base effect" resulting from the intense growth in defaults up to the second quarter of 2009.

4 Return on equity (ROE) and return on investment (ROI)

Figure 6 shows the trend for ROE and ROI[12] since 2006. ROE in 2010 improved with respect to 2009 as a result of the improvement in profits, while ROI fell slightly compared with the previous year.

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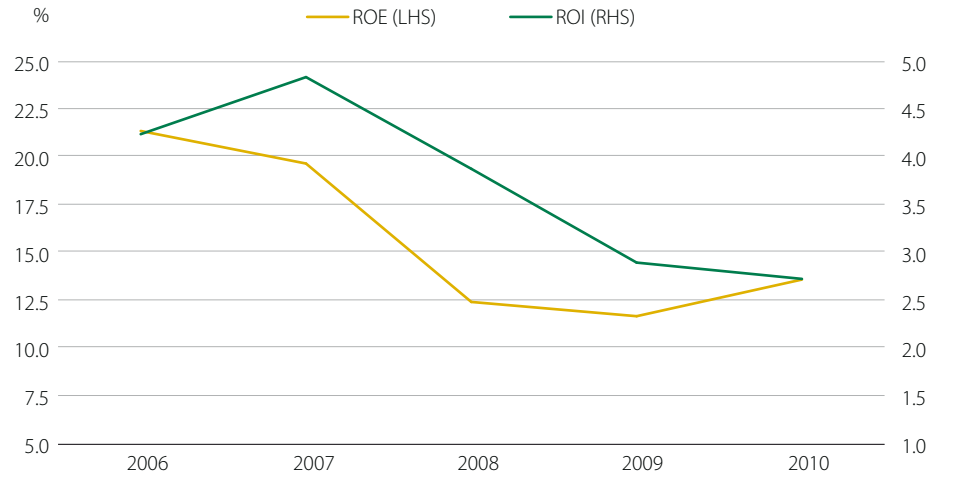
10 EBITDA, EBIT, the profit/loss before tax and the profit/loss for the year amounted to -1,152, -1,235, -2,144 and -2,309 million euros, compared with -2,056, -2,140, -3,329 y -2,886 million euros in 2009.

11 This is an indicator of an institution's level of efficiency and is determined as the percentage of the gross margin absorbed by general expenses (personnel expenses and other general administration expenses).

12 For the definition of ROE and ROI used in this article, see 'Economic and financial performance of listed companies in the first half of 2009', by Belén de Anta Montero and Óscar Casado Galán, published in the CNMV fourth-quarter bulletin (pp. 41-54). Available at http://www.cnmv.es/DocPortal/Publicaciones/Boletin/BulletinQIV_weben.pdf

ROE and ROI FIGURE 6



Source: CNMV.

Tables 3 and 4 show the trend of ROE and ROI for the different sectors. All sectors, except for credit institutions,[13] showed an improvement in their ratios compared with the previous year, although returns on equity and on investment continue to be lower than those obtained prior to the crisis.

In the case of credit institutions, in 2010 stagnation in ROE was the result of the combined effect of the worsening of the ratio in banks (due to the sluggishness in profits compared with the increase in equity) and the improvement in savings banks (due to the adjustments against equity performed as a result of the concentration process). The fall in ROI was the result of the reduction in net profit before interest.

ROE TABLE 3

%	2006	2007	2008	2009	2010
Energy	18.6	15.9	19.5	13.2	16.2
Manufacturing	20.6	17.7	10.6	6.3	13.8
Retail and services	27.6	32.4	20.1	19.3	21.9
Construction and real estate	29.8	18.3	-17.6	3.7	6.6
Credit institutions and insurance companies	19.1	19.1	13.0	10.4	10.3
Total	**21.4**	**19.7**	**12.4**	**11.7**	**13.6**

Source: CNMV.

13 With regard to credit institutions and insurance companies, the inclusion of credit institutions which issue fixed-income securities, mostly savings banks, which were not required to report periodic information in 2007 and previous years, accentuated the fall in ROE in 2008.

ROI TABLE 4

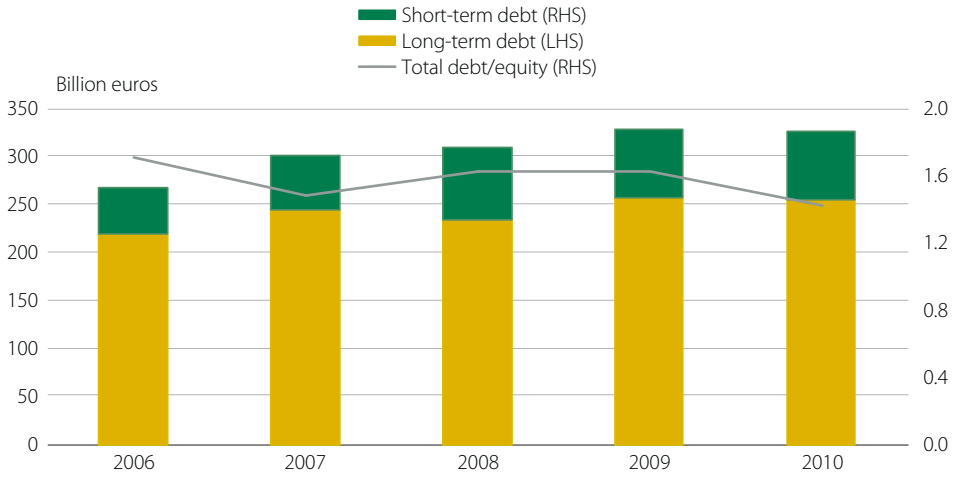
%	2006	2007	2008	2009	2010
Energy	9.6	9.1	10.5	7.2	9.1
Manufacturing	11.6	11.5	7.7	4.9	9.1
Retail and services	10.8	12.1	8.3	7.7	9.4
Construction and real estate	10.1	7.8	0.4	3.2	4.5
Credit institutions and insurance companies	3.0	3.8	3.8	2.5	2.0
Total	**4.2**	**4.8**	**3.9**	**2.9**	**2.7**

Source: CNMV.

5 Debt

Figure 7 shows the trend of gross debt[14] (in million euros) for companies in the sample, excluding credit institutions and insurance companies.

Debt structure and leverage ratio of non-financial listed companies FIGURE 7



Source: CNMV.

At the end of 2010, gross financial debt totalled 326,769 million euros, remaining practically stable with respect to the volume recorded in the previous year of 327,958 million euros. The percentage of short-term debt remained at 2009 levels, closing 2010 at 21.9% of the total (21.6% in 2009).

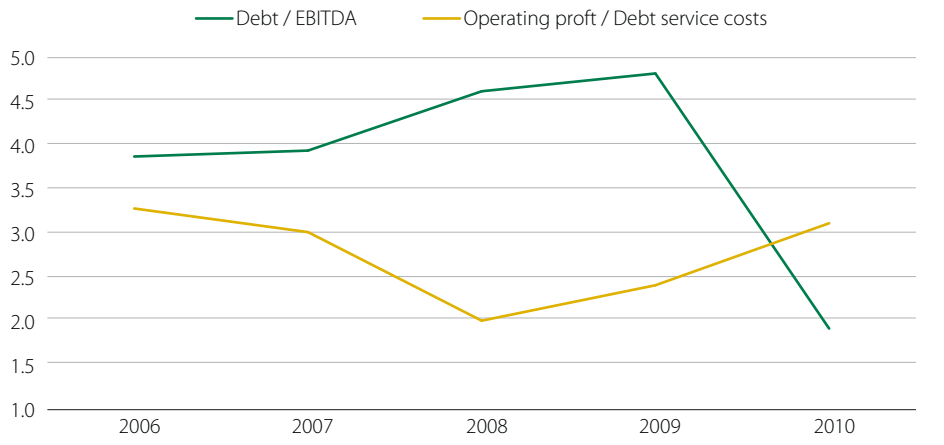
The aggregate leverage ratio, which compares debt to equity, was 1.43 in 2010, compared with 1.63 at the end of 2009, thus reverting the upward trend of previous years. Given that the level of debt remained practically stable, the improvement was mainly due to the increase in equity. This was basically due to the gains recorded for

14 Gross financial debt is defined as the sum of debts with credit institutions and issues of debentures and tradable securities.

divestments and as a result of the re-measurements to market prices carried out for retained or pre-existing shareholdings in corporate operations.

Figure 8 shows the trend in debt-to-EBITDA and the debt service coverage ratios. The ratio of total debt/EBITDA, which measures the number of years necessary to pay the debt taken on if EBITDA remains constant, improved in 2010, breaking the negative trend of previous years, and stood at 3.8 years (4.8 years in 2009). The debt service coverage ratio (EBIT/financial expenses) rose to 3.1 times (2.4 times in 2009). The improvement in both indicators is mainly due to the improvement in results in the energy sector, the retail and services sector and the construction and real estate sector as a result of the aforementioned gains recorded by several companies in the sample. Excluding the effect of these companies, both ratios improved, but to a lesser extent.

Coverage ratios FIGURE 8



Source: CNMV.

Table 5 shows the trend in the level of debt and the key related ratios by sector, which improved for all sectors.

The retail and services sector was the only sector which recorded an increase in its level of debt in 2010. This was due to the debt issues made by two companies in the sample. However, all the ratios considered also improved in this sector, mainly as a result of the improvement in profits due to the gains recorded in one of the companies in the sample, which did not involve a cash inflow.

The construction and real estate sector maintained its efforts to reduce its level of debt, which in aggregate terms fell by 4,845 million euros. This reduction was a consequence of the sale of assets, the capitalisation of debt and the effect of the reclassification carried out by one company in the sample of part of its financial debts to the heading of "non-current liabilities held for sale" on the balance sheet, for an amount of 1,469 million euros. Despite the improvements, the sector continued recording the highest levels of financial risk, with ratios which are very far from the values seen in other sectors and those seen prior to the crisis.

Trend of debt by sector TABLE 5

		2006	2007	2008	2009	2010
Energy	**Debt**	**59,191**	**69,172**	**82,608**	**100,572**	**98,283**
	Debt/Equity	0.89	0.78	0.89	1.08	0.95
	Debt / EBITDA	2.17	2.48	2.82	3.46	2.81
	Operating profit/Debt service cost	4.65	4.10	3.67	3.38	4.15
Manufacturing	**Debt**	**15,684**	**13,312**	**15,645**	**15,953**	**14,948**
	Debt/Equity	0.78	0.61	0.69	0.69	0.58
	Debt / EBITDA	2.07	1.82	2.71	3.05	2.11
	Operating profit/Debt service cost	5.71	5.93	3.41	3.15	5.00
Retail and services	**Debt**	**91,522**	**96,941**	**112,322**	**108,579**	**115,413**
	Debt/Equity	2.52	1.70	2.14	1.78	1.60
	Debt / EBITDA	3.58	3.01	3.58	3.70	3.38
	Operating profit/Debt service cost	2.44	3.23	2.86	3.28	3.94
Construction and real estate	**Debt**	**111,000**	**138,933**	**119,788**	**104,762**	**99,917**
	Debt/Equity	3.10	3.08	3.77	4.08	3.42
	Debt / EBITDA	11.52	10.83	31.87	22.48	11.18
	Operating profit/Debt service cost	2.04	1.17	0.01	0.31	0.98
Adjustments*		**-11,199**	**-17,391**	**-20,802**	**-1,908**	**-1,792**
Total	**Debt**	**266,198**	**300,967**	**309,561**	**327,958**	**326,769**
	Debt/Equity	1.71	1.48	1.63	1.63	1.43
	Debt / EBITDA	3.86	3.96	4.63	4.82	3.84
	Operating profit/Debt service cost	3.29	3.03	2.01	2.42	3.12

Source: CNMV.

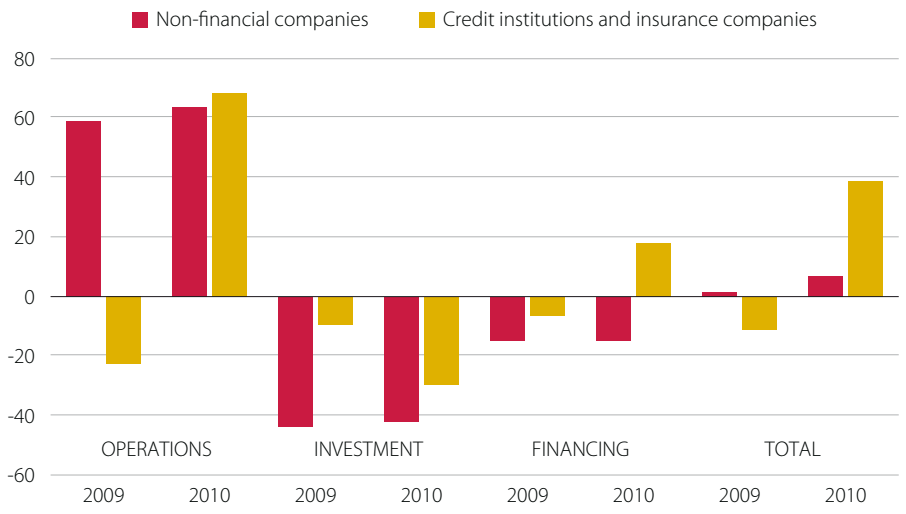
* In the adjustment row, the data on issuers that are subsidiaries of another listed company belonging to a different sector are eliminated.

6 Cash flows

Figure 9 shows the aggregate changes in cash flows generated in 2009 and 2010 by the companies in the sample, distinguishing between flows arising from operations, investments and financing. Total flows correspond to the changes in cash and cash equivalents over the period. In addition, non-financial companies are separated from credit institutions and insurance companies given the different nature of their activities.

Cash flows FIGURE 9

Million euros



Source: CNMV.

The trend in cash flows in 2010 was uneven between different sectors, as described below.

– **Non-financial institutions.** In aggregate terms, cash flows generated in operating activities rose by 7.1% (4,232 million euros) compared with the previous year. In addition, net investments in the period and negative flows from financing activity fell by 1,686 million euros and 213 million euros respectively compared with 2009. As a consequence, the net amount of cash and cash equivalents at the end of the period rose by 6,861 million euros (238 million euros in 2009). A large part of this increase was the result of the capital increase by one company in the sample in December 2010. This led to a cash inflow of 3,234 million euros. With regard to cash flows from financing activities, there was a significant fall in dividends paid, which dropped by 6,694 million euros, due to the fact that in the first half of 2009 one company in the sample paid an extraordinary dividend of 6,243 million euros.

– **Credit institutions and insurance companies.** The anti-crisis schemes implemented by different governments and by the European Central Bank from the second half of 2008 have mitigated the liquidity problems of credit institutions as a whole. At the close of 2010, the cash flow statement of credit institutions as a whole reflected a net increase in cash and cash equivalents of 38,509 million euros, compared with a fall of 10,350 million euros in 2009. As a whole, banks managed to increase cash flows by 40,719 million euros thanks to the generation of 61,355 million euros in operating activities. This amount was reduced by the negative cash flows of 26,662 million euros from investment and financing activities. In contrast, savings banks saw a 2,209 million euro fall in cash flows as the results obtained from operating activities, 6,442 million euros, and from financing activities, 5,768 million euros (much lower than those obtained in 2009, for an amount of 14,846 million euros, as the consequence of the crisis in wholesale financing markets) which were not sufficient to offset the 14,422 million euros applied to investment activities. For insur-

ance companies, the highlight was the net increase of 227 million euros in cash at the end of 2010, compared with a fall of 303 million euros in 2009. This was mainly due to the positive generation of funds from operating activities (614 million euros) compared with a fall of 651 million euros in the previous year.

7 Number of employees

Table 6 shows the average and aggregates workforce for the six sectors analysed in 2009 and 2010, with a year-on-year increase of 2.7% in the average workforce between the two years.

Average workforce by sector TABLE 6

	2009	2010	% change
Energy	131,752	134,062	1.8
Manufacturing	237,689	243,617	2.5
Retail and services	535,075	567,074	6.0
Construction and real estate	419,032	415,857	-0.8
Credit institutions	409,567	422,694	3.2
Insurance companies	40,440	41,504	2.6
Adjustments*	-6,515	-10,768	65.3
Total	**1,767,040**	**1,814,040**	**2.7**

Source: CNMV.

* In the adjustment row, the data on issuers that are subsidiaries of another listed company belonging to a different sector are eliminated.

In 2010, the average workforce increased in all sectors, except in the construction and real estate sector. The increase in the number of workers was greatest in the retail and services sector. Most of the retail and service companies increased their workforce. However, the most significant increases took place in Latin America and as a result of corporate operations.

The aggregate workforce in credit institutions grew in 2010, although unevenly. The aggregate workforce in banks rose by 1.1%, while the aggregate workforce in savings banks rose by 10.4%, which was exclusively due to the statistical effect of having included merged savings banks in our sample which were not included in the previous year. If we exclude this effect, there was a fall of 7.1% as a result of the branch closure processes in the sector. For credit institutions as a whole, following the aforementioned correction, the workforce fell by 0.6%.

In aggregate terms, in 2010 the average annual cost per employee rose to approximately 55,100 euros, compared with 53,200 euros in the previous year.

8 Dividends

Dividends paid in 2010 totalled 19,329 million euros. Table 7 shows the dividends paid in 2010 and 2009 by sector.

Dividends paid by sector TABLE 7

	2009	2010	% change
Energy	11,745	2,959	-74.8
Manufacturing	1,543	1,378	-10.7
Retail and services	6,589	7,942,	20.5
Construction and real estate	1,455	1,329	-8.7
Credit institutions	6,999	6,081	-13.1
Insurance companies	493	494	0.2
Adjustments*	-556	-854	53.6
Total	**28,268**	**19,329**	**-31.6**

Source: CNMV.

* In the adjustment row, the data on issuers that are subsidiaries of another listed company belonging to a different sector are eliminated.

In aggregate terms, the total figure for dividends paid by listed companies fell by 31.6% in 2010. This sharp fall in the total figure of dividends paid is largely due to the 6,243 million euro dividend paid by one company in the electricity sector in the first half of 2009, resulting from the sale of assets, and the time cut of the dividends of two companies in the sample which paid an interim dividend for 2009 in December of that year, whereas in previous years it was paid in the first half of the subsequent year. Therefore, excluding these three companies, the fall in total dividends in 2010 would have only been 0.8%.

9 Conclusions

The aggregate net profit of listed companies as a whole in 2010 rose by 19.3% compared with the previous year. If the results were adjusted for the accounting gains recorded in the year by two companies in the sample,[15] the rate of change would still be positive and significant, although it would fall to 10.2%. These accounting gains, which do not lead to a cash inflow in the companies, were the result of corporate operations which involved an increase or decrease in the level of significant influence in investee companies.

Aggregate results of all the sectors, except credit institutions, recorded positive rates of change of more than 10%. It should be pointed out that the operating results improved in all sectors, even bearing in mind the adjustment of the aforementioned accounting gains.

15 The adjustment in the profit/loss for the period has been estimated net of taxes applying a tax rate of 30% to the gross amount of 5,802 million euros.

The profits of credit institutions were dragged down by the provisions for delinquency, impairment losses, the maintenance of low interest rates, intensification in competition for acquiring liabilities and, to a greater extent in savings banks, by the difficulties in accessing financing in wholesale markets.

The overall positive developments in the results and revenue of listed companies took place in a context which is still characterised by significant difficulties. The factors with a negative impact on the activity and results include the general weakness of the Spanish economy, the high level of debt in companies, the reorganisation and restructuring processes in savings banks and the difficulties suffered by sectors such as the construction and real estate sector, which are attempting to offset the fall in construction activity in Spain with activity abroad and with services. Similarly, it is important to highlight that a significant number of companies, specifically 47 companies (seven less than in the previous year), of which 15 were real estate companies, recorded losses for the year.

Finally, the most recent data suggest a certain slowdown in the growth of aggregate profits in the first quarter of 2011. As a whole, according to the information available at the close of this article, the companies included in the analysed sample increased their net results in the first quarter of the year by 4.4%,[16] largely due to a fall in the results of credit institutions.

16 The percentage of change in the net result in the first quarter of 2011 with regard to the same period in the previous year has been calculated eliminating the effects of the atypical results of two companies in the sample.

III Regulatory Novelties

Customer information requirements: legislation and recent developments

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1 Introduction

The need to provide investors with suitable, understandable and useful information when purchasing a financial product or service is a basic principle of financial regulation. Many experts have indicated that the existence of certain serious information problems has been one of the causes of the current financial crisis, which further highlights the above-mentioned need for information. The benefits of providing investors with suitable information are not only materialised in fairer treatment of those investors, but also in the efficiency gains for financial markets and the economy as a whole. It also contributes towards better identification and management of the risks inherent to financial activities.

This article addresses various issues related to the customer information requirements of firms that provide investment services. In particular, it describes the information requirements with regard to financial instruments and the costs associated with the investment product or service offered to customers. It also analyses some of the barriers or obstacles which investors may face when taking suitable investment decisions, such as an insufficient level of financial education, and the measures which are being carried out to remedy this situation.

Finally, it includes some reflections and recommendations with regard to customer information arising from the document entitled *Final Report - Principles on Point of Sale Disclosure*, published by IOSCO in February 2011. The conclusions of this document were based on the answers to a questionnaire sent in July 2008 to credit institutions and investment firms, as well as consumer associations in various countries. This document includes the opinion of retail investors on the type of information which should be provided when taking an investment decision and the manner in which they prefer to receive such information. It identifies which factors influence investor behaviour and provides a detailed series of principles which should be adopted by firms so as to comply with the obligation to keep investors suitably informed.

Although the scope of the IOSCO report is limited to UCITS, the principles included therein are applicable to most investment products.

The article is structured as follows: section 2 details some of the factors which over recent years have increased the risk of unsuitable sales of financial products, section 3 analyses Spanish legislation relating to customer information, section 4 addresses the importance of financial education and section 5 presents the IOSCO analysis and recommendations on customer information. The article closes with a section of conclusions.

2 Factors which have increased the risk of unsuitable sales of financial products

Unsuitable sales of financial products may be a serious risk for the customer and for the firm itself. Over recent years there has been an increase in the risk of unsuitable sales of financial products around the world. This has been highlighted both by IOSCO and by other international forums on financial regulation. In particular, in 2008 the Joint Forum, which brings together the three international bodies of the sectoral financial supervisors (IOSCO, Basel Committee on Banking Supervision and the International Association of Insurance Supervisors), published a document which identifies various factors which have favoured an increase in the aforementioned risk.[1] The most important factors are as follows:

– Social and economic imperatives: investors have been forced to take on greater financial responsibility as their confidence in the withdrawal systems of the Government or in the company itself has fallen.

– Changing market conditions: the existence of relatively low nominal interest rates has been a factor which has, on the one hand, contributed to increasing the leverage of investments and, on the other hand, to increasing the complexity of financial products, all in the search for greater yields. The greater complexity of financial products has meant that retail investors are not always fully aware of the risks inherent to their investment.

– Financial innovation has increased the range of products offered in the different areas (insurance, banking products and investment instruments). On occasions, products with similar risk characteristics have been sold to retail customers in the three sectors.

– The increase in competition between financial institutions which sell investment products to retail customers.

– The increase in cross-border selling of financial products and services over the last 20 years.

The factors highlighted by the Joint Forum help to explain one part of the increase in the supply and demand of financial products aimed at retail investors, as well as their growing complexity. According to this diagnosis, the measures aimed at strengthening investor protection take on special importance. In this regard, it is important to highlight that in Spain the reform of the Securities Market Act, implemented by means of Act 47/2007, was a significant improvement in this area as it established new reciprocal information requirements between the customer and the institution aimed at reducing the risk of improper sales.

The above-mentioned factors may, however, be insufficient when explaining the increase in the risk of improper sales. In particular, it should be pointed out that in general the financial education of investors continues to be limited. This makes

1 The Joint Forum, *Customer suitability in the retail sale of financial products and services*, April 2008.

them especially vulnerable to inappropriate sales practices and, at any event, increases the probability that they take inappropriate decisions. Consequently, there need to be improvements in financial education, as well as progress in the area of investor protection.

3 The need to provide the retail investor with suitable information: Spanish legislation

Compliance by providers of investment services with the regulations relating to customer information on financial products should help investors take suitable investment decisions. With the information provided by the financial intermediary, investors should know what product they are buying, what the risks are, what the costs are and what possible conflicts of interest are associated with the intermediary's intervention in the transaction.

This type of requirement is justified as a result of the existence of market failures which arise from information asymmetries which leave investors at a clear disadvantage. This, in turn, generates economically and socially undesirable results. Thus, for example, in providing financial services, especially the sale of financial products, there is usually a marked asymmetry between information available to the customer and that held by the financial intermediary. This situation may be detrimental to the retail investor. Intermediaries do not always have incentives to correct this problem on their own initiative as, in certain situations, they may make the most of their information advantage, even though this is to the detriment of their customers. Legislation aims to correct this market inefficiency. It therefore establishes that the intermediary has the duty to act in the customer's best interests and sets a series of customer information requirements.

The information which the institution provides its customers therefore becomes an essential part of investor protection. However, for the information provided to customers to be effective, according to the established aim, it must meet certain requirements. In particular, if the information provided by the institution, even though it is extensive, is not sufficiently clear, investors may find it difficult to understand and to locate the most relevant data with regard to the investment service or financial instrument offered to them or with regard to the conflicts of interest associated with the institution.

In Spanish legislation, the right of the customer-investor to obtain information prior to the investment contract or service has a legal basis in Section 60 of the General Consumers and Users Act,[2] which determines the general requirement of all business people "to provide the consumer and user, in a manner which is clear, understandable and adapted to the circumstances, with relevant, accurate and sufficient information about the essential characteristics of the contract, in particular about its legal and economic conditions, and about the goods and services referred to there-

2 Royal Legislative Decree 1/2007, of 16 November, approving the consolidated text of the General Act for the Defence of Consumers and Users and other ancillary laws.

in". The aforementioned Section establishes a minimum content of the information on goods and services which is considered relevant, and admits the possibility that other legislation - such as the Securities Market Act and its implementing legislation - establish additional information requirements.

For its part, the provisions relating to the provision of investment services included in the transposition of the MiFID Directive[3] were, in turn, implemented by Royal Decree 217/2008, of 15 February, on the legal regime of investment services firms, and which partially amends the Regulation of Act 35/2003, of 4 November, on UCITS, approved by Royal Decree 1309/2005, of 4 November.

Act 47/2007, which carries out said transposition, involved a substantial amendment of the Securities Market Act, incorporating important new aspects. In particular, this new legislation introduced a considerable improvement in the pre-contractual, contractual and post-contractual requirements regarding the information which institutions must provide to retail investors. As a whole, the amendments have led to an increase in investor protection, although the established information requirements and, therefore, the level of protection offered, differ depending on the type of customer.

It is important to note, as a central aspect of conduct to be followed by firms with regard to their customers, the duty of firms that provide investment services established in Section 79 of the Securities Market Act to act with diligence and transparency in the interests of their customers, protecting their interests as if they were their own. For its part, Section 79 bis establishes that firms which provide investment services must at all times keep their customers suitably informed and that this information must be fair, clear and not misleading.

Royal Decree 217/2008 is more specific in this regard, establishing certain requirements which the information must meet to be considered as *fair, clear and not misleading*. In particular, this legislation requires that the benefits cannot be indicated if the risks are not also indicated, that the information is understandable for an average investor, that the warnings are not minimised and that unjustifiable comparisons are not included.

In addition, the aforementioned Royal Decree specifies which information must be provided to customers about 1) the institution, 2) the services it provides, 3) the financial instruments, 4) investment strategies, 5) the safeguarding of financial instruments and of customers' funds, 6) the order execution centres and 7) the associated expenses and costs. All this information must be provided so that investors may understand the nature and risks of the investment service and of the specific type of financial instrument offered to them. Specifically, we can highlight the following aspects of this legislation with regard to the information which the firm must provide to retail customers:

– For the first time, the content of the commercial communications and advertising is regulated in detail so that it is fair, clear and not misleading, incorporating an element of protection for the potential customer.

3 Directive 2004/39/EC of the European Parliament and the Council, of 21 April 2004, on markets in financial instruments.

– As it is mandatory information, it must be provided on durable media, and not merely made available.

– Before formalising the relation with the customer or before providing the service, firms must provide full information about the firm itself and about the financial instruments which will be the object of said service, in particular, about the inherent risks, the custody and safeguarding mechanisms and the expenses and costs associated with the service. The firms must notify the customer sufficiently in advance about any significant change in the information provided.

– As already included in the legislation prior to the MiFID, Royal Decree 217/2008 also provides for the possibility of using standard contracts, regulating the activities or operations provided to retail customers. The Directive does not expressly recognise the mandatory nature of using standard contracts, but it establishes a series of rules or issues which must be subsequently specified between the parties. The aim is that the agreements between the parties are adapted precisely and appropriately to the situation, including rights and obligations of the service to be provided and that the customer has all the prior information which is relevant for taking the decision to enter into the contract and, as far as possible, to carry out comparisons between service providers.

– With regard to the treatment of the information subsequent to subscribing the product or service, legislation contains very specific descriptions of requirements with regard to orders executed on any type of product and, in particular, it requires that information is included about the customer, the date, the time and the execution centre, as well as the centre and conditions for settlement and the breakdown of indirect costs and expenses.

3.1 Evaluations of appropriateness and suitability

The duty to provide information is reciprocal between the firms which provide investment services and their customers, in that the latter must also provide information to the firm so that it may provide its services adequately. The information to be provided by the customer varies depending on the type of customer and the investment service provided.

The stratification of the information based on the type of customer established by the legislation is based on the experience of recent years, in which, on the one hand, an increase has been seen in the number of professional investors and, on the other hand, growing direct access to securities markets for small investors has been seen. The legislation appreciates that the needs of both types of investors with regard to protection are different. Therefore, it differentiates between the quantity and detail of the information to be provided to each group.

Article 61 of Royal Decree 217/2008 establishes that the firm must classify the customer as retail, professional or eligible counterpart. In accordance with this legislation, retail customers require most protection as it considers that they do not generally have the experience, knowledge and necessary qualification to assess the risks inherent to investment decisions.

The need to adapt the protection of each customer to their level of knowledge requires that the customer must provide the firm with accurate information so as to determine their level of knowledge. This information is channelled through an evaluation of the appropriateness of the investment, which is usually carried out by means of the so-called "appropriateness test" and which must generally be carried out when the firms provide investment services other than portfolio management or advisory services. Accordingly, the firm may provide the customer with suitable information based on the customer classification and the results of the evaluation.

The information which the firm must obtain about customers relating to their knowledge and experience must include the following data, to the extent which they are appropriate to the characteristics of the customer, the nature and scope of the service to be provided and the planned type of product or transaction, including the complexity and inherent risks:

– The types of financial instruments, transactions and services with which the customer is familiar.

– The nature, volume and frequency of the customer's transactions with financial instruments and how long they have been carrying out such transactions.

– The level of studies, current profession and, as the case may be, previous professions of the customer which may be relevant.

In the event that the firm provides portfolio management or advisory services, customers must provide, in addition to the information indicated with regard to knowledge and experience, information about their financial situation and investment objectives so that the firm can recommend the financial instruments which are most appropriate (suitability evaluation which is generally carried out through the suitability test).

3.2 Information to be provided to the customer with regard to financial instruments

Of particular importance among the information which firms must provide to their retail customers is that referring to the financial instruments on which the investment service is to be provided. This information is essential for marketing operations or the sale of financial products, but it is also essential for advisory services. In contrast, it is of less importance for portfolio management services, given that the firm itself takes the investment decisions.

The information which must be provided to customers, including potential customers, includes a description of the nature and risks of the financial instruments (bearing in mind their classification as retail or professional investors), with sufficient detail so as to allow customers to take their investment decisions on a sound basis.

Section 79 bis 3) of the Securities Market Act establishes the obligation for the information relating to financial instruments to include "appropriate guidelines and warnings" about the risks associated with such instruments. Therefore, article 64.2

of Royal Decree 217/2008 considers that the explanation of the risks must include, when justified by the type of financial instrument and the customer knowledge and profile, the following information:

a. The risks linked to this type of financial instrument, including an explanation of the leverage and its effects and the risk of total loss of the investment.

b. The volatility of the price of this type of financial information and any limitation of the market or markets on which it may be traded.

c. The possibility that the investor assumes, in addition to the acquisition cost of the financial instrument in question, financial commitments or other additional obligations, including possible legal liabilities, as a consequence of carrying out transactions on that financial instrument.

d. Any mandatory guarantee which may be established or another similar obligation applicable to that type of instrument.

The regulatory legislation also establishes the specific assumption that the risks associated with a financial product made up, in turn, by two or more financial instruments or services are greater than the risk associated with each one of the instruments or services considered individually. In these cases, section 4 of article 64 of Royal Decree 217/2008 requires that a suitable description is provided of each one of the instruments or services which make up the financial product in question and an explanation of the manner in which the interaction between different components of this financial instrument increase the risks.

Similarly, when the financial instrument incorporates a guarantee from a third party, sufficient information must be provided about the guarantor and the guarantee so that retail clients, including potential clients, may reasonably assess the guarantee provided.

Article 66 of Royal Decree 217/2008 details the information on associated costs and expenses, indicating that the following information must be provided to retail clients, including potential clients:

a. The total price which the client must pay for the financial instrument, the investment service or the ancillary service, including all associated fees, commissions, costs and expenses, and all taxes to be paid through the investment services firm. When an exact price cannot be indicated, information must be provided on the basis for calculating the total price so that the customer may verify it. At any event, the commissions charged by the company will be consigned separately in each case.

b. When a part of the total price must be paid in a currency other than the euro, the currency in question and exchange value of the applicable costs must be indicated.

c. A warning about the possibility that other costs may arise for the customer, including the payment of taxes, as a consequence of transactions linked to the financial instrument or service in question and which are not paid or stipulated through the firms.

d. The payment methods, as well as any other issue which may directly or indirectly affect the price to be paid for the financial instrument or service in question.

As can be deduced from the content of the legislation, the information requirements with regard to financial instruments are extensive. In certain circumstances, the large quantity of information to be provided, as well as its complexity, may mean that the average investor will have difficulties fully understanding the information. That is why it is essential that the information is presented to customers in a *fair, clear and not misleading manner* and that said information is provided in an *understandable* way (Section 79 bis of the Securities Market Act).

4 Financial education programmes

A low level of general education or education relating to finance and investments may constitute a barrier for investors to correctly understand the characteristics of certain financial products even if investment service providers comply with the aforementioned provisions in legislation relating to customer information.

Financial education allows individuals to improve their understanding of financial concepts and products, prevent fraud and take decisions which are adapted to their circumstances and needs. A suitable level of financial education in the general public helps to prevent undesirable situations, in particular, excessive indebtedness and taking on unsuitable risk positions. As indicated above, the effectiveness of the information which legislation requires to be published with regard to financial products may be compromised if the recipients of said information are not able to understand it and analyse it adequately as they lack a basic level of financial education.

Numerous international studies show that consumers generally have an insufficient level of financial knowledge. Aware of this problem, the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund, IOSCO and the European Commission, among other international bodies, have recommended that their members promote financial education programmes aimed at the general public or specific segments thereof.

For several years, the CNMV has been carrying out specific education activities aimed at investors and the population as a whole. A central element of these activities is the publication of "investor fact sheets and guides", which include the basic characteristics of the main financial instruments and services for investment marketed in Spain and put forward recommendations for investors aimed at more rational and prudent decision making. Investors may also find educational and information material of interest on the Investor Portal, within the CNMV website, where they can also make enquiries, subscribe to free personalised warning services and receive information bulletins which address current issues in financial markets.[4]

4 http://www.cnmv.es/portalinversor/

In addition, the Financial Education Plan 2008-2012 is currently in execution. This is the result of a collaboration agreement signed by the CNMV and the Bank of Spain. The Plan takes on the recommendations and principles of the European Commission and the OECD and aims to contribute towards improving the financial education of Spanish citizens through the publication of materials and other educational initiatives. These include the agreement with the National Institute of Consumer Affairs to develop "training for trainers" aimed at specialists in consumer affairs of different public authorities so that they may, in turn, pass on this education to other specialists and, ultimately, to consumers.

It is also important to point out, given its long-term perspective as it is aimed at potential investors in future, the agreement signed with the Ministry of Education to implement, last year, a pilot program which introduces financial education into the third year of secondary education involving schools in 14 autonomous regions, as well as in Ceuta and Melilla.

As part of the Plan, a financial education website has been made available to the general public.[5] Together with other educational and information materials, the website offers practical advice, tools and calculators to help the public in planning their savings and personal finances.

5 The IOSCO analysis on the information to be disclosed to the investor at the point of sale

The main conclusions of the IOSCO *Final Report - Principles on Point of Sale Disclosure*, published in February 2011, are presented below. The conclusions are the result of the analysis of the responses to various questionnaires given to firms and consumer associations belonging to the 15 countries in America, Europe, Asia and Africa with relation to the information to be disclosed to the investor at the point of sale.

The IOSCO analysis identifies what information investors want to be disclosed at the point of sale and how they prefer it to be provided to them. Similarly, IOSCO lists the benefits associated with providing investors with suitable information and issues a series of recommendations and principles which should be adopted by all firms to comply with the requirement to keep customers suitably informed.

5.1 What information do retail investors want when purchasing investment products?

The IOSCO study concludes that when taking investment decisions, retail investors consider it essential to receive information relating to potential returns, the risks of financial products and the costs associated with the investment decision.

This means that retail investors usually ask the following three questions: how much can I make? (potential return), how much can I lose? (risk) and, how much

5 http://www.finanzasparatodos.es/

does it cost? (fees). In order to answer the first question, investors generally use information on the product's past returns in order to calculate how much they can make in the future. In order to estimate the risk of the product or how much they may lose, they gather information about the risks and guarantees. Investors also seem interested in knowing the exact fees and expenses associated with acquiring a product, but, according to the IOSCO study, it is not clear that this information on costs has a significant influence on the final investment decision.

The study also concludes that it does not seem that investors are especially interested in obtaining information about the financial intermediary through which they operate, other than the costs or fees which they charge. In addition, they may be confused about payments to the intermediary and those to a product producer.

5.2 In what format do retail investors want to receive the information?

The IOSCO study shows that a high percentage of adults have problems understanding information relating to the nature and risks of the product included in the printed documentation, with their difficulty in understanding rising when numerical information is added. Investors, therefore, prefer that the documents given to them are as follows:

– short and concise,

– well presented and laid out,

– plainly and clearly worded,

– focused on the information they believe they need (i.e. potential returns and associated risks and costs),

– easy to understand and simple examples, and tables and graphs to help illustrate concepts.

Design techniques may be used to improve the extent to which a disclosure document engages customers. Therefore, conventional techniques such as the use of colour, bolding and white space can help make a document more attractive. The references or links to where additional information may be found, including documentation, increase the credibility of the information received in the eyes of potential investors.

5.3 Research on investor behaviour

IOSCO has also analysed the behaviour of retail investors when making an investment decision. When making an investment decision, investors are influenced by the impact of a series of biases or factors:

– Emotions: investors sometimes make decisions based on how they feel as opposed to what they know or think they know,

– Overconfidence and overestimate of their own investment knowledge: retail investors may interpret past successes as due to their own expertise rather than market conditions.

– Representativeness biases: investors are overly influenced by the most immediate or recent past performance.

– Inertia, procrastination and *status quo* biases: investors stick with a familiar investment position, above all when deciding on savings or investment plans.

– Alternative sources of information: investors trust the advice of third parties, who may be a relative, whose level of financial education may not be very different from that of the investors themselves.

One way to combat these vices might be to provide investors, as indicated above, with information in a form that is easy for them to digest, in a summary form, but, at the same time, with sufficient detail, which provides information about the potential benefits, risks and expenses inherent in the product.

However, the study shows that investors can be more inclined to discount the information about the product because they place their trust in the salesperson or financial advisor. This fact has an impact on the review and final consideration by the investor of the information provided by the intermediary.

5.4 Benefits of disclosing suitable information

The fact that firms make an effort to disclose suitable information to customers will lead to a benefit both for the firms themselves and for the customers. Although they are difficult to measure and quantify with any precision, some of these benefits are clear and include the following:

– less risk of retail investors buying products which are not appropriate to the investor profile or products which are not appropriate in terms of cost-benefit, and reduced risk of mis-selling,

– retail investors will be in a better position to understand conflict-of-interest of intermediaries and to compare the costs of different investments,

– downward pressure on fees and, in general, on transaction costs and, therefore, creation of a more efficient market as a result of greater transparency in this area,

– the possibility to compare information disclosed by different firms on the products and the associated costs may encourage investors to save, and to use the intermediary which offers the lowest price.

5.5 IOSCO recommendations

The IOSCO report lists the following principles which could be adopted by firms to comply with the requirement to keep customers suitably informed:

1 The information provided to the investor should include the fundamental benefits, risks and terms and costs of the products and the remuneration and conflicts associated with the intermediary through which the product is sold.

2 The information should be delivered, or made available, for free, to an investor before the point of sale, so that the investor has the opportunity to consider the information and make an informed decision about whether to invest.

3 The information should be delivered or made available in the manner that is appropriate for the target investor and which takes into account their personal circumstances.

4 Disclosure of the information should be in plain language and in a simple and accessible format.

5 The information should be clear, accurate and not misleading to the investor and should be updated on a regular basis.

6 Conclusions

Retail investors now have a wider choice to meet their needs, but they also face greater complexity in the products available, some of which may involve a high level of risk. It is therefore important for investors to have accurate, sufficient and understandable information when making their decisions about the products and services offered by financial institutions, and that the commercial practices of these institutions include the measures necessary to reduce the risk of mis-selling.

Spanish legislation takes on the basic principles of international financial regulation in this area and recognises this twofold need. The reform of the Securities Market Act undertaken in 2008 in order to transpose the MiFID Directive led to important new aspects being incorporated into Spanish regulation, with significant improvements in the information which financial institutions must provide to their customers before, during and after formalising an order or a contract.

In order to guarantee suitable investor protection, it is essential that financial institutions comply with the information requirements to their customers and, in general, the rules of conduct relating to the marketing of financial products and services. However, mere formal compliance with these requirements is not enough if it does not take into account the manner in which the information is transmitted.

Legislation requires that the information is fair, clear and not misleading and that it is provided in a manner which investors can understand. Meeting these conditions requires institutions to make a permanent effort to improve information quality. In

particular, this effort is required in order to ensure that the documentation which institutions use to inform the customers about the characteristics of financial instruments contains easily understandable information about the risks inherent to the product. This documentation must be written clearly and concisely, in plain language, in a manner which is understandable for the type of investor it is targeted at.

At any event, the understanding of the information provided to investors and its effective use will always depend on the financial skills and education of those who use it. Accordingly, various international bodies (G-20, OECD, IMF, IOSCO, etc.) recommend that financial education should be promoted. Not only would this measure have a direct impact on the daily life of the population, but it would also contribute to promoting confidence in the financial system and fostering economic growth.

New legislation for UCITS relating to the calculation of the market risk associated with derivative trading

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1 Introduction

CNMV Circular 6/2011, of 21 December, on derivatives trading of UCITS was published on 11 January 2011.

This Circular (hereinafter, Derivatives Circular) aims to continue the development initiated by Ministerial Order 888/2008, of 27 March, on financial transactions of UCITS in derivative instruments, which clarifies certain concepts of the Regulation of Act 35/2003, of 4 November, on Undertakings for Collective Investment in Transferable Securities (Hereinafter, RUCITS), approved by means of Royal Decree 1309/2005, of 4 November. The RUCITS at that time extended the scope of action of UCITS in relation to investments in derivative instruments, especially with regard to the underlying assets which are considered appropriate, and to transactions with products not traded on organised markets, as well as with other financial instruments.

This article offers a description of the many new aspects contained in this important circular, which is necessary to complete the design of the regulation of UCITS provided in Act 5/2003. It has become more important due to the technical complexity of its content, as it addresses aspects relating to the identification and quantification of financial risks, in this case those associated with derivative products.

The Circular consists of 27 rules spread over four chapters plus five additional provisions, one transitory, one repeal and one final, with the following content:

- Chapter I includes the definitions of certain concepts used throughout the Circular, clarifications on instruments which incorporate an implicit derivative and liquidity requirements for carrying out naked short-selling. It also establishes the general legislation for determining the limits to derivative trading established in article 39 of the RUCITS.

- Chapter II is divided into two sections: the first explains the commitment approach and the second the value at risk approach (hereinafter, VaR).

- Chapter III includes the solvency requirements for counterparties in derivative trading and the rules for calculating counterparty risk, as well as the rules for reducing this risk through margins. Finally, it establishes greater detail of the rules for calculating the diversification limit established in article 39.4 of the RUCITS.

- Chapter IV includes the framework applicable to UCITS with a specific target return, as well as a series of criteria for valuing derivatives and their underlying assets.

– The additional provisions amend various rules, especially other CNMV circulars, so as to adapt them to the Derivatives Circular. The preceding legislation is repealed and the time periods for entry into force are established.

The content of the Derivatives Circular is in line with Directive 2010/43/EU as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between the depository and a management company and with implementation of level 3 on risk measurement and the calculation of global exposure and counterparty risk for UCITS (CESR/10-788).

This article is generally organised in accordance with the structure of the Circular. Accordingly, section 2 addresses the aspects relating to the limits to trading in derivatives and section 3 describes the two approaches established in the legislation. Section 4 presents the counterparty requirements and limits and the diversification ratios and section 5 presents the amendments with regard to UCITS with a specific target return. Section 6 presents a comparison exercise on the calculation of the limits of investment in derivatives by means of the two approaches established in the Circular for UCITS with different investment policies. The article closes with a section of conclusions.

2 General limits for market risk

The Derivatives Circular implements and clarifies some aspects relating to the limits imposed on derivatives trading established in article 39.3 of the RUCITS and which are implemented in article 8 of Order EHA 888/2008. Accordingly, and in the case of the limits of the premiums paid for the purchase of options, which may not exceed 10% of the assets, the Circular clarifies that:

– The premiums paid will be measured at their acquisition price

– Netting of the premiums paid with the premiums charged may be carried out when the options are not incorporated in different structures and with each and every one of their characteristics being the same except the trade date, counterparty or strike price.

– The limit will only be revised when a new acquisition takes place.

In addition, the Circular increases this limit to 50% of the assets when the UCITS opts to measure the commitment using the VaR approach. Accordingly, the UCITS which opt for this approach have greater flexibility with regard to the use of these financial instruments compared with the UCITS which opt for the commitment approach.

With regard to the total exposure to market risk associated with derivative financial instruments, higher order legislation establishes that it may not exceed the equity of the UCITS. For its part, the Circular clarifies that in order to comply with this limit, the management company may apply the commitment approach or the VaR approach, both of which are described in chapter II therein.

3 Approaches for calculating market risk

As already indicated, Chapter II of the Circular describes the approaches which may be used for calculating the limit to investment in derivatives: the commitment approach and the VaR approach.

3.1 Commitment approach

This approach establishes a leverage limit for UCITS through their positions in derivative instruments. For this purpose, the Circular defines calculation rules which aim to express the position in derivative instruments in equivalent spot positions.

In general, the commitment approach involves the two following steps:

– Firstly, a primary position per financial instrument is determined for each one of the six risk factors defined in the Circular (interest rates, credit risk, equity, currency, commodities and UCITS).

– Then the primary net positions per risk factor are netted, providing this netting is acceptable, obtaining the secondary net positions.

In order to determine the primary and secondary net positions, the Circular establishes a series of general rules and criteria applicable to all risk factors, as well as specific rules for each one of them. The total commitment of the UCITS will be the sum of the commitment amounts obtained for each one of these risk factors, without it being possible to net commitment between different risk factors.

The method for determining this commitment is presented in greater detail below.

3.1.1 Determining the primary net position

The value of the primary net position of the non-sophisticated financial instruments included in letters a), b) and d.1) of article 2.1 of Order EHA 888/2008[1] will be determined by general application of the following rules:

– Instruments, other than options, whose underlyings are interest rates or inflation will be measured at the nominal value which is used for calculating the interest payment.

– Other non-sophisticated derivatives, other than options, will be calculated using the market value of the underlying.

1 The aforementioned order classifies non-sophisticated instruments as (i) derivatives other than options whose underlying is fixed income and interest rates, providing use of the "modified duration" parameter is suitable as a measure of market risk, (ii) derivatives, other than options, with other underlyings, providing the instrument or underlying are traded on a market on which a daily market price is published which is obtained from trades crossed that day, and (iii) financial options for which the hypothesis of price lognormality and its measurement under analytical models is admissible. Other derivative products are considered to be sophisticated.

– Options will be measured by multiplying the nominal market value of the underlying, as appropriate, by their delta.

The Circular also establishes specific rules for calculating, providing application is feasible, with a consistent methodology and gives, in all cases, a value of the primary position which is more conservative than that which would result from applying the aforementioned general rules. The Circular establishes the following specific rules:

– for sophisticated derivatives, other than options, with underlyings other than interest rates or inflation, the nominal or market price may be used as alternatives.

– In the sale of credit default swaps (CDS) corresponding to a specific reference, the greater of the following two amounts must be calculated: the market value of the underlying or the nominal value.

– In the sophisticated derivatives included in letters c) and d.3) of article 2.1 of Order EHA 888/2008 and in non-sophisticated derivatives included in letter d.2) of the same article and legislation, the maximum future potential exposure which the underlying of the derivative may reach during its time in force will be determined.

The Circular establishes that the following transactions must not be considered in the commitment approach:

– Forward trades which correspond to the usual spot transactions of the market on which they are carried out, as well as those transactions with forced deferment of the acquisition. An example of these transactions would be the usual trades of fixed-income assets.

– Absolute or total return swaps, which meet certain criteria established in the Circular.

– When the UCITS carries out management strategies with derivatives in which no additional exposure is generated, but simply an exposure equivalent to that which would be obtained through spot investment. At any event, spot investments held cannot expose the UCITS to additional risks. For example, consider a UCITS which seeks to invest in an index which, instead of investing in the index through spot positions, decides to carry out an equivalent strategy investing the cash in assets without risk (for example, temporary acquisitions of debt or repos) and simultaneously taking positions in the index through derivative instruments. This strategy could be similar to direct investment in the index providing it does not significantly expose the UCITS to additional risks.

After determining the manner of measuring the primary position (long/short), the Circular establishes that the primary position for each financial instrument will be the difference between the sum of the primary long and short positions, thus obtaining a net long or short position depending on whether the difference is positive or negative.

Furthermore, the Circular establishes a series of cases in which a financial instrument must be broken down into various positions. In many of these cases the aim is to separate the different risks to which a UCITS is exposed, searching for the economic essence of the contract rather than the legal form. These cases are:

– In swaps, the two branches will be broken down.[2]

– For transactions which involve the acquisition or disposal of two currencies other than the euro, the positions in each one of the currencies must be broken down.

– In financial instruments referenced to several underlyings, a position for each underlying must be broken down

– Structural transactions which combine several derivatives or assets which incorporate an implicit derivative must be broken down into their components, providing this breakdown is necessary for their valuation and measurement of their risks.

Finally, the Circular establishes the possibility of breaking down the investment in shares or units of other UCITS,[3] as well as the derivatives of indexes, in the components to which they are referenced.

3.1.2 Determining the secondary net position

Once the UCITS have determined their primary position for each financial instrument, the Circular establishes a series of acceptable netting between different financial instruments distinguishing between:

– Netting between different financial instruments with the same underlying.

– Netting between different financial instruments with different underlyings.

In order to apply this netting, the Circular makes the following two requirements:

– That there is an efficient mitigation or reduction of the risks of the financial instrument both in normal conditions and in distress situations associated with market behaviour.

– That the investment strategies have the sole purpose of hedging risks. This therefore excludes the possibility of netting transactions aimed at carrying out strategies or arbitrage known as neutral. In particular, among other resolutions, the Circular expressly does not admit netting between different options sold on the same underlying.

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2 Exceptionally, and in the case of absolute return swaps, this breakdown will not be necessary when one of the branches involves receiving/paying a variable rate interest and the other branch is linked to the evolution of any other underlying. In this case, only the calculation of the latter branch will be required.

3 Both spot positions and derivatives, providing the management company has up-to-date information on this exposure.

3.1.3 Particular features of each risk factor

Together with a series of general rules applicable to all positions classified within each one of the risk factor categories, the Circular also establishes some particular rules for the different risk factors. The main specific rules are outlined below.

Interest rate risk

The Circular establishes two possibilities for this risk: the general method, which consists of applying the aforementioned rules and which only allows netting between different derivatives on the same underlying, and the method based on durations.

Unlike the general method, the duration approach allows greater netting between the different assets providing other requirements established in the Circular are met.

The UCITS must follow these steps in order to determine the resulting commitment on this category applying the duration method:

– Calculate the modified duration of each derivative instrument.

– Classify the primary net positions of each one of the instruments in four areas based on the residual maturity. The duration approach assumes that the derivatives classified in the same area will react similarly to interest-rate changes. For this reason, through this approach netting can be carried out between the derivatives classified in the same area. In addition, it envisages a certain relationship between the different defined areas and, therefore, also allows certain netting between the different areas.

– Weight each one of the primary net positions by the ratio between the duration of the instrument and the overall duration of the UCITS, thus obtaining the weighted primary net position.

– Determine the weighted secondary net position of each area, which will be the lesser between the sums of the long and short weighted primary net positions.

– Finally, the UCITS will carry out netting in cascade between the different areas until the non-netted residual amount is determined.

The commitment amount calculated by this method will be the sum of the non-netted residual amount, plus a percentage of the amount netted between the different areas.

Credit risk

The Circular establishes that calculations will be carried out of the primary net positions of the derivative instruments whose underlying is a fixed income asset, a credit risk on a reference entity or any other of a similar nature.

This excludes derivative instruments

– that have calculated commitment on interest rates by the general method for the entire amount of their primary net position

– that have calculated commitment on interest rates using the duration method and providing its application does not involve assuming a significant credit risk.

The general rules will be followed in order to determine the commitment for credit risk. In order to carry out netting, the Circular sets forth a series of requirements which includes that the reference obligation and the hedged financial instruments must belong to the same subordination category and have a very similar maturity period.

Netting of positions may be total or partial and will depend on the derivative used, as well as on whether all or part of the requirements established in the Circular are met.

Commitment in other UCITS

In order to give priority in the calculation of the commitment to the economic fund of the investment rather than the instrument chosen for carrying it out, the UCITS which had not proceeded to break down the investment in other UCITS must consider this investment as an additional risk factor, irrespective of whether it is carried out through spot positions or derivatives.

In this regard, the Circular establishes that the UCITS must calculate within this risk factor the amount resulting from multiplying the percentage of leverage of the UCITS to be invested in by the position held in said UCITS. If specific information is not available about the level of leverage, the Circular establishes fixed percentages based on whether the investment is carried out directly or through a derivative instrument, as well as based on the type of UCITS to be invested in.

The aim of calculating this risk is to measure the real commitment to which the UCITS is exposed, irrespective of the investment vehicle used (structured products, note, UCITS, etc). For example, if this risk is not calculated, a UCITS which invests 100% of its assets in UCITS which replicate twice an index and which in turn are leveraged by means of positions in derivatives to this index will be leveraged three times with respect to its assets, when the commitment approach limits leverage to two times.

3.2 Value at risk (VaR) approach

The VaR approach, unlike the commitment approach, which is focused on limiting the exposure in derivative instruments, establishes a limit to the potential losses which UCITS may incur as a result of both the spot positions and the derivative positions in a specific period.

In order to apply this approach, the Circular establishes

– some general conditions relating both to the approach and to the model,

– measures which are complementary to the model,

– quantitative and qualitative criteria for determining the VaR,

– limits, excesses and other precautions.

3.2.1 General conditions

The Circular establishes the following conditions on the approach and model so as to be able to use the VaR approach:

– The UCITS may apply a limit of "relative VaR" or a limit of "absolute VaR",[4] which will depend on aspects including the investment policy of the UCITS. However, the management company must be in a position to provide evidence that the limits set are suitable and in accordance with the investment policy and risks established in the prospectus of the UCITS.

– The model used for calculating the VaR must be appropriately integrated into the daily management of the UCITS, it must be conceptually solid and must capture the risks associated with the positions held by the UCITS. The generally accepted models include parametric models and those based on historic simulation and Monte Carlo simulation.

– The management company must have the resources necessary to apply the selected approach, as well as the internal control mechanisms which ensure that it functions correctly. The management company should have tested the model for at least three months before beginning to use it.

– In the event that internally designed models are applied, these models must be validated by a third party who is independent from the design process and who ensures that it functions correctly.

– Depositories must formulate an internal control system which allows them to verify the implementation procedures and the suitability of the model each year and to review every month that the parameters used are appropriate.

With these measures, the aim of the Circular is for an adequate control system to be established for the implemented model, as well as for the parameters used for calculating the VaR, and that the calculation of the VaR is not an isolated procedure within the organisation with the sole purpose of calculating the limits to the derivatives, but that it is integrated within daily management.

4 The relative VaR refers to the "maximum loss" (with established time horizon and probability) of the portfolio of the UCITS compared with the maximum loss of a benchmark or index portfolio, while the absolute VaR refers to the maximum loss of the UCITS.

3.2.2 Complementary measures

In addition to the general conditions, the Circular requires the use of the following complementary measures so as to be able to implement the VaR approach:

– Carrying out stress testing.

– Carrying out daily back-testing.

– Monitoring the level of leverage of the UCITS. In general, it may do this by using the ratio between the nominal amount of the positions and the assets of the UCITS.

– The management company must carry out additional analyses, above all on those instruments which have a high "tail risk", so as to determine the average of the losses higher than the percentile used in measuring the VaR (conditional VaR).

With these measures, the aim of the circular is that the limit based on the VaR is not an isolated limit, but that both the results of the VaR and those related with the complementary measures are taken into consideration when establishing limits for the risks and in taking management decisions.

In general, the controls on stress, leverage and monitoring of the conditional VaR will be carried out monthly. However, based on the investment decision and the risks to which the UCITS is exposed, they may be carried out with greater or lesser frequency. At any event, whenever there are significant modifications both in the composition of the portfolio and in market conditions, the management companies should revise these measures immediately.

The Circular establishes that the unit in charge of the risk management function will be responsible for ensuring the correct functioning of the model and lists its responsibilities, which include setting suitable parameters and limits, controlling the additional measures and maintaining the documentation related to the model and to the additional measures.

3.2.3 Quantitative and qualitative criteria for determining the VaR

The Circular establishes that, as a general rule, the VaR should be calculated daily, with a confidence interval of 99%, and a time horizon no greater than one month (or 20 business days). UCITS may re-scale both the time horizon and the confidence interval which, however, may not be lower than 95%.

The Circular offers general guidelines which must be met by the model to be used for determining the VaR (as described in section 3.2.1). Following the same line, the Circular establishes minimum factors which at any event must be taken into account based on the financial instrument used in order to determine the VaR of a UCITS. These include the interest rates for each currency, the changes in the exchange rate between each currency and the euro, etc.

Furthermore, the Circular establishes that the estimate, among other parameters, of the volatility and correlations must be carried out using a sample of previous observations of at least one year. It also indicates that criteria of maximum prudence must be applied at all times when considering the correlation between financial instruments, especially when they are of a different type.

3.2.4 Limits of the VaR and excesses in the limits

If a relative VaR is applied, the UCITS must establish a basic limit in a reference portfolio. The limit chosen may not duplicate the VaR of each portfolio for each risk factor.

This methodology may not be applied by UCITS with investment policies which change frequently. However, the methodology may be applied in UCITS with management strategies based on a benchmark market index defined in the prospectus.

In the event that they apply an absolute VaR, UCITS must establish a defined limit as a percentage of losses over assets, which will be calculated based on their investment policy and the risk profile defined in the prospectus. Under no circumstances may the limit be greater than 20% of the assets, calculated with a confidence level of 99% and a time horizon of one month.

With regard to the treatment of excesses over the limits,[5] the Circular establishes that, in the event that in the back testing there are between four and ten excesses in the 250 preceding business days, the management company must review the source of these excesses and, as appropriate, introduce improvements in the model.

In addition, the UCITS must apply a corrective factor of 50% when:

– the number of excesses is greater than ten,

– the results of extreme case stress testing estimate, in almost all scenarios and in a recurring manner, a loss which is double the set loss,

– possible scenarios are detected which, due to the high leverage of the UCITS, may produce levels of losses greater than the assets of the UCITS.

Furthermore, the CNMV may impose modifications to the model in general, providing that it considers that the model does not adequately estimate the maximum potential loss of the portfolio of the UCITS. The Circular establishes cautions in the event that the model is not sufficiently effective in measuring risks or when the UCITS may be taking on a significant risk in adverse situations. In these circumstances, the Circular requires, firstly, that the model is reviewed and that if the excesses persist, exposure to risk must be reduced (application of the corrective factor) unless the management company can justify these deviations to the CNMV.

5 When the portfolio change in a session exceeds the maximum amount estimated by the model

4 Counterparty and diversification ratio risks

4.1 Counterparty risks

Chapter III of the Circular specifies that the counterparties in transactions with derivatives must have a minimum credit rating equivalent to A-.[6]

Counterparty risk is calculated by the positive balances accumulated pending settlement. When there are debit and credit balances with the same counterparty, they may be net against each other providing they are supported by a netting agreement.[7]

The Circular has introduced a new framework for reducing counterparty risk by providing collateral. This collateral will reduce counterparty risk providing it meets certain requirements such as liquidity, diversification and issuer other than the counterparty group, etc.

The Circular has extended the assets which are admissible as collateral to cash deposits in credit institutions, shares and units in "monetary" UCITS, public debt, shares admitted to trading which are components of an index and private unsubordinated debt admitted to trading.

As a new aspect, the Circular introduces the possibility of investing the collateral received in deposits in credit institutions, shares and units of monetary UCITS and public debt providing these assets are liquid, the issuer does not belong to the counterparty's group and the investment policy of the UCITS is respected.

The minimum rating of the counterparty will not be required when the counterparty provides collateral which meet the provisions of the Circular.

4.2 Diversification

Article 38 of the RUCITS establishes limits, in terms of percentage of the assets, to the positions held in spot or derivative financial instruments, issued or guaranteed by the same issuer.

The Circular clarifies that, for the purposes of this limit, the amount of the derivatives is calculated using the commitment approach. Accordingly, for each issuer it will be necessary to identify the sum of the secondary positions corresponding to the risk factors of equity, credit risk and UCITS, with the final position per issuer being the sum of these positions and the spot positions which have not been hedged. The options acquired which are settled by differences may be calculated using the market value of the premium instead of the market value of the underlying.

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6 Long term of "A-" by Standard & Poor's, "A3" by Moody's, "A-" by Fitch or similar agencies. Short term of "A-2" by Standard & Poor's, "P-2" by Moody's, "F2" by Fitch or similar agencies.

7 These compensation agreements must comply with the requirements established in Chapter II of Royal Decree-Law 5/2005.

5 UCITS with specific target return

The Derivatives Circular has extended the scope of action of the guaranteed UCITS with specific target return to all those UCITS with a specific target return.

Firstly, the Circular defines the UCITS with a specific target return as UCITS whose investment policy has the sole purpose of achieving a specific target return, defined clearly and in detail in the prospectus, with a maturity lower than nine years.

These UCITS, for a specific period of less than three months, may:

– not value the positions in derivative financial instruments when the daily valuation introduces distortions with regard to the objective of achieving a specific target return, an express delimitation of the period of non-valuation, which may never be greater than three months, is included in the prospectus and the transaction has not been agreed in a period before the 10 days prior to the registration of the prospectus with the CNMV,

– exceed the limits to the investment in derivatives providing the management company can demonstrate that subsequent to this period these limits will not be exceeded.

The aim of the first of these measures is that during the marketing period the net asset value of the fund is stable and the aim of the second measure is that during this period the structure of the UCITS may be established without limitations.

With regard to the UCITS with a specific guaranteed target return, the Circular defines these as those UCITS which have a guarantee granted by a third party entity with a credit rating greater than A- or the equivalent which undertakes to provide the quantity necessary so as to achieve a guaranteed net asset value and which guarantees upon maturity at least 75% of the initial investment. The UCITS with a specific target return guaranteed by a third party may exceed the limits to trading in derivatives,[8] as well as the counterparty limit,[9] up to the end of the guarantee period.

6 Commitment approach compared with VaR approach: an example

In this section we compare, for information purposes, the results of applying the commitment approach and the VaR approach. For this purpose, we have chosen three hypothetical UCITS which hold portfolios with the same asset value, but which are different in terms of their composition. This example highlights the importance of taking into account the investment policy of UCITS when choosing the approach to be applied.

8 Limit of 10% of the assets in premiums paid on options and limit of exposure of 100% of the assets established in article 39.3 of the RUCITS.

9 Limit of 10% of the counterparty established in article 9.3 of Order EHA 888/2008.

Consider the following UCITS, all with assets of one million euros:

– UCITS A: invests a large part of the spot portfolio in Spanish equity and sells futures on a Spanish equity index for 100% of its assets. The spot portfolio does not replicate the index, although it does share a large number of the assets.

– UCITS B: invests a large part of the spot portfolio in Spanish equity and buys futures on the "Alpha" index of Spanish equity for 100% of its assets. This UCITS takes the "Alpha" index as a reference.

– UCITS C: invests its portfolio in Spanish fixed income and buys futures on notional German bonds for 100% of its assets.

Table 1 shows the calculation of the level of commitment on the assets which each one of these UCITS would have, as well as the absolute VaR obtained. For example, a VaR at one day of 41,000 euros with a confidence level of 99% indicates that, in 99 out of every 100 days, the maximum risk of daily loss is of that amount (4.1% of the assets) and that only on one day in every hundred days a greater amount would be lost.

Exercise: commitment and absolute VaR for UCITS A, B and C TABLE 1

		VaR (thousand euros)[1]		
Option	Commitment	Spot portfolio	Spot + derivatives	Abs. VaR
A: UCITS equity: hedges 100% with derivatives	24%	41	9	0.90%
B: UCITS equity: leveraged 100% of assets with derivatives	100%	41	95	9.5%
C: UCITS fixed-income: leveraged 100% of assets with derivatives	100%	8	11	1.10%

1 VaR at one day with a confidence level of 99%.

The Circular establishes that the UCITS which opt for the absolute VaR approach must determine a maximum limit based on the investment policy and the risk profile defined in the prospectus. At any event, this limit may not be greater than 20% of the assets calculated at one month and under a confidence level of 99%. This limit rescaled to one day and with a confidence level of 99% would be, in this example, 4.47%[10] of the assets.

Table 1 shows the following:

– UCITS "A": this UCITS is mitigating the market risk of its portfolio. With regard to the commitment, the UCITS has offset part of the spot positions with the index. However, this offsetting is not perfect. If we focus on the absolute

10 The Circular allows the limit to be scaled, in this case it has been scaled to one day (4.77%= 20%* root[1]/root[20])

VaR, this is reduced significantly. At any event, we can see how both if we calculate the market risk through commitment and through absolute VaR, it is within the limits established in the Circular.

– UCITS "B": this UCITS is leveraged with respect to the "Alpha" index, and takes said index as a reference. The VaR of the index is 53,000 euros. Therefore, this UCITS could apply the limit of the relative VaR, with this being lower than the limits of 100% established in the Circular. It should be pointed out that the absolute VaR would be 9.5%, far above the limit established in the Circular as the index itself over the observation period had an absolute VaR of 5.3%.

– UCITS "C": this UCITS, from the point of view of the commitment approach, will be leveraged to 100% of the assets. However, we can see that, as it is leveraged through derivatives on notional German bonds with a low absolute VaR, the portfolio would have an absolute VaR or 1.1% of the assets, far below the limit of 4.47% set in the Circular.

Consequently, the choice of one approach or another is not arbitrary as it should be adapted to the investment policy and risks established in the prospectus. In general, for UCITS with investment policies based on simple strategies, the commitment approach offers similar results to those obtained with the VaR approach.

7 Conclusions

CNMV Circular 6/2011 offers two approaches to measure the risk associated with the use of derivatives by UCITS: the commitment approach and the VaR approach. In turn, each approach offers different options. Management companies must analyse, based on the investment policy of each UCITS, the management style and internal control method and by measuring the different risks of the UCITS, which approach is most suitable for each UCITS managed.

Within the commitment approach, the general method is *a priori* the simplest to apply. This approach could be used in UCITS with an equity portfolio and little use of derivatives, limited mainly to hedging and to increasing exposure to a portfolio or reference index. In contrast, the duration method is more complex, although it allows greater netting in fixed-income instruments providing the requirements established in the Circular are met. This approach seems to be more suitable for fixed-income funds which hedge the portfolio or correct the duration by using fixed-income derivatives.

For its part, the VaR approach in theory allows greater netting between assets than the commitment approach. However, in order to apply this approach, the Circular establishes a series of requirements and complementary measures aimed at encouraging the monitoring of market risk from derivative trading. The VaR approach could be suitable for UCITS which actively operate in derivatives both for hedging and for investment. The limit of the relative VaR might be more suitable for UCITS

which replicate or use a reference index, while the limit of absolute VaR might be more suitable for UCITS with global management policies or funds which base their management on VaR.

At any event, the choice of one approach or another must take into account the investment policy and resources established in the prospectus which, in turn, must appropriately describe the complexity and risks of the investment strategy.

IV Legislative Annex

New legislation approved since publication of the CNMV bulletin for the first quarter of 2011, in chronological order, is as follows:

– Sustainable Economy Act 2/2011, of 4 March.

This Act introduces numerous legislative amendments in different areas. This summary is limited to issues related to the securities market.

Firstly, it amends the Securities Market Act, extending the content of the annual corporate governance report, which will also require subsequent legislative implementations. Listed companies, and as appropriate savings banks, must also report on the following issues:

– Anti-takeover bid measures and defences.

– Delegations in the Board of Directors to issue and repurchase securities.

– Internal control systems for financial information.

– Issues, as the case may be, of securities which are not traded on an EU market.

Secondly, it introduces an advisory vote for shareholders on the remuneration policies of listed companies in the General Shareholders' Meeting ('say on pay'). For this purpose, Section 61 ter of the Securities Market Act regulates the content of the remuneration report, which now becomes an independent document of the annual corporate governance report. The advisory vote in the Shareholders' Meeting relates both to the remuneration policy of the financial year which has ended and that planned for the year in progress.

Thirdly, the Act addresses an extensive review of the disciplinary law of the securities market, introducing amendments to the Securities Market Act, the UCITS Act 35/2003, of 4 November, and Act 25/2005, of 24 November, regulating venture capital firms and their management companies. We can highlight the following amendments in this area:

– It provides the possibility for the CNMV to require that the persons and entities subject to supervision provide independent expert reports from auditors or from their internal control or legal compliance bodies.

– It establishes the obligation of those subject to supervision by the CNMV to provide the CNMV, when requested, with the commercial telephone conversations which have been recorded with the prior consent of the client or investor.

– It regulates the electronic notification system, by which the CNMV and the Bank of Spain make their communications to supervised persons and entities.

– Probative value is given to the facts verified by duly authorised CNMV personnel in the exercise of their supervision and inspection functions.

– Certain obligations of registrars of companies with regard to transactions with own shares are abolished.

– The chart of serious and very serious breaches is amended. The general provision by which minor breaches are considered to be the failure to comply with the rules of regulation and discipline of the securities market which do not constitute serious or very serious breaches now expressly includes two situations which amount to a minor breach relating to the sending of information and lack of collaboration and failure to comply with the rules of conduct provided in the Securities Market Act.

– It establishes some criteria for determining the applicable penalties.

– It establishes the possibility of not bringing disciplinary proceedings for minor breaches.

– It introduces standard penalties relating to the failure of credit institutions to comply with the rules of conduct and it increases the amount of fines for these institutions.

– The agents of the management companies of UCITS are included in the UCITS supervision, inspection and disciplinary regime. Several standard penalties are revised and criteria added for determining the penalties.

– The UCITS Act will apply for the disciplinary regime of venture capital firms.

Fourthly, it is important to mention the amendments to UCITS Act 35/2003, of 4 November, with regard to the announcements of transformation and mergers of UCITS.

Fifthly, amendments are made to Act 13/1985, of 24 March, on equity investment ratios and reporting requirements of financial intermediaries, with regard to the remuneration policies of credit institutions and investment firms. Firms must publish their remuneration policies and practices, reporting on the process for deciding remuneration, its characteristics and the relationship between remuneration and performance. The Bank of Spain is empowered to review said remuneration policies and practices and, in particular, to limit the variable remunerations when they are not coherent with maintaining a solid capital base. It should be pointed out that the regulation of the remuneration policies of credit institutions was once again amended by Act 6/2011, of 11 April, amending Act 13/1985, of 25 May, on equity and investment ratios and reporting requirements of financial intermediaries, the Securities Market Act 24/1988, of 28 July, and Royal Legislative Decree 1298/1986, of 28 June, on adaptation of current law on credit institutions to European Union legislation.

Finally, it repeals the legislation of the ombudsmen for the defence of customers of financial services, although it temporarily maintains the procedure provided in this legislation relating to processing claims.

The seventh change is the amendment to the Capital Companies Act so as to recognise the right of listed companies with shares represented by book entry to have information on their shareholders at all times.

– Order PRE/627/2011, of 22 March, establishing the requirements which must be met by the Promotion Agreements of Asset Securitisation Funds in Order to Favour Business Financing.

This legislation aims to determine the procedure for formalising the promotion agreements of asset securitisation, as well as the requirements which must be met by securitisation funds, which, under the promotion agreements, may benefit from central government guarantees provided in the Budget Act in force each year so as to guarantee part of the fixed-income securities which they issue. It also establishes the regime, content and forms of the agreements which the aforementioned entities may sign with the Ministry of Industry, Tourism and Trade through the Directorate-General of Policy of Small and Medium-Sized Enterprises.

In this regard, it integrates the amendments introduced by Act 26/2009, on General Government Budgets for 2010 and Royal Decree-Law 6/2010, of 9 April, on measures for promoting economic recovery and employment, also incorporating, in this area, some improvements with regard to competition and procedure. Firstly, the head of the Directorate-General of the Treasury and Financial Policy is empowered to set the fee for the guarantee. Secondly, the deadline for presenting agreement applications is delayed by 15 days. It also strengthens the role of the Directorate-General of Policy of Small Medium-Sized Enterprises in the evaluation committee and, finally, it empowers the head of the above Directorate-General to modify the agreement forms.

– Directive 2011/35/EU, of the European Parliament and of the Council, 5 April 2011, concerning mergers of public limited companies.

This Directive adapts Third Council Directive 78/855/EEC, of 9 October, incorporating successive directives concerning mergers, such as Directive 2006/99/EC, Directive 2007/63/EC, and Directive 2009/109/EC. It hence coordinates the legislation of Member States relating to mergers of public limited companies so as to protect the interests of shareholders and third parties.

– Act 6/2011, of 11 April, which amends Ach 13/1985, of 25 May, on equity and investment ratios and reporting requirements of Financial Intermediaries, Securities Market Act 24/1988, of 28 July, and Royal Legislative Decree 1298/1986, of 28 June, on adaptation of current law on credit institutions to European Union legislation.

This Act aims to initiate the transposition of Directive 2009/111/EC and, therefore amends Act 13/1985, of 25 may, on equity and investment ratios and reporting requirements of financial intermediaries and the Securities Market Act 24/1988, of 28 July.

This Act addresses a series of essential reforms relating to solvency and limits to risk concentration in credit institutions and investment funds. These include the obligation for credit institutions and investment firms to meet certain requirements in order to hold exposure to securitisation positions and in order to initiate a securitisation. Similarly, with the aim of strengthening the quality of their equity, the Act determines the requirements for admitting preferred shares and other hybrid capital instruments as original own funds of credit institutions. The amendments introduced in the legal regime for preferred shares are as follows:

- The Bank of Spain may require the cancellation of the payment of remuneration to the holders of preferred shares based on the financial and solvency situation of the issuing or parent credit institution.

- With regard to bankruptcy law, the cancellation of the payment of the remuneration to the holders of preferred shares will not be considered for the purposes of determining the debtor's insolvency or dismissal in the payment of its obligations.

- In the event of significant losses or a marked fall in the solvency ratios, the holders of preferred shares, in accordance with the conditions of each issue, must assume the losses of the entity by converting their securities into shares or participation shares or through the reduction of the nominal value of their preferred shares.

Furthermore, these financial institutions are required to meet governance rules which include remuneration policies which are coherent with promoting solid and effective risk management.

Another important new aspect is the introduction of new measures aimed at strengthening cooperation between supervisors, such as the obligation of the Bank of Spain and the CNMV to take into account the impact of their decisions on the financial stability of other Member States, the regulation of the associations of supervisors and joint decisions with regard to the supervision of cross-border groups or the possibility of declaring branches of credit institutions authorised in another Member State as significant for the purposes of establishing the aforementioned associations of supervisors.

- Act 7/2011, of 11 April, which amends Act 41/1999, of 12 November, on securities payment and settlement systems and Royal Decree-Law 5/2005, of 11 March, or urgent reforms to boost productivity and improve public procurement.

This Act transposes Directive 2009/44/EC, which, in response to recent developments of financial markets, updates the content of Directive 98/26/EC on settlement finality in payment and securities settlement systems, and Directive 2002/47/EC with regard to connected systems and credit rights.

One of the main changes recorded in the sector since the preparation of Directive 98/26/EC is the growth in the connections between securities payment and

settlement systems. This is partly due to the European Code of Conduct on clearing and settlement, which aimed for full interoperability of all trading infrastructures with post-trade infrastructures and also amongst post-trade infrastructures so as to favour customer choice with regard to service providers.

Accordingly, Act 41/1999, of 12 November, on securities payment and settlement systems, is amended so as to recognise interoperable systems and extend to them the current rules on the finality of transfer orders which are processed through said systems.

For the purposes of this Act, interoperable systems are considered as two or more systems whose management companies have signed a mutual agreement which involves the execution of transfer orders between systems. However, the agreements signed between interoperable systems do not constitute a system.

Each system will determine its own rules on the moment of irrevocability and finality in transfer orders and, in the case of interoperable systems, the rules of each of them will guarantee, as far as possible, coordination with the rules of the other affected systems with regard to determining said moments. However, unless thus established expressly in the rules of all the systems which are interoperable with each other, the rules of each one of them with regard to the moment of irrevocability and finality will not be affected by the rules of the other systems.

With regard to the amendment of Royal Decree-Act/2005, of 11 March, on urgent reforms to boost productivity and improve public procurement, except in the legally provided circumstances, rights are included as part of the collateral which may be used in financial operations.

Consequently, the bringing of insolvency procedures by one participant in a system, even in an interoperable system, or from a management company of a system, will not have an effect on the rights and obligations of said participant or said management company which result from clearing or which derive from firm transfer orders. Similarly, neither will it affect the credit rights which, as collateral, a participant had established in favour of a system or other participants. In these cases, the beneficiaries of the collateral will enjoy absolute right of separation of the assets offered as collateral.

– Regulation (EU) No 513/2011 of the European Parliament and of the Council, of 11 May 2011, amending Regulation (EC) No 1060/2009 on credit rating agencies.

In accordance with the proposed changes, the new European supervisory authority (ESMA) will hold exclusive powers with regard to the supervision of credit rating agencies registered in the EU, which also includes the European subsidiaries of Fitch, Moody's and Standard & Poor's.

The powers of the ESMA include requesting information, initiating investigations and carrying out *in situ* inspections. In addition, issuers of structured financial instruments, such as credit institutions and investment firms, must

provide all other interested credit rating agencies with access to the information which they provide to their own rating agency so that those agencies may issue unrequested ratings.

– Act 11/2011, of 20 May, reforming Act 60/2003, of 23 December, on arbitration and regulation of institutional arbitration in the Central Government.

Among other measures which aim to promote arbitration as an alternative means to solve conflicts, this Act clarifies, by including two new rules in Act 60/2003, of 23 December, on Arbitration, doubts with regard to arbitration referred to in the articles of association of capital companies. It recognises that the conflicts referred to therein may be subject to arbitration and, in line with the security and transparency which in general guides the reform, a strengthened legal majority is required in order to introduce a clause in the articles of association relating to submission to arbitration. It also establishes that submitting opposition to company resolutions to arbitration requires that an arbitration institution manages and designates the arbitrators. In this regard, the expression "arbitration institution" refers to any entity which has an arbitration regulation and, in accordance with said regulation, manages arbitration processes.

V Statistics Annex

1 Markets

1.1 Equity

Share issues and public offerings[1]

TABLE 1.1

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
CASH VALUE[3] (million euro)	16,349.3	11,390.7	16,012.7	5,115.3	2,322.6	8,333.3	3,237.0	213.4
Capital increases	16,339.7	11,388.7	15,407.0	4,580.9	2,322.6	8,262.0	3,237.0	213.4
Of which, primary offerings	292.0	17.4	958.7	923.7	6.0	14.2	0.0	0.0
With Spanish tranche	292.0	14.9	61.6	26.8	5.9	13.9	0.0	0.0
With international tranche	0.0	2.5	897.2	896.9	0.0	0.3	0.0	0.0
Secondary offerings	9.5	1.9	605.7	534.4	0.0	71.4	0.0	0.0
With Spanish tranche	9.5	1.9	79.1	7.7	0.0	71.4	0.0	0.0
With international tranche	0.0	0.0	526.7	526.7	0.0	0.0	0.0	0.0
NOMINAL VALUE (million euro)	1,835.8	1,892.1	6,313.4	2,851.9	2,234.5	1,083.2	547.7	60.1
Capital increases	1,835.7	1,892.0	6,304.4	2,851.9	2,234.5	1,074.3	547.7	60.1
Of which, primary offerings	100.0	0.1	1.9	0.2	0.7	1.0	0.0	0.0
With Spanish tranche	100.0	0.1	1.8	0.1	0.7	0.9	0.0	0.0
With international tranche	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Secondary offerings	0.1	0.0	9.0	0.0	0.0	8.9	0.0	0.0
With Spanish tranche	0.1	0.0	8.9	0.0	0.0	8.9	0.0	0.0
With international tranche	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO. OF FILES[4]	54	53	69	18	12	29	17	13
Capital increases	53	53	67	17	12	28	17	13
Of which, primary offerings	2	2	12	4	2	4	0	0
Of which, bonus issues	18	11	15	4	3	7	2	2
Secondary offerings	2	1	3	2	0	1	0	1
NO. OF ISSUERS[4]	39	34	46	13	10	23	13	8
Capital increases	38	34	45	13	10	22	13	8
Of which, primary offerings	2	2	12	4	2	4	0	0
Secondary offerings	2	1	2	1	0	1	0	1

1 Includes registered offerings with issuance prospectuses and listings admitted to trading without register issuance prospectuses.
2 Available data: May 2011.
3 Does not include registered amounts that were not carried out.
4 Includes all registered offerings, including the issues that were not carried out.

Primary and secondary offerings. By type of subscriber

TABLE 1.2

Million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
PRIMARY OFFERINGS	292.0	17.3	958.7	923.7	6.0	14.2	0.0	0.0
Spanish tranche	282.0	14.9	61.6	26.8	5.9	13.9	0.0	0.0
Private subscribers	191.5	0.0	2.5	0.0	2.5	0.0	0.0	0.0
Institutional subscribers	90.5	14.9	59.0	26.8	3.4	13.9	0.0	0.0
International tranche	0.0	2.5	897.2	896.9	0.0	0.3	0.0	0.0
Employees	10.0	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
SECONDARY OFFERINGS	9.5	1.9	605.7	534.4	0.0	71.4	0.0	0.0
Spanish tranche	9.5	1.5	79.1	7.7	0.0	71.4	0.0	0.0
Private subscribers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Institutional subscribers	9.5	1.5	79.1	7.7	0.0	71.4	0.0	0.0
International tranche	0.0	0.0	526.7	526.7	0.0	0.0	0.0	0.0
Employees	0.0	0.4	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: May 2011.

Companies listed[1]

TABLE 1.3

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
Total electronic market[3]	136	133	129	131	129	129	130	130
Of which, without Nuevo Mercado	136	133	129	131	129	129	130	130
Of which, Nuevo Mercado	0	0	0	0	0	0	0	0
Of which, foreign companies	5	5	6	5	5	6	7	7
Second Market	8	7	6	6	6	6	6	6
Madrid	2	2	2	2	2	2	2	2
Barcelona	6	5	4	4	4	4	4	4
Bilbao	0	0	0	0	0	0	0	0
Valencia	0	0	0	0	0	0	0	0
Open outcry ex SICAVs	29	29	28	28	28	28	28	28
Madrid	13	13	13	13	13	13	13	13
Barcelona	19	19	18	18	18	18	18	18
Bilbao	8	8	8	8	8	8	8	8
Valencia	7	6	6	6	6	6	6	6
Open outcry SICAVs	3	1	1	1	1	1	1	1
MAB[4]	3,347	3,251	3,144	3,193	3,175	3,144	3,121	3,100
Latibex	35	32	29	32	31	29	29	29

1 Data at the end of period.
2 Available data: May 2011.
3 Without ETFs (Exchange Traded Funds).
4 Alternative Stock Market.

Capitalisation[1]

TABLE 1.4

Million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
Total electronic market[3]	531,194.2	634,762.8	590,182.8	506,500.6	568,142.8	565,585.2	619,538	616,312.9
Of which, without Nuevo Mercado	531,194.2	634,762.8	590,182.8	506,500.6	568,142.8	565,585.2	619,538	616,312.9
Of which, Nuevo Mercado	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Of which, foreign companies[4]	61,317.5	94,954.0	92,275.8	76,530.8	83,898.4	100,249.8	104,571	103,057.2
Ibex 35	322,806.6	404,997.3	376,747.6	321,072.6	364,914	348,998.9	385,136.5	386,663.2
Second Market	109.9	80.9	69.1	66.4	74.9	74.6	59.4	58
Madrid	22.8	24.9	23.4	24.8	26.4	24.7	25.5	24.1
Barcelona	87.1	56.0	45.7	41.5	48.5	49.9	33.9	33.9
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 ex SICAVs	5,340.7	4,226.5	4,159.1	4,065.6	3,859.2	4,128.2	3,980.3	3,923.6
Madrid	1,454.7	997.3	958.0	920.7	924	878.8	873.3	856.9
Barcelona	3,580.2	3,400.6	3,336.4	3,276	3,139.2	3,432.2	3,325.1	3,270.8
Bilbao	45.9	435.4	433.4	386.9	386.9	362.1	322.4	322.4
Valencia	760.4	559.2	554.8	543.4	475.2	458.7	426.4	424.7
Open outcry SICAVs[5]	126.8	28.5	28.1	31	30.9	32.6	33	36.9
MAB[5,6]	24,718.6	26,282.9	26,502.4	25,763.3	26,046.2	26,340.8	26,581.5	26,565.7
Latibex	210,773.5	412,628.9	437,016.7	405,461.9	408,834.8	435,337.8	282.5	461,147.4

1 Data at the end of period.
2 Available data: May 2011.
3 Without ETFs (Exchange Traded Funds).
4 Foreign companies capitalisation includes their entire shares, whether they are deposited in Spain or not.
5 It is only calculated with outstanding shares, but not with treasury shares, because they only report the capital stock at the end of the year.
6 Alternative Stock Market.

Trading

TABLE 1.5

Million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
Total electronic market[2]	1,228,392.4	877,073.5	1,026,478.5	294,779.6	213,520.2	291,987.6	244,908.3	163,362.0
Of which, without Nuevo Mercado	1,228,380.9	877,073.5	1,026,478.5	294,779.6	213,520.2	291,987.6	244,908.3	163,362.0
Of which, Nuevo Mercado	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Of which, foreign companies	1,407.1	4,750.4	6,415.3	2,294.1	1,158.2	1,258.6	1,379.9	753.6
Second Market	31.7	3.2	3	0.9	0.5	1.4	0.8	0.2
Madrid	3.4	2	2.8	0.6	0.5	1.3	0.5	0.1
Barcelona	28.3	1.2	0.3	0.2	0.0	0.0	0.3	0.2
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 ex SICAVs	182.1	52.8	157.2	8.9	53.1	81.2	18.1	5.5
Madrid	73.9	16.5	15.7	4.5	8.6	1.5	4.5	1.5
Barcelona	103.6	29.4	135.7	4.3	44.4	78	13.5	4
Bilbao	0.1	1.1	3.9	0.0	0.0	0.0	0.0	0.0
Valencia	4.5	5.9	1.9	0.2	0.1	1.7	0.1	0.0
Open outcry SICAVs	25.3	19.7	8.1	3.8	0.5	0.5	1.7	2.8
MAB[3]	7,060.3	5,080.1	4,147.9	1,143.6	768.4	1,146.9	879.6	721.9
Latibex	757.7	434.7	521.2	162.1	93.5	119.2	102.3	63.8

1 Available data: May 2011.
2 Without ETFs (Exchange Traded Funds).
3 Alternative Stock Market.

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

TABLE 1.6

Million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
Regular trading	1,180,835.9	833,854.9	983,584.5	282,043	202,084.6	280,656.0	235,958.6	158,179.0
Orders	774,718.1	499,182.8	541,879.8	161,849.1	112,273.3	131,954.9	153,546.1	79,517.1
Put-throughs	105,673.9	51,335.8	58,678.1	16,114.0	12,924.2	15,505.2	22,522.2	9,351.3
Block trades	300,443.9	283,336.3	383,026.6	104,079.8	76,887.0	133,196.0	59,890.3	69,310.7
Off-hours	10,175.2	5,996.6	17,209.5	5,731.2	4,932.9	3,064.3	2,096.0	2,394.5
Authorised trades	3,183.2	4,695.6	2,660.5	1,188.4	200.2	1,025.8	843.3	575.4
Art. 36.1 SML trades	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tender offers	17,461.2	7,188.9	312	273.1	38.8	0.0	0.0	0.0
Public offerings for sale	292.0	1,325.0	1,448.2	1,448.2	0.0	0.0	0.0	0.0
Declared trades	1,066.8	5,202.6	2,273.4	0.7	2,272.7	0.0	0.0	0.0
Options	9,661.9	11,443.2	11,474.7	2,487.4	2,010.5	5,235.2	3,501.6	616.7
Hedge transactions	5,716.3	7,366.7	7,515.8	1,607.6	1,980.4	2,006.3	2,508.7	1,596.3

1 Without ETFs (Exchange Traded Funds).
2 Available data: May 2011.

Margin trading for sales and securities lending

TABLE 1.7

Million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
TRADING								
Securities lending[2]	583,950.8	471,007.1	556,246.7	161,045.4	123,594.7	154,640.3	108,561.1	106,784.1
Margin trading for sales of securities[3]	624.9	704.3	598	158.8	155.6	130.1	212.3	75.9
Margin trading for securities purchases[3]	154.7	106.4	65.9	17	12.9	16.9	19.8	7.7
OUTSTANDING BALANCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Securities lending[2]	43,647.8	47,322.2	36,195.9	39,413.7	37,101.6	36,195.9	39,779.8	37,875.1
Margin trading for sales of securities[3]	20.7	21.1	9.9	13.7	19.1	9.9	17.6	15.4
Margin trading for securities purchases[3]	7	5.6	5	5	3.4	5	4.5	4.4

1 Available data: May 2011.
2 Regulated by Article 36.7 of the Securities Market Law and Order ECO/764/2004.
3 Transactions performed in accordance with Ministerial Order dated 25 March 1991 on the margin system in spot transactions.

1.2 Fixed-income

Gross issues registered[1] at the CNMV

TABLE 1.8

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
NO. OF ISSUERS	179	168	115	58	33	47	43	30
Mortgage covered bonds	19	27	25	18	13	13	14	13
Territorial covered bonds	7	1	6	3	1	1	2	2
Non-convertible bonds and debentures	30	50	39	24	11	11	10	9
Convertible bonds and debentures	1	3	2	0	0	2	3	1
Backed securities	88	68	36	9	7	15	8	4
Commercial paper	77	69	58	18	9	19	15	6
Of which, asset-backed	2	2	2	1	0	1	0	0
Of which, non-asset-backed	75	67	56	17	9	18	15	6
Other fixed-income issues	0	0	0	0	0	0	0	0
Preference shares	8	23	0	0	0	0	1	0
NO. OF ISSUES	337	512	349	121	60	98	88	56
Mortgage covered bonds	47	75	88	32	24	21	32	23
Territorial covered bonds	8	1	9	4	1	2	4	2
Non-convertible bonds and debentures	76	244	154	58	19	38	19	20
Convertible bonds and debentures	1	6	3	0	0	3	6	1
Backed securities	108	76	36	9	7	15	10	4
Commercial paper	88	73	59	18	9	19	15	6
Of which, asset-backed	2	2	2	1	0	1	0	0
Of which, non-asset-backed	86	71	57	17	9	18	15	6
Other fixed-income issues	0	0	0	0	0	0	0	0
Preference shares	9	37	0	0	0	0	2	0
NOMINAL AMOUNT (million euro)	476,275.7	387,475.8	226,448.9	57,409.7	61,634.8	55,736.9	77,161.3	43,067.6
Mortgage covered bonds	14,300.0	35,573.9	34,378.5	10,892.4	10,317.0	8,519.1	19,254.0	17,205.0
Territorial covered bonds	1,820.0	500.0	5,900.0	4,700.0	300.0	500.0	2,935.0	300.0
Non-convertible bonds and debentures	10,489.6	62,249.0	24,356.0	6,811.4	1,287.2	7,524.7	2,578.1	2,596.1
Convertible bonds and debentures	1,429.1	3,200.0	968.0	0.0	0.0	968.0	681.6	1,500.0
Backed securities	135,252.5	81,651.2	63,260.5	15,698.5	28,189.7	16,497.3	26,585.0	4,944.5
Spanish tranche	132,730.1	77,289.4	62,743.0	15,205.0	28,189.7	16,473.3	23,706.2	4,535.0
International tranche	2,522.4	4,361.9	517.5	493.5	0.0	24.0	2,878.8	409.5
Commercial paper[3]	311,738.5	191,341.7	97,586.0	19,307.5	21,540.9	21,727.9	24,927.6	16,522.0
Of which, asset-backed	2,843.1	4,758.4	5,057.0	930.0	1,723.0	1,409.0	546.0	403.0
Of which, non-asset-backed	308,895.4	186,583.3	92,529.0	18,377.5	19,817.9	20,318.9	24,381.6	16,119.0
Other fixed-income issues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Preference shares	1,246.0	12,960.0	0.0	0.0	0.0	0.0	200.0	0.0
Pro memoria:								
Subordinated issues	12,949.5	20,988.5	9,154.2	1,983.5	1,838.5	2,048.2	5,407.9	1,734.0
Underwritten issues	9,169.5	4,793.8	299.0	0.0	0.0	0.0	10.0	0.0

1 Includes issuance and trading prospectuses.
2 Available data: May 2011.
3 The figures for commercial paper refer to the amount placed in the year.

Issues admitted to trading on AIAF

TABLE 1.9

Nominal amount in million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
Total	476,710.4	388,455.0	223,404.5	53,030.8	65,590.3	48,230.5	70,790.8	56,785.8
Commercial paper	314,417.4	191,427.7	99,784.4	18,699.8	22,148.0	21,521.8	25,096.2	17,602.8
Bonds and debentures	10,040.3	61,862.5	24,728.6	7,392.1	1,541.1	7,512.4	2,080.6	2,903.5
Mortgage covered bonds	14,150.0	35,568.9	32,861.0	9,820.0	9,767.0	8,499.1	17,244.0	19,985.0
Territorial covered bonds	1,930.0	500.0	5,900.0	4,975.0	300.0	500.0	2,935.0	100.0
Backed securities	135,926.6	85,542.9	60,030.5	12,144.0	31,834.2	10,197.3	23,235.0	16,194.5
Preference shares	246.0	13,552.9	100.0	0.0	0.0	0.0	200.0	0.0
Matador bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: May 2011.

AIAF. Issuers, issues and outstanding balance

TABLE 1.10

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
NO. OF ISSUERS	556	614	634	618	628	634	631	618
Commercial paper	72	67	60	63	66	60	56	48
Bonds and debentures	93	91	93	91	91	93	91	92
Mortgage covered bonds	22	29	33	31	31	33	35	36
Territorial covered bonds	11	11	12	11	11	12	12	12
Backed securities	383	442	459	447	454	459	458	446
Preference shares	52	60	59	60	59	59	60	60
Matador bonds	12	12	12	12	12	12	12	12
NO. OF ISSUES	4,639	4,084	3,630	3,772	3,646	3,630	3,570	3,499
Commercial paper	2,489	1,507	958	1,144	999	958	911	883
Bonds and debentures	450	611	645	645	639	645	631	629
Mortgage covered bonds	146	202	253	220	239	253	267	274
Territorial covered bonds	26	25	26	24	25	26	28	29
Backed securities	1436	1629	1641	1,630	1,637	1,641	1,625	1,576
Preference shares	78	96	93	95	93	93	94	94
Matador bonds	14	14	14	14	14	14	14	14
OUTSTANDING BALANCE[2] (million euro)	819,637.7	870,981.1	850,181.7	839,437.9	851,730.8	850,181.7	854,735.5	864,274.2
Commercial paper	71,762.2	41,647.0	23,233.6	32,547.3	27,299.7	23,233.6	24,274.6	25,740.9
Bonds and debentures	122,001.9	150,886.3	146,077.7	148,648.1	144,437.2	146,077.7	139,744.8	139,130.6
Mortgage covered bonds	162,465.5	185,343.8	195,734.8	183,028.7	189,145.7	195,734.8	202,528.8	217,863.8
Territorial covered bonds	17,030.0	16,030.0	18,350.0	18,350.0	18,650.0	18,350.0	20,485.0	20,585.0
Backed securities	422,010.7	442,831.5	434,835.1	422,610.5	440,244.9	434,835.1	435,551.9	428,803.4
Preference shares	23,308.6	33,183.8	30,891.8	33,194.5	30,894.5	30,891.8	31,091.8	31,091.8
Matador bonds	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8

1 Available data: May 2011.
2 Nominal amount.

AIAF. Trading

TABLE 1.11

Nominal amount in million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
BY TYPE OF ASSET	2,521,040.1	4,658,633.2	4,383,118.7	827,194.9	1,088,985.4	1,811,416.3	2,540,940.4	1,005,281.6
Commercial paper	591,943.8	533,331.0	385,238.9	103,792.8	92,307.2	72,604.4	67,260.3	38,540.3
Bonds and debentures	80,573.8	321,743.0	922,393.1	222,442.5	192,302.0	349,527.2	241,674.3	75,537.6
Mortgage covered bonds	129,995.3	263,150.0	271,441.8	67,916.3	86,114.0	96,608.6	169,889.3	79,504.3
Territorial covered bonds	10,142.3	7,209.0	14,458.2	8,430.6	3,213.7	1,924.7	32,764.3	36,232.8
Backed securities	1,704,341.8	3,527,486.4	2,784,775.4	423,251.4	714,081.4	1,289,446.1	2,028,138.1	774,696.9
Preference shares	4,030.0	5,668.5	4,635.7	1,218.4	966.9	1,273.8	1,178.3	769.8
Matador bonds	13.2	45.2	175.7	143.0	0.2	31.6	35.9	0.0
BY TYPE OF TRANSACTION	2,521,040.1	4,658,633.2	4,383,118.7	827,194.9	1,088,985.4	1,811,416.3	2,540,940.4	1,005,281.6
Outright	387,897.1	378,348.4	288,927.3	81,760.9	55,230.8	69,161.4	100,126.8	58,003.3
Repos	381,505.0	362,068.7	304,493.2	82,787.8	72,123.5	61,165.8	55,980.9	34,051.5
Sell-buybacks/Buy-sellbacks	1,751,638.0	3,918,216.1	3,789,698.3	662,646.2	961,631.2	1,681,089.0	2,384,832.7	913,226.8

1 Available data: May 2011.

AIAF. Third-party trading. By purchaser sector

TABLE 1.12

Nominal amount in million euro	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
Total	744,652.5	681,946.6	553,896.6	149,128.9	121,757.2	120,800.2	136,405.9	84,259.0
Non-financial companies	285,044.4	256,224.6	162,949.5	42,315.5	37,846.5	33,281.8	36,362.7	25,328.3
Financial institutions	334,851.6	298,909.1	289,950.4	78,266.4	68,828.4	67,718.0	67,797.2	36,398.9
Credit institutions	130,056.0	125,547.5	102,372.1	26,229.9	21,916.4	29,970.9	34,359.6	17,257.0
IICs[2], insurance and pension funds	154,709.8	115,865.3	125,899.4	36,015.0	31,339.1	22,618.2	24,511.6	17,727.6
Other financial institutions	50,085.8	57,496.3	61,678.9	16,021.4	15,572.8	15,128.9	8,926.0	1,414.3
General government	6,331.2	5,808.5	3,117.7	1,425.4	160.5	309.8	295.8	218.7
Households and NPISHs[3]	13,344.0	14,647.8	14,244.4	3,090.8	2,234.1	2,541.9	1,866.8	2,141.9
Rest of the world	105,081.2	106,356.6	83,634.6	24,030.8	12,687.8	16,948.7	30,083.5	20,171.2

1 Available data: May 2011.
2 IICs: Instituciones de Inversión Colectiva / CIS: Collective Investment Schemes.
3 Non-profit institutions serving households.

Issues admitted to trading on equity markets[1]

TABLE 1.13

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[2]
NOMINAL AMOUNTS (million euro)	3,390.6	5,866.8	868.0	200.0	0.0	468.0	500.0	681.6
Non-convertible bonds and debentures	0.0	0.0	400.0	200.0	0.0	0.0	0.0	0.0
Convertible bonds and debentures	0.0	4,510.8	468.0	0.0	0.0	468.0	500.0	681.6
Backed securities	3,390.6	1,356.0	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
NO. OF ISSUES	33	10	8	4	0	1	1	4
Non-convertible bonds and debentures	0	0	7	4	0	0	0	0
Convertible bonds and debentures	0	4	1	0	0	1	1	4
Backed securities	33	6	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0

1 Private issuers. Includes issuance and trading prospectuses.
2 Available data: May 2011.

Equity markets. Issuers, issues and outstanding balances

TABLE 1.14

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[1]
NO. OF ISSUERS	58	62	60	62	62	60	57	60
Private issuers	45	48	46	48	48	46	44	47
Non-financial companies	5	6	5	5	5	5	4	4
Financial institutions	40	42	41	43	43	41	40	43
General government[3]	13	14	14	14	14	14	13	13
Regional governments	3	3	3	3	3	3	3	3
NO. OF ISSUES	271	269	247	258	257	247	237	242
Private issuers	157	155	145	151	150	145	137	137
Non-financial companies	9	10	7	8	8	7	7	7
Financial institutions	148	145	138	143	142	138	130	130
General government[3]	114	114	102	107	107	102	100	105
Regional governments	82	76	64	68	68	64	63	68
OUTSTANDING BALANCES[2] (million euro)	29,142.6	36,299.5	41,091.3	36,674.9	36,480.1	41,091.3	41,547.8	45,477.4
Private issuers	17,237.9	21,600.9	19,261.5	19,462.5	19,110.1	19,261.5	19,352	19,116.1
Non-financial companies	381.0	1,783.7	376.6	377.3	377.1	376.6	375.8	375.8
Financial institutions	16,856.9	19,817.2	18,884.8	19,085.2	18,733	18,884.8	18,976.1	18,740.3
General government[3]	11,904.7	14,698.6	21,829.9	17,212.3	17,370	21,829.9	22,195.9	26,361.3
Regional governments	9,972.5	12,338.3	19,442.4	14,803.4	14,961.8	19,442.4	19,812.5	23,977.9

1 Available data: May 2011.
2 Nominal amount.
3 Without public book-entry debt.

Trading on equity markets

TABLE 1.15

				2010				2011
Nominal amounts in million euro	2008	2009	2010	I	II	III	IV	I
Electronic market	1,580.1	633.0	510.5	83.8	207.1	97.1	122.5	81,5
Open outcry	7,842.1	4,008.4	7,525.6	328.9	1,404.5	1,117.8	4,674.4	2,413.6
Madrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0,0
Barcelona	7,674.9	3,821.1	7,146.7	101.5	1,373.0	1,051.6	4,620.6	2,377.6
Bilbao	6.1	4.6	2.3	0.8	0.7	0.4	0.5	2,0
Valencia	161.1	182.7	376.6	226.6	30.9	65.8	53.4	34,0
Public book-entry debt	46.2	49.1	331.1	11.8	304.0	6.3	9.1	4,4
Regional governments debt	71,054.9	70,065.8	59,017.0	18,577.3	13,490.5	13,613.0	13,336.2	11,806.8

Organised trading systems: SENAF y MTS. Public debt trading by type

TABLE 1.16

				2010			2011	
Nominal amounts in million euro	2008	2009	2010	II	III	IV	I	II[1]
Total	132,327.4	202,120.5	265,966.0	64,903.8	75,677.6	41,660.2	27,593.2	17,686.6
Outright	89,010.5	114,314.0	110,011.0	19,326.0	16,173.0	21,116.0	27,293.0	16,022.0
Sell-buybacks/Buy-sellbacks	43,316.9	86,806.5	155,433.0	45,536.8	59,504.6	20,394.2	300.2	1,664.6
Others	0.0	1,000.0	522.0	41.0	0.0	150.0	0.0	0.0

1 Available data: May 2011.

1.3 Derivatives and other products

1.3.1 Financial derivatives markets: MEFF

Trading on MEFF

TABLE 1.17

				2010			2011	
Number of contracts	2008	2009	2010	II	III	IV	I	II[1]
Debt products	12	18	14	4	4	2	6	0
Debt futures[2]	12	18	14	4	4	2	6	0
Ibex 35 products[3,4]	8,433,963	6,187,544	6,946,167	2,279,397	1,446,089	1,585,302	1,714,038	888,756
Ibex 35 plus futures	7,275,299	5,436,989	6,280,999	2,053,136	1,327,272	1,432,956	1,575,272	812,987
Ibex 35 mini futures	330,042	314,829	357,926	128,596	69,900	72,265	90,048	44,905
Call mini options	323,874	230,349	122,158	33,861	21,602	30,717	17,606	10,434
Put mini options	504,749	205,377	185,083	63,804	27,315	49,364	31,111	20,430
Stock products[5]	64,554,817	80,114,693	57,291,482	12,831,247	13,107,040	17,395,281	16,374,082	7,296,667
Futures	46,237,568	44,586,779	19,684,108	3,927,137	4,969,808	6,650,855	8,006,039	2,777,955
Call options	7,809,423	18,864,840	17,186,515	4,164,723	4,413,718	4,250,315	3,761,646	1,759,423
Put options	10,507,826	16,663,074	20,420,859	4,739,387	3,723,514	6,494,111	4,606,397	2,759,289
Pro-memoria: MEFF trading on Eurex								
Debt products[6]	869,105	558,848	373,113	103,847	59,521	71,884	90,405	45,904
Index products[7]	1,169,059	835,159	604,029	165,818	101,741	124,415	106,551	51,219

1 Available data: May 2011.
2 Contract size: 100 thousand 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.
6 Bund, Bobl and Schatz futures.
7 Dax 30, DJ EuroStoxx 50 and DJ Stoxx 50 futures.

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

Issues registered at the CNMV

TABLE 1.18

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[1]
WARRANTS[2]								
Premium amount (million euro)	12,234.4	5,165.1	4,915.3	1,602.0	761.4	1,227.4	1,174.6	581.6
On stocks	6,914.1	2,607.1	2,537.4	829.8	302.5	705.7	666.8	278.9
On indexes	4,542.8	2,000.1	1,852.6	613.0	367.3	380.8	387.8	184.9
Other underlyings[3]	777.5	558.0	525.4	159.3	91.6	140.9	120.0	117.9
Number of issues	9,790	7,342	8,375	2,417	1,260	2,534	1,946	1,153
Number of issuers	8	9	9	8	6	7	7	4
OPTION BUYING AND SELLING CONTRACTS								
Nominal amounts (million euro)	77.0	35.0	64.0	32.0	20.0	7.0	0.0	0.0
On stocks	77.0	25.0	47.0	25.0	10.0	7.0	0.0	0.0
On indexes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other underlyings[3]	0.0	10.0	17.0	7.0	10.0	0.0	0.0	0.0
Number of issues	4	3	7	3	2	1	0	0
Number of issuers	1	1	1	1	1	1	0	0

1 Available data: May 2011.
2 Includes issuance and trading prospectuses.
3 Includes the following underlying: baskets of stocks, exchange rates, interest rates and commodities.

Equity markets. Warrants and ETF trading

TABLE 1.19

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
WARRANTS								
Trad©ing (million euro)	2,943.7	1,768.4	1,603.2	503.6	397.9	366.2	466.4	196.1
On Spanish stocks	1,581.9	809.9	759.8	235.9	198.0	181.1	212.5	97.5
On foreign stocks	145.7	97.6	60.7	20.8	8.4	17.2	23.7	9.6
On indexes	1,063.3	761.2	689.5	229.6	169.2	130.8	157.1	41.7
Other underlyings[2]	152.8	99.7	93.2	17.3	22.4	37.1	73.1	47.3
Number of issues[3]	9,770	8,038	7,750	3,489	3,007	3,060	2,746	2,400
Number of issuers[3]	10	10	10	8	9	10	9	8
CERTIFICATES								
Trading (million euro)	16.8	39.2	22	4.1	7.8	3.7	4.1	3.1
Number of issues[3]	26	22	16	14	13	13	11	10
Number of issuers[3]	4	4	2	2	2	2	2	2
ETF								
Trading (million euro)	6,938.1	3,470.6	6,229.7	2,027	2,285.8	842.6	815.6	1,106.6
Number of funds	30	32	65	32	43	65	67	67
Assets[4] (million euro)	1,630.3	1,648.4	827.8	986.6	960.2	827.8	859.4	n.a.

1 Available data: May 2011.
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 Assets from national collective investment schemes is only included because assets from foreign ones are not available.
n.a.: No available data.

1.3.3 Non-financial derivatives

Trading on MFAO[1]

TABLE 1.20

Number of contracts	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
On olive oil								
Extra-virgin olive oil futures[3]	48,091	135,705	165,840	52,695	46,540	41,555	25,050	16,701

1 Olive oil futures market.
2 Available data: May 2011.
3 Nominal amount of the contract: 1,000 kg.

2 Investment services

Investment services. Spanish firms, branches and agents

TABLE 2.1

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
BROKER-DEALERS								
Spanish firms	51	50	50	51	51	50	50	50
Branches	79	78	80	79	79	80	80	78
Agents	6,041	6,102	6,455	6,284	6,387	6,455	6,560	6,609
BROKERS								
Spanish firms	50	50	47	48	47	47	45	45
Branches	9	9	10	8	8	10	13	13
Agents	639	638	665	662	660	665	689	687
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	10	9	7	8	8	7	6	6
Branches	4	5	5	5	5	5	5	5
Agents	6	5	3	4	4	3	2	3
FINANCIAL ADVISORY FIRMS[2]								
Spanish firms	–	16	48	36	42	48	58	62
CREDIT INSTITUTIONS[3]								
Spanish firms	195	193	186	193	189	186	186	186

1 Available data: May 2011.

2 New type of investment services company, created by Law 47/2008, of 19 December, which modifies Law 24/1988, of 28 July, on the Securities Market, and regulated by Circular CR CNMV 10/2008, of 30 December.

3 Source: Banco de España.

Investment services. Foreign firms

TABLE 2.2

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[1]
Total	2,232	2,346	2,604	2,496	2,563	2,604	2,671	2,716
European Economic Area investment services firms	1,818	1,922	2,176	2,065	2,129	2,176	2,238	2,278
Branches	37	36	41	39	40	41	40	40
Free provision of services	1,781	1,886	2,135	2,026	2,089	2,135	2,198	2,238
Credit institutions[2]	414	424	428	431	434	428	433	438
From EU member states	405	414	418	421	424	418	423	428
Branches	56	53	53	56	56	53	55	56
Free provision of services	348	360	364	364	367	364	368	372
Subsidiaries of free provision of services institutions	1	1	1	1	1	1	0	0
From non-EU states	9	10	10	10	10	10	10	10
Branches	8	8	8	8	8	8	8	8
Free provision of services	1	2	2	2	2	2	2	2

1 Available data: May 2011.

2 Source: Banco de España and CNMV.

Intermediation of spot transactions[1]

TABLE 2.3

	I 2010				I 2011			
Million euro	Spanish organised markets	Other Spanish markets	Foreign markets	Total	Spanish organised markets	Other Spanish markets	Foreign markets	Total
FIXED-INCOME								
Total	797,893	1,897,672	153,154	2,848,719	789,654	2,506,345	219,802	3,515,801
Broker-dealers	146,378	69,956	46,305	262,639	102,744	728,516	165,606	996,866
Brokers	651,515	1,827,716	106,849	2,586,080	686,910	1,777,829	54,196	2,518,935
EQUITY								
Total	257,073	1,516	18,899	277,488	258,103	1,123	22,020	281,246
Broker-dealers	249,227	1,322	17,392	267,941	252,482	998	20,870	274,350
Brokers	7,846	194	1,507	9,547	5,621	125	1,150	6,896

1 Period accumulated data.

Intermediation of derivative transactions[1,2]

TABLE 2.4

Million euro	IV 2010 Spanish organised markets	IV 2010 Foreign organised markets	IV 2010 Non-organised markets	IV 2010 Total	IV 2011 Spanish organised markets	IV 2011 Foreign organised markets	IV 2011 Non-organised markets	IV 2011 Total
Total	901,003	2,385,072	654,745	3,940,820	1,000,337	2,347,173	301,303	3,648,813
Broker-dealers	875,119	2,034,636	33,529	2,943,284	998,629	1,461,427	210,192	2,670,248
Brokers	25,884	350,436	621,216	997,536	1,708	885,746	91,111	978,565

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.

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

TABLE 2.5

	I 2010 Total	I 2010 IIC[2]	I 2010 Other[3]	I 2011 Total	I 2011 IIC[2]	I 2011 Other[3]
NUMBER OF PORTFOLIOS						
Total	12,928	119	12,809	13,344	143	13,201
Broker-dealers	6,989	38	6,951	7,402	92	7,310
Brokers	3,325	53	3,272	3,933	46	3,887
Portfolio management companies	2,614	28	2,586	2,009	5	2,004
ASSETS UNDER MANAGEMENT (thousand euro)						
Total	9,721,254	2,282,654	7,438,600	9,666,765	2,045,534	7,621,231
Broker-dealers	4,147,360	962,359	3,185,001	4,374,689	1,154,269	3,220,420
Brokers	2,454,022	1,131,397	1,322,625	2,330,181	777,950	1,552,231
Portfolio management companies	3,119,872	188,898	2,930,974	2,961,895	113,315	2,848,580

1 Data at the end of period.
2 IIC: Instituciones de Inversión Colectiva / CIS: Collective Investment Schemes. Includes both resident and non resident IICs management.
3 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 and assets advised[1]

TABLE 2.6

	I 2010 Total[2]	I 2010 Retail clients	I 2010 Professional clients	I 2011 Total[2]	I 2011 Retail clients	I 2011 Professional clients
NUMBER OF CONTRACTS						
Total	5,006	4,932	68	7,250	7,146	81
Broker-dealers	1,190	1,183	3	1,428	1,419	3
Brokers	3,139	3,082	55	4,803	4,717	69
Portfolio management companies	677	667	10	1,019	1,010	9
ASSETS ADVISED (thousand euro)						
Total	6,680,977	1,903,800	4,357,108	7,785,459	2,840,216	4,530,030
Broker-dealers	1,173,105	436,470	333,147	936,615	491,112	39,821
Brokers	2,052,523	1,098,388	937,553	2,984,102	1,875,935	1,098,636
Portfolio management companies	3,455,349	368,942	3,086,408	3,864,742	473,169	3,391,573

1 Data at the end of period.
2 Includes retail, professional and other clients.

Aggregated income statement. Broker-dealers[1]

TABLE 2.7

				2010			2011	
Thousand euro[2]	2008	2009	2010	II	III	IV	I	II[3]
I. Interest income	109,682	163,272	102,054	43,915	79,231	102,054	15,186	19,216
II. Net commission	674,204	562,082	533,858	279,871	391,165	533,858	157,081	196,451
Commission revenues	943,619	782,214	798,152	423,656	593,521	798,152	231,177	292,281
Brokering	648,036	548,362	555,207	306,583	420,088	555,207	166,934	203,043
Placement and underwriting	42,502	26,326	8,499	2,906	4,314	8,499	1,057	1,750
Securities deposit and recording	21,198	16,183	22,367	11,218	16,774	22,367	5,466	7,246
Portfolio management	17,306	11,768	13,880	6,366	10,044	13,880	4,180	5,551
Design and advising	56,671	60,477	53,722	27,094	38,344	53,722	16,803	26,884
Stocks search and placement	12	10	36	7	36	36	179	179
Market credit transactions	19	14	9	5	8	9	2	3
IICs marketing[4]	91,167	63,341	65,487	32,261	48,242	65,487	16,053	21,250
Other	66,708	55,733	78,944	37,218	55,672	78,944	20,503	26,376
Commission expenses	269,415	220,133	264,294	143,785	202,356	264,294	74,096	95,830
III. Financial investment income[5]	800,194	45,266	48,588	76,990	9,842	48,588	28,083	24,981
IV. Net exchange differences and other operating products and expenses	-626,527	21,820	26,081	-36,773	39,866	26,081	2,089	10,134
V. Gross income	957,553	792,440	710,580	364,004	520,104	710,580	202,439	250,782
VI. Operating income	434,209	339,706	276,253	149,310	197,788	276,253	88,664	102,091
VII. Earnings from continuous activities	365,374	250,984	196,834	132,181	173,280	196,834	73,039	84,142
VIII. Net earnings of the period	367,665	250,984	196,834	132,181	173,280	196,834	73,039	84,142

1 From IV quarter 2008 on data come from information sent to the CNMV by investment services companies (ESIs) according to the new accounting regulation CR CNMV 7/2008. With the aim of keeping the continuity of time series, some changes have been introduced in previous quarters.
2 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
3 Available data: April 2011.
4 Before IV quarter 2008 it refers to "IICs subscription and redemption".
5 Previously named "Net income from securities trading". Does not include provisions for losses in value of securities portfolio, nor their recovering and application. These items are included in "Operating income".

Results of proprietary trading. Broker-dealers

TABLE 2.8

	Total		Interest income		Financial investment income[1]		Exchange differences and other items[2]	
Thousand euro[3]	I 2010	I 2011	I 2010	I 2011	I 2010	I 2011	I 2010	I 2011
Total	44,075	43,562	7,810	15,186	-4,943	28,083	41,208	293
Money market assets and public debt	3,889	3,774	1,099	355	2,790	3,419	–	–
Other fixed-income securities	24,341	10,566	4,843	7,615	19,499	2,951	–	–
Domestic portfolio	20,081	7,883	4,356	6,887	15,725	996	–	–
Foreign portfolio	4,260	2,683	487	728	3,774	1,956	–	–
Equities	48,680	-132,691	3,322	4,687	45,359	-137,378	–	–
Domestic portfolio	-4,213	14,068	2,090	3,094	-6,303	10,974	–	–
Foreign portfolio	52,894	-146,759	1,231	1,593	51,662	-148,352	–	–
Derivatives	-72,275	155,168	–	–	-72,275	155,168	–	–
Repurchase agreements	-786	130	-786	130	–	–	–	–
Market credit transactions	0	0	0	0	–	–	–	–
Deposits and other transactions with financial Intermediaries	1,321	3,602	1,321	3,602	–	–	–	–
Net exchange differences	41,056	1,702	–	–	–	–	41,056	1,702
Other operating products and expenses	96	388	–	–	–	–	96	388
Other transactions	-2,249	924	-1,988	-1,203	-317	3,923	56	-1,797

1 Financial investment income does not include provisions for losses in value of securities portfolio, nor their recovering and application.
2 Former column "Other charges" has been replaced by a new column which includes, besides provisions for risks, net exchange results and other operating products and expenses.
3 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. Brokers[1]

TABLE 2.9

Thousand euro[2]	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[3]
I. Interest income	7,980	2,652	1,629	732	1,100	1,629	351	522
II. Net commission	149,874	127,410	109,165	56,876	80,233	109,165	26,048	33,486
Commission revenues	172,344	144,373	126,055	65,412	92,624	126,055	29,798	38,428
Brokering	62,345	53,988	38,176	21,791	29,565	38,176	10,080	12,893
Placement and underwriting	4,847	2,989	2,748	610	1,368	2,748	350	541
Securities deposit and recording	676	509	366	186	277	366	97	125
Portfolio management	21,137	19,633	19,489	8,808	13,861	19,489	3,818	4,824
Design and advising	4,962	2,806	3,618	2,032	1,973	3,618	1,147	1,510
Stocks search and placement	0	0	304	115	128	304	174	274
Market credit transactions	10	28	27	10	26	27	10	10
IICs marketing[4]	31,287	23,966	23,946	12,004	17,611	23,946	5,827	7,493
Other	47,081	40,453	37,381	19,855	27,815	37,381	8,295	10,756
Commission expenses	22,470	16,963	16,890	8,536	12,391	16,890	3,750	4,942
III. Financial investment income[5]	-1,176	1,709	456	-104	23	456	152	162
IV. Net exchange differences and other operating products and expenses	3,526	-1,111	-1,416	-376	-955	-1,416	-455	-751
V. Gross income	160,204	130,661	109,834	57,128	80,401	109,834	26,096	33,419
VI. Operating income	20,377	9,090	9,457	4,894	6,330	9,457	3,446	3,535
VII. Earnings from continuous activities	14,372	4,862	6,452	4,443	5,700	6,452	3,300	3,290
VIII. Net earnings of the period	14,372	4,862	6,452	4,443	5,700	6,452	3,300	3,290

1 From IV quarter 2008 on data come from information sent to the CNMV by investment services companies (ESIs) according to the new accounting regulation CR CNMV 7/2008. With the aim of keeping the continuity of time series, some changes have been introduced in previous quarters.
2 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
3 Available data: April 2011.
4 Before IV quarter 2008 it refers to "IICs subscription and redemption".
5 Previously named "Net income from securities trading". Does not include provisions for losses in value of securities portfolio, nor their recovering and application. These items are included in "Operating income".

Aggregated income statement. Portfolio management companies[1]

TABLE 2.10

Thousand euro[2]	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[3]
I. Interest income	1,482	341	407	165	274	407	154	191
II. Net commission	12,044	10,734	10,097	5,967	8,393	10,097	1,897	2,522
Commission revenues	23,877	21,750	20,994	11,440	16,560	20,994	4,531	6,030
Portfolio management	20,683	18,463	18,020	9,218	13,645	18,020	4,224	5,523
Design and advising	2,484	2,698	1,160	719	1,101	1,160	307	507
IICs marketing[4]	66	18	34	26	34	34	0	0
Other	644	571	1,779	1,477	1,779	1,779	0	0
Commission expenses	11,833	11,016	10,897	5,473	8,167	10,897	2,634	3,508
III. Financial investment income[5]	-108	92	51	65	96	51	242	250
IV. Net exchange differences and other operating products and expenses	-418	-383	22	-157	-265	22	12	-10
V. Gross income	13,000	10,784	10,577	6,040	8,498	10,577	2,305	2,953
VI. Operating income	1,157	1,296	1,154	1,410	1,188	1,154	413	522
VII. Earnings from continuous activities	765	889	939	1,169	1,008	939	302	372
VIII. Net earnings of the period	765	889	939	1,169	1,008	939	302	372

1 From IV quarter 2008 on data come from information sent to the CNMV by investment services companies (ESIs) according to the new accounting regulation CR CNMV 7/2008. With the aim of keeping the continuity of time series, some changes have been introduced in previous quarters.
2 Accumulated data from the beginning of the year to the last day of every quarter. It includes companies removed throughout the year.
3 Available data: April 2011.
4 Before IV quarter 2008 it refers to "IICs subscription and redemption".
5 Previously named "Net income from securities trading". Does not include provisions for losses in value of securities portfolio, nor their recovering and application. These items are included in "Operating income".

Surplus equity over capital adequacy requirements[1,2]

TABLE 2.11

	Surplus		Number of companies according to its surplus percentage									
Thousand euro	Total amount	%[3]	< 50	<100	<150	<200	<300	<400	<500	<750	<1000	>1000
Total	1,404,281	306.69	13	20	9	6	14	11	7	9	7	5
Broker-dealers	1,320,312	322.91	2	7	1	4	9	10	5	4	5	3
Brokers	66,418	194.60	10	12	7	1	4	1	2	5	2	1
Portfolio management companies	17,550	118.02	1	1	1	1	1	0	0	0	0	1

1 Available data: March 2011.
2 Data collected from information reported according to new Circular CR CNMV 12/2008 on investment services companies solvency.
3 Average percentage is weighted by the required equity of each company. It is an indicator of the number of times, in percentage terms, that the surplus contains the required equity in an average company.

Return on equity (ROE) before taxes[1,2]

TABLE 2.12

			Number of companies according to its annualized return							
	Average[3]	Losses	0-5%	6-15%	16-30%	31-45%	46-60%	61-75%	76-100%	>100%
Total	17.81	25	18	25	17	4	3	2	2	5
Broker-dealers	18.29	9	11	15	7	4	1	0	0	3
Brokers	12.86	15	5	9	9	0	1	2	2	2
Portfolio management companies	5.10	1	2	1	1	0	1	0	0	0

1 ROE has been calculated as:

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

Own_Funds= Share capital + Paid-in surplus + Reserves – Own shares + Prior year profits and retained earnings – Interim dividend.
2 Available data: March 2011.
3 Average weighted by equity, %.

Financial advisory firms. Main figures

TABLE 2.13

				2009		2010	
Thousand euro	2008	2009	2010	I	II	I	II
ASSETS ADVISED[1]							
Total	–	1,410,985	15,852,873	–	1,410,985	12,242,683	15,852,873
Retail clients	–	364,284	1,680,608	–	364,284	1,163,020	1,680,608
Professional	–	1,046,702	14,076,705	–	1,046,702	10,746,313	14,076,705
Other	–	0	95,561	–	0	333,350	95,561
COMMISSION INCOME[2]							
Total	–	3,284	19,724	–	3,284	7,771	19,724
Commission revenues	–	3,284	19,651	–	3,284	7,714	19,651
Other income	–	0	73	–	0	57	73
EQUITY							
Total	–	1,569	10,669	–	1,569	9,299	10,669
Share capital	–	1,103	3,014	–	1,103	2,369	3,014
Reserves and retained earnings	–	39	356	–	39	3,333	356
Income for the year[2]	–	427	7,299	–	427	3,598	7,299

1 Data at the end of each period.
2 ccumulated data from the beginning of the year to the last day of every semester.

3 Collective investment schemes (IICs)[a,b,c,d]

Number, management companies and depositories of collective investment schemes registered at the CNMV

TABLE 3.1

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[1]
Total financial IICs	6,354	5,892	5,627	5,724	5,679	5,627	5,603	5,581
Mutual funds	2,943	2,593	2,429	2,464	2,443	2,429	2,436	2,433
Investment companies	3,347	3,232	3,133	3,195	3,171	3,133	3,105	3,085
Funds of hedge funds	40	38	32	34	33	32	29	28
Hedge funds	24	29	33	31	33	33	33	35
Total real estate IICs	18	16	16	16	16	16	16	16
Real estate investment funds	9	8	8	8	8	8	8	8
Real estate investment companies	9	8	8	8	8	8	8	8
Total foreign IICs marketed in Spain	563	582	660	636	652	660	669	685
Foreign funds marketed in Spain	312	324	379	365	376	379	383	392
Foreign companies marketed in Spain	251	258	281	271	276	281	286	293
Management companies	120	120	123	124	123	123	120	119
IIC depositories	125	124	114	122	117	114	113	114

1 Available data: May 2011.

Number of IICs investors and shareholders

TABLE 3.2

				2010			2011	
	2008	2009	2010[1]	II	III	IV	I[1]	II[2]
Total financial IICs	6,358,753	5,895,009	5,578,524	5,841,721	5,765,250	5,578,524	5,575,859	5,547,961
Mutual funds	5,923,352	5,475,403	5,160,889	5,423,206	5,348,536	5,160,889	5,160,482	5,131,187
Investment companies	435,401	419,606	417,635	419,307	416,714	417,635	415,377	416,774
Total real estate IICs	98,327	84,511	76,223	77,714	77,116	76,223	34,690	35,510
Real estate investment funds	97,390	83,583	75,280	76,772	76,182	75,280	33,747	34,572
Real estate investment companies	937	928	943	942	934	943	943	938
Total foreign IICs marketed in Spain	593,488	685,094	865,767	791,381	811,553	865,767	853,797	–
Foreign funds marketed in Spain	102,922	139,102	193,233	181,039	186,804	193,233	197,751	–
Foreign companies marketed in Spain	490,566	545,992	666,534	610,342	624,749	666,534	656,046	–

1 Provisional data for foreign IICs.
2 Available data: April 2011. Foreign IICs send this information quarterly.

IICs total net assets

TABLE 3.3

				2010			2011	
Million euro	2008	2009	2010[1]	II	III	IV	I[1]	II[2]
Total financial IICs	200,522.4	196,472.5	170,073.1	180,899.1	178,778.0	170,073.1	170,409.6	171,143.1
Mutual funds[3]	175,865.5	170,547.7	143,918.2	155,295.5	152,646.5	143,918.2	144,428.0	143,859.5
Investment companies	24,656.9	25,924.8	26,155.0	25,602.6	26,131.5	26,155.0	26,491.4	26,715.1
Total real estate IICs	7,778.8	6,773.7	6,437.5	6,606.6	6,524.2	6,437.5	6,403.6	6,370.8
Real estate investment funds	7,406.9	6,465.1	6,115.6	6,279.6	6,201.5	6,115.6	6,083.3	6,050.9
Real estate investment companies	371.9	308.6	321.9	327.0	322.7	321.9	320.3	319.9
Total foreign IICs marketed in Spain	18,254.8	25,207.2	36,692.9	32,362.8	32,826.7	36,692.9	37,625.7	–
Foreign funds marketed in Spain	3,352.0	5,215.1	8,535.9	7,477.2	7,650.1	8,535.9	8,096.7	–
Foreign companies marketed in Spain	14,902.8	19,992.0	28,156.9	24,885.7	25,176.6	28,156.9	29,529.0	–

1 Provisional data for foreign IICs.
2 Available data: April 2011. Foreign IICs send this information quarterly.
3 For April 2011, mutual funds investments in financial IICs reached 6.3 billion euro.

a IICs: Instituciones de Inversión Colectiva / CIS: Collective Investment Schemes.

b In this document, neither hedge funds nor funds of hedge funds are included in the figures referred to mutual funds.

c Due to the entry into force, on 31 December 2008, of CR CNMV 3/2008 and CR CNMV 7/2008, which modify accounting information to be reported to CNMV, data has been adapted to new regulation.

d From March 2009 on, foreign collective investments schemes shareholders and total net assets data do not include exchange traded funds (ETFs).

Mutual funds asset allocation[1]

TABLE 3.4

				2010				2011
Million euro	2008	2009	2010	I	II	III	IV	I
Asset	175,865.5	170,547.7	143,918.1	167,524.3	155,295.5	152,646.5	143,918.2	144,428.0
Portfolio investment	166,384.7	163,165.5	137,295.4	160,119.6	148,166.2	144,724.4	137,296.1	137,441.4
Domestic securities	107,347.7	100,642.6	89,630.2	96,322.9	92,605.7	91,413.1	89,632.4	92,205.1
Debt securities	81,904.6	74,628.9	68,575.1	71,916.5	69,173.9	68,366.9	68,574.5	71,784.6
Shares	4,023.2	4,741.0	3,829.2	4,384.1	3,611.2	3,994.8	3,829.2	3,990.3
Investment collective schemes	10,134.3	9,041.5	7,338.6	8,930.1	8,876.9	8,415.2	7,338.6	6,338.7
Deposits in credit institutions	10,657.6	11,552.2	9,460.8	10,531.5	10,508.4	10,167.6	9,460.8	9,634.7
Derivatives	627.9	679.0	426.2	560.7	435.3	467.6	429.0	456.5
Other	0.1	0.0	0.4	0.0	0.0	1.0	0.4	0.3
Foreign securities	59,035.2	62,487.1	47,626.5	63,745.9	55,515.6	53,272.4	47,625.1	45,198.9
Debt securities	49,659.8	48,435.3	30,337.4	47,491.3	39,619.4	36,499.7	30,337.4	26,875.7
Shares	5,216.1	7,783.2	8,385.8	8,291.3	7,615.6	8,003.2	8,386.4	8,604.6
Investment collective schemes	3,524.5	5,666.4	8,404.7	7,398.7	7,844.9	8,264.9	8,404.7	9,252.1
Deposits in credit institutions	17.5	82.4	108.0	79.9	81.5	73.1	108.0	86.7
Derivatives	599.5	518.7	387.1	483.6	349.2	427.4	385.1	376.5
Other	17.8	1.1	3.6	1.2	5.0	4.1	3.6	3.3
Doubtful assets and matured investment	1.8	35.8	38.6	49.9	44.9	38.9	38.6	37.4
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	8,703.2	7,267.7	6,531.4	7,350.8	6,817.4	7,933.3	6,531.3	6,876.8
Net balance (Debtors - Creditors)	777.7	114.5	91.4	53.9	311.9	-11.2	90.7	109.8

1 Hedge funds and funds of hedge funds are not included in these figures due to the entry into force, on 31 December 2008, of Circular CR CNMV 3/2008 which establishes a different deadline in reporting accounting information to CNMV.

Investment companies asset allocation

TABLE 3.5

				2010				2011
Million euro	2008	2009	2010	I	II	III	IV	I
Asset	24,656.9	25,924.8	26,155.0	26,417.5	25,602.6	26,131.5	26,155.0	26,491.4
Portfolio investment	23,446.9	24,813.5	25,187.3	25,334.6	24,471.5	25,015.5	25,187.1	25,262.0
Domestic securities	16,176.3	13,514.3	12,881.4	12,908.6	12,390.0	13,035.9	12,880.2	12,864.2
Debt securities	10,435.1	7,400.5	5,435.9	6,744.2	5,840.4	5,717.5	5,435.9	5,870.6
Shares	3,214.9	3,376.3	2,988.6	3,153.2	2,754.0	2,945.3	2,989.5	3,033.8
Investment collective schemes	1,108.8	1,091.1	758.7	987.1	831.9	806.5	756.5	801.9
Deposits in Credit institutions	1,383.5	1,631.5	3,675.2	2,014.0	2,963.0	3,546.8	3,675.2	3,133.2
Derivatives	9.8	-6.6	-5.9	-11.8	-22.4	-5.8	-5.9	-4.9
Other	24.4	21.7	29.0	22.0	23.1	25.7	29.0	29.6
Foreign securities	7,267.8	11,294.2	12,298.1	12,419.9	12,075.1	11,971.9	12,300.0	12,390.9
Debt securities	2,609.6	4,606.6	3,606.8	4,681.7	4,340.4	4,001.8	3,606.8	3,407.6
Shares	2,014.6	3,559.3	4,166.0	4,002.4	3,793.3	3,852.6	4,166.0	4,381.9
Investment collective schemes	2,486.4	2,987.4	4,390.5	3,611.3	3,807.1	3,933.9	4,392.6	4,415.0
Deposits in Credit institutions	28.9	26.3	12.1	16.8	18.0	44.5	12.1	47.1
Derivatives	120.5	113.0	119.9	105.3	108.3	134.9	119.7	135.1
Other	7.8	1.6	2.8	2.4	8.0	4.3	2.8	4.2
Doubtful assets and matured investment	2.8	4.9	7.9	6.2	6.4	7.7	6.9	6.9
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net fixed assets	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cash	1,021.0	976.4	832.0	919.9	896.0	903.3	832.1	1,014.6
Net balance (Debtors - Creditors)	188.8	134.8	135.5	162.8	235.0	212.6	135.6	214.6

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

TABLE 3.6

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
NO. OF FUNDS								
Total financial mutual funds	2,912	2,536	2,408	2,436	2,421	2,408	2,417	2,422
Fixed-income[3]	629	582	537	547	540	537	543	543
Mixed fixed-income[4]	195	169	160	168	162	160	158	157
Mixed equity[5]	202	165	138	143	140	138	136	135
Euro equity[6]	237	182	172	179	174	172	171	170
Foreign equity[7]	330	242	232	233	233	232	222	225
Guaranteed fixed-income	260	233	276	251	261	276	303	311
Guaranteed equity[8]	590	561	499	530	518	499	485	479
Global funds	469	187	192	181	189	192	197	196
Passive management[9]	–	69	61	64	61	61	61	62
Absolute return[9]	–	146	141	140	143	141	141	144
INVESTORS								
Total financial mutual funds	5,923,346	5,475,403	5,160,889	5,423,206	5,348,536	5,160,889	5,160,482	5,131,187
Fixed-income[3]	2,204,652	2,041,487	1,622,664	1,865,575	1,745,375	1,622,664	1,525,292	1,499,656
Mixed fixed-income[4]	277,629	290,151	270,341	295,325	280,230	270,341	251,992	247,535
Mixed equity[5]	209,782	182,542	171,336	185,111	182,860	171,336	162,861	161,100
Euro equity[6]	377,545	299,353	266,395	280,529	280,573	266,395	253,365	254,514
Foreign equity[7]	467,691	458,097	501,138	487,813	502,491	501,138	493,052	496,324
Guaranteed fixed-income	538,799	570,963	790,081	690,600	762,369	790,081	967,561	979,283
Guaranteed equity[8]	1,402,948	1,188,304	1,065,426	1,142,072	1,115,180	1,065,426	1,027,392	1,014,315
Global funds	444,300	88,337	105,720	99,163	110,538	105,720	114,244	117,305
Passive management[9]	–	85,403	90,343	97,949	93,049	90,343	85,254	84,878
Absolute return[9]	–	270,766	277,445	279,069	275,871	277,445	279,469	276,277
TOTAL NET ASSETS (million euro)								
Total financial mutual funds	175,865.2	170,547.7	143,918.2	155,295.5	152,646.5	143,918.2	144,428.0	143,859.5
Fixed-income[3]	92,813.1	84,657.2	56,614.6	69,654.5	64,102.1	56,614.6	51,565.6	50,925.9
Mixed fixed-income[4]	5,803.0	8,695.5	7,319.0	8,264.2	8,109.9	7,319.0	6,570.0	6,468.5
Mixed equity[5]	3,958.8	3,879.6	3,470.5	3,441.5	3,520.2	3,470.5	3,484.5	3,479.7
Euro equity[6]	5,936.9	6,321.6	5,356.8	5,181.2	5,504.4	5,356.8	5,656.3	5,896.5
Foreign equity[7]	4,256.6	5,902.4	8,037.3	6,682.5	7,203.6	8,037.3	7,896.1	8,024.5
Guaranteed fixed-income	21,281.6	21,033.4	26,180.2	23,520.3	25,795.6	26,180.2	32,084.4	32,350.6
Guaranteed equity[8]	30,742.4	25,665.8	22,046.5	23,981.7	23,600.0	22,046.5	21,181.6	20,865.7
Global funds	11,072.8	3,872.5	4,440.3	3,991.1	4,093.9	4,440.3	5,481.7	5,534.5
Passive management[9]	–	3,216.6	2,104.8	2,350.2	2,323.6	2,104.8	2,193.0	2,248.5
Absolute return[9]	–	7,303.0	8,348.1	8,228.4	8,393.2	8,348.1	8,314.8	8,065.3

1 Mutual funds that have sent reports to the CNMV (therefore mutual funds in a process of dissolution or liquidation are not included).
2 Available data: April 2011.
3 Until I 2009 this category includes: Short-term fixed income, Long-term fixed income, Foreign fixed-income and Monetary market funds. From II 2009 on includes: Fixed income euro, Foreign fixed-income and Monetary market funds.
4 Until I 2009 this category includes: Mixed fixed-income and Foreign mixed fixed-income. From II 2009 on includes: Mixed euro fixed-income and Foreign mixed fixed-income.
5 Until I 2009 this category includes: Mixed equity and Foreign mixed equity. From II 2009 on includes: Mixed euro equity and Foreign mixed equity.
6 Until I 2009 this category includes: Spanish equity and Euro Equity. From II 2009 on includes: Euro equity (which includes domestic equity).
7 Until I 2009 this category includes: Foreign equity Europe, Foreign equity Japan, Foreign equity USA, Foreign equity emerging countries and Other foreign equity. From II 2009 on includes: Foreign equity.
8 Until I 2009 this category includes: Guaranteed equity. From II 2009 on includes: Guaranteed equity and partial guarantee.
9 New categories from II 2009 on. Before it, absolute return funds were classified as global Funds.

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

TABLE 3.7

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[1]
INVESTORS	5,923,352	5,475,403	5,160,889	5,423,206	5,348,536	5,160,889	5,160,482	5,131,187
Individuals	5,754,049	5,322,214	5,019,902	5,272,045	5,201,334	5,019,902	5,020,705	4,992,276
Residents	5,677,123	5,252,126	4,954,891	5,203,616	5,134,719	4,954,891	4,955,440	4,927,562
Non-residents	76,926	70,088	65,011	68,429	66,615	65,011	65,265	64,714
Legal entities	169,303	153,189	140,987	151,161	147,202	140,987	139,777	138,911
Credit Institutions	1,713	674	524	582	568	524	500	514
Other resident Institutions	166,041	151,479	139,550	149,581	145,690	139,550	138,402	137,551
Non-resident Institutions	1,549	1,036	913	998	944	913	875	846
TOTAL NET ASSETS (million euro)	175,865.5	170,547.7	143,918.1	155,295.5	152,646.5	143,918.1	144,428.0	143,859.5
Individuals	135,756.2	132,860.5	113,660.6	121,762.4	119,808.3	113,660.6	115,233.0	114,553.2
Residents	133,878.1	130,954.4	111,900.1	119,898.1	117,961.2	111,900.1	113,442.6	112,912.2
Non-residents	1,878.1	1,906.0	1,760.5	1,864.3	1,847.1	1,760.5	1,790.3	1,641.0
Legal entities	40,109.3	37,687.2	30,257.5	33,533.9	32,838.1	30,257.5	29,195.0	29,306.3
Credit Institutions	4,193.0	2,572.0	1,926.1	2,145.0	2,152.9	1,926.1	1,869.9	1,893.1
Other resident Institutions	34,738.0	34,065.1	27,644.6	30,614.8	29,926.8	27,644.6	26,666.9	26,790.0
Non-resident Institutions	1,178.4	1,050.1	686.9	774.1	758.5	686.9	658.2	623.2

1 Available data: April 2011.

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

TABLE 3.8

				2010				2011
Million euro	2008	2009[2]	2010	I	II	III	IV	I
SUBSCRIPTIONS								
Total financial mutual funds	135,461.7	109,915.2	78,805.2	25,226.0	24,172.2	13,395.6	16,011.4	22,756.0
Fixed-income	101,909.7	73,718.8	41,656.1	15,240.8	13,605.3	6,206.7	6,603.3	7,890.1
Mixed fixed-income	1,914.5	5,267.6	3,538.8	1,243.5	1,082.2	571.7	641.4	358.0
Mixed equity	1,350.2	1,135.4	1,221.7	292.1	556.5	118.5	254.6	270.4
Euro equity	2,858.0	2,183.8	1,673.0	582.5	464.0	291.1	335.4	575.2
Foreign equity	3,309.6	2,929.5	4,455.2	1,259.1	1,190.3	778.5	1,227.3	2,488.7
Guaranteed fixed-income	11,937.0	11,755.4	11,513.4	2,359.6	3,244.1	3,403.9	2,505.8	7,424.2
Guaranteed equity	6,544.7	5,589.1	5,120.1	1,607.4	1,539.4	726.8	1,246.5	828.6
Global funds	5,638.0	2,754.4	3,018.1	545.0	440.6	265.4	1,767.1	1,534.3
Passive management	–	535.5	683.8	242.6	271.1	73.7	96.4	220.5
Absolute return	–	4,045.7	5,924.8	1,853.3	1,778.8	959.1	1,333.6	1,165.9
REDEMPTIONS								
Total financial mutual funds	202,864.1	122,617.5	104,385.6	28,324.7	33,041.1	18,442.3	24,577.5	23,528.9
Fixed-income	124,242.9	81,197.6	68,806.1	19,940.5	22,951.2	12,006.3	13,908.1	13,298.5
Mixed fixed-income	8,136.6	2,724.4	4,955.7	1,106.0	1,653.8	812.4	1,383.5	1,138.4
Mixed equity	4,675.6	1,596.5	1,311.8	225.7	601.2	168.0	316.9	267.4
Euro equity	8,617.2	2,457.8	2,369.9	709.6	673.9	452.4	534.0	594.8
Foreign equity	8,657.3	2,165.3	3,303.3	704.9	991.1	625.5	981.8	2,521.1
Guaranteed fixed-income	9,499.1	15,004.5	6,797.4	2,135.7	1,529.0	1,414.2	1,718.5	2,007.8
Guaranteed equity	18,216.4	10,990.8	7,620.2	1,818.0	1,852.4	1,399.8	2,550.0	1,624.7
Global funds	20,819.0	2,548.6	2,694.4	269.3	461.1	382.9	1,581.1	507.0
Passive management	–	708.0	1,474.1	396.2	682.1	141.6	254.2	236.7
Absolute return	–	3,224.0	5,053.0	1,018.9	1,645.3	1,039.3	1,349.5	1,332.4

1 Estimated data.
2 For Passive Management and absolute return, data refers to the last three quarters of the year.

Financial mutual funds asset change by category: Net subscriptions/redemptions and return on assets[1]

TABLE 3.9

Million euro	2008	2009[2]	2010	2010 I	2010 II	2010 III	2010 IV	2011 I
NET SUBSCRIPTIONS/REDEMPTIONS[2]								
Total financial mutual funds	-67,402.4	-12,702.3	-25,580.6	-3,953.1	-9,124.0	-5,056.0	-8,607.1	-765.2
Fixed-income	-22,333.2	-7,478.8	-27,149.9	-5,344.3	-9,531.5	-5,962.0	-7,266.9	-5,379.3
Mixed fixed-income	-6,222.1	2,543.2	-1,417.0	292.8	-566.2	-302.3	-746.8	-814.4
Mixed equity	-3,325.4	-461.1	-90.0	-91.6	-106.5	-79.4	-78.8	-61.2
Euro equity	-5,759.2	-274.0	-696.9	-105.6	-210.4	-185.9	-206.2	-16.4
Foreign equity	-5,347.7	764.2	1,152.1	640.5	183.9	178.3	255.5	-61.8
Guaranteed fixed-income	2,437.9	-3,249.1	4,716.0	796.0	1,761.1	2,045.5	712.1	5,631.2
Guaranteed equity	-11,671.7	-5,401.7	-2,500.1	-962.2	-376.7	-648.1	-1,238.0	-1,016.9
Global funds	-15,181.0	205.8	323.6	193.0	-8.2	-6.6	266.4	997.6
Passive management	–	-172.5	-790.3	-214.9	-387.0	-160.3	-219.6	-11.6
Absolute return	–	821.7	871.7	843.3	117.4	64.6	-87.7	-52.6
RETURN ON ASSETS								
Total financial mutual funds	-11,988.0	8,389.8	135.7	929.8	-3,097.1	2,418.2	-115.4	1,280.9
Fixed-income	1,927.7	1,535.3	64.5	359.6	-486.4	409.7	-218.4	330.4
Mixed fixed-income	-716.8	507.9	-56.4	36.4	-194.3	148.0	-44.2	65.4
Mixed equity	-1,589.0	529.9	-53.4	-12.4	-227.6	158.1	29.1	75.2
Euro equity	-5,172.6	1,477.1	-254.1	-185.0	-638.6	509.2	59.6	319.2
Foreign equity	-4,092.4	1,309.0	877.4	345.7	-390.0	342.8	578.2	-79.3
Guaranteed fixed-income	597.6	830.5	-170.4	216.1	-286.3	229.7	-327.4	273.0
Guaranteed equity	-1,310.4	1,024.0	-392.8	93.2	-438.4	266.4	-315.5	151.9
Global funds	-1,632.1	272.2	123.1	55.7	-121.9	109.4	80.0	43.8
Passive management	–	657.8	-109.7	-52.7	-205.1	144.7	3.5	81.9
Absolute return	–	246.4	107.7	73.1	-108.4	100.2	42.6	19.3

1 Mutual funds that have sent reports to the CNMV (therefore mutual funds in a process of dissolution or liquidation are not included).
2 The data refers to the last three quarters of the year for Passive Management and absolute return categories.

Financial mutual funds return on assets. Detail by category

TABLE 3.10

% of daily average total net assets	2008	2009[1]	2010	2010 I	2010 II	2010 III	2010 IV	2011 I
MANAGEMENT YIELDS								
Total financial mutual funds	-4.09	6.13	1.09	0.80	-1.67	1.82	0.17	0.89
Fixed-income	2.53	2.69	0.78	0.62	-0.47	0.81	-0.18	0.62
Mixed fixed-income	-5.75	9.34	0.61	0.71	-1.94	2.13	-0.25	0.95
Mixed equity	-23.30	16.44	0.11	0.24	-5.96	4.95	1.19	2.16
Euro equity	-47.02	31.02	-3.05	-2.57	-10.85	9.84	1.62	5.73
Foreign equity	-49.55	33.16	14.8	6.06	-5.08	5.48	8.11	-0.98
Guaranteed fixed-income	3.39	4.10	-0.11	1.15	-1.10	1.05	-1.18	0.94
Guaranteed equity	-1.88	5.08	-0.46	0.70	-1.50	1.44	-1.07	0.71
Global funds	-7.36	10.82	4.15	1.71	-2.67	2.97	2.17	0.88
Passive management	–	–	-2.5	-1.54	-7.34	6.43	0.41	3.74
Absolute return	–	–	2.49	1.25	-1.04	1.48	0.8	0.23
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	0.87	0.87	0.91	0.22	0.22	0.23	0.24	0.23
Fixed-income	0.58	0.63	0.65	0.16	0.16	0.16	0.16	0.16
Mixed fixed-income	1.14	1.14	1.20	0.29	0.29	0.30	0.30	0.29
Mixed equity	1.54	1.58	1.65	0.38	0.39	0.41	0.41	0.40
Euro equity	1.60	1.75	1.78	0.43	0.43	0.45	0.45	0.44
Foreign equity	1.69	1.79	1.84	0.46	0.42	0.45	0.50	0.44
Guaranteed fixed-income	0.49	0.65	0.62	0.14	0.15	0.16	0.17	0.16
Guaranteed equity	1.29	1.26	1.24	0.29	0.30	0.30	0.31	0.30
Global funds	1.04	1.08	1.06	0.27	0.22	0.27	0.30	0.29
Passive management	–	–	0.72	0.16	0.16	0.18	0.19	0.19
Absolute return	–	–	1.06	0.28	0.25	0.26	0.28	0.29
EXPENSES. DEPOSITORY FEE								
Total financial mutual funds	0.08	0.09	0.09	0.02	0.02	0.02	0.02	0.02
Fixed-income	0.08	0.08	0.08	0.02	0.02	0.02	0.02	0.02
Mixed fixed-income	0.09	0.09	0.10	0.02	0.02	0.03	0.03	0.03
Mixed equity	0.11	0.10	0.12	0.03	0.03	0.03	0.03	0.03
Euro equity	0.10	0.10	0.11	0.02	0.03	0.03	0.03	0.03
Foreign equity	0.12	0.12	0.12	0.03	0.03	0.03	0.03	0.03
Guaranteed fixed-income	0.07	0.08	0.07	0.02	0.02	0.02	0.02	0.02
Guaranteed equity	0.11	0.11	0.10	0.02	0.02	0.02	0.03	0.02
Global funds	0.09	0.08	0.09	0.02	0.02	0.02	0.02	0.02
Passive management	–	–	0.07	0.02	0.02	0.02	0.02	0.02
Absolute return	–	–	0.08	0.02	0.02	0.02	0.02	0.02

1 Passive management and absolute annual returns are not included because they are new categories from II 2009 on.

Mutual funds quarterly returns. Detail by category

TABLE 3.11

In %	2008	2009[1]	2010	2010 I	2010 II	2010 III	2010 IV	2011 I
Total financial mutual funds	-4.21	5.73	0.35	0.61	-1.83	1.64	-0.04	0.95
Fixed-income	2.06	1.91	0.11	0.46	-0.62	0.63	-0.35	0.63
Mixed fixed-income	-7.14	6.85	-0.54	0.42	-2.18	1.82	-0.56	0.9
Mixed equity	-22.21	16.47	-0.98	-0.14	-6.00	4.67	0.78	2.23
Euro equity	-39.78	32.41	-2.94	-2.57	-10.66	10.11	1.27	6.11
Foreign equity	-41.71	37.28	14.22	5.63	-4.97	5.35	8.01	-0.49
Guaranteed fixed-income	3.29	3.81	-0.67	0.98	-1.24	0.89	-1.28	0.89
Guaranteed equity	-2.61	3.56	-1.79	0.39	-1.91	1.20	-1.45	0.71
Global funds	-8.64	10.90	3.22	1.43	-2.82	2.80	1.87	0.98
Passive management	–	–	-2.36	-1.26	-7.28	6.32	0.31	3.74
Absolute return	–	–	1.53	0.98	-1.19	1.17	0.58	0.28

1 Passive management and absolute annual returns are not included because they are new categories from II 2009 on.

Hedge funds and funds of hedge funds

TABLE 3.12

	2008	2009	2010	2010 I	2010 II	2010 III	2010 IV	2011 I[1]
HEDGE FUNDS								
Investors/shareholders	1,589	1,917	1,852	2,137	2,061	1,925	1,852	1,943
Total net assets (million euro)	539.4	652.0	646.2	722.4	674.1	639.3	646.2	690.4
Subscriptions (million euro)	390.4	248.7	236.6	108.4	76.0	21.2	31.0	47.5
Redemptions (million euro)	258.3	198.3	268.6	53.6	99.2	73.2	42.6	14.5
Net subscriptions/redemptions (million euro)	132.7	50.4	-32.0	54.8	-23.2	-52.1	-11.6	33.0
Return on assets (million euro)	-39.1	62.2	26.3	15.6	-25.1	17.4	18.4	11.2
Returns (%)	-4.82	14.94	5.53	2.23	-3.17	2.97	3.53	1.80
Management yields (%)[2]	-2.51	13.76	6.33	2.90	-3.25	3.24	3.45	2.10
Management fee (%)[2]	2.50	2.55	1.91	0.59	0.35	0.47	0.49	0.30
Financial expenses (%)[2]	0.16	0.11	0.07	0.01	0.02	0.02	0.02	0.01
FUNDS OF HEDGE FUNDS								
Investors/shareholders	8,516	5,321	4,404	5,311	5,109	4,901	4,404	4,408
Total net assets (million euro)	1,021.3	810.2	694.9	793.9	738.0	726.8	694.9	687.3
Subscriptions (million euro)	967.3	302.4	47.9	21.4	2.2	13.9	10.4	–
Redemptions (million euro)	700.9	585.4	184.8	51.1	52.8	23.7	57.2	–
Net subscriptions/redemptions (million euro)	266.4	-283.0	-136.9	-29.7	-50.6	-9.8	-46.8	–
Return on assets (million euro)	-245.7	71.9	21.7	13.4	-5.3	-1.3	14.9	–
Returns (%)	-17.80	7.85	3.16	1.72	-0.61	-0.10	2.14	0.48
Management yields (%)[3]	-17.84	11.54	4.38	2.08	-0.34	0.14	2.46	–
Management fee (%)[3]	1.63	1.34	1.25	0.31	0.30	0.31	0.32	–
Depository fee (%)[3]	0.11	0.11	0.08	0.02	0.02	0.02	0.02	–

1 Available data: February 2011. Return refers to the period December-February.
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

	2008	2009	2010	2010 II	2010 III	2010 IV	2011 I	2011 II[2]
NUMBER OF PORTFOLIOS								
Mutual funds	2,943	2,593	2,429	2,464	2,443	2,429	2,436	2,433
Investment companies	3,240	3,135	3,068	3,110	3,096	3,068	3,059	3,047
Funds of hedge funds	40	38	32	34	33	32	29	29
Hedge funds	24	28	31	30	32	32	32	32
Real estate investment fund	9	8	8	8	8	8	8	8
Real estate investment companies	9	8	8	8	8	8	8	8
ASSETS UNDER MANAGEMENT (million euro)								
Mutual funds	175,865.5	170,547.7	143,918.2	155,295.5	152,646.5	143,918.2	144,428.0	143,859.5
Investment companies	23,656.1	24,952.8	25,361.3	24,758.4	25,307.7	25,361.3	25,835.9	26,002.0
Funds of hedge funds[3]	1,021.3	810.2	709.2	738.0	726.8	694.9	687.3	–
Hedge funds[3]	539.4	652.0	614.5	669.8	635.5	643.5	664.0	–
Real estate investment fund	7,406.9	6,465.1	6,115.6	6,279.6	6,201.5	6,115.6	6,083.3	6,050.9
Real estate investment companies	371.9	308.5	321.9	327.0	322.7	321.9	320.3	319.9

1 From II quarter 2009 on it is considered as "assets under management" all the assets of the investment companies which are co-managed by management companies and other different companies.
2 Available data: April 2011.
3 Available data for I quarter 2011: February 2011.

Foreign Collective Investment schemes marketed in Spain[1]

TABLE 3.14

				2010				2011
	2008	2009	2010[2]	I	II	III	IV	I[2]
INVESTMENT VOLUME[3] (million euro)	18,254.8	25,207.2	36,692.9	30,864.9	32,362.8	32,826.7	36,692.9	37,625.7
Mutual funds	3,352.0	5,215.1	8,535.9	6,519.3	7,477.2	7,650.1	8,535.9	8,096.7
Investment companies	14,902.8	19,992.0	28,156.9	24,345.6	24,885.7	25,176.6	28,156.9	29,529.0
INVESTORS/SHAREHOLDERS	593,488	685,094	865,767	748,749	791,381	811,553	865,767	853,797
Mutual funds	102,922	139,102	193,233	157,027	181,039	186,804	193,233	197,751
Investment companies	490,566	545,992	666,534	591,722	610,342	624,749	666,534	656,046
NUMBER OF SCHEMES	563	582	660	615	636	652	660	669
Mutual funds	312	324	379	353	365	376	379	383
Investment companies	251	258	281	262	271	276	281	286
COUNTRY								
Luxembourg	274	275	290	278	288	287	290	292
France	161	178	225	201	210	222	225	229
Ireland	63	64	75	67	69	74	75	77
Germany	16	17	20	19	20	20	20	20
UK	14	14	16	15	15	15	16	17
The Netherlands	1	1	1	1	1	1	1	1
Austria	28	27	27	28	27	27	27	27
Belgium	5	5	5	5	5	5	5	5
Malta	1	1	1	1	1	1	1	1

1 From December 2008 on, foreign collective investments schemes shareholders and total net assets data do not include exchange traded funds (ETFs).
2 Provisional data.
3 Investment volume: participations or shares owned by the investors/shareholders at the end of the period valued at that moment.

Real estate investment schemes

TABLE 3.15

				2010			2011	
	2008	2009	2010	II	III	IV	I	II[1]
REAL ESTATE MUTUAL FUNDS								
Number	9	8	8	8	8	8	8	8
Investors	97,390	83,583	75,280	76,772	76,182	75,280	33,747	34,572
Asset (million euro)	7,406.9	6,465.1	6,115.6	6,279.6	6,201.5	6,115.6	6,083.3	6,050.9
Return on assets (%)	0.69	-8.31	-4.74	-0.99	-1.31	-0.9	-0.66	-0.19
REAL ESTATE INVESTMENT COMPANIES								
Number	9	8	8	8	8	8	8	8
Shareholders	937	928	943	942	934	943	943	938
Asset (million euro)	371.9	308.6	321.9	327.0	322.7	321.9	320.3	319.9

1 Available data: April 2011. In this case, return on assets is monthly.