CNMV BULLETIN

Quarter IV

2009

CNMV Bulletin

Quarter IV
2009

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

The opinions in these articles are exclusively from the authors and they do not have to be attributed to the CNMV.

The CNMV distributes its reports and publications via the Internet at **www.cnmv.es**

Publishing advice of the Quarterly Bulletin of the CNMV: Fernando Restoy (CNMV), Vicente Salas (Universidad de Zaragoza), Belén Villalonga (Harvard Business School) and Óscar Arce Hortigüela (CNMV).

© CNMV. The contents of this publication may be reproduced, subject to attribution.

ISSN (Printed edition): 1887-8458

ISSN (Digital edition): 1988-253X

Depósito legal: M-20083-2008

Printed by: Gráficas Marte, S.A.

Table of contents

I	**Market survey**	**9**
II	**Reports and Analyses**	**37**
	Economic and financial performance of listed companies in the first half of 2009 Belén de Anta Montero and Óscar Casado Galán	39
	The new structure of European financial supervision Montserrat Martínez Parera and Víctor Rodríguez Quejido	55
	Investor-compensation schemes in the European Union Elías López Blanco	71
	The consolidation process of market infrastructures Javier González Pueyo	95
III	**Regulatory novelties**	**117**
	The record-keeping obligations of supervised entities Adela Aguilar Fernández	119
IV	**Legislative annex**	**131**
V	**Statistics annex**	**139**

Acronyms

ABS	Asset Backed Securities
AIAF	Asociación de Intermediarios de Activos Financieros (Spanish market in fixed-income securities)
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)
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)
EC	European Commission
ECB	European Central Bank
ECLAC	Economic Commission for Latin America and the Caribbean
ECR	Entidad de capital-riesgo (venture capital firm)
EMU	Economic and Monetary Union (euro area)
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)
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

The international macro setting changed considerably for the better in the second half of the year, though some major obstacles still stand in the way of the recovery of the world economy. The stimulus plans and packages approved by governments in most countries were by then working to full effect, allowing many of the planet's leading economies to pull out of technical recession between the second and third quarter. The improved economic landscape had its cause in the gradual dispelling of amassed uncertainties, ushering in a strong rally in equity prices starting in the second quarter, a fall in the risk premiums of corporate debt and, in general, a semblance of normality in most financial markets. That said, by the end of the year[1] doubts still persisted about the strength and sustainability of world economic growth, ruling out a definitive return to normal conditions.

On short-term fixed-income markets the keynote was the expansive monetary conditions persisting in most countries, with official interest rates continuing at record lows. Short rates, in general, headed lower still in the second half, using up all available downside in both the United States and Europe. Long government yields moved lower in the third-quarter period then turned more or less flat over the last three months. Weak economic growth in tandem with tame inflation and the refuge role of public debt were the factors underlying the downtrend in government yields. However, the deterioration in various countries' public finances is now exerting upward pressure. Meantime, corporate debt spreads came down substantially in the third quarter and stabilised in the fourth, restoring them to something like their normal levels, at least in the case of top grade issuers.

The news in currency markets during the second half of 2009 were the dollar's falling value against the euro and the stability of euro/yen exchange rates. This latest dollar decline can be laid at the door of the low interest rates of the American economy and the scale of the non conventional quantitative easing measures enacted by the Federal Reserve.

In Spain, the latest growth figures published by the National Statistics Office (INE), for the third quarter of the year, show a clear levelling-off in the deceleration of the national economy, though recovery is seemingly lagging behind that of other European countries. In a setting also characterised by a sharp deterioration in the labour market and public finances, Spanish financial institutions have continued to make use of the financing assistance approved by the Government[2] and the ECB. In effect, since the crisis hit in September 2008, only the largest players have been able to raise funds on traditional wholesale markets without any government support. Also, in the last few months, issues of asset-backed securities have taken a back seat to instruments like mortgage bonds, in many cases for use in ECB loan operations,

1 The closing date for this report is 15 December.

2 In 2009, financial sector issues of government-backed bonds exceeded 47 billion euros, accounting for 24.8% of total long-term debt issues registered with the CNMV, and 77% of total bond issues.

or preference shares, which credit institutions are using to strengthen their capital positions.

Meantime, national financial markets felt the benefit of the more settled mood, which powered the Ibex 35 more than 70% higher between the lows of last March and the closing date for this report. The second half of the year also brought a gradual easing of market volatility and a timid upswing in trading (in average daily volumes), above all in the closing quarter. A large part of this improvement traces to the performance of financial shares, which fought back strongly in the second half after trading at unaccustomed lows. Conversely, real estate shares suffered yet another sharp correction.

The short-term rates of public and private debt securities held within the downtrend initiated in the closing quarter of 2008 to close the year at historic lows, while longer dated instruments in both segments saw yields move lower in the second half. Risk premiums (as measured through CDS prices) eased substantially for both financial and non financial issuers, though the spreads of the former turned slightly higher in the year's closing stretch.

Long interest rates held reasonably stable over the last months of the year, even after Standard & Poor's recent announcement that it was attaching a "negative outlook" to the credit rating of Spanish sovereign debt (9 December 2009). However, this news and the nervousness induced by Greece's grave problems of fiscal sustainability have triggered a moderate increase in the perceived riskiness of Spanish government debt, and drove its CDS prices above the 100 bp mark[3] for the first time since June.

3 On 18 December, the five-year CDS on the Spanish bond was trading at 109.4 basis points.

Summary of financial indicators

TABLE 1

	I 09	II 09	III 09	Q4 09*
Short-term interest rates (%)[1]				
Official interest rate	4.25	1.00	1.00	1.00
Euripi 3 month	5.02	1.23	0.77	0.72
Euripi 12 month	5.38	1.61	1.26	1.24
Exchange rates [2]				
Dollar/euro	1.43	1.41	1.46	1.45
Yen/euro	150.47	135.51	131.07	130.22
Medium and long government bond yields[2]				
Euro area				
3 year	3.87	1.60	1.78	1.67
5 year	3.87	2.45	2.45	2.30
10 year	4.18	3.59	3.34	3.22
United States				
3 year	2.35	1.75	1.47	1.25
5 year	2.87	2.72	2.41	2.22
10 year	3.68	3.73	3.42	3.49
Credit risk premiums: BBB-AAA spread (basis points)[3]				
Euro area				
3 year	139	1,370	897	728
5 year	183	447	287	245
10 year	191	82	40	28
United States				
3 year	227	969	743	614
5 year	265	379	253	203
10 year	283	104	64	56
Equity markets				
Performance of main world stock indices (%)[4]				
Euro Stoxx 50	-15.4	16.0	19.6	0.6
Dow Jones	-13.3	11.0	15.0	7.6
Nikkei	-8.5	22.8	1.8	-0.5
Other indices (%)				
Merval (Argentina)	4.3	41.0	30.7	6.7
Bovespa (Brazil)	9.0	25.8	19.5	12.7
Shanghai Comp (China)	30.3	24.7	-6.1	17.8
BSE (India)	-0.9	53.2	17.9	0.0
Spanish stock market				
Ibex 35 (%)	-15.0	25.2	20.1	-0.2
P/E of Ibex 35[5]	8.24	10.27	12.50	12.13
Volatility of Ibex 35 (%)[6]	41.91	30.45	24.57	25.00
SIBE trading volumes[7]	2,910.58	3,619.11	3,263.71	3,944.40

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 December.

2 Data at period end. Data for the fourth quarter of 2009 correspond to 15 December.

3 Monthly average of daily data. Data for the fourth quarter 2009 run from 1 to 15 December.

4 Cumulative quarterly change in each period; up to 15 December in the case of the fourth quarter.

5 Price-earnings ratio. Data for the fourth quarter 2009 correspond to 15 December.

6 Implied at-the-money (ATM) volatility on nearest expiry at period end. Data for the fourth quarter 2009 correspond to 1 October to 15 December.

7 Daily average in million euros. Data for the fourth quarter 2009 correspond to the period to 15 December.

2 International financial background

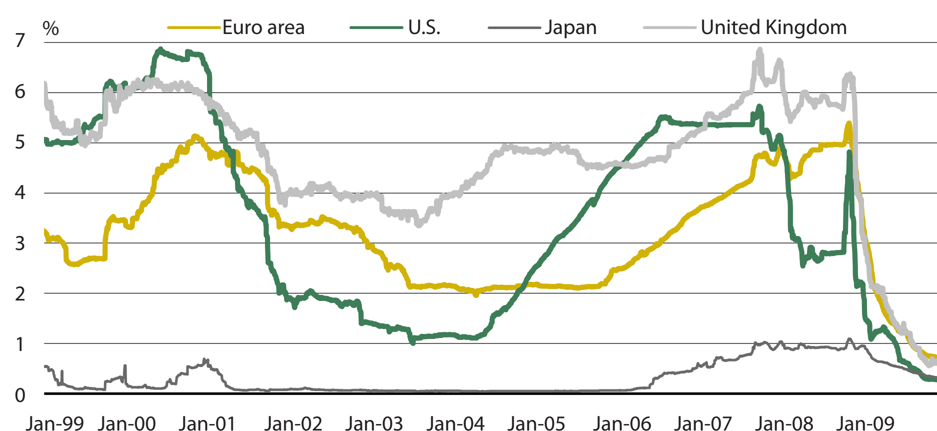
2.1 Short-term interest rates

Money markets again moved to the tune of record-low official rates in almost all main economic areas. At the same time, interbank market tensions (measured by the spread between deposit and repo rates) continued to ease after the upswing initiated in the summer of 2007, and in the U.S. particularly can now be considered safely over.

The fragility of the still incipient economic recovery, the absence of inflationary pressures and the slump in labour markets urged most central banks to keep their rates flat over the second half of 2009.[4] U.S. rates, specifically, held in the range of 0-0.25% and euro area rates at 1.0%, while those of Japan and the United Kingdom were kept at 0.10% and 0.5% respectively.

Against this backdrop, short-term rates in interbank markets have continued moving lower across all maturities, though the margin for further reductions is now extremely thin (see figure 1). In fact, rates fell by only a marginal amount in the fourth quarter of the year (and even ticked up in the United Kingdom). Overall, interest rate declines in the United States, United Kingdom and euro area ranged from 40 bp to 70 bp from June onwards, depending on the term (see table 2), while Japanese rates dropped by around 20 bp.

Three-month interest rates[1] FIGURE 1



Source: Thomson Datastream.

1 Data to 15 December.

As to the yield curve, sharper short-end falls in the euro area caused a slight steepening of the twelve-month/three-month slope from 38 bp in June to 53 bp in December. Conversely, the U.S. slope flattened by 30 bp to 76 bp due to a larger drop in 12-month rates.

4 Official rate hikes were confined to Australia, New Zealand and Norway.

Short-term interest rates[1]

TABLE 2

%	Dec 05	Dec 06	Dec 07	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[2]
Euro area								
Official[3]	2.25	3.50	4.00	2.50	1.50	1.00	1.00	1.00
3 month	2.47	3.69	4.84	3.27	1.64	1.23	0.77	0.72
6 month	2.60	3.79	4.81	3.34	1.77	1.44	1.04	1.00
12 month	2.79	3.93	4.79	3.43	1.91	1.61	1.26	1.24
United States								
Official[4]	4.25	5.25	4.25	0.25	0.25	0.25	0.25	0.25
3 month	4.49	5.36	4.97	1.80	1.27	0.62	0.30	0.25
6 month	4.67	5.35	4.82	2.15	1.83	1.18	0.68	0.47
12 month	4.84	5.24	4.42	2.36	2.12	1.68	1.27	1.01
United Kingdom								
Official	4.75	4.50	5.00	2.00	0.50	0.50	0.50	0.50
3 month	4.83	4.58	5.26	2.99	1.86	1.23	0.62	0.65
6 month	4.87	4.58	5.34	3.12	2.16	1.49	0.88	0.95
12 month	4.89	4.60	5.47	3.25	2.46	2.13	1.36	1.45
Japan								
Official[5]	0.15	0.25	0.50	0.10	0.10	0.10	0.10	0.10
3 month	0.07	0.56	0.98	0.91	0.62	0.48	0.36	0.28
6 month	0.08	0.63	1.03	1.01	0.79	0.71	0.56	0.48
12 month	0.12	0.74	1.10	1.12	0.95	0.88	0.80	0.70

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 December.

3 Marginal rate at weekly auctions.

4 Federal funds rate.

5 Monetary policy rate.

The general view is that official interest rates will hold at current lows over the coming quarters. Specifically, three-month forward rates in both the U.S. and euro area augur a stable scenario in the coming months then a gradual 50 bp increase six months hence and a rise of 100 bp within a year.

Three-month forward rates (FRAs)[1]

TABLE 3

%	Dec 05	Dec 06	Dec 07	Dec 08	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[2]
Euro area									
Spot	2.49	3.73	4.68	2.89	2.89	1.51	1.10	0.75	0.72
FRA 3x6	2.74	3.94	4.52	2.17	2.17	1.32	1.16	0.84	0.90
FRA 6x9	2.91	4.07	4.42	1.97	1.97	1.39	1.23	1.03	1.24
FRA 9x12	3.00	4.13	4.33	2.13	2.13	1.41	1.41	1.34	1.54
FRA 12x15	3.07	4.13	4.30	2.22	2.22	1.54	1.63	1.65	1.76
U.S.									
Spot	4.54	5.36	4.70	1.43	1.43	1.19	0.60	0.29	0.25
FRA 3x6	4.81	5.31	4.15	1.07	1.07	1.10	0.78	0.41	0.41
FRA 6x9	4.84	5.21	3.69	1.16	1.16	1.19	0.90	0.68	0.66
FRA 9x12	4.81	5.06	3.45	1.29	1.29	1.17	1.25	1.02	1.00
FRA 12x15	4.76	4.94	3.36	1.45	1.45	1.32	1.61	1.47	1.33

Source: Thomson Datastream.

1 Data at period end.

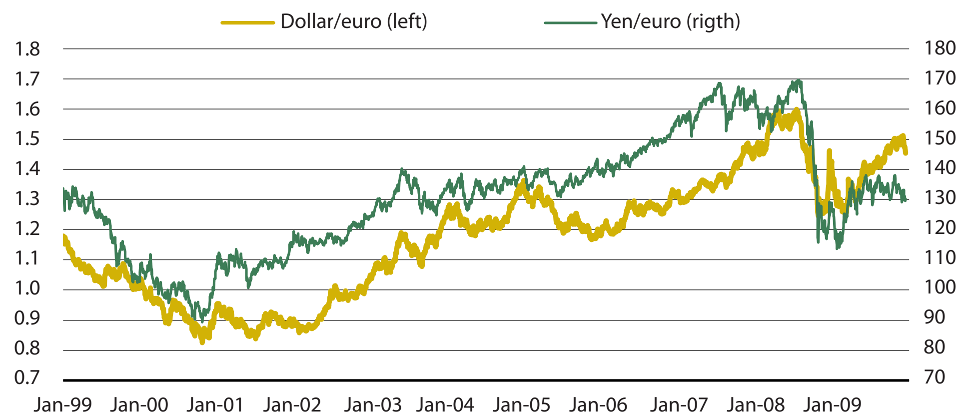
2 Data corresponding to 15 December.

2.2 Exchange rates

The stand-out trends in currency markets over the second half of 2009 were the dollar's slide against the euro and the stability of euro-yen exchange rates. The dollar suffered a gradual depreciation that took it from 1.40 USD/euro at mid-year to nearly 1.50 USD/euro in the month of October, then fought its way back to 1.45 USD/euro around the middle of December. Meantime, yen/euro rates hovered more or less persistently in the 130-135 yens/euro range (see figure 2).

The dollar's weakness is largely a consequence of the rock-bottom interest rates in the U.S. economy and the scale of the Federal Reserve's non conventional quantitative easing operations. However new factors have recently come into play, including declarations by the U.S. monetary authorities in support of a strong dollar, restrictions on currency inflows imposed by emerging countries like Brazil and South Korea and, finally, the dollar's role as a refuge currency in times of market stress. Expectations that U.S. rates will stay low for a prolonged period have continued to lend wings to the carry trade, with operators borrowing in dollars to invest primarily in emerging market assets with a greater expected return.

Euro/dollar and euro/yen exchange rates[1] FIGURE 2



Source: Thomson Datastream.

1 Data to 15 December.

2.3 Long-term interest rates

The performance of long government bond yields pulled more into line by geographical region after the divergent pattern of the first six months, with declines common to almost all observed maturities (three, five and ten years), most notably in the third quarter. The reasons for the downtrend have to do with the fragility of economic growth, especially among the developed countries, at a time of next to no inflationary pressures and with public debt conserving its safe haven role.

In the euro area, government bond yields in three-, five- and ten-year tenors closed the year at 1.7%, 2.3% and 3.2% respectively. This marks a small increase of seven basis points (bp) for the three-year bond as of its mid-year level and declines of 15 bp and 37 bp respectively in five- and ten-year instruments (see table 4). In the United Kingdom, government yields in the same three terms closed at 1.6%, 2.6% and 3.7%, representing 50 bp less then June levels in the case of the three-year bond, and around 10 bp less for remaining maturities. In the United States, meantime,

closing yields of 1.2%, 2.2% and 3.5% were between 24 and 54 bp down on June levels depending on the term. Finally, Japanese government yields fell between 19 and 39 bp from their mid-year levels to close at 0.3%, 0.5% and 1.3% at three, five and ten years respectively.

Medium and long government bond yields[1] TABLE 4

%	Dec 06	Dec 07	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[2]
Euro area							
3 year	3.74	3.85	2.61	2.25	1.60	1.78	1.67
5 year	3.74	3.92	2.65	2.41	2.45	2.45	2.30
10 year	3.80	4.28	3.12	3.14	3.59	3.34	3.22
United States							
3 year	4.57	3.11	1.06	1.33	1.75	1.47	1.25
5 year	4.51	3.51	1.50	1.83	2.72	2.41	2.22
10 year	4.57	4.19	2.41	2.83	3.73	3.42	3.49
United Kingdom							
3 year	5.05	4.49	2.21	2.00	2.20	1.70	1.61
5 year	4.94	4.57	2.79	2.31	2.75	2.67	2.62
10 year	4.65	4.64	3.32	3.20	3.82	3.66	3.72
Japan							
3 year	0.94	0.82	0.64	0.54	0.51	0.33	0.26
5 year	1.21	1.07	0.83	0.77	0.82	0.62	0.52
10 year	1.65	1.54	1.32	1.35	1.49	1.35	1.30

Source: Bloomberg.

1 Monthly average of daily data.

2 Average from 1 to 15 December.

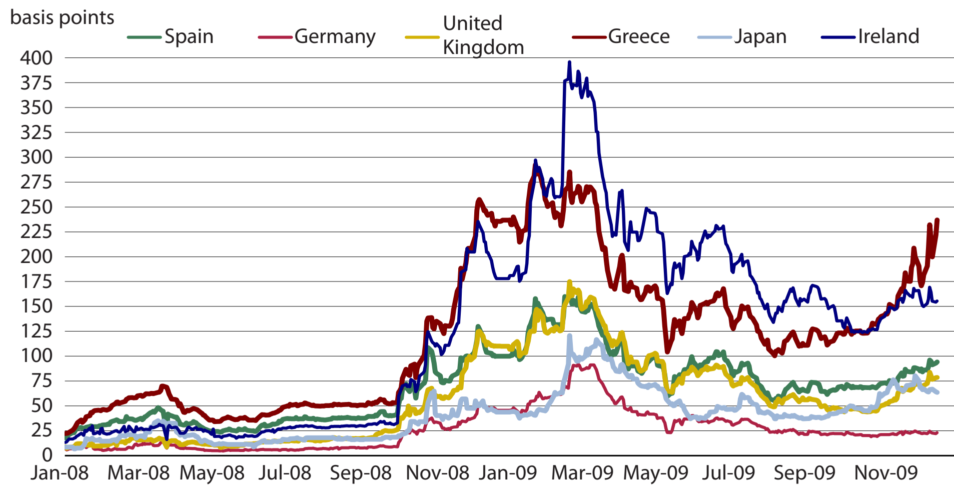
Faster falling long rates in the euro area caused a flattening of the curve slope in the ten year/three year interval from 1.99 percentage points (p.p.) in June to 1.55 p.p. in the month of December. In the United States, where the decline was greater in shorter-dated instruments, the slope steepened from 1.98 p.p. to 2.24 p.p. Yield spreads between the euro area and United States, which had turned negative in June (i.e., higher in the United States), were back in positive territory by December in the case of three- and five-year instruments but remained negative in the ten-year term.

Aside from these more or less intense or parallel decreases in government bond yields, we have had the recent flurry of concern over the credit risk of certain sovereign issuers, brought on by the grave deteriorations of their public accounts. In recent weeks, the public debt risk premiums embedded in five-year CDS point to an upswing in the sovereign risk of the United Kingdom, Greece, Spain, Ireland, Italy and Japan, while premiums for the United States, Germany and France have held relatively stable. This shows that while public deficits have swelled in size across all developed economies,[5] differences in the baseline status of their public indebtedness and structural fiscal balance have caused a widening gap in perceptions of the sustainability of their public finances.

5 The OECD countries together are forecast to record a public deficit of 8.25% of GDP in 2010, and a still high 8% approximately in 2011 in areas like the United States, United Kingdom or Japan. Public debt meantime will climb above 100% of GDP in 2011, a full 30 p.p. more than in 2007, before the crisis broke.

Government bond risk premiums (five-year CDS)

FIGURE 3



Source: Thomson Datastream. Data to 15 December.

In corporate debt, second-half highlights were the ongoing recovery of issuance volumes and the steady reduction in issuer credit spreads. The credit risk premiums[6] of top rated companies (AAA) fell from mid-year levels of 80 bp in the euro area and 100 bp in the United States to 28 bp and 57 bp respectively in the closing weeks of 2009 (see table 5). The improvement was even more striking among issuers with a higher credit risk (high yield), whose premiums came down by 642 bp in the euro area and 355 bp in the United States.

To put this in a wider context, risk premiums in the United States and Europe are back to nearly what they were in 2003; that is, during the return to normality following the last round of global financial disruption. And indeed the premiums of top-grade issuers are closing in on the standard levels for "business as usual". Other yardsticks of credit risk like CDX or Itraxx allow similar conclusions (see figure 4).

Corporate bond risk premiums[1]

TABLE 5

Spread versus 10-year government bonds, basis points

	Dec 06	Dec 07	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[2]
Euro area							
High yield	332	462	2,181	2,072	1,370	897	728
BBB	94	163	621	711	447	287	245
AAA	25	82	160	244	82	40	28
United States							
High yield	331	541	1,923	1,690	969	743	614
BBB	129	222	737	666	379	253	203
AAA	58	105	315	409	104	64	56

Source: Thomson Datastream.

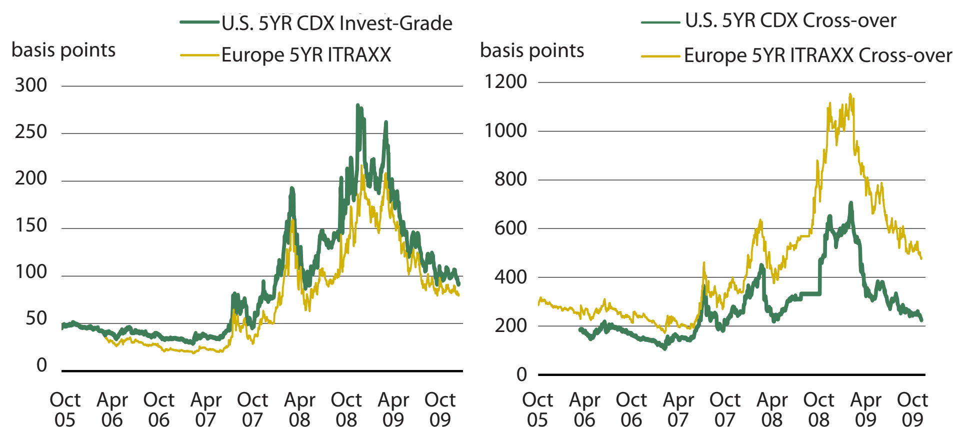
1 Monthly average of daily data.

2 Average for the period from 1 to 15 December.

6 Corporate bond yields less 10-year government bond yields.

Credit risk indices[1]

FIGURE 4



Source: Thomson Datastream.

1 Data to 15 December.

- Investment grade: issues rated BBB- or higher in the case of S&P and Baa3 or higher in the case of Moody's.
- Cross-over: issues meeting two conditions: 1) the rating assigned by one agency is on the lowest rung within investment grade and 2) the rating assigned by a second agency is outside the investment grade range.

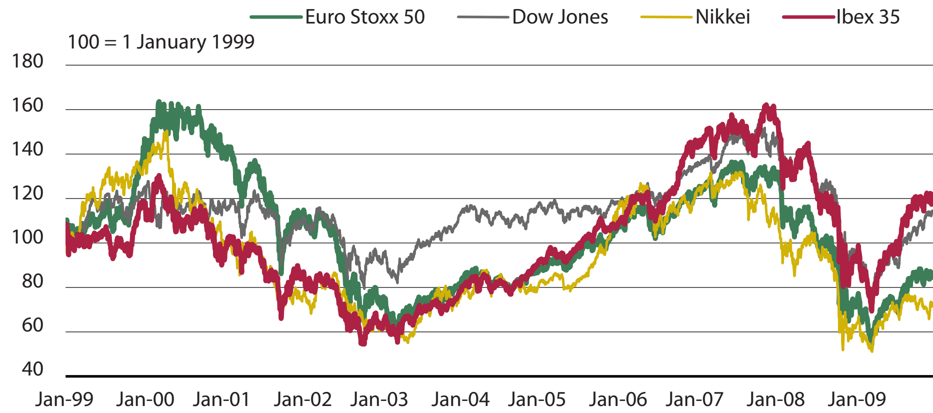
2.4 International stock markets

The belief that the world economy was poised for recovery triggered bull runs on most leading bourses in the third quarter of 2009 to add to the price rally of the previous quarter. In Europe, markets performed closely in line with gains ranging from the 18% of the Dax-30 to the 22% of the Euronext 100 (see table 6). In the United States, meantime, the three indexes used in this report (Dow Jones, S&P 500 and Nasdaq) advanced between 15% and 16%. Of developed country exchanges, the Japanese turned in the worst result, with the Nikkei scraping a modest 1.8% gain and the Topix losing 2.1%.

The last quarter was characterised by somewhat directionless trading, perhaps pending the release of a broader set of indicators that confirm the strength of the nascent recovery. For while the message of some indicators is that the worst is certainly over, a number of risk factors persist which could put a lid on the share price upside. We can mention, for instance, the halting progress of labour market recovery, which is lagging behind the output growth rate, the deterioration of public finances, doubts about the manner and the timing of the withdrawal of public stimulus packages and its possibly adverse impact on recovery and, finally, the doubts still hanging over the situation of some financial institutions.

Performance of main stock indices[1]

FIGURE 5



Source: Thomson Datastream.

1 Data to 15 December.

As a result, a performance gap opened in the closing quarter between markets in different economic areas and also between the markets within each area. Euro area markets recorded gains and losses on a varying scale, from the -3.5% of the Mib 30 index to the +2.4% of the Dax 30. In Japan, losses ranged from the -0.5% of the Nikkei to the -2.8% of the Topix. In the United Kingdom, conversely, and even more so in the United States, stock market gains were the order of the day. The Nasdaq composite, for instance, registered a 3.7% increase while the Dow Jones climbed by 7.6%.

Despite the irregular showing of the fourth quarter, main stock indices closed well into gains, which ranged from 14% to 40% over the full-year period and from 42% to 74% as of March lows. Indeed we would have to look hard to find a historical precedent for a stock market recovery this rapid and robust in such a weak macr-oeconomic context.

Performance of main stock indices[1]

TABLE 6

	%Q	%Dec	2006	2007	2008	Q1 09	Q2 09	Q3 09	Q4 09 (to 15 December) %Q	%/Dec	%y/y[2]	% low[3]
World												
MSCI World	**12.8**	**7.6**	**18.0**	**7.1**	**-42.1**	**-12.5**	**19.7**	**16.9**	**2.7**	**25.8**	**29.9**	**68.1**
Euro area												
Euro Stoxx 50	6.9	21.3	15.1	6.8	-44.4	-15.4	16.0	19.6	0.6	18.0	20.0	59.6
Euronext 100	8.0	23.2	18.8	3.4	-45.2	-12.2	13.3	21.6	1.4	22.8	24.2	53.9
Dax 30	7.3	27.1	22.0	22.3	-40.4	-15.1	17.7	18.0	2.4	20.8	24.8	57.4
Cac 40	7.4	23.4	17.5	1.3	-42.7	-12.8	11.9	20.9	1.0	19.1	20.4	52.2
Mib 30	17.5	13.9	19.0	-8.0	-48.7	-15.6	20.4	19.6	-3.5	17.3	17.8	68.3
Ibex 35	*17.4*	*18.2*	*31.8*	*7.3*	*-39.4*	*-15.0*	*25.2*	*20.1*	-0.2	27.6	30.0	72.1
United Kingdom												
FT 100	7.5	16.7	10.7	3.8	-31.3	-11.5	8.2	20.8	3.0	19.2	23.6	49.2
United States												
Dow Jones	3.1	-0.6	16.3	6.4	-33.8	-13.3	11.0	15.0	7.6	19.1	22.0	59.6
S&P 500	9.0	3.0	13.6	3.5	-38.5	-11.7	15.2	15.0	4.8	22.7	27.6	63.8
Nasdaq-Cpte	8.6	1.4	9.5	9.8	-40.5	-3.1	20.0	15.7	3.7	39.6	45.9	73.5
Japan												
Nikkei 225	7.6	40.2	6.9	-11.1	-42.1	-8.5	22.8	1.8	-0.5	13.8	16.4	42.3
Topix	10.2	43.5	1.9	-12.2	-41.8	-10.0	20.2	-2.1	-2.8	3.0	4.5	24.5

Source: Datastream.

1 In local currency.

2 Year-on-year change to reference date.

3 Change vs. annual lows. The low of the MSCI World index (9 March) is taken as a common date.

Volatility continued to remit on main stock indices throughout the third quarter and stabilised thereafter. Indeed. the historical volatility readings of the last few weeks have been moving in an interval of 16%-22% that squares with the observed averages of the last decade (see table 7 and figure 6).

Historical volatility of main stock indices[1]

TABLE 7

%	1999-2003	2004-2007	2006	2007	2008	I-09	II-09	III-09	IV-09[2]
Euro Stoxx 50	25.08	13.17	13.63	14.94	33.72	34.91	28.91	22.05	22.57
Dow Jones	18.83	10.75	9.41	13.11	31.60	33.16	26.27	15.89	15.47
Nikkei	22.95	16.29	19.08	16.65	38.16	34.64	28.94	21.57	19.76
Ibex 35	23.09	12.44	12.45	15.32	34.97	30.71	25.96	20.36	20.37

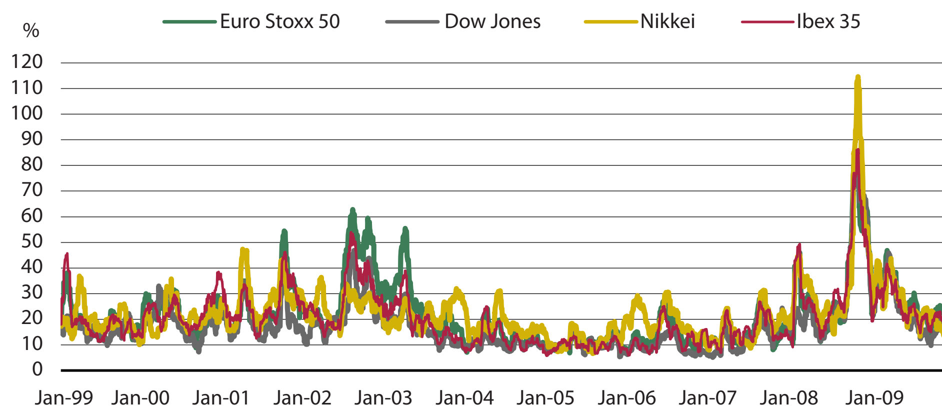
Source: Thomson Datastream.

1 Average daily data.

2 The latest available data correspond to 15 December.

Historical volatility of main stock indices[1]

FIGURE 6



Source: Thomson Datastream.

1 Data to 15 December.

Overall, emerging country stocks outperformed their developed world equivalents in the second half of the year, thanks to the greater dynamism of their economies and rather more encouraging mid-term prospects. Most of the key emerging market indices made sizeable gains in the third quarter, from the 13% to 30% of Latin America and 14% to 22% of the Asia region to the 24% to 35% of the main Eastern European markets (see table 8). This outperformance continued into the fourth quarter, but with greater divergences from one emerging region to another. Hence gains on a varied scale were mixed in with losses (some considerable) in six of the indices consulted.. The biggest quarterly advances were recorded in China (17.8%), Brazil (12.7%), Russia (11.3%) and Mexico (9.1%), while the worst performing indices were those of Bulgaria (-13.0%), Croatia (-8.0%) and Peru (-6.6%).

Asian and Latin American markets kept up a solid advance in practically every quarter of 2009, which took their indices to new heights. In Latin America, the star performers year to date were Argentina's Merval (105.1%), Peru's IGRA (100.6%) and the Brazilian index Bovespa (84.6%). In Asia, meantime, the main stock indices of China, India and Indonesia surged by close to or over 80%. Remaining Asian indices rose by between 45% and 70%. In Eastern Europe, whose economies make a more heterogeneous group, prices failed to rally until the year's second quarter due to the deeper impact of the crisis and the uncertainty surrounding their macro and financial outlook. However, the publication of some favourable indicators sent equity prices soaring in the second and third quarters putting full-year year gains on a par with those of other emerging economy bourses. Russia (121%), Hungary (68.7%) and Rumania (65.0%) were a case in point.

Performance of other international stock indices

TABLE 8

	Index	2007	2008	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09 (to 15 December) % Q	%/Dec 08	% annual	% low[1]
Latin America											
Argentina	Merval	2.9	-49.8	-32.4	4.3	41.0	30.7	6.7	105.1	101.7	132.5
Brazil	Bovespa	43.7	-41.2	-24.2	9.0	25.8	19.5	12.7	84.6	76.0	88.6
Chile	IGPA	13.8	-19.6	-12.7	4.7	24.5	7.5	1.9	42.8	44.2	40.9
Mexico	IPC	11.7	-24.2	-10.1	-12.3	24.2	20.0	9.1	42.5	49.0	88.1
Peru	IGRA	36.0	-59.8	-37.3	31.1	41.4	16.0	-6.6	100.6	97.3	105.1
Venezuela	IBC	-27.4	-7.4	-7.6	24.5	2.0	13.0	9.2	56.6	60.6	46.5
Asia											
China	Shanghai Comp	96.7	-65.4	-20.6	30.3	24.7	-6.1	17.8	79.8	67.6	54.5
India	BSE	59.7	-55.3	-25.5	-0.9	53.2	17.9	0.0	79.1	81.7	114.7
South Korea	Korea Cmp Ex	32.3	-40.7	-22.3	7.3	15.2	20.4	-0.4	48.1	50.9	55.4
Philippines	Manila Comp	21.4	-48.3	-27.1	6.1	22.7	14.9	8.8	62.7	60.9	61.1
Hong Kong	Hang Seng	39.3	-48.3	-20.1	-5.6	35.4	14.0	4.1	51.6	47.8	92.3
Indonesia	Jakarta Comp	52.1	-50.6	-26.0	5.8	41.3	21.7	1.1	84.1	97.5	93.9
Malaysia	Kuala Lumpur Comp	31.8	-39.3	-13.9	-0.5	23.2	11.8	5.7	44.9	49.1	48.1
Singapore	SES All-S'Pore	18.7	-49.2	-25.3	-3.5	37.2	14.5	4.7	58.9	60.8	92.1
Thailand	Bangkok SET	26.2	-47.6	-24.6	-4.1	38.5	20.0	-1.0	57.7	67.1	72.5
Taiwan	Taiwan Weighted Pr.	8.7	-46.0	-19.7	13.5	23.4	16.7	4.0	70.1	74.2	68.7
Eastern Europe											
Russia	Russian RTS Index	19.2	-72.4	-47.9	9.1	43.1	27.1	11.3	121.0	114.1	142.3
Poland	Warsaw G. Index	10.4	-51.1	-27.1	-11.7	26.6	23.5	5.9	46.2	45.7	75.2
Rumania	Romania BET	22.1	-70.5	-31.9	-18.4	45.1	28.0	8.8	65.0	66.4	143.6
Bulgaria	Sofix	44.4	-79.7	-54.7	-22.4	28.2	34.6	-13.0	16.4	15.5	51.7
Hungary	BUX	5.6	-53.3	-35.1	-9.6	38.4	32.0	2.1	68.7	72.4	106.1
Croatia	CROBEX	63.2	-67.1	-42.4	-15.7	30.7	15.9	-8.0	17.4	24.9	60.2

Source: Thomson Datastream.

1 Change vs. annual lows. The low of the MSCI World index (9 March) is taken as a common date.

Dividend yield again headed lower in the second half of the year (the exception being Japan's Topix), although less intensely than in earlier quarters (see table 9). European markets fell within an interval running from the 3.6% of the Mib 30 to the 5.3% of the Cac 40, bettering the yield offered by American and Japanese markets (2.3% for the S&P 500 and 1.8% for Japan's Topix), albeit by a smaller margin than in previous months.

Dividend yield of main stock indices

TABLE 9

%	2006	2007	2008	Sep 08	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[1]
S&P 500	1.91	2.20	3.51	2.67	3.51	3.26	2.77	2.37	2.31
Topix	1.11	1.46	2.70	2.03	2.70	2.50	1.81	1.71	1.79
Euro Stoxx 50	3.52	3.73	7.48	5.56	7.48	6.25	5.62	4.58	4.42
Euronext 100	3.32	3.81	7.90	5.50	7.90	6.61	5.69	4.65	4.45
FTSE 100	3.77	3.88	5.79	5.26	5.79	6.04	5.27	3.94	3.80
Dax 30	2.29	2.52	5.40	4.09	5.40	4.81	4.56	3.73	3.76
Cac 40	3.79	4.34	8.06	5.93	8.06	7.06	6.22	5.24	5.26
Mib 30	3.67	3.81	8.61	6.21	8.61	5.79	5.02	3.82	3.64
Ibex 35	3.02	3.08	6.19	4.76	6.19	8.73	6.61	4.47	4.27

Source: Thomson Datastream.

1 Data to 15 December.

With the exception of Japan, price-earnings ratios (P/E) moved higher in the third quarter across most main equity indices before falling back slightly in the last three months (see table 10). Behind the initial rise was the run-up in share prices, which outstripped growth in expected earnings per share. The subsequent drop in the year's closing months had different causes depending on the area of reference. In European markets (except Italy) and the United States, P/E was driven lower by the faster growth of expected earnings per share, while the declining P/E of Japan's Topix was due to the second-half slide in equity prices.

P/E[1] of main stock indices TABLE 10

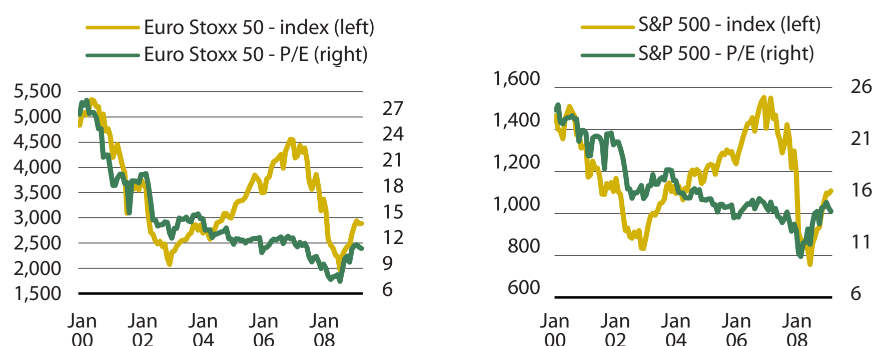
	2006	2007	2008	Sep 08	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09[2]
S&P 500	15.07	14.67	11.26	12.06	11.26	12.74	13.62	14.96	14.20
Topix	17.80	15.06	15.64	13.58	15.64	26.75	29.01	23.88	19.85
Euro Stoxx 50	12.15	11.56	7.80	8.64	7.80	8.60	9.79	11.81	11.13
Euronext 100	12.93	12.30	8.34	9.15	8.34	9.62	11.08	13.54	12.49
FTSE 100	12.41	12.07	8.25	8.59	8.25	9.92	12.12	13.73	12.49
Dax 30	12.78	12.33	8.83	9.44	8.83	9.78	11.17	13.38	12.31
Cac 40	12.68	11.80	8.03	8.68	8.03	9.42	10.56	12.62	11.76
Mib 30	13.07	11.50	7.58	8.24	7.58	8.69	10.66	12.88	12.10
Ibex 35	14.29	13.00	8.69	9.57	8.69	8.24	10.27	12.50	12.13

Source: Thomson Datastream.

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

2 Data to 15 December.

Stock indices and P/E: Euro Stoxx 50 vs. S&P 500 FIGURE 7

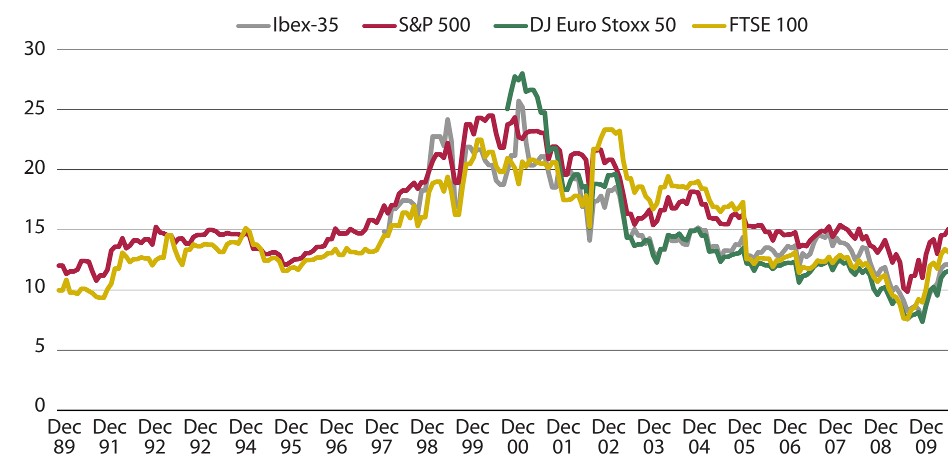


Source: Thomson Datastream. Data to 15 December.

It bears mention here that while main stock indices have fought back strongly from the lows of March 2009, P/E levels, including that of the Ibex 35, still stand well short of the average of the last twenty years (see figure 8). This point comes up when analyzing whether these markets might be overvalued, though the reason in fact has more to do with the low P/Es recorded at the end of the opening quarter, when they were at their lowest in a full two decades (see figure 8).

P/E[1] of main stock indices

FIGURE 8



Source: Thomson Datastream. Data to 15 December.

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

An index-to-index comparison shows that the earnings ratios of U.S. and Japanese markets (14.2 for the S&P 500, 19.9 for the Topix) are above those registered in Europe (from the 11.1 of the Euro Stoxx 50 to the 12.5 of the FTSE 100 and Euronext 100), though the gap has narrowed versus previous quarters.

Turnover in main world markets contracted once more in the third quarter of 2009 but held up rather better in the fourth.[7] In all, however, the year-on-year story was one of significant and widespread decline: in the United States, with falls from 17% to 51%; in Asia, with the Japanese exchange losing over 40% of its trading volumes; and in Europe, with falls ranging from the 30% of BME to the 58% of Euronext.

Turnover on main international stock markets

TABLE 11

billion euros

Exchange	2006	2007	2008	Q3 08	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09[3]
United States[1]	27,044	32,758	48,488	13,428	12,264	9,359	8,791	7,722	5,331
New York	17,222	21,177	23,042	6,502	5,438	3,720	3,414	2,824	1,945
Tokyo	4,617	4,713	3,816	890	933	692	783	708	447
London	5,991	7,545	4,374	1,054	742	559	781	576	384
Euronext	3,006	4,102	3,028	732	600	332	337	348	276
Deutsche Börse	2,165	3,144	3,211	694	694	472	479	353	226
Borsa Italiana	1,258	1,681	1,029	246	150	121	190	187	137
BME[2]	1,154	1,666	1,243	288	253	185	226	217	210

Source: World Federation of Exchanges and CNMV.

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

2 Bolsas y Mercados Españoles. Not including Latibex.

3 Data for October and November except BME, which includes October, November and the first fortnight in December.

One consequence of the share price slump to March 2009 was that equity markets experienced a sharp decline in their relative weight in the economy (taken as the ratio between stock market capitalisation and nominal GDP) in all of the developed countries. The powerful equity markets of the United States and the United Kingdom dropped from around 150% of GDP in 2006 to somewhere between 70% and 80% of GDP in the third quarter of 2009 (see table 12). And although stock markets

7 Data for October and November restated on a quarterly basis.

in main geographical areas have recovered substantially starting from the share price rally of the middle months, their year-end capitalisation still trails behind the levels of preceding years. In Spain, stock market capitalisation dropped from 76% of GDP in 2006 and 2007 to 38% in the third quarter of 2009, before working its way back to 54% in the closing quarter.

Capitalisation of main international stock markets TABLE 12

% GDP

Exchange	2006	2007	2008	Q3 08	Q4 08	Q1 09	Q2 09	Q3 09[1]
United States[2]	143.8	138.9	81.8	112.2	81.8	71.3	88.0	100.1
New York	113.3	109.2	64.2	89.7	64.2	56.0	69.7	78.9
Tokyo	107.6	94.2	57.5	70.9	57.5	53.5	65.1	64.9
London	146.2	138.3	89.0	100.1	89.0	81.6	94.1	116.3
Euronext[3]	99.6	97.5	49.4	64.0	49.4	44.8	51.9	63.5
Deutsche Börse	53.4	59.2	32.0	39.3	32.0	27.5	31.8	36.1
Borsa Italiana	52.4	47.5	23.8	30.6	23.8	20.1	24.5	30.3
BME[4]	76.1	75.8	46.0	52.8	46.0	38.0	46.2	54.3

Source: World Federation of Exchanges, Thomson Datastream and CNMV.

1 Based on capitalisation figures for the month of September.

2 As of 2009, the numerator is the sum of the New York Stock Exchange (NYSE), Euronext and Nasdaq.

3 The denominator is the sum of the GDP of France, the Netherlands, Belgium and Portugal.

4 Bolsas y Mercados Españoles. Not including Latibex.

3 Fixed-income markets in Spain

The maintenance of expansive monetary conditions in the euro area has kept short rates in the Spanish economy at exceptionally low levels. Following third-quarter cuts in the short-term rates of both government and corporate debt securities, main benchmark rates held to a stable course in the closing months, with a slight uptick in governments and a small decline in private instruments. Specifically, the average December yields of Spanish Treasury bills stood below 50 bp in the shortest tenors (up to three months) and below 1% in remaining terms, just slightly ahead of September levels. The largest second-half decline (concentrated mainly in the third quarter) corresponded to the three-month bill (47 bp below its June average). Meantime, commercial paper rates recorded a December average below 1.5% in all maturities (see table 13). This was around 40 bp less than their June levels, though with the downtrend levelling appreciably in the final stretch.

Short-term interest rates[1] TABLE 13

%	Dec 06	Dec 07	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09
Commercial paper[2]							
3 month	3.78	4.97	3.45	1.70	1.28	0.95	0.89
6 month	3.91	4.91	3.54	1.86	1.52	1.22	1.17
12 month	4.00	4.85	3.68	2.10	1.80	1.45	1.43

Source: AIAF.

1 Average daily data. December data correspond to the average from 1/12 to 15/12.

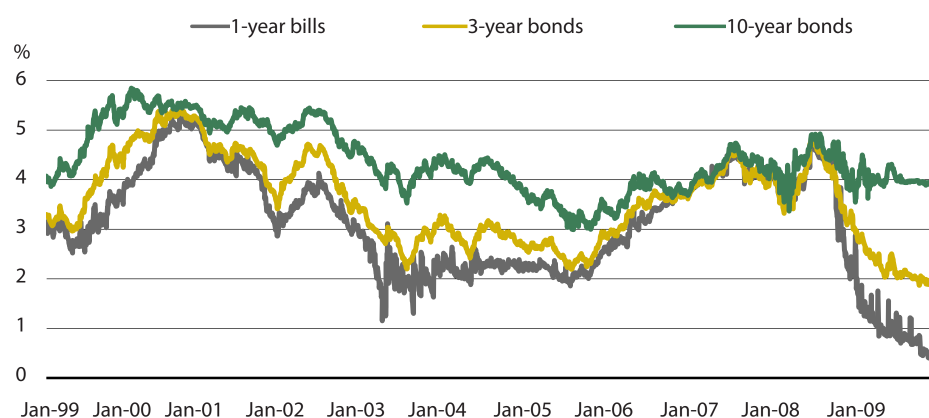
2 Traded on private fixed-income market AIAF.

Long-term rates also came down across the board in the second half of the year in a context of low-key economic activity and absent inflation. As with short rates, the big dip came in the third quarter, and ran deeper in government yields (down by some 50 bp in the final six months, and 42 bp in the third quarter alone) than

in corporate bonds (around 25 bp in the second half, including 15 bp in the third quarter).

A welcome development in the closing quarter was the stable performance of long bond yields, even after S&P announced that it would assign a "negative outlook" to Spain's sovereign rating. Hence the December yields of three-, five- and ten-year government bonds stood practically unaltered with respect to the month of September at an average 2.0%, 2.7% and 3.8% respectively, after third-quarter falls on a similar scale (see figure 9). The result was that the ten year/three year slope held around 1.7 p.p. throughout the second-half period. The perception of sovereign risk has been mounting slightly since end-September after the reduction of the third quarter. The yield spread of Spanish to German ten-year bonds narrowed by 14 bp in the third quarter to near-on 50 bp but has since regained 5 bp (to the deadline for this report) and is closing in on 58 bp. Likewise, the five-year CDS of Spanish bonds was trading at 94 bp in mid-December, after charting a 14 bp fall in the third quarter and a 27 bp increase thereafter (see figure 10).

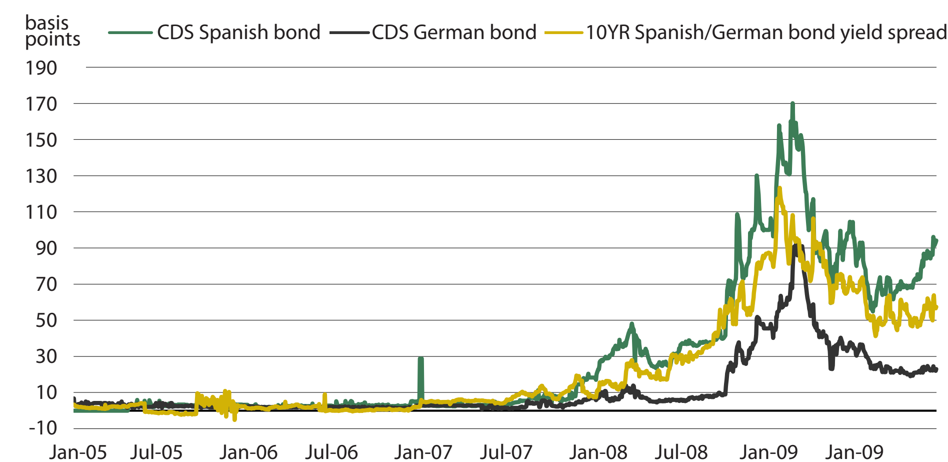
Spanish government debt yields[1] FIGURE 9



Source: Thomson Datastream.

1 Data to 15 December.

Risk premium of Spanish government debt[1] FIGURE 10



Source: Thomson Datastream.

1 Data to 15 December.

In corporate debt markets, three-, five- and ten-year yields moved down broadly in tandem (20-30 bp) to close the second half at 3.2%, 4.2% and 5% respectively. The fall, however, levelled off in the fourth quarter, especially in the three-year term. Credit spreads, meantime, held more of less flat in the closing quarter (see figure 11), after falling away gradually from their March highs or rather more intensely in the case of the financial sector. The only notable fourth-quarter development was the lower spreads quoted for non-financial issuers contrasting with a slight rise in financial sector spreads, due perhaps to concerns over future losses in bank balance sheets and the ongoing sector adjustment process.

Medium and long-term corporate bond rates[1] TABLE 14

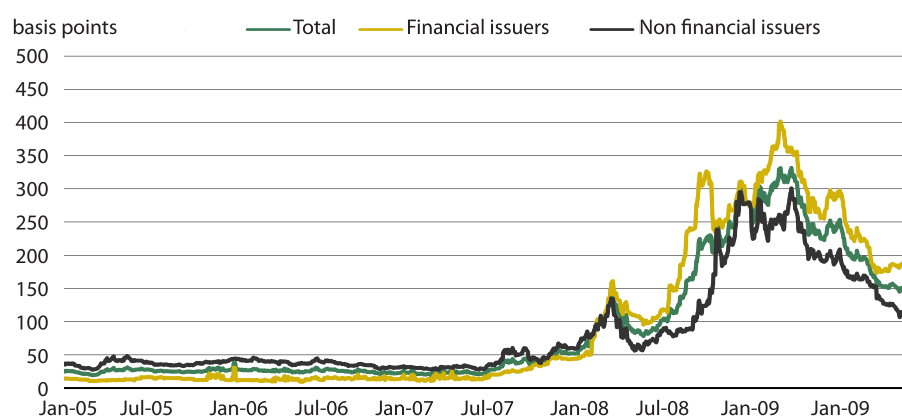
%	Dec 06	Dec 07	Dec 08	Mar 09	Jun 09	Sep 09	Dec 09
Private fixed income[2]							
3 year	4.04	4.59	3.79	3.24	3.40	3.22	3.19
5 year	4.14	4.65	4.17	4.00	4.46	4.31	4.19
10 year	4.26	4.94	4.73	4.76	5.24	5.14	5.02

Source: AIAF.

1 Average daily data. December data correspond to the average between 1/12 and 15/12.

2 Bonds and debentures in outright trades on the AIAF market.

Aggregate risk premium[1] based on the five-year CDS of Spanish issuers FIGURE 11



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

1 Simple average.

The volume of fixed-income issues registered with the CNMV totalled 371.74 billion euros (to December 15) compared to the 454.39 billion euros of the same period in 2008 (see table 15). Although the year-on-year reduction is not that great, it was accompanied by a notable shift in the issuance mix driven by the financial sector support measures approved by the Government in the closing quarter of 2008, the finance obtained from the Eurosystem and the covered bond purchase programme launched by the ECB in May 2009:[8]

- Commercial paper issues fell back sharply (48.9% of fixed-income issuance compared to the 65.4% of one year before), although this decline was offset in part by a build-up of foreign issues.

8 To 15 December, the ECB had acquired mortgage bonds worth 27.41 billion (out of a projected total of 60 billion).

- Conversely, issues of non convertible bond and debentures swelled to over 61.10 billion, almost six times the total for full-year 2008 (10.49 billion). As much as 77% of this amount (more than 47 billion euros) corresponded to bonds backed by state guarantee. This financing line has proved especially popular with the savings banks, who account for 82% of the government-backed debt finance issued to date.
- Mortgage bonds were another favourite vehicle, with volumes up by almost 150% compared to full-year 2008. Overall, asset-backed securities remained a major source of finance for Spanish institutions (20.7% of debt instruments issued in 2009 versus 28.4% in 2008) despite the global downturn in securitisation markets. One reason is their eligibility for the auctions organised by the Financial Asset Acquisition Fund (FAAF[9]) and in Eurosystem borrowing operations. Though structured markets are far from dynamic right now, it bears mention that the credit ratings assigned to Spanish entities' securitisation issues remain at the top end of the quality range (over 87% rated AAA in the closing quarter of 2009, against a year-long average of 88%).
- Finally, preference share issues summed 13 billion euros (3.5% of 2009 issuance), compared to the 1.24 billion of 2008 or the 225 million of 2007. The motive here is clearly strategic, as banks move to strengthen their regulatory capital.

Gross fixed-income issues[1] registered with the CNMV TABLE 15

				2008	2009			
(million euros)	2006	2007	2008	Q4	Q1	Q2	Q3I	Q4 [2]
NOMINAL AMOUNT	**523,131**	**648,757**	**476,276**	**133,727**	**116,427**	**130,129**	**66,722**	**58,460**
Mortgage bonds	44,250	24,696	14,300	1,245	10,474	10,175	3,870	10,780
Territorial bonds	5,150	5,060	1,820	800	0	500	0	0
Non convertible bonds and debentures	46,688	27,416	10,490	1,927	15,492	28,249	6,138	11,238
Convertible/exchangeable bonds and debentures	68	0	1,429	1,429	0	300	2,200	700
Asset-backed securities	91,608	141,627	135,253	60,473	27,358	31,035	12,956	5,631
Domestic tranche	30,886	94,049	132,730	60,473	27,358	28,484	11,751	5,231
International tranche	60,722	47,578	2,522	0	0	2,551	1,206	400
Commercial paper [3]	334,457	442,433	311,738	66,853	61,552	49,697	40,340	30,090
Securitised	1,993	465	2,843	2,568	1,334	1,227	953	1,045
Other	332,464	441,969	308,895	64,285	60,218	48,470	39,388	29,045
Other fixed-income issues	0	7,300	0	0	0	0	0	0
Preference shares	911	225	1,246	1,000	1,550	10,173	1,217	20
Pro memoria:								
Subordinate debt issues	27,361	47,158	12,950	7,120	8,484	5,571	4,679	1,519
Covered issues	92,213	86,161	9,170	928	0	2,559	1,450	785

Source: CNMV.

1 Including those admitted to trading without an issue prospectus.

2 Latest data: 15 December 2009.

3 Figures for commercial paper correspond to amounts placed.

9 The FAAF has so far purchased 19.43 billion in assets at four auctions, with terms to maturity of 2 or 3 years.

Issues of asset-backed securities[1] registered with the CNMV: distribution by credit rating TABLE 16

% total unless otherwise indicated

	2007	2008		2009			
	Q4	Q3	Q4	Q1	Q2	Q3	Q4[2]
Amount (million euros)	52,819	11,736	60,473	27,358	31,035	12,956	4,919
Percentage	100.0	100.00	100.00	100.00	100.00	100.00	100.00
Investment grade							
AAA	93.7	90.1	92.5	84.2	90.1	90.3	87.4
AA	0.9	0.6	1.5	1.4	0.8	0.7	0.0
A	1.9	5.0	2.6	2.4	2.5	1.3	6.6
BBB	2.0	2.4	2.5	4.7	1.8	1.4	0.9
Speculative grade							
<BBB	1.5	1.9	0.8	7.4	4.9	6.3	5.1

Source: CNMV.

1 Including mortgage bonds and non mortgage asset-backed securities.

2 Data to 15 December.

4 Equity markets in Spain

4.1 Prices

In line with the stock market story in other advanced economies, the Ibex 35 fought back to strength after the 39.4% fall of 2008 to record a year-long advance of almost 30% and recoup 42% of its prior-year losses. In the closing months, the index slipped back by 0.2%, contrasting with the robust gains of the two preceding quarters (above 20% in both cases).

Other national share indices fared differently. Those corresponding to small and medium cap stocks dropped 10% and 7% respectively in the final quarter after performing in line with the Ibex for the rest of the year, and finally closed with more meagre advances of 18.6% and 12.2%. The FTSE Latibex indices, meantime, not only escaped the losses of the first quarter, but kept up a year-long advance ahead of other benchmarks (see table 17).

The share price rally beginning in March 2009 was accompanied by a downturn in volatility that likewise saw out the year. This indicator now seems to be signalling a return to normality, with levels back to what they were before the Lehman Brothers collapse of September 2008. As figure 12 shows, implied volatility based on Ibex 35 options registered a second-half average of around 25% after the 41.9% and 30.5% of the first and second quarters respectively. This is round about the normal level for turmoil-free financial markets and in fact is close approaching the 23.8% average of the last ten years.

Performance of Spanish stock indices (%)

TABLE 17

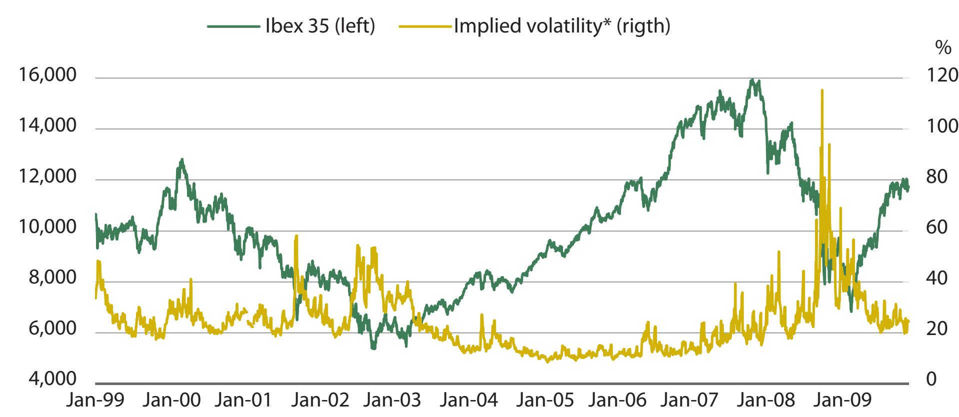
	2005	2006	2007	2008	Q1 09[1]	Q2 09[1]	Q3 09[1]	Q4 09 (to 15 December) % Q	%/Dec	% y/y
Ibex 35	18.2	31.8	7.3	-39.4	-15.0	25.2	20.1	-0.2	27.6	30.0
Madrid	20.6	34.5	5.6	-40.6	-16.2	24.4	20.9	-0.6	25.2	27.2
Ibex Medium Cap	37.1	42.1	-10.4	-46.5	-12.5	23.8	11.7	-7.3	12.2	9.9
Ibex Small Cap	42.5	54.4	-5.4	-57.3	-6.0	19.5	17.9	-10.4	18.6	10.1
FTSE Latibex All-Share	83.9	23.8	57.8	-51.8	16.6	27.6	15.6	16.0	99.4	88.4
FTSE Latibex Top	77.9	18.2	33.7	-44.7	6.4	27.5	12.4	18.6	80.8	71.4

Source: Thomson Datastream.

1 Change vs. previous quarter.

Performance of Ibex 35 and implied volatility

FIGURE 12



Source: Thomson Datastream and MEFF.

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

All the sectors making up the Madrid General Index (IGBM) could report a positive outcome for 2009, with gains mainly concentrated in the second and third quarters, the exceptions being oil and energy and the sub-sector of real estate services. However, the advance was not enough to make up the across-the-board losses of the year 2008 (see table 18). Also, a majority of sectors lost some ground in the fourth quarter. The top results were reserved for the banks, with a full-year gain of 47%, some way ahead of the next best performers, consumer goods and services, up by 28%, and basic materials, industry and construction and technology and telecommunications, whose shares rose by approximately 20%. At the other extreme, the real estate services sub-sector closed badly with a year-long slide of 25.7%, while oil and energy shed 5%. The construction sub-sector also lost ground in the final months, but still managed to close the year ahead by 13.6%. Again, price recovery at the two big banks was the main motor of the IGBM's progress, contributing 77% of the total gained.

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

TABLE 18

annual % unless otherwise indicated

	Weighting[2]	2008	Q1 09	Q2 09	Q3 09	2009-Dec[3]		
						% Q	%/Dec 08	% y/y
Financial and real estate services	**42.97**	**-49.2**	**-23.5**	**49.5**	**27.3**	**-0.7**	**44.4**	**47.5**
Real estate and others	0.25	-68.0	-28.1	-6.4	40.2	-21.3	-25.7	-34.8
Banks	39.88	-49.0	-24.0	51.3	27.9	-0.1	47.0	50.6
BBVA	11.11	-48.3	-29.5	48.7	35.7	1.4	44.3	48.4
Santander	23.14	-51.1	-23.1	64.9	28.5	4.2	69.9	75.3
Oil and energy	**17.16**	**-33.3**	**-18.3**	**2.9**	**14.6**	**-1.4**	**-5.0**	**1.4**
Iberdrola	8.05	-37.1	-19.3	9.5	16.0	-3.3	-0.8	12.8
Repsol YPF	3.87	-38.1	-13.7	22.3	16.6	0.6	23.8	25.4
Basic materials, industry and construction	**8.11**	**-50.5**	**-9.5**	**28.6**	**11.7**	**-8.7**	**18.6**	**17.9**
Construction	4.35	-47.7	-8.5	23.3	10.8	-9.2	13.6	15.9
Technology and telecommunications	**23.37**	**-28.8**	**-5.1**	**7.4**	**16.8**	**2.9**	**22.4**	**21.1**
Telefónica	22.63	-28.7	-5.2	7.3	17.0	3.3	22.8	21.4
Consumer goods	**5.21**	**-25.7**	**-8.1**	**17.9**	**12.6**	**4.9**	**27.9**	**24.9**
Consumer services	**3.18**	**-45.1**	**-16.3**	**21.4**	**28.7**	**-2.2**	**27.9**	**23.3**

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 July 2009.

3 Data to 15 December. Quarterly change (% Q) corresponds to the period between 30 September and 15 December 2009.

Shares with greatest impact on IGBM change[1]

TABLE 19

Share	Sector	2009 - Dec[2] % Q	%/Dec 08
Positive impact			
Santander	Financial and real estate services	0.98	16.14
Telefónica	Technology and telecommunications	0.74	5.17
Inditex	Consumer goods	0.39	1.19
BBVA	Financial and real estate services	0.16	4.93
Negative impact			
Banco de Sabadell	Financial and real estate services	-0.31	-0.26
Iberdrola	Oil and energy	-0.26	-0.07

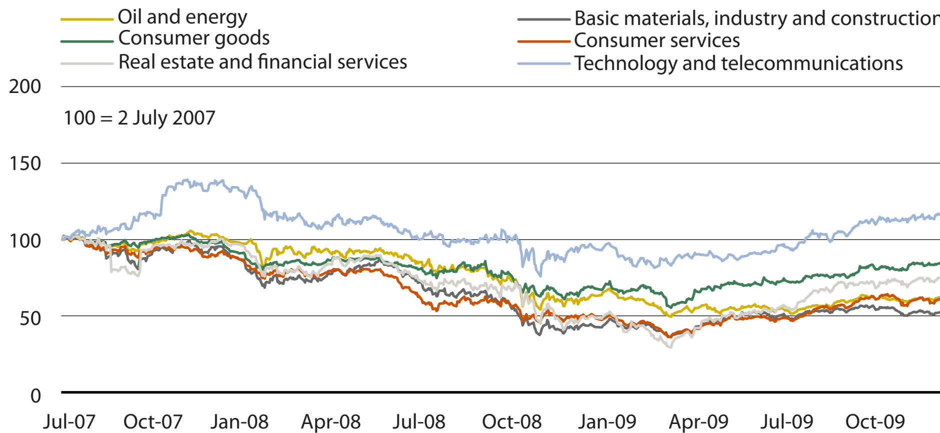
Source: Thomson Datastream and Bolsa de Madrid.

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 December.

Taking our baseline as the start of the crisis in summer 2007, all IGBM sectors with the exception of technology and telecommunications are still moving in negative terrain despite the recovery initiated as of March 2009 lows. The steepest fall corresponds to basic materials, industry and construction (-49% since the start of the crisis), followed by consumer services (-39%), oil and energy (-38%), financial and real estate services (-29%) and, finally, consumer goods (-14%). Technology and telecommunications, usually regarded as a safe haven sector, held up strongly until the end of 2007, then embarked on a gradual run-down to its March 2009 low. At the end of 2009, it was the only sector trading above the price levels of July 2007.

Performance of IGBM sectoral indices[1] FIGURE 13

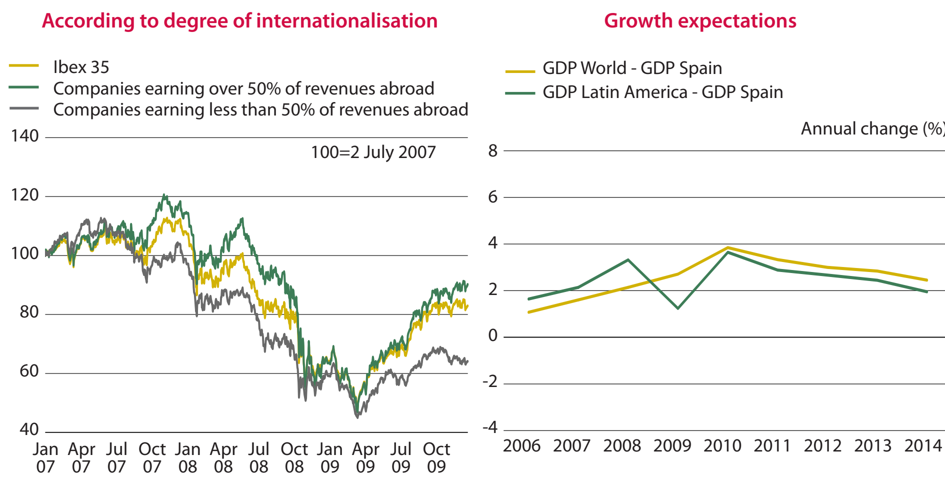


Source: Bolsa de Madrid.

1 Data to 15 December.

One feature of the recent share price rally was the performance gap opening up between firms with a greater or lesser presence in international goods and services markets, regardless of their sector of activity. Specifically, since March 2009 we have seen how companies taking most of their income from external markets have outperformed their more home-market oriented peers (see figure 14). This better relative showing testifies to the benefits of international business diversification, especially into emerging markets with superior growth potential.

Performance of Ibex 35 companies[1] FIGURE 14



Source: Bloomberg, Thomson Datastream and IMF.

1 In the left-hand graph, each company is weighted according to its share in the market capitalisation of the Ibex 35 at the close of the preceding year. The yardstick used for internationalisation is 2008 operating profits, in the case of credit institutions, and 2008 revenues for all other firms. Following the recent reverse merger between Grupo Ferrovial (parent) and Cintra (subsidiary), we take the two companies as one alone, using the Cintra share for our price reference and summing together their market cap. Data to 15 December.

As to the performance range of listed companies, we can see from table 20 below how the good readings of the second and third quarters give way to a drastic fourth-quarter increase in the number of companies in losses (80% of the total against the 16.3% of the previous quarter). In fact, during this quarter not one firm managed a gain of over 25%.

Performance range of IGBM companies TABLE 20

% total IGBM companies

	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09[1]
≥ 25%	2.3	5.5	41.7	35.0	0.0
10% to 25%	1.5	7.9	26.8	27.6	5.7
0% to 10%	9.2	11.0	13.4	21.1	14.8
≤ 0%	87.0	75.6	18.1	16.3	79.5
Pro-memoria: total no. of companies					
	131	**127**	**127**	**123**	**122**

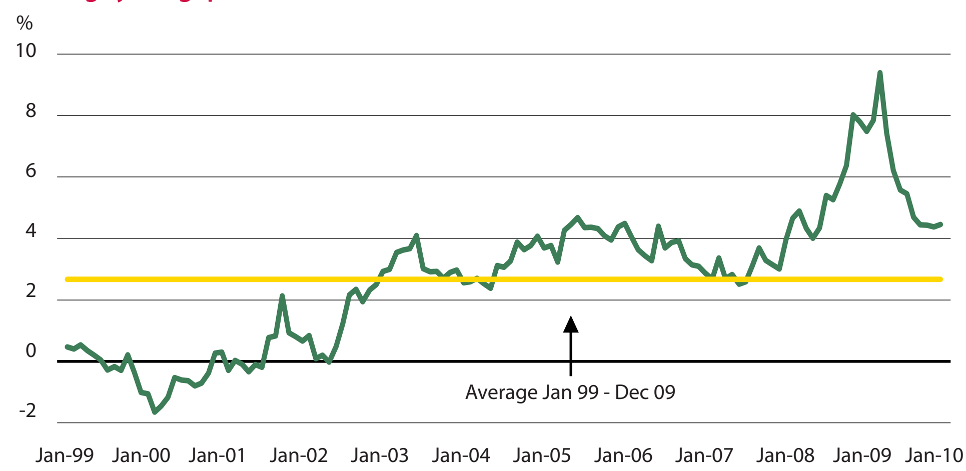
Source: Thomson Datastream.

1 Data to 15 December.

Finally, the price/earnings ratio of the Ibex 35 slipped slightly in the fourth quarter after climbing steadily since March, and by mid-December stood at just over 12 on average compared to the 8 times of end-March (see table 10). The result is that the P/E of the Spanish market now stands about the middle of the European range after occupying one of the top places.

The earnings yield gap (indicating the risk premium on equity investment versus long-term government bonds) remained more or less unchanged over the last quarter of 2009 in line with the stable performance of P/E and long bond yields, after an intense second- and third-quarter correction spurred by rising equity prices. However, the latest reading of 4.5% is still well above the average for the last decade (2.7%, see figure 15).

Earnings yield gap[1] of the Ibex 35 FIGURE 15



Source: Thomson Datastream and CNMV.

1 Difference between stock market yield, taken as earnings/price, and ten-year bond yields. Monthly data to December 2009.

4.2 Trading and liquidity

Turnover on the Spanish stock market picked up gradually after the large decline of 2008 and, especially, the opening quarter of 2009 (see table 21), to close the year at similar levels to twelve months before. Average daily trading in the fourth quarter (data to 15 December) came to 3.97 billion, improving on the 2.93 billion of the first quarter and just a little short of the 4.09 billion of fourth-quarter 2008.

Turnover on the Spanish stock market TABLE 21

Million euros	2006	2007	2008	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09[1]
All exchanges	**1,154,294**	**1,667,219**	**1,243,387**	**253,514**	**184,654**	**225,638**	**216,778**	**210,292**
Electronic market	1,146,390	1,658,019	1,235,330	251,282	183,367	224,385	215,405	209,053
Open outcry	5,318	1,154	207	73	19	27	14	8
of which SICAV [2]	4,581	362	25	10	7	3	8	1
MAB [3]	1,814	6,985	7,060	2,042	1,178	1,109	1,249	1,143
Second market	49	193	32	1	1	1	0	0
Latibex	723	868	758	116	89	115	110	88
Pro-memoria: non-resident trading (% all exchanges)								
	58.4	61.6	65.5.	64.3	61.7	62.1	n.a.	n.a.

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

1 Cumulative data from 1 October to 15 December.

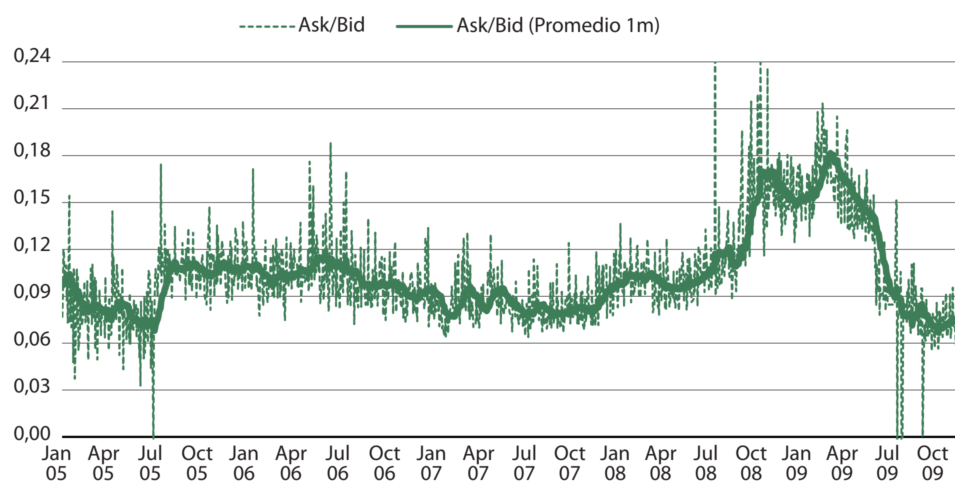
2 Open-ended investment companies.

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.

Finally, the liquidity of the Spanish market improved slightly in the fourth quarter. The bid/ask spread of the Ibex 35 dropped from an average 0.08% approximately in September to less than 0.07% in the month of December (see figure 16). These readings are in line with the historical average of recent years and well below the peak levels of the year's opening quarter, suggesting that liquidity conditions are on the mend.

Liquidity indicator (bid/ask spread, %) of the Ibex-35[1] FIGURE 16



Source: Thomson Datastream and CNMV.

1 Data to 15 December.

II Reports and analyses

Economic and financial performance of listed companies in the first half of 2009

Belén de Anta Montero and Óscar Casado Galán (*)

* Belén de Anta and Óscar Casado are members of the Financial and Accounting Reports Department of the CNMV.

1 Introduction

The purpose of this article is to analyse the key financial and operating data contained in the reports for the first half of 2009 submitted to the CNMV by issuers.[1]

Said reports provide information about companies' results, financial position, cash flows, number of employees and dividends paid. The companies analysed, totalling 194, operate in the following industries: energy (12 companies); retail and services (44 companies); construction and property (33 companies); manufacturing (54 companies); banks (11 companies); savings banks (37 companies); insurance (2 companies); other financial institutions (1 company).

The analysis has been carried out on the following basis:

- The data for analysis are obtained from the consolidated or individual periodic financial reports[2] submitted to the CNMV by the issuers of shares and debt instruments[3] that are listed on a regulated Spanish market, where Spain is the home Member State.
- The aggregate figures exclude issuers that are subsidiaries of another listed group. However, when such issuers carry on their activity in an industry other than that of their parent company, their financial data are included in the figures for their industry.
- Data relating to periods other than the first half of 2009 are taken from a representative sample of the companies that were listed in the reference period.

In section 2 of this article we analyse the growth of revenue since 2005; in sections 3 and 4 we analyse the behaviour of earnings and the return on equity and investment; in section 5 we look at the debt of non-financial entities; in sections 6, 7 and 8 we consider the performance of cash flows, workforce and dividends, respectively. Our main conclusions are presented in section 9.

1 As provided in article 35 of 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 preference shares and other special purpose entities constituted for the issuance of fixed income securities and the ICO.

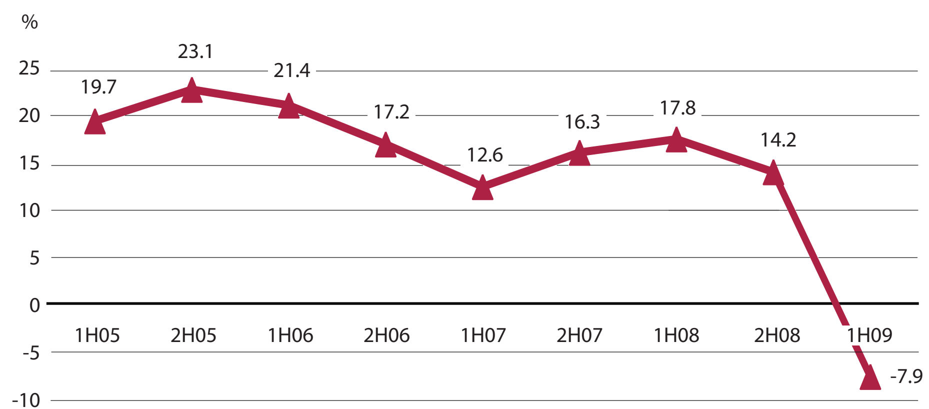
2 Revenue

Figure 1 shows the year-on-year rates of change in revenue for the period from the first half of 2005 to the first half of 2009.[4]

The year-on-year rate of change in the first half of 2009 was negative (-7.9%), breaking the growth trend seen in previous periods. All the industries except insurance registered negative rates of change, most notably the energy sector, with revenue for the first half of 2009 down 17.4% compared to the same period of the previous year.

According to the information available in the third quarter of 2009, published by the main companies in our sample, the aggregate year-on-year rate of change was -4.6%.[5] Compared with the figures for the first half of 2009, the latest data available suggest that the fall in revenue is slowing.

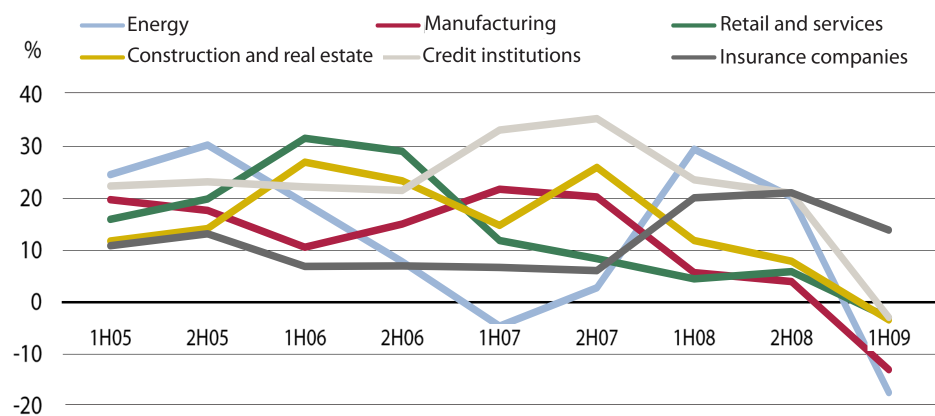
Rate of change of revenue FIGURE 1



Source: CNMV inhouse.

Figure 2 shows the growth of revenue in the different industries.

Rate of change of revenue by industry FIGURE 2



Source: CNMV inhouse.

4 For credit institutions, revenue 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.

5 We have taken a sample of 60 companies, including all the companies in the Ibex 35 whose home Member State is Spain.

By industry, the highlights are:

- **Energy.** Revenue fell 17.4% year-on-year due to the fall in the average electricity pool price and the average crude oil price, with the average price per barrel of Brent crude in the first half of 2009 down 52.5% compared to the same period of the previous year. Additionally, there was an across-the-board fall in demand.
- **Manufacturing.** The year-on-year revenue growth rate in the first half of 2009 was -13.0%, reflecting the decline in demand for industrial goods and construction materials. In response, some companies took measures (workforce adjustment plans, temporary plant closures, etc.) to trim production to the new level of demand.
- **Retail and services.** Revenue in this sector fell 3.0% in the first half of 2009 as a result of slumping consumer demand.
- **Construction and real estate.** The 3.4% decrease in the aggregate revenue of these two industries is the result of the 18.2% decline in real estate (where the recent negative trend was accentuated) and the 2.2% decline in the construction industry (where revenue grew 9.7% in 2008).

  The decline in the revenue of companies operating in the construction industry was due mainly to the fall in cement sales, lower revenues from construction activity in Spain, and the impact of the appreciation of the euro against sterling and the US dollar on the volume of revenue earned in these two currencies.
- **Credit institutions.** In the first half of 2009 the aggregate volume of interest and similar income recorded by credit institutions as a whole decreased 2.9% compared to the same period of the previous year. This decrease was attributable mainly to the fall in interest rates, begun at the end of 2008, and the slowdown in banking activity as a result of the worsening economy. The impact was greater in savings banks (a fall of 9.4%) than in banks (a slight increase of 0.7%).
- **Insurance companies.** Bucking the general trend, premium income for the year net of reinsurance grew 13.9% year-on-year owing to the expansion of foreign operations (especially in South America).

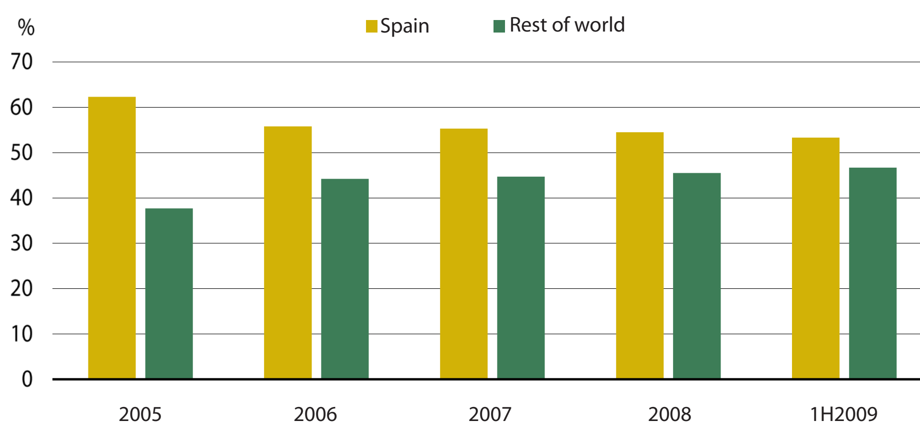
Figure 3 shows the geographical distribution of the revenue of non-financial institutions from 2005 until the first half of 2009.

It can be seen that, after several years of significant increases due to corporate acquisitions of foreign companies and, to a lesser extent, the establishment and development of companies or new businesses in foreign markets (motorway concessions, etc.), since 2007 the proportion of revenue generated outside Spain has remained relatively stable, trending slightly upward.

In the first half of 2009 the percentage of revenue generated outside Spain rose 1.2 percentage points compared to year-end 2008.

Geographical distribution of revenue

FIGURE 3



Source: CNMV inhouse.

Table 1 shows the geographical distribution of the revenue of non-financial institutions by sector. As can be seen, the proportion of revenue from foreign operations continued to increase in the first half of 2009 in all the sectors except construction and real estate. The most significant change was in the energy sector, due to the decline in demand and prices in the Spanish market and the consolidation of new acquisitions abroad.

Revenue of listed non-financial companies: percentage revenue from foreign operations

TABLE 1

%	2005	2006	2007	2008	1H2009
Energy	32.7	37.8	41.8	42.5	44.4
Manufacturing	56.2	59.8	55.2	59.3	60.7
Retail and services	44.1	54.8	52.3	50.1	50.5
Construction and real estate	23.1	28.9	33.2	36.2	35.4
Subtotal, non-financial companies	37.7	44.2	44.7	45.5	46.7

Source: CNMV inhouse.

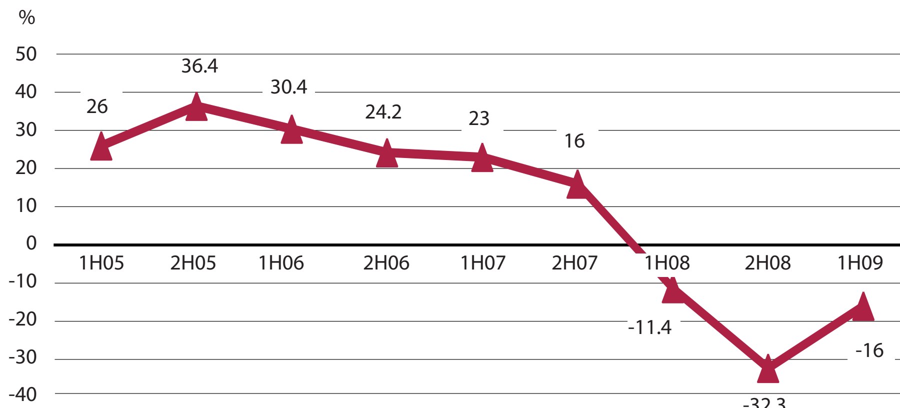
3 Profit

Figure 4 shows the year-on-year rates of change of the aggregate results before tax from continuing activities of listed companies from the first half of 2005.[6] The decline in aggregate profit before tax at the end of the first half of 2009 was 16.0%, less than the 32.3% decline registered at year-end 2008. As will be discussed later, the improvement came from the construction and real estate sector.

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

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

FIGURE 4

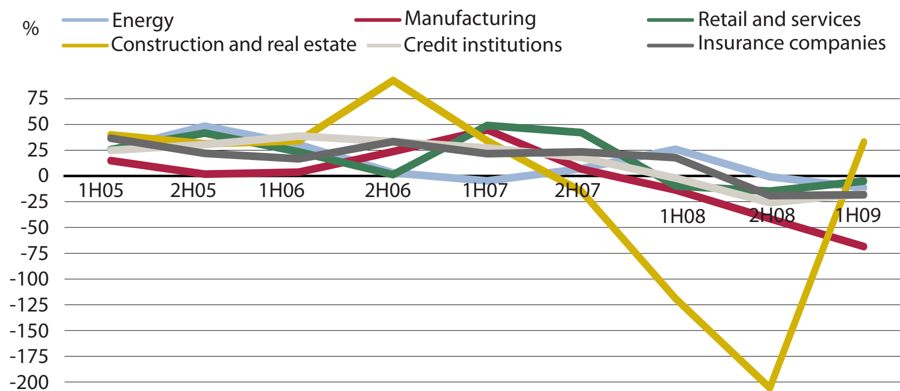


Source: CNMV inhouse.

Figure 5 shows the trend in profit before tax for the different industries.

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

FIGURE 5



Source: CNMV inhouse.

There was a noteworthy rise in profit from continuing activities before tax of the construction and real estate sector, whose losses decreased by 934 million euros compared to the first half of 2008. In all other industries profit from continuing activities before tax decreased, especially in manufacturing, which was down 68.6%.

Table 2 shows the key earnings figures for the first half of 2009 and for the same period of the previous year.

In the first half of 2009 a total of 57 companies (30.3%) recorded net losses, with an aggregate total loss of 3,248 million euros. In the same period of the previous year 31 companies(16.5%) posted net losses and the aggregate total loss was 5,364 million euros, although 86% of this amount came from just two real estate companies.

EBITDA[1], EBIT and profit/loss for the year TABLE 2

Million euro

	EBITDA		EBIT		Profit/loss for the year	
	1H2008	1H2009	1H2008	1H2009	1H2008	1H2009
Energy	14,781	14,984	10,660	10,111	12,166	6,749
Manufacturing	3,587	2,207	2,495	1,100	1,778	447
Retail and services	15,456	14,517	9,499	8,656	5,990	6,182
Construction and real estate	712	1,988	-729	534	-3,181	1,435
Credit institutions	-	-	15,660	15,365	14,756	12,111
Insurance companies	-	-	-	-	729	579

Source: CNMV inhouse.

1 EBITDA = EBIT (operating income = earnings before interest and tax) + depreciation and amortisation expense.

By industry, the highlights are:

- **Energy.** Energy industry EBIT fell 5.2% as a result of the decline in demand for electricity, both in the Iberian Peninsula and in the main markets in which Spanish companies operate, and the impact on oil companies of the fall in refinery margins and in crude oil and gas prices.
- Profit for the year was down 44.5% due to earnings from discontinued operations in the first half of 2008. Stripping out this impact, the decrease would have been 7.5%.
- **Manufacturing.** Manufacturing has been severely affected by the crisis of the Spanish economy. EBIT for the first half of 2009 was down 55.9%, far outpacing the decline in sales revenue (13%). Manufacturing companies cut production and reduced inventory, but in some cases the carrying cost of inventory was higher than current market prices, resulting in a weakening of margins. Employee compensation and other staff costs arising from workforce adjustments, combined with steady fixed asset depreciation expense, further contributed to the decline in EBIT.
- **Retail and services.** The cost reduction policies implemented in this sector with a view to reducing staff costs, other operating expenses and depreciation and amortisation expense were insufficient to offset the decrease in gross operating income in the first half of 2009, with the result that EBIT was down 8.9%.

  Falling interest rates and the maintenance of the overall level of debt in the sector brought finance costs down 15.1%. As a result, the rate of change of profit before tax from continuing activities was -5.1%, almost 4 percentage points above the decrease in EBIT. Lastly, profit from discontinued operations pushed the rate of change of profit for the year into positive territory, with growth of 3.2%.
- **Construction and real estate.** The growth of profit before tax from continuing operations remained negative during the first half of 2009, with losses before taxes from continuing activities totalling 1,899 million euros. The result from discontinued operations, however, was a profit of 2,982 million, yielding net profit for the year of 1,435 million euros. In the same period of 2008 the loss before taxes from continuing activities was 2,833 million euros and the result for the year, a loss of 3,181 million euros.

  For construction companies EBITDA and EBIT were both positive, although 22.0% and 35.4% below the previous year's level. Profit for the year, by contrast, was up 67.4% on gains from discontinued operations.

For real estate companies EBITDA, EBIT and loss for the year were -975, -1,014 and -1,452 million euros, respectively, reflecting an environment of falling sales and declining prices. Even so, these figures represent increases of 79.3%, 67.6% and 70.4%, respectively, in the year-on-year rates of change, as in the first half of 2008 the sector recorded very significant operating losses due to the write-down to fair value of real estate assets acquired in business combinations and the impairment of inventories (land and developments in progress).

- **Credit institutions.** The easing of the cost of liabilities and close management of interest rate differentials allowed savings banks and banks were able to offset the slowdown in their activity and the lower return on their assets due to the fall in interest rates, achieving 17.2% and 38.8% year-on-year growth in net interest income, respectively.

  The increase in non-performing loans required hefty increases in provisions, adversely affecting net operating income. In particular, impairment losses on the financial assets of savings banks and banks increased 75.3% and 90.9%, respectively, absorbing 54.7% and 37.8% of net interest income.

  Overall, credit institutions tried to at least partly counteract the bottom-line impact of the slower growth of activity and the increase in non-performing loans by implementing cost control policies. In the case of savings banks, implementation of these policies was reflected in slower growth of aggregate operating costs, up 1.0% year-on-year, compared to 8% in the same period of the previous year. In the case of banks, by contrast, the rate of change of aggregate operating costs rose from 6% in the first half of 2008 to 16% in the first of 2009 as a result of the growth of certain banking groups through foreign acquisitions. Both the savings banks and the banks recorded an improvement in efficiency ratios,7 which reached 38.9% and 36.7%, respectively, at the end of the first half, compared to 43.1% and 38.4% at the end of the same period the previous year.

- **Insurance companies.** Despite the 13.9% increase in revenue, profit for the first half of 2009 was down 20.6% due to the increase in claims (20.6%) and operating expenses (21.0%) in non-life insurance.

Based on the information available in the third quarter of 2009, published by the main companies in our sample, the year-on-year rate of change of profit for the year was -10.7%.[8] This decline is slightly higher than that found for a comparable sample of companies using data for the first half.

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

Figure 6 shows the trend in ROE and ROI since 2005. As can be seen, ROE increased in the first half of 2009 compared to year-end 2008, thanks to the improved behaviour of profit for the period.

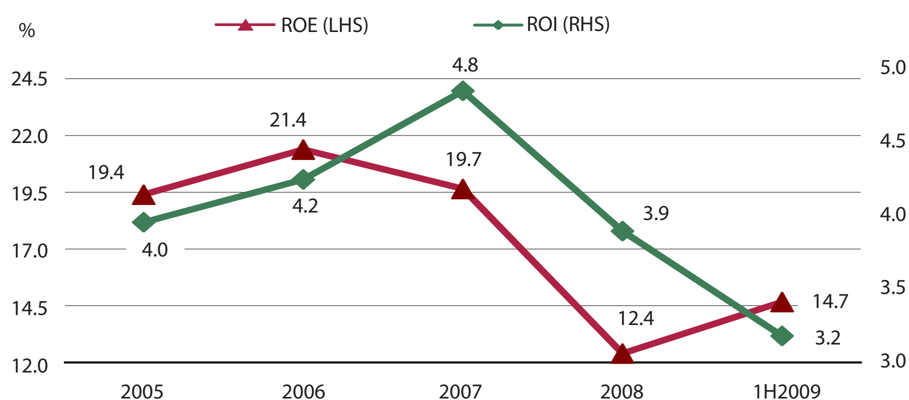
The average net investment of all listed companies in the first half of 2009 was greater than in 2008, which explains the decrease in ROI in this period.

7 Determined as the percentage of gross operating income that is absorbed by operating costs (staff costs and other general administrative expenses).

8 We have taken a sample of 61 companies, including all the companies in the Ibex 35.

ROE and ROI

FIGURE 6



Source: CNMV inhouse.

Tables 3 and 4 show the trend of ROE and ROI for the different industries. Companies in the manufacturing and energy industries recorded a significant decrease in ROE and ROI in this period, especially in manufacturing, where returns fell to half their previous level.

Retail and services had the highest ROE and ROI of all the sectors, though still below the levels achieved from 2005 to 2007.

The drop in the ROE of credit institutions and insurance companies at year-end 2008 is accentuated by the inclusion of fixed-income-issuing credit institutions (mostly savings banks) that were not required to file periodic reports in 2007 or previous years. The ROE of credit institutions and insurance companies at the end of the first half of 2009 is similar to that recorded at the end of 2008.

Construction and real estate, however, saw an improvement in ROE and ROI as a result of profit growth in the first half of 2009, although returns remained below the levels recorded between 2005 and 2007.

ROE

TABLE 3

%	2005	2006	2007	2008	1H2009
Energy	20.6	18.6	15.9	19.5	15.2
Manufacturing	16.0	20.6	17.7	10.6	4.1
Retail and services	25.4	27.6	32.4	20.1	23.2
Construction and real estate	19.4	29.8	18.3	-17.6	10.0
Credit institutions and insurance companies	17.2	19.1	19.1	13.0	13.7
TOTAL	**19.4**	**21.4**	**19.7**	**12.4**	**14.7**

Source: CNMV inhouse.

ROI

TABLE 4

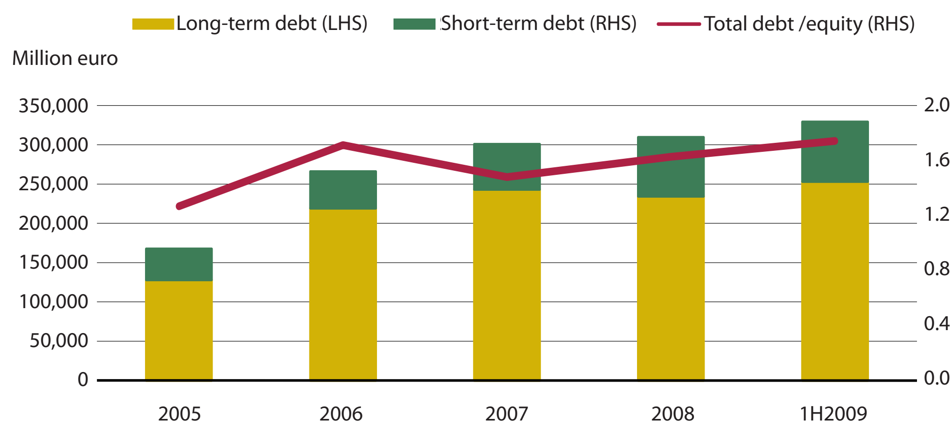
%	2005	2006	2007	2008	1H2009
Energy	10.2	9.6	9.1	10.5	7.9
Manufacturing	9.0	11.6	11.5	7.7	3.7
Retail and services	10.5	10.8	12.1	8.3	8.2
Construction and real estate	8.3	10.1	7.8	0.4	4.3
Credit institutions and insurance companies	2.8	3.0	3.8	3.8	2.8
TOTAL	**4.0**	**4.2**	**4.8**	**3.9**	**3.2**

Source: CNMV inhouse.

5 Debt

Figure 7 shows the trend of the gross debt (in millions of euros) of the companies in the sample, excluding credit institutions and insurance companies.[9]

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



Source: CNMV inhouse.

Gross debt was 329,127 million euros at the end of the first half of 2009, up 5.8% on year-end 2008. The increase (18,057 million euros) is attributable mainly to corporate transactions carried out during this period by companies in the energy sector. Without this impact, the volume of debt of listed companies remained almost unchanged (up 0.3%). It is worth pointing out, however, that the debt of the construction and real estate sector decreased as a result of the disposal of assets.

At the same time, in the face of the financial difficulties, many publicly traded companies, especially builders and real estate developers, were forced to renegotiate the terms and conditions of their loans with their creditors. Generally, this resulted in a lengthening of loan maturities and an increase in the required spreads over reference interest rates.

As the previous figure shows, at the end of the first half of 2009 the proportion of debt maturing in the short term was slightly lower (23.1%) than at the end of 2008 (24.3%) as a result of refinancing agreements. In the next few months, however, the financial difficulties some companies are facing may lead to a breach of certain loan covenants, which under IFRS would result in such debt being reclassified to short-term.

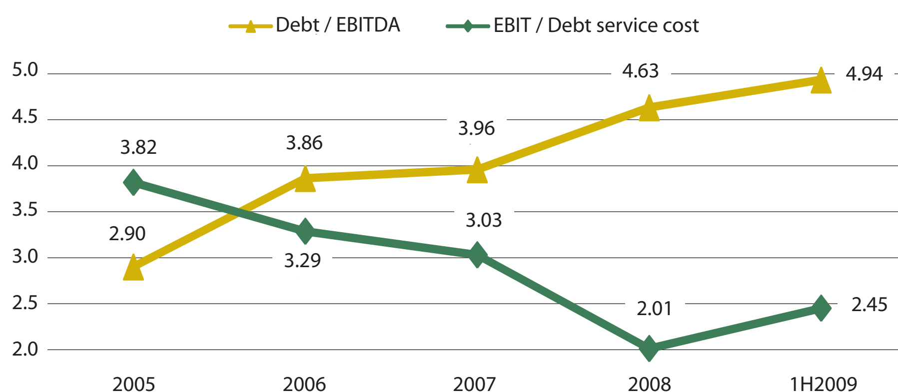
The aggregate leverage ratio, which compares debt to equity, was 1.74 at the end of the first half of 2009, compared to 1.63 at year-end 2008.

Figure 8 shows the trend in debt-to-EBITDA and debt service coverage ratios. In the first half of 2009 the total debt-to-EBITDA ratio, which measures the number of years it will take a debtor to pay its debt if EBITDA remains constant, continued on its upward path, reaching 4.94, compared to 4.63 at year-end 2008. The debt service coverage ratio, meanwhile, improved slightly, ending the period at 2.45 (2.01 at year-end 2008), owing to the decline in the reference interest rates used to determine the cost of debt.

9 Gross debt = Amounts owed to credit institutions + Issues of marketable bonds and securities.

Coverage ratios

FIGURE 8



Source: CNMV inhouse.

Table 5 shows the trend in level of debt and the relevant ratios by industry. The construction companies and real estate developers stand out, with a debt-to-EBITDA ratio of 26.9 and a debt service coverage ratio of 0.21.

Trend of debt by industry

TABLE 5

Amounts for Debt in million euro		2005	2006	2007	2008	1H2009
Energy	**Debt**	**58,586**	**59,191**	**69,172**	**82,608**	**102,933**
	Debt / Equity	0.93	0.89	0.78	0.89	1.13
	Debt / EBITDA	2.41	2.17	2.48	2.82	3.43
	EBIT / Debt service cost	4.02	4.65	4.10	3.67	3.80
Manufacturing	**Debt**	**12,760**	**15,684**	**13,312**	**15,645**	**16,439**
	Debt / Equity	0.75	0.78	0.61	0.69	0.76
	Debt / EBITDA	2.07	2.07	1.82	2.71	3.72
	EBIT / Debt service cost	6.50	5.71	5.93	3.41	2.36
Retail and services	**Debt**	**55,710**	**91,522**	**96,941**	**112,322**	**112,387**
	Debt / Equity	1.70	2.52	1.70	2.14	2.10
	Debt / EBITDA	2.68	3.58	3.01	3.58	3.87
	EBIT / Debt service cost	3.37	2.44	3.23	2.86	3.04
Construction and real estate	**Debt**	**48,324**	**111,000**	**138,933**	**119,788**	**106,951**
	Debt / Equity	2.16	3.10	3.08	3.77	4.31
	Debt / EBITDA	6.52	11.52	10.83	31.87	26.90
	EBIT / Debt service cost	2.79	2.04	1.17	0.01	0.21
Adjustments*		**-7,942**	**-11,199**	**-17,391**	**-20,802**	**-9,583**
TOTAL	**Debt**	**167,438**	**266,198**	**300,967**	**309,561**	**329,127**
	Debt / Equity	1.27	1.71	1.48	1.63	1.74
	Debt / EBITDA	2.90	3.86	3.96	4.63	4.94
	EBIT / Debt service cost	3.82	3.29	3.03	2.01	2.45

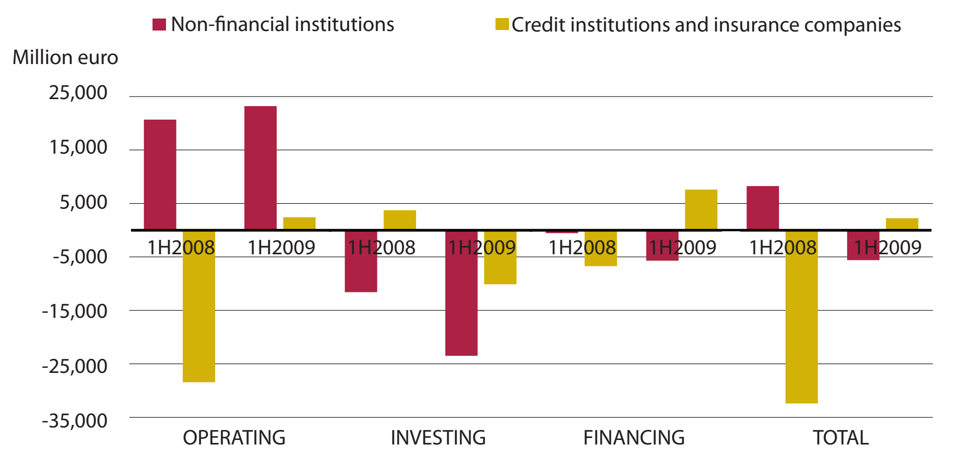
Source: CNMV inhouse.

* In the adjustments row the data of 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 in the first half of 2008 and 2009 for the companies in our sample, distinguishing between flows from operating, investing and financing activities. The totals indicate the change in cash and cash equivalents in the period. Given the different nature of their activities, non-financial institutions are shown separately from credit institutions and insurance companies.

Cash flows FIGURE 9



Source: CNMV inhouse.

The trend in cash flows was different in the financial and non-financial sectors, as indicated below.

- **Non-financial institutions.** In aggregate terms, cash inflows from operating activities (23,120 million euros) financed the investments made during the period (23,479 million euros), while cash outflows from financing activities of 5,688 million euros (equity instruments repurchased, debt repaid and dividends paid) were covered by a 5,599 million euro decrease in net cash.

  The most important financing-related cash outflows, in terms of their impact on the aggregate data, were the dividends paid by the energy sector and the payments made by construction companies to cancel debt (mainly loan repayments).

- **Credit institution**s and insurance companies. It should be remembered that the cash flow statement of credit institutions as a whole for the first half of 2008 largely reflected the prevailing liquidity constraints in financial markets, which resulted in the consumption of a significant portion of the cash generated in previous periods. From the second half of 2008 the programmes initiated by governments and the European Central Bank to combat the crisis alleviated the liquidity problems for credit institutions as a whole.

  In the first half of 2009 savings banks reported cash inflows from operations totalling 2,461 million euros, compared to cash outflows of 5,100 million in the first half of 2008. These funds, together with the 3,627 million euros from financing activities carried out in pursuit of policies aimed at improving capital ratios, were still insufficient to offset the net consumption of cash in investing activities (12,319 million). As a result, in the first half of 2009 savings banks as a whole experienced a 21.5% decrease in surplus cash and cash equivalents, compared to a decrease of 41% in the first half of 2008.

  Over the same period, banks as a whole, by contrast, experienced a 13.8% increase in cash and cash equivalents, compared to a 39% decrease in the first half of 2008. The first half of 2009 saw a net cash inflow from operating activities of 1,387 million euros, compared to a net cash outflow of 23,158 million in the first half of 2008. Net cash flows from investing activities, meanwhile, were 544 million, thanks to the proceeds from disposal of non-current assets held for sale.

Net cash flows from financing activities, totalling 4,472 million euros, came principally from subordinate debt issues and disposal of own shares.

For insurance companies the highlight was net cash from investing activities, totalling 1,446 million euros. Cash used in operating and financing activities was 959 and 472 thousand euros, respectively. As a result of the above changes, aggregate cash and cash equivalents ended the first half of 2009 at much the same level as at the beginning of the period.

7 Number of employees

Table 6 shows the average and aggregate workforce for the six areas of activity in the first half of 2009 and 2008, with a year-on-year increase in average workforce of approximately 3.9%.

Average number of employees by industry TABLE 6

	1H2008	1H2009	Change
Energy	128,299	137,751	7.4%
Manufacturing	232,676	239,860	3.1%
Retail and services	574,375	571,126	-0.6%
Construction and real estate	407,143	422,429	3.8%
Credit institutions	422,910	461,098	9.0%
Insurance companies	37,819	41,067	8.6%
Adjustments*	-13,473	-12,915	-4.1%
TOTAL	**1,789,749**	**1,860,416**	**3.9%**

Source: CNMV inhouse.

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

The average workforce increased in all sectors except retail and services (with a slight decrease of -0.6%). The increase in number of employees is attributable mainly to corporate transactions carried out by the companies in the sample in the second half of 2008 and the first half of 2009.

When comparing this increase with the trend in the unemployment rate in Spain, at least the following factors must be taken into account:

- The non-financial companies in the sample generated 46.7% of their revenue outside Spain; and 37.2% of the interest and similar income of the credit institutions came from abroad. Therefore, the average workforce figures include employees in other countries.
- The increase in the unemployment rate was particularly pronounced in the construction industry. Listed construction companies, however, were less severely affected because most of their construction activities are subcontracted.

8 Dividends

Dividends paid in the first half of 2009 totalled 17,419 million euros. Table 7 shows dividends paid in the first half of 2009 and 2008 by industry.

Dividends by industry TABLE 7

	1H2008	1H2009	Change
Energy	2,047	8,320	306.4%
Manufacturing	543	863	58.9%
Retail and services	3,125	3,264	4.4%
Construction and real estate	906	705	-22.2%
Credit institutions	4,754	4,270	-10.2%
Insurance companies	235	268	14.0%
Adjustments*	-293	-271	-7.5%
TOTAL	**11,317**	**17,419**	**53.9%**

Source: CNMV inhouse.

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

In the sample as a whole dividends increased by 53.9%, mainly due to the dividend paid by one company in the energy sector, which distributed extraordinary capital gains made the previous year. Without this effect, the increase in dividends paid would be 3.6%. On the other hand, there was a marked decrease in dividends paid by companies in the construction and real estate industries and by credit institutions.

9 Conclusions

The key financial data for 2009 of companies whose shares are admitted to trading reflect the instability in the international financial markets and the weakening of the real economy, which intensified from the second half of 2008.

For credit institutions this macroeconomic environment resulted in: (i) a decrease in the return on their assets, owing to the falls in interest rates, partly offset by an easing of the cost of liabilities; (ii) a considerable slowdown in growth, as a result of the fall in the demand for credit, combined with a more restricted supply of credit due to perceptions of a general increase in credit risk; and (iii) a large decrease in profit for the year, due to the steep increase in non-performing loans.

The manufacturing sector recorded a severe contraction in activity and margins, resulting in a significant reduction of profit, demonstrating the difficulties of covering fixed costs in an environment characterised by a sharp reduction of production due to lower demand.

Real estate companies continued to report falling sales, combined with a downward trend in prices, resulting in operating losses. The results of construction companies also show a decline in EBIT, offset on the bottom line by profit from discontinued operations.

The EBIT of companies in the energy sector decreased under the impact of declining electricity demand and refinery margins and rising crude oil and gas prices. The decrease at net profit level was greater because of the non-recurring gains from discontinued operations in the first half of 2008.

Appendix

The following definitions of ROE and ROI are provided to aid interpretation:

- ROE is calculated using profit after taxes,[10] including profit from discontinued operations, adjusted for interest net of tax effect[11] for the purposes of calculating ROI.

  For financial institutions, net interest for the ROI calculation is the interest and similar expenses that are included in the net interest income figure.

- The main balance sheet items (equity and investments) are calculated as the arithmetic average of the opening balance and the closing balance for each period.

  For non-financial institutions, investments are equal to total assets less non-interest-bearing current liabilities; and for financial institutions, to total assets.

10 For groups of companies, profit attributable to equity holders of the parent is used.

11 The corporate income tax rate used is the rate actually paid by the company to obtain the accounting tax expense.

The new structure of European financial supervision

Montserrat Martínez Parera and Víctor Rodríguez Quejido (*)

* Montserrat Martínez and Víctor Rodríquez belong to the President's Office of the CNMV.

1 Introduction

The only way to win a war is to prevent it.[1] This statement can also be applied to financial crises. The problem lies in the fact that these crises are difficult to avoid, so the best option is to concentrate all effort on minimising the probability of them occurring and limiting any damage they may cause if they do occur.

The current global crisis has brought to light many failures in the financial system that need to be addressed in order to ensure a crisis with similar origins is avoided in the future. It is generally agreed that there are significant faults in the design and performance of some of the elements of the supervisory and regulatory framework.

It seems sensible that the reforms needed to correct these failures should be based on a careful analysis of the strengths and weaknesses of the supervisory bodies with regards to their compliance with their established objectives. Nevertheless, it is undoubtedly true that crises act as catalysts for reform. For this reason, their urgent and severe nature helps agreements to be reached and allows changes to be made which are not exempt from technical and political complications, as can be seen in the reforms that some of the principal world economies have already begun. The partially approved reform of the European Union (EU) supervisory framework is worth a special mention, as much for the speed at which it has been developed as for what it means for the process of European integration.

As regards the debate on the perfect organisation model for financial supervision, there is no general consensus as the position normally depends on the circumstances of each country. However, the experience gained over the last few years allows the advantages and disadvantages of the different models to be better identified. For example, now that the sectoral model is considered to have become largely obsolete,[2] some doubts have arisen with regards to the suitability of a functional model with a single supervisor, especially in the wake of the financial crisis which has reinforced the benefits of functional models with more than one supervisor. The model known as twin peaks is to be found among this latter type of model and one of its distinctive characteristics is the transparency of the potential conflicts between prudential supervision and the supervision of conduct.

This article looks at what the financial crisis has taught us about the organisation of the supervisory institutions and takes an in depth look at the analysis of the supervisory reform started in Europe. To do so, the article is structured in the following way: The second section summarises the main things that have been learnt from the financial crisis as regards the organisation of supervision. The third section looks at the most significant supervisory reforms in the international field, with special at-

1 This quote is attributed to George Marshall, Chief of Staff of the U.S. Army and Secretary of State, who created the Marshall Plan for the reconstruction of Europe and for which he received the Nobel Peace Prize in 1953.

2 Sectoral model is taken to mean that where supervision is organised according to the type of entity to be supervised, independently of the type of service or product offered by the entity.

tention being paid to the current reform process of the United States (USA). The description and evaluation of the European supervisory reform is detailed in sections four and five respectively. The article ends with some final considerations.

2 What the financial crisis has taught us about financial supervision

The ultimate aim of all financial reform should be to mitigate the failures of the market, the regulation or the supervision which caused the crisis situation. It is, therefore, necessary to first identify these failures and learn from them so that they may act as a guide in developing the reforms. The main lessons learnt from the recent financial crisis in the field of organisation and the design of the supervisory and regulatory institutions can be summarised in the following way:

i) **Supervisory coordination and convergence.** The coordination and information exchange system currently in existence for supervisors in different countries must be reinforced. In spite of the advances made to improve coordination in recent years, the financial crisis has brought to light the fact that the degree of integration of the world's financial markets is far superior to that of the financial supervision and regulation between countries. The political debate on financial supervision and regulation prior to the crisis took place in many, far too diverse, forums which maintained a clear national slant and which had very little capacity to ensure their recommendations were followed. This was particularly disturbing in Europe, where the high level of integration of the financial market demands a similar integration of the regulatory and supervisory systems that has not yet been achieved. It seems advisable, therefore, to reinforce the international supervisory institutions, granting them greater access to information and improving their autonomy and executory capacity (enforcement).

ii) **Macroprudential supervision.** The monitoring of the stability of the financial system by the central banks and other bodies has been shown to have been insufficient to stop the accumulation of risks that was taking place. In particular, the supervisory institutions have given priority to the individual supervision of financial entities, without considering all the added implications of the individual conduct of said entities. In this way, the recent crisis is a clear example that the total risk of the system is not equal to the simple sum of the risks. In this sense, there is unanimous agreement with regards to the need to strengthen macroprudential supervision by reinforcing the identification and monitoring of the systemic risks. This, through an analysis of the links between entities and financial markets and of the calculation of possible risks, will allow specific courses of action to be designed, whether via recommendations to the different parties involved or via direct action on behalf of the supervisors.

   In this context, the central banks are in a key position to lead this macroprudential supervision, given their capacity for systemic risk analysis and the information they have available. The current crisis has also highlighted the fundamental role the markets play in the accumulation of risk and the spread of financial disruption, which gives a leading role to the supervisors of the securities markets for the supervision and maintenance of the stability of the system.

iii) **Expansion of the supervision perimeter.** The existence of opaque areas limits efficiency and increases the vulnerability of the system as a whole. The coex-

istence of regulated and non-regulated areas encourages regulatory arbitration and incentivises behaviour which, on an additional level, may increase risks in the system. At the same time, the lack of information reduces the supervisory capacity of the competent authorities and can cause undesirable results for the financial markets. Finally, the lack of transparency reduces participants' trust in the markets being well run. It is advisable, therefore, to widen the perimeter for financial regulation and supervision, at least by establishing specific transparency and information requirements for supervisors.

iv) **Limitations of the sectoral focus for financial supervision.** Microeconomic financial supervision must get away from the traditional focus on specific sectors (banks, insurance and securities), as the borderlines between them have disappeared in the reality of the markets today. Currently, a large number of financial entities operate in many financial sectors or subsectors, independently of the formal type of institution that they were initially established as. For this reason, it is preferable that the supervision is organised in accordance with the criteria of functional division, rather than sectoral division, and that it distinguishes between prudential supervision or the solvency of the entities, on the one hand, and the supervision of the rules of conduct of the agents who take part in the markets and the protection of investors, on the other. These duties can be assigned to more than one supervisory institution, as is the case of the twin peaks model, or to one single institution, in line with the model of the single supervisor model.

v) **Organisation of the prudential supervision and rules of conduct.** Although there is no general consensus regarding the advantages of a twin peaks model over a single supervisor, an increasing preference has recently been shown for the former.[3] One of the main arguments in favour of the twin peaks model is that it helps avoid conflict between the different objectives of microeconomic supervision (maintaining the solvency of individual financial entities and guaranteeing their good conduct in the securities markets) or, if this is not the case, it ensures it is announced publically. This is particularly important in stressful situations where one of the objectives, normally that referring to solvency, takes precedence over the other.

In some countries, prudential supervision is assigned to an institution that is not the central bank to avoid possible conflict with the instrumentalization of monetary policy. Such is the case of the United Kingdom, where the microprudential supervisor and the market supervisor were part of the same institution while the central bank was in charge of macroprudential supervision and monetary policy. The problems that several British entities have encountered (beginning with the bankruptcy of the mortgage lender Northern Rock) highlighted the weaknesses of this system and opened up a debate on the best way to reinforce supervision in the country. Nevertheless, it is often stated that the synergies between microprudential supervision and macroprudential supervision are greater than those that exist with the supervision of rules of conduct. This argument would, then, back the idea that the central bank (the macroprudential supervisor in the majority of the proposals made so far) should also take on the prudential supervision of individual entities.[4]

3 Cihák and Podpiera (2008) give evidence of a better quality of supervision in the *twin peaks* model as opposed to other types of integration, at least as regards banking supervision. The U.S. Paulson report and the EU Larosière report also recognise the advantages of this model.

4 However, Cihák and Podpiera (2008) have not found any evidence of a relationship between the quality

Another aspect to consider in the debate on the organisation of supervision, is the disadvantages that come with the excessive concentration of power in very few institutions, or even just one. This is especially relevant in large economic areas such as the United Stated and the EU.

vi) **Crisis management in transnational entities.** Lastly, it is also necessary to make an effort to improve crisis management and solutions for transnational entities, which is no mean feat. The increasing presence of financial trans-border groups in different countries, coupled with the supervision of a fundamentally national field, generates conflicts in terms of costs and responsibilities when one of these entities experiences a crisis. The lack of correspondence between the institution responsible for supervision and those who directly assume the costs of it, limits the possibility of reaching an agreement.

This debate is not new to Europe, as can be seen by the increasing prominence of associations of supervisors created to help improve cooperation between EU supervisors. Nevertheless, there is still room for improvement, for example the homogenisation of depositors protection schemes and the defining of how the tax burden should be divided among different countries if a financial institution in a not exclusively national field is in crisis.

3 Recent international initiatives

3.1 The increasing prominence of international forums

The global nature of this financial crisis has led the main economies to look for ways of coordinating the management of it and making advances in defining the regulatory reforms needed to win back investors' trust. Regarding this, the urgent need to reach global agreements resuscitated the Group of Twenty (G-20) which was established in the wake of the financial crisis that hit South East Asia, Brazil and Russia at the end of the nineties as an informal forum bringing together finance ministers and governors of the central banks from member countries.[5]

In this way, the format of this international discussion group provides a forum which is sufficiently representative of the world economy (the economies which form part of the G-20 represent almost 90% of the gross world product and 60% of the planet's population) as well as being sufficiently small enough to aid decision-making. As a result of the current crisis, for the first time since it was created, the G-20 has so far held three summits for Government Leaders,[6] which have granted these meetings a special importance. In fact, in the Pittsburgh summit it was agreed that the G-20 should be the main international forum for economic cooperation.

of the supervision and whether or not it is the responsibility of the central bank.

5 The G-20 is formed by Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom and the United States of America, plus the EU, represented by the rotated presidency and the European Central Bank (ECB).

6 These meetings took place in Washington (15 November, 2008), London (2 April, 2009) and Pittsburgh (24 and 25 September, 2009). Plus, more summits are planned for 2010, one in Korea (June) and another in France (November).

In the most recent meetings of the G-20 important agreements have been reached. Several different matters have been dealt with, among which the following stand out: those matters related to the need to promote greater international cooperation in the creation of macroeconomic policies, the reforms in international financial institutions and the different proposals for financial regulation aimed at reinforcing capital requirements and improving risk management, with special attention being paid to the aspects related to procyclicality. The G-20 has also expressly insisted on the need to increase transparency, promote market integrity, reinforce international cooperation and the exchange of information, and strengthen the macroprudential supervision of the system. In this sense, one of the main courses of action taken by the G-20 has been to convert the old Financial Stability Forum into the Financial Stability Board (FSB), to increase its number of members to include Spain, Holland and the European Commission, and to reinforce its commission to promote financial stability.

The FSB held its first meeting in June 2009 and in it established the internal structures required to comply with its commission. These new structures include a steering committee and three standing committees, for the identification of weaknesses, the development of supervisory and regulatory cooperation, and the enforcing of standards.

In this way, the obligation of the FSB is to maintain financial stability, improve the openness and transparency of the financial sector, enforce international financial standards and to carry out mutual checks periodically between the different members, using, among other sources, the evidence provided by the FSAP programmes (Financial Sector Assessment Programmes) of the International Monetary Fund (IMF) and the World Bank. Likewise, the FSB must collaborate with the IMF to carry out early warning exercises with the aim of identifying macroeconomic and financial risks as they appear and of indicating the courses of action required to confront them.

It is also worth highlighting the contributions of the FSB to the field of trans-border crisis management. These appear in the publication on principles and requirements that are demanded of financial entities of systemic importance so that they develop contingency plans. The work programme also includes aspects related to the moral risk created by the entities of systemic importance and which can, consequently, be considered "too big to fail", as well as establishing supervisors associations for complex financial institutions.

3.2 The reform of the financial supervision model in the United States

In March 2008, the Department of the Treasury published a document with a concrete proposal for the reform of the United States supervisory system.[7] The document known as the "Paulson Report",[8] compiled after a year's study, highlights the areas where the United States supervisory system is lacking. Of these areas, the following stand out: the obsolete sectoral focus of supervision, the lack of additional information, and the duplication of duties among different supervisors.[9]

7 See Department of the Treasury, US (2008).

8 After the then Secretary of the Treasury, Henry Paulson.

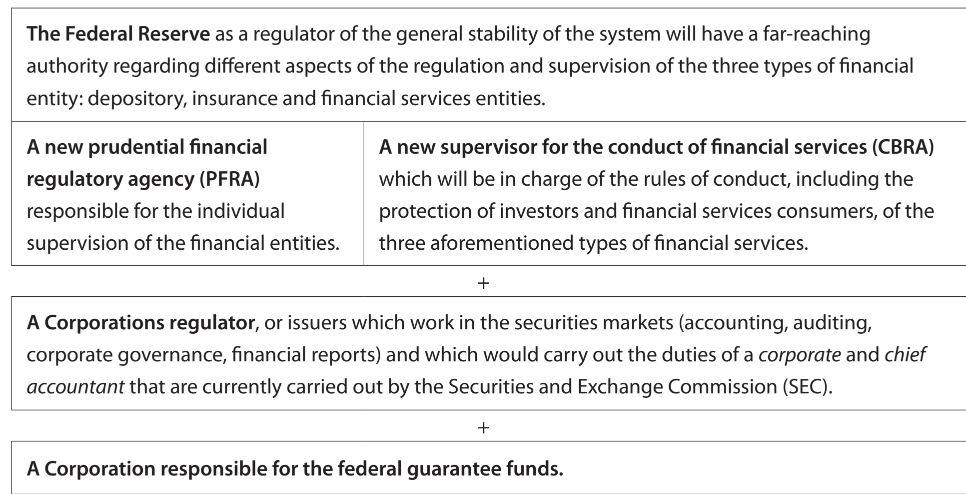
9 It is important to point out the special supervisory structure of the United States which has many supervisors. A study carried out by the Group of Thirty, or G-30 (2008) describes the U.S. model as an exception among the different categories the current systems can be divided into.

The Treasury report specifically starts with a detailed analysis of the different organisation models for financial supervision, to later conclude that supervision based on objectives is the most recommendable. This model advocates the existence of different supervisors for the different objectives of financial regulation and supervision. In this way, in accordance with the outline defended in this report, the monitoring of systemic risk would be kept separate from the individual prudential supervision of the financial entities, and this supervision would, in turn, be separate from the supervision of behaviour in the rendering of financial services and the adequate protection of consumers. With this model, the monitoring of systemic risk of a macroeconomic nature is attributed to the central bank, in this case the Federal Reserve. So, essentially, the model the U.S. authorities are striving for can be compared to an extended twin peaks model.

The proposal puts forward this model as the most desirable in the long term, but it also includes measures to be adopted in the short and mid term, as steps to be taken prior to reaching what is considered to be the optimum model.

Figure 1 is a diagram showing some of the most important details of this proposal. Specifically, it proposes two supervisors should be set up for the financial entities, one for to the prudential field and the other to the rules of conduct. The Federal Reserve, as supervisor of the financial stability of the system, has a special prominence.

Financial supervision model proposed by the U.S. Treasury FIGURE 1


The Federal Reserve as a regulator of the general stability of the system will have a far-reaching authority regarding different aspects of the regulation and supervision of the three types of financial entity: depository, insurance and financial services entities.

A new prudential financial regulatory agency (PFRA) responsible for the individual supervision of the financial entities.	**A new supervisor for the conduct of financial services (CBRA)** which will be in charge of the rules of conduct, including the protection of investors and financial services consumers, of the three aforementioned types of financial services.

\+

A Corporations regulator, or issuers which work in the securities markets (accounting, auditing, corporate governance, financial reports) and which would carry out the duties of a *corporate* and *chief accountant* that are currently carried out by the Securities and Exchange Commission (SEC).

\+

A Corporation responsible for the federal guarantee funds.

The proposal is currently being debated in the U.S. Congress and Senate,[10] and it is hoped this will serve as a base for the approval of a reform for the financial supervision model some time during 2010. The political debate has led to a proposal for a partial reform with the following modifications to the original proposal:

- The monitoring of the stability of the financial system will be done by a board comprising members of the different financial supervisors, including the Federal Reserve.

10 As a result of the negotations of the new Administration with the U.S. chambers, the Treasury formalized a new proposal which was sanctioned by the corresponding congressional committee. On the 11 December, 2009 the U.S. Congress approved a Bill on financial reforms which includes some of the issues that affect the supervision model, based on the proposal by the Treasury. This proposal has been sent to the Senate for its study and approval.

- The creation of an agency to protect the financial services consumer is proposed.
- The creation of a federal agency to supervise the insurance subsector is proposed.[11]

4 The supervision reform in Europe

The first steps towards the creation of a single financial market can be traced back to the Financial Services Action Plan (FSAP), that was approved in 1999, and to the Lamfalussy Report,[12] published in 2001. These two elements established the intervention framework for financial regulation and supervision in Europe based on the need for the national regulatory and supervisory structures to converge, as well as to reinforce cooperation between supervisors, regulators and the authorities responsible for national and European macroeconomic stability.

One of the key results of this multilateral effort was the current regulatory and supervisory model, known as the Lamfalussy scheme. This scheme is based on the creation of four levels: the first is where the European Parliament and the Council of the EU adopt a rule; the second is where the European Commission coordinates the work of the specific and regulatory sectoral committees with regards to technical details, thereby approving a development rule; the third is where the national regulators and supervisors work to coordinate the application of the new rules, and the fourth is where the EC carries out the monitoring of the compliance with the new rules and regulations.

The third level is organised around three level 3 committees which bring together the national financial supervisors. These committees are known internationally by their English acronyms: CEBS for the banking sector, CESR for the securities sector and CEIOPS for the insurance sector. It is of note that in recent years this model has notably favoured the coordination and exchange of information between them.

The recent financial crisis, however, has brought to light the limitations of the current model of Pan-European supervision. In the beginning, the Lamfalussy scheme consolidated the single financial market (which then comprised thirteen fairly homogeneous economies) in terms of wealth, therefore making it easier to reach unanimous decisions. The context of stability and growth corresponding to those years also helped possible arbitrage and created a trust in the mutual informal pressure systems between supervisors to guarantee the monitoring of the recommendations and agreements. Currently, maintaining highly fragmented supervision with an excessively national focus, in a European Union with 27 members, is not compatible with the high degree of integration of the financial markets. It is necessary, therefore, to take a quantum leap in the process of European integration.

Given this situation, the European Commission, assigned a group of experts headed by Jacques De Larosière to create concrete proposals to reinforce the current European supervision system to make it more integrated, efficient and sustainable over time. The result of this assignment was the Larosière Report, published in February 2009.

11 This, however, is not really different from the original proposal, as the creation of such an agency was already considered in it as a mid-term measure (a prior step to achieving the model regarded as optimum by the proposal).

12 Baron Alexander Lamfalussy was head of the Committee of Wise Men on the Regulation of European Securities Markets in 2000. The proposals of this Committee were adopted by the European Union Board in March 2001, giving rise to the "Lamfalussy Process".

The proposals of the Larosière Report have been taken on, in the most part, by the European Commission which has also shortened the original timescale proposed by the report so that the reforms can be finalised in 2010. After several advisory processes, a proposal for EC Regulations was made by the European Commission in September 2009. This is currently pending approval by the European Parliament and the Council, and is expected to go through in the nest few months.[13]

The main aspects of the reform can be grouped in the following three blocks: whether they refer to the macroprudential, microeconomic or individual supervision, relating to entities and the markets these entities act in, or relating to the coordination between the supervising authorities.

4.1 The European Systemic Risk Board (ESRB)

One of the main objectives of the reform is the reinforcement of the stability of the financial system as a whole. To do this, the new European proposal establishes the European Systemic Risk Board (ESRB) as an institution in charge of the macroprudential supervision of the European financial system. Although the idea of establishing a European body for monitoring possible systemic risks is not new, its consolidation and start-up mean an important change in the European supervisory structure. Specifically, the ESRB will be in charge of supervision and the identification of any risks which could affect the stability of the European financial system as a whole, collecting all the relevant information from the national supervisors it needs to do so. In this way, via the development of a European perspective which considers the diverse connections linking the financial markets, it aims to reduce the fragmentation of risk analysis which is currently carried out by each individual national authority.

The results of the ESRB analysis will be transformed into recommendations and early warnings designed to lessen or predict the possible risks for the stability of the European financial system. These warnings may be sent to the European financial community as a whole, to the new European supervisory authorities, directly to the national authorities, or to the rest of the European institutions (Council, Commission and Parliament).

Those that receive the recommendations must comply with them or justify their reasons for not doing so. This way, the ESRB recommendations will not be binding, but will act on a basis of the effect on reputation that non-compliance will have for the different authorities. The ESRB will specifically decide whether to make the warnings and recommendations public in each individual case. Although it is true that the publication of such warnings and recommendations may put more pressure on for them to be observed, the broadcasting of certain information may have unwanted effects on the markets, making an individual analysis of the appropriateness of publication justifiable for each case.

The main decision-making body of the ESRB will be the Board itself. The composition of the Board will grant a significant role to the central banks, as the governors of 27 EU banks will be participating and the European Central Bank (ECB) will have an especially important role as, apart from being represented on the Board by its Chairman and Deputy Chairman, it will be offering the secretariat services needed. Also

13 As a first step in this process, the EU Economic and Financial Affairs Council (ECOFIN) approved the text proposed by the EC, with a few minor modifications, on the 2 December 2009.

present on the Board will be the chairmen of the three new European sectoral supervisory authorities (see below), a representative of the EC, as well as a representative of each national supervisory body of each Member State (these may be rotational according to the issues to be dealt with), and the Economic and Financial Committee; the latter two will attend as observers, but will not have a vote. As a whole, the Board may reach quite a significant number of members (up to 61, although only 33 will have voting rights). The Board will have a Chairman and a Deputy Chairman, who will be elected for five years from the Board members of the ESRB, and who will also be members General Council of the ECB. Due to the size of the Board and to aid decision-making, a steering committee will be established, as will a technical advisory committee designed to advise and aid the Board with its decisions.

As well as the organisational aspects of the ESRB, one of the requirements which is important for its smooth running is access to the information needed to identify the risks. The monitoring of possible risks which may affect the system requires a large amount of macroeconomic and microfinancial indicators which not only allow possible risks to be identified, but also to calculate and evaluate their effects on the system as a whole. To do this, the ESRB will have access to all the information available in the ECB, as well as all it requires from the European supervisory authorities or, if need be, directly from the national authorities.

Eventually, given the relationship between the different financial systems, the ESRB will work in close coordination with the relevant international financial institutions such as the IMF and the FSB, as well as with third countries.

4.2 New European supervisory authorities

In the field of microeconomic supervision, the new community Regulations establish the European System of Financial Supervisors as a structure for integrating the national financial supervisors and the three new European supervisory authorities (ESAs), which are to be created from the current level 3 sectoral committees.

This transformation of the CESR, CEBS and CEIOPS sectoral committees into European authorities is a response to the need to widen the scope for the work of the European supervisory structures further than just the simple duties of coordination and consulting which were carried out by the aforementioned level 3 committees. To do this, the new authorities are expected to take on new jurisdictions, which will inevitably be to the detriment of national jurisdictions in certain aspects. It is to be expected, however, that this partial transfer of jurisdictions makes it easier for the national supervisors to reach agreements and make cooperation decisions. These national supervisors will, after all, still be responsible for the supervision of individual entities, maintaining the subordination and proportionality principles. In this way, for example, the European Securities Markets Authorities (ESMA) (which will result from a transformation of the CESR), will take on the supervisory jurisdictions of the rating agencies regulated by new Regulation1060/2009.

In particular, the ESAs will contribute to establishing common regulatory and supervisory standards and practices. For this, in addition to the guides which will be issued by the sectoral committees, the ESAs will be able to establish technical rules that will be obligatory for national supervisors, and the publication of which will be preceded by the corresponding public consultation. These rules will have to be validated by the EC.

In the same way, the ESAs play an important role in the task of establishing a common supervisory culture in line with European regulations. To reach the objective of guaranteeing a coherent application of EC laws, the ESAs will be able to publish guides and recommendations directed at national authorities and market participants. It is also expected that the ESAs will even be able to take action on specific financial entities in certain very restricted circumstances, with EC participation, and always after the relevant national supervisor has been informed. This extreme, which has been highly debated, is justified by the need to guarantee the good performance of the ESAs and favour the application of the EC regulations.

The ESAs will also be able to mediate in any case of disagreement between national supervisors and they will be able to develop specific courses of action in emergency situations. Such situations are considered to be those in which the organised functioning of the securities markets and the financial stability of the EU are threatened. They will be determined by the EC.

The new authorities will have a supervisory Board and a management board. The Board will comprise the superior representatives of the national supervisors and will be headed by a chairman exclusively dedicated to the job, and named for five years. A representative from the EC, one from the ESRB and one from each of the other ESAs will also be present on the board with a voice, but not a vote.

Generally decisions will be made with a simple majority, with the exception of specific matters such as the adoption of technical standards, guides and recommendations, and budget issues, which predictably will require a qualified majority.

Finally, it is important to point out that the ESAs will be the point of contact for supervisors of third countries and will act as advisory bodies for the rest of the European institutions (The European Parliament, Commission and Council).

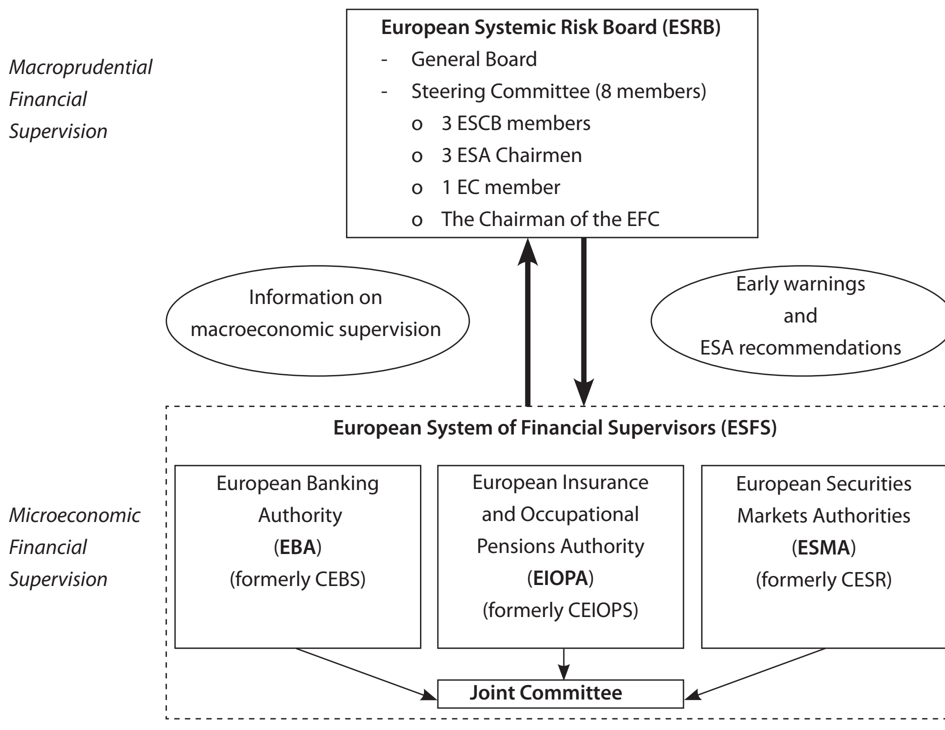
4.3 Coordination between Authorities

To guarantee the success of the reform, it is advisable to consolidate the system of coordination between the different national authorities and the European bodies, reinforcing some of those that already exist. Below is a description of some of the key elements for the coordination between the European supervisors planned for the new regulations.

- **Supervisors Associations.** The supervisors associations play a relevant role in ensuring a balanced flow of information exchange between the supervisory authorities at source and at the receiving end. The ESAs will contribute to promoting the efficiency and consistent smooth running of these associations and must monitor the consistency in the implementation of EC legislation in the different member countries. To do so, the ESAs will be able to participate as observers in the supervisors associations and receive all the relevant information shared between the members of the association.
- **The relationship of the ESAs with the ESRB.** The new authorities will have to cooperate closely with the ESRB to facilitate the monitoring of the macroprudential aspects, via the exchange of relevant information. On the other hand, the regulation will specify the procedures which the ESAs must follow to ensure an adequate monitoring of the ESRB recommendations.

- **Joint Committee of European Supervisory Authorities.** The European reform is still based on the traditional division of the supervision by financial sectors. To lessen the limitations of this model, close cooperation between the three authorities is required. To achieve this, the plan is to create a Joint Committee of European Supervisory Authorities to ensure mutual understanding, cooperation and the consistency in the supervisory focuses used by the three authorities. The ESRB will also be invited to the Committee meetings. The sub-committee will specifically handle inter-sectoral issues, including those relating to financial conglomerates, and will ensure the same rules are kept for all participants (a level playing field).

Diagram of the Supervisory Reform in the European Union FIGURE 2



5 Some reflections on the proposed European supervisory reform

The reform currently underway, as described in the previous section, is a huge step forward towards harmonising European regulation and supervision and, at the same time, strengthening the supervisory bodies and providing them with better instruments for achieving their objectives. However, the project is not entirely exempt from limitations. Detailed below are some aspects which could be looked at in the future.

5.1 The independence of the ESAs

An essential condition for guaranteeing trust in the performance of the new authorities is to ensure their independence from political powers via functional and economic autonomous systems similar to those granted to the national supervisors.

The new authorities have been established in accordance with article 114 of the Treaty of the functioning of the EU, a fact which has helped speed up the definition process of the new supervisory model, as it does not require the Treaty to be modified. Nevertheless, the use of this formula grants the EC an important role in ESA decisions. In fact, the EC validation of the obligatory technical regulations is one of the elements which, depending on the consolidation of the process, may distort the results. Therefore, it seems appropriate that all EC proposals made regarding the modification of the technical regulations should be agreed on by the corresponding ESA.

Another important aspect related to the independence and autonomous nature of the ESAs is the sources of finance for the authorities. The regulation project considers that the financial resources will mainly come from contributions made by members and EC subsidies, as well as possible taxes charged by each authority. In this area it seems advisable (to avoid conditioning their behaviour as regards the approval of third parties) that the authorities have the maximum possible freedom to obtain resources. However, the contributions system established by the Regulations does not favour the authorities financing themselves principally via contributions from members. This is because the definition of these authorities is based on their representation by population, rather than taking into account the size of the economies or of the financial markets. This limits the size of the total budget for the authorities and may distort their incentives to an extent where a lack of proportion between the contributions from members and the size of the systems they supervise is produced.[14] It seems appropriate, therefore, to try and aim for a model similar to that established by the ECB in the future, adjusting the contributions from the member countries in accordance with parameters related to the GDP or the size of the markets.

5.2 The complex balance between national and European jurisdictions

The reform project creates borderlines between the national and European jurisdictions which will, inevitably, be further defined as experience is gained. In this way, for example, the ESA decisions cannot have any tax implications for the Member States. In other words, the Member States reserve the right to not follow the recommendations of an agreement by the ESAs, as long as that State justifies this to the ESA and the EC by proving that the decision could imply pecuniary liability for it. The matter may end up being decided by the European Council.

In a way, this last limitation is not without justification, in that it maintains consistency between tax responsibilities and authority responsibilities. Nevertheless, it is advisable to fix the practical application of this principle in a way which avoids it being abused to the detriment of the effectiveness of ESA agreements.

5.3 The minimal difference between supervisors

During the definition process of the reform project, a very similar focus has been maintained for each of the three European supervisory authorities, in such a way that the proposed regulation of the ESAs hardly establishes any difference between them. Although it is true that this criterion provides certain advantages in the development process, the homogeneity can result in agreements which will not allow

14 This could be particularly relevant for Central and Eastern European countries.

advances to be made in key areas which, in practice, differentiate the activity of the different supervisors. It would be advisable, therefore, to carefully study the peculiarities of each ESA in the future to determine its specific function and jurisdictions.

5.4 Organisation based on the sectoral committees

Finally, the reform proposed by the EC does not adopt the position recommended in the Larosière report related to the need to revise the performance of the system of authorities after a period of five years, and the advisability of moving towards a functional supervisory model of the twin peaks type. In other words, this means moving towards a model where the rendering of financial services and activity on the securities markets are brought together under a supervisor of conduct, with the prudential supervisor monitoring internal activity and the solvency of the entities, independently of their nature. The European Parliament itself recognised,[15] when it received the reform project, that it is possible it will be necessary to move on from the sectoral model, and that more reforms will certainly be needed in the future.

The heterogeneity of the institutional designs for supervision on a national level is one of the arguments which is generally used to maintain the status quo, in spite of the fact that, as explained previously, no clear sectoral division of entities operating in different markets exists. However, this heterogeneity on a national level could affect the performance of the new European authorities, as it is likely to generate duplicate costs and conflicts of interest between different supervisors or within the supervising authorities themselves. In this sense, the EC proposal is also lacking a recommendation regarding the best design for financial supervision on a national level.

6 Final considerations

The financial crisis which began in August 2007 highlighted some weaknesses in the supervision systems which were partly caused by failures in the design and functioning of the supervisory institutions. These failures have recently led to several reforms on an international level, principally designed to reinforce macroprudential supervision, improve the exchange of information and the cooperation between supervisors, and to adapt the jurisdictions and tools available to the supervisory authorities to the new supervisory requirements.

Among the reforms currently being carried out, this article specifically highlights the reform of the EU supervisory structure, which will mean a significant step forward in the integration process of the European financial market. The European reform proposal, which is currently in its final phase, establishes a Board on a European level for the supervision of systemic risk, as well as reinforcing microeconomic financial supervision via the transformation of the current level 3 committees into three European authorities. Among the new aspects introduced with this system, of note is the ability of the European authorities to create technical rules that it will be obligatory to comply with, and to mediate between national supervisors.

Although there are still certain aspects to be consolidated (and which should be looked at in the near future), the evaluation of the reform in this article is clearly positive, in that it allows advances to be made in the homogenisation of European

15 Press release of the 25 November 2009 from the Chairman of the European Parliament Committee on Economic and Financial Affairs.

financial supervision, as well as reinforcing existing mechanisms for monitoring the stability of the financial system as a whole.

In any case, the need to reach an agreement regarding supervisory reform should not limit the debate on the best organisation model for financial supervision, especially given the experience of recent years. This is not only advisable on a European level, but on a national level for each of the different member countries, where the heterogeneity of existing models may limit the effective coordination of the member countries and affect the smooth running of European supervisory institutions.

7 References

Cihák, M. and R. Podpiera (2008): "Integrated financial supervision: Which model?", North American Journal of Economics and Finance, Volume 19, Issue 2.

European Commission (2009a): "Proposal for a regulation of the European Parliament and of the Council on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board", COM (2009) 499 end.

European Commission (2009b): "Proposal for a regulation of the European Parliament and of the Council establishing a European Securities Markets Authority", COM (2009) 503 end.

European Commission (2009c): "Proposal for a regulation of the European Parliament and of the Council establishing a European Banking Authority", COM (2009) 501 end.

European Commission (2009d): "Proposal for a regulation of the European Parliament and of the Council establishing a European Insurance and Occupational Pensions Authority", COM (2009) 502 end.

De Larosière (2009): *The high-level group on financial supervision in the EU report*, compiled by the Group headed by Jacques de Larosière as a commission by the European Commission and presented on the 25 February, 2009.

Department of the Treasury, US (2008): *Blueprint for a modernized financial regulatory structure*, Department of the Treasury, US Government.

Group of Thirty (2008): *The Structure of Financial Supervision: Approaches and Challenges in a Global Marketplace*, G30 Financial Regulatory Systems Working Group, The.

Investor-compensation schemes in the European Union

Elías López Blanco (*)

* Elías López Blanco belongs to the Studies, Statistics and Publications Department of the CNMV.

1 Introduction

Compensation schemes protect investors in situations of insolvency of intermediaries, guaranteeing them at least partial return of their assets or an equivalent compensation. Investors may be exposed to the risk of intermediary insolvency for different reasons. The most obvious reason is not segregating the clients' assets from those of the intermediary. Regulation allows this situation in many countries for certain types of intermediary and asset. Including the clients' assets in the institution's funds generally means giving clients equal rights to those of the intermediary's group of creditors during bankruptcy proceedings. Thus, for example, faced with the institution's possible liquidation, the investors' assets held by the institution will be used, like the rest of the intermediary's assets, to meet the rights of the creditors as a whole.

Segregating the investors' assets reduces the risk of the investors' assets not being returned in the event of the intermediary's insolvency. However, it does not completely eliminate the risk, as the investors are also exposed to the institution's operational risks. It might be the case, for example, that in a situation of mandatory asset segregation, involuntary errors are committed in assigning ownership or in calculating the assets corresponding to a specific investor. There might also be negligent conduct, improper appropriation or fraud by the institution's employees or management, which would lead to damage to the client's assets. When the firm is solvent, the client may in principle obtain direct reimbursement from the institution for damage caused, bringing the case, if necessary, before the courts. However, reimbursement is more uncertain when the problems are detected once the firm is insolvent, and once insolvency procedures take place without the problems being previously resolved.

With very few exceptions, investor-compensation systems tend to exclusively cover the risk of "physical" disappearance of the client's assets, that is, situations in which it is not possible to return the accredited assets to the client. However, errors and negligent or fraudulent conduct by the intermediary or its employees may also generate undue losses for the investors as a result of the materialisation of market, liquidity or counterparty risks. Exposure to this type of loss may be particularly significant in services such as financial advisory services, the sale of financial products, the transmission and execution of buy and sell orders and portfolio management. As in the case of the "physical" disappearance of assets, insolvency may compromise the possibility of clients obtaining reimbursement for these undue losses.

This article describes the main characteristics of investor-compensation schemes in the European Union, focusing above all on the countries with the most important markets: Germany, France, Italy, the United Kingdom and Spain. European schemes are relatively recent compared to schemes in the United States. With few exceptions, almost all of them were created after approval of the current European Directive on investor-compensation schemes, which took place in 1997 (Directive

1997/9/EC - ICSD),[1] while the basic US legislation, the SIPA,[2] dates from 1970. The ICSD is basically a set of minimum regulations applicable to all which allows the Member States a high degree of discretion when determining the characteristics of the schemes established under their jurisdiction.

The comparison of the European investor-compensation schemes will highlight three particularly important aspects: the scope of coverage, the organisation of the schemes and how they are funded. Most States have merely guaranteed those risks, services and products required by the Directive. However, some countries have opted for significant exceptions, for example the United Kingdom with coverage of financial advisory services and losses generated by the intermediary breaching standards of conduct. The differences in the guarantees' ceilings are also notable. Some countries, including Spain, considerably exceed the €20,000 minimum level per investor required by the ICSD. In issues of organisation and institutions, there are significant differences in the treatment of credit institutions. While some countries, including Germany, France and Spain, allow deposit guarantee schemes to provide the guarantee arising from the ICSD, in other countries, such as the United Kingdom and Italy, the coverage is provided through one sole compensation scheme. There are substantial differences in funding. While in some countries, such as Germany, France and Spain, reserve funds are accumulated through contributions by intermediaries, in other countries, for example the United Kingdom and Italy, contributions are paid once the compensation commitments are known.

The article finishes with a brief analysis of the most important suggestions which the European Commission has recently passed on to the public authorities, the industry and consumers for their consideration in light of a possible modification of the ICSD. One of the possible important modifications reflects on the suitability of maintaining alignment with the minimum guaranteed amount for deposit activities which, as will be mentioned later, have recently increased sharply. This article also assesses whether the reformed ICSD should include different extensions in the scope of cover, including that of financial advisory services and undue losses as a result of intermediaries breaching standards of conduct. Finally, the article will analyse whether the ICSD should establish explicit criteria with respect to funding investor-compensation schemes so as to increase their capacity to meet their obligations, even in situations which require a high volume of compensation payments.

The article is organised as follows: Section 2 describes the main mechanisms provided for in the regulation to protect investors' assets, which include investor-compensation schemes. Section 3 highlights the main characteristics of the ICSD, and Section 4 compares the compensation schemes in the five largest European countries. Section 5 analyses the initial suggestions from the European Commission with respect to a possible modification of the ICSD and, finally, Section 6 presents the conclusions.

1 Investor Compensation Scheme Directive.

2 Securities Investor Protection Act.

2 Investor-compensation schemes as last-resort protection mechanisms

Investor-compensation schemes usually take effect as a last resort, and so the level to which they are required depends largely on the effectiveness of other mechanisms designed to protect the investor. Regulation provides for a wide range of measures of this type, which can generally be grouped into four categories: standards of conduct, requirements for directors and owners, organisation requirements and requirements for prudence. In order to ensure compliance, the regulation also provides for external audits and for entities to be subject to supervision and sanctions administered by the authorities.

Standards of conduct are directly aimed at reducing operational risks. The purpose is to ensure that investment services are rendered honestly and professionally in the client's best interest. The typical content of these standards includes regulating the resolution of conflicts of interest, executing the client's orders, registries relating to the institution's activities, treatment of the assets in safekeeping or administered on behalf of the clients, the prevention of abuse of market practices, the information provided to customers and internal codes of conduct which are binding for employees and directors. Key among these, due to their potential impact on preserving the investors' assets, are the requirements relating to asset segregation and information provided to the clients.

The requirements for asset segregation have been used in regulations with different scopes. Its strictest version not only requires separation of the clients' assets, without these assets forming part of the institution's funds, but also separate safekeeping through an independent institution. Within this approach lies, for example, the treatment of fund management companies and collective investment schemes in Spain, where regulations require that both the money and the client's financial instruments are in the safekeeping of banks and depositories of securities respectively. The least strict systems require accounting segregation, but they allow the intermediary to maintain safekeeping of the assets, or they allow the non-segregation of certain assets, as for example in Spain with the transitory cash balances associated with buy or sell orders on behalf of the client.

In principle, the approach of segregation and independent third-party safekeeping seems to be the most attractive for reducing the clients' exposure to the risk of intermediary insolvency. Even when, under this approach, investors are also exposed to the operational risks and insolvency risk of the safekeeping institution, these institutions are normally subject to regulatory requirements which are more specifically adjusted to the service which they offer. In addition, based on the independence and specialisation of these institutions, the regulator may require other complementary functions aimed at reducing the operational risk which the investor is exposed to by virtue of their relationship with the main provider of investment services. This is the case, for example, in Spain with collective investment scheme depositories, which are required to perform significant control functions with respect to the actions of their managers, which include reviewing the calculation of the net asset value of the investment funds.

The importance of the information obligations for intermediaries lies in the fact that they facilitate a protective barrier against asset losses based on the client's own control. These obligations help to reduce the agency problems between clients and their

intermediary and make it easier to detect anomalies in the clients' positions. Thus, for example, both in order transmission or execution and in discretional portfolio management, complete, accurate and timely information about the execution conditions of the transactions performed on the clients' behalf and the status of their positions will allow clients control over the quality of the services rendered and the integrity of their assets. Information obligations are also essential in the context of marketing activities and advice on financial products. In this case, the regulation must ensure that the intermediary provides the client with suitable information so that the client may evaluate the risks associated with the investment options under consideration. This will prevent, as far as possible, future "surprises" due to a lack of knowledge about the product's characteristics.

The requirements for directors and significant owners, and in terms of organisation and prudence requirements have a wider scope than the standards of conduct with regard to the risks which they aim to reduce. Consequently, the suitability requirements for directors and significant owners act as a filter to reduce, on the one hand, the risk of dishonest conduct (honesty requirement) and on the other hand, they facilitate control of all the risks to which the firm and its clients are exposed (competition requirement), including operational risks. Recently, the British Financial Services Authority (FSA), as part of its response to the weaknesses detected in the regulation system arising from the financial crisis, has underlined the importance of this filter by taking on an external group of experts which will advise it on evaluation processes in this area and aspects related to corporate governance practices in the financial sector. Organisational requirements include the need for sufficient staff and technical resources, understood both in quantitative and qualitative terms. Within organisational requirements, internal control systems and internal auditing play an essential role in identifying and preventing both risks generated internally, including operational risk, and those arising from external factors (market, counterparties, development of the industry, legal framework etc.), all within the context of the business strategy chosen by the institution.

Prudential rules generally include the role of liquidity and capital requirements as "ex post" protection mechanisms, aimed at ensuring short-term compliance with the firm's commitments and to absorb unexpected losses, respectively. However, these requirements, if appropriately designed, may also have a positive effect in preventing institutional risks, especially in the case of capital requirements. Indeed, if the resources directly committed by the institution's owners are significant, significant attention can also be expected for the risks assumed, including operational risks, because of their potential to generate losses. The recommendations from the Basel Committee on Banking Supervision in recent years have specifically underlined the preventive aspect of capital requirements, linking them more closely to specific risks, including operational risks.[3] However, the experience of the recent financial crisis suggests that some prevention strategies provided for in the recommendations and already transferred to the regulation of developed countries, such as the option of using internal models to determine capital requirements, may turn out to be ineffective and even counter-productive if the general incentive framework for administrators and directors is not reviewed and suitable supervision is not carried out.

As has been mentioned, external controls are necessary to ensure that the above-mentioned prevention mechanisms operate correctly. The regulation basically uses

3 See Basel Committee on Banking Supervision (2006).

two types of control: external audits, performed by the institution itself within the framework of its control and public information obligations, and supervision through institutions which have been legally enabled to that end. With regard to supervision, it is important to indicate that over recent years, public agencies have clearly transferred the execution of this competence to self-regulatory bodies, including in the area of non-banking investment service companies. This predominance basically recognises the importance of financial activities in the economy and the need to limit conflicts of interest as much as possible. In addition to playing a key role in controlling preventive mechanisms, supervisors are normally essential for activating palliative mechanisms. This happens, for example, in the European Union, where legislation enables the competent authorities to determine, even outside legal procedures, that an institution cannot meet its obligations to its clients, thus activating the investment compensation mechanism.

The need to have a sanctioning regime which acts as a sufficient deterrent has also been indicated previously. Suitable supervision may increase the probability that breaches in standards of contact are detected, but it is also necessary to have a system of sanctions which is perceived as a threat by those potential infringers of the regulation. Our experience suggests that it might be difficult to detect or prove to the level required by law conduct which breaches the standards. In these cases, a potentially strict sanction, which raises the "ex ante" cost for potential infringers, even when the possibility that the sanction imposed is low, represents a highly recommendable deterrent.

3 Directive on Investor-Compensation Schemes

The current Directive on investor-compensation schemes arose from the legislative effort in the first half of the 1990s to promote the single market. Although it was approved in 1997, this Directive was already foreseen in one of the most important pieces of European legislation of that period, the Investment Services Directive (Directive 1993/22/EC - ISD),[4] currently replaced by the Markets and Financial Instruments Directive (Directive 2004/39/EC – MiFID).[5] Among other measures, the ISD established a Community passport for investment firms which was based on authorisation from the home Member State, whereby the latter would also be responsible for supervision. The opening of internal borders in the European Union to investment services was performed in the context of a wide diversity in national regulations relating to investor protection. It is therefore to be expected that, at that time, the ICSD was thought of as a complement to the guarantees contained in the ISD itself. The aim was to strengthen investor confidence in the financial system and to promote progress towards the single market.

The ICSD forces Member States of the European Union to establish compensation schemes which provide minimum coverage for investors, mainly retail investors, in the event that they cannot directly obtain the return of their money or financial instruments which they have entrusted to the investment firms relating to the investment activities. The guarantee is only applicable in a situation of provider insolvency or suspension of payments recognised by the legal authorities or when the competent administrative authorities decide that the provider, for reasons related to its financial situation, cannot meet its obligations to its clients.

4 Investment Services Directive.

5 Markets and Financial Instruments Directive.

Following in the wake of the Directive on Deposit-Guarantee Schemes (Directive 94/19/EC, partially amended by Directive 2009/14/EC - DGSD),[6] the ICSD opted for harmonisation of the minimums which left the Member States with plenty of leeway. Therefore, among other significant aspects, the Member States can determine whether to extend the scope of the cover in relation to the services and financial instruments, to extend the amount beyond the minimums provided for, and they also have extremely wide discretion in matters of organisation and funding.

The content of the ICSD can be summed up as follows:

- The Member States must ensure the existence of one or more investor-compensation schemes inside their territory.
- The investment services and financial instruments covered are those included in the Investment Services Directive of 1993. It is therefore not mandatory to cover the extensions provided for in the MiFID, such as financial advisory services or, in the area of financial instruments, derivative contracts for raw materials or other commodities.
- All investment firms, including credit institutions, which are authorised to perform these activities, must belong to one of these schemes. However, the Member States may opt to exclude those companies which do not hold or safe keep monetary or financial instrument balances of their clients.
- Flexible treatment for credit institutions: given that these institutions, in accordance with the DGSD, must belong to a deposit guarantee scheme, the Member States may opt to require that they belong to only one scheme, providing this offers both types of cover.
- Cross-border activities of investment firms are covered by a compensation scheme constituted in the home Member State. However, these subsidiaries have the option to also sign up, on a supplementary basis, to a scheme in the host State if the guarantee offered by this scheme is greater, so that it may offer its clients a top-up clause.
- The guarantee offered must cover at least 90% of the value of each client's assets, with a limit of no greater than €20,000.
- Basically, retail investors are protected. The Member States decide whether to exclude other investors from the protection, such as professionals (including collective investment schemes), public institutions, supranational institutions and large companies.
- Once it has been accepted that an institution is unable to meet its obligations (legally or through a decision from the competent administrative authority), the compensation scheme must inform the affected investors and, as the case may be, compensate them in the shortest period possible.[7]
- The Member States must ensure that the investor-compensation schemes constituted in their territory are in conditions to meet the commitments arising from

6 Deposit Guarantee Scheme Directive.

7 The schemes may establish a reasonable period, no less than six months, for investors to file their claims, but they cannot allege the prescription of this period as a reason to reject a claim when the delay is justified. Similarly, once the right of the investor to receive compensation has been verified, the maximum period to pay the compensation may not be greater than three months, except in extraordinary circumstances, in which case, an additional maximum delay of three months is accepted.

the Directive, although the Directive does not establish specific requirements with respect to the organisation of the schemes or their funding.

4 Investor-compensation schemes in the main European countries

This section compares the investor-compensation schemes implemented in the five largest economies in the European Union (Germany, France, Italy, the United Kingdom and Spain). This comparison will focus on the most significant differences, which are those referring to the cover, organisation and funding of the schemes, although there are also differences in the procedures for processing the compensation, which are often determined by the particular characteristics of national legislation regarding insolvencies. However, there is a high degree of similarities in determining the type of investor covered by the guarantee, as most countries have chosen to exclude, with few exceptions, non-retail investors. Oxera (2005) contains a more extensive and detailed description of the characteristics of the investor-compensation schemes in the Member States of the European Union.

Comparisons with regard to the scope of the cover are concentrated on the risks, investment services and financial instruments covered, the amount of the guarantee and the treatment of money in the hands of the credit institutions associated with their clients' investment transactions. As regards organisation, management and supervision of the schemes in each country, the comparison highlights the differences with regard to the framing of the credit institutions and whether institutions which are not authorised to hold money or financial instruments on behalf of their clients are included or not. Finally, with regard to funding, we will show the existence of differences above all in whether reserve funds are constituted or not, in the criteria to determine participants' contributions, in the possibility of cross-financing between schemes with different areas of cover, and access to external funding, including the possibility of obtaining State funding.

4.1 Scope of cover

Risks covered

European compensation schemes, with the exception of that of the United Kingdom, are limited to covering return risk in the case of the intermediary's insolvency, as required by the ICSD. Therefore, the focus is mainly on what could be called the "physical" disappearance of the assets. The financial instruments belonging to the clients are usually segregated from the institution's balance sheet, and so the main non-return risk comes from the institution's operational risks. In the case of the clients' money, for example the cash provisions for purchasing securities or the monetary balances from sales, segregation is less frequent, as it is understood that these balances are merely transitory and the priority is for speed in the transactions. In this case, as well as operational risks, the risk of insolvency of the firm itself is especially important.

The scheme in the United Kingdom, called the Financial Services Compensation Scheme (FSCS), offers, together with return risk cover, certain cover for losses in the event of the materialisation of typically financial risks (price risk, interest-rate risk, exchange-rate risk, counterparty risk etc), when these losses have been caused

by the intermediary infringing the standards of conduct, and when it is not possible to obtain compensation directly from the institution. This extension makes it possible to cover for example, losses for negligent or fraudulent practices in financial advisory services, the management of portfolios or marketing of financial products. In fact, compensation on these grounds accounts for the majority of the payments made under this scheme.[8]

Investment services and financial instruments covered

The ICSD covers the core services provided for in Annex A of the Investment Services Directive of 1993, relating to the financial instruments provided for in Annex B of this Directive. These services are as follows:

- Reception and transmission of investor orders.
- Execution of such orders other than for own account.
- Dealing for own account.
- Discriminatory and client-by-client management of portfolios of investments in accordance with the mandates given by the investors.
- Underwriting issues.

The ICSD also covers safekeeping and administration in relation to one or more of the financial instruments envisaged in the Investment Services Director. This service, included in Annex C of the aforementioned Directive is considered as a non-core service.

The instruments covered are as follows:

- Transferable securities.
- Units in collective investment undertakings.
- Money-market instruments.
- Financial-futures contracts, including equivalent cash-settled instruments.
- Forward interest-rate agreements.
- Interest rate, currency and equity swaps.
- Options to acquire or dispose of any of the above instruments, including equivalent cash-settled instruments. This category includes in particular options on currency and on interest rates.

Almost all the national schemes simply offer the minimum cover relating to investment services and financial instruments which the ICSD establishes. With respect to the services covered, the most noteworthy exception is again the United Kingdom, which extends cover to financial advisory services, an activity which in the Investment Services Directive was considered as a non-core service, but which the MiFID now recognises as a core service. The British scheme also covers activities which are clearly outside the scope of the MiFID, including those relating to collective investment schemes: setting up, managing or liquidating those schemes, trustee activities for investment funds and depositories or administration of open-ended investment companies. Similarly, the British system covers the setting up, management and liquidation of stakeholder pension schemes.

8 This comes from the review performed by the FSA on sales practices in pension funds. This review revealed the existence of bad practices by a large number of small financial advisers which are no longer in the market, which is why the FSCS has taken on responsibility for compensating investors.

For financial instruments, one of the main differences with respect to the minimum cover of the ICSD can be found in the wider interpretation which some countries, including Germany and Italy, have made of derivative products, to include cover of commodity contracts. These contracts are now included in the application scope of the MiFID. It is also worth pointing out the extension of the cover given by the United Kingdom to pension plans and certain long-term personal insurance products, which are clearly outside the scope of the MiFID.

Scope of cover of investor-compensation schemes in Germany, France, Italy, the United Kingdom and Spain TABLE 1

	Germany	France	Italy	United Kingdom	Spain
Risks covered in the e-diary	Non-return of assets	Non-return of assets	Non-return of assets	Non-return of assets and losses caused by breach of the standards of conduct	Non-return of assets
Investment services covered	ICSD Minimum	ICSD Minimum	ICSD Minimum	ICSD Minimum plus financial advisory services, collective investment and pension funds	ICSD Minimum
Financial instruments covered	ICSD Minimum plus commodity derivatives	ICSD Minimum	ICSD Minimum plus commodity derivatives	ICSD Minimum plus some long-term personal insurance products	ICSD Minimum
Maximum amount guaranteed	€20,000 (cash plus instruments)	€70,000 for cash and €70,000 for instruments	€20,000 (cash plus instruments)	€48,000 (cash plus instruments)	€100,000 (cash plus instruments)
Treatment of cash for credit institutions	Deposit	Deposit	Investment asset	Investment asset	Deposit

Source: Oxera (2005) plus own preparation.

The amount guaranteed

Most Member States of the European Union maintain a maximum compensation of €20,000, the minimum provided for by the ICSD, although they cover 100% of the losses lower or equal to that amount. Among the large European countries, this is the case, for example, of Germany and Italy.

Spain also applied this minimum compensation up to October 2008, and then increased it to 100% of the first €100,000 loss per investor. This new limit was adopted from a proposal by the European Commission, assumed by the Economic and Financial Affairs Council of 7 October 2008, to promote, within the context of the financial crisis, depositor confidence in banking institutions by strengthening and bringing together the cover offered by the deposit guarantee schemes in Europe. The Spanish Government decided to extend the cover not only to deposit guarantee schemes, but also to the investor-compensation system (Royal Decree 1642/2008, of 10 October).

The countries which now maintain a limit which is higher than the Directive minimum include France and the United Kingdom. The former guarantees monetary balances and financial instruments separately up to a limit of €70,000 for each of these assets, so that the maximum potential amount of the investor compensation is set at €140,000. The guarantee covers 100% of the assets below the indicated amount. The United Kingdom has established a limit of £48,000, structured in the following manner: 100% of the first £30,000 loss and 90% of the following £20,000. The United Kingdom is currently studying setting the limit at 100% of the first £50,000.

Treatment of cash balances in credit institutions

Investment firms may hold cash balances of their clients as a consequence of providing their services. In the case of credit institutions, it is not always easy to distinguish between these balances and those associated with the typical deposit service. The ICSD foresaw this difficulty, allowing cash to be treated, for compensation purposes, either as an investment asset, like financial instruments, or as part of the balance in deposits. Among the main European countries, Italy and the United Kingdom opted for the first option, while France, Germany and Spain opted for the second. The choice of one type of treatment or another can lead to significant differences in the compensation received by investors in specific circumstances, even when the cover applied is set at the minimum level of the Directive.

4.2 Aspects related to the organisation of the schemes

Framing the credit institutions

As has been indicated, the ICSD allows one sole scheme to protect the deposits and assets of clients of credit institutions involved in providing investment services. When implementing the Directive, this route was chosen by some States which already had one or more deposit guarantee schemes in place. This occurred, for example, in Germany and Spain. In Germany, there are currently five investor-compensation schemes, of which four also offer the protection required by the DGSD for different types of credit institutions (private banks, public banks, regional savings banks and credit cooperatives). The fifth German scheme corresponds to non-banking intermediaries and is located exclusively within the scope of the ICSD.

In the Spanish case, the three existing deposit guarantee funds for credit institutions, applicable to banks, savings banks and credit cooperatives respectively, also offer the coverage required by the ICSD. Together with the cover of both types of guarantee, the Spanish banking schemes may also perform actions which strengthen the solvency of institutions in difficulties and defend the interests of depositors. Thus, for example, these schemes have participated in financing the Fund for Orderly Bank Restructuring, created in June 2009 by the Government to manage the restructuring processes of banking institutions and to help strengthen the equity of those in the process of integration. Spanish non-banking investment firms belong to a specific compensation scheme (FOGAIN - general investment guarantee fund).

However, most Member States in the European Union opted to ensure compliance with the ICSD requirements through one sole scheme for credit institutions and non-banking investment service companies. Under this option, credit institutions

which provide investment services and take deposits must simultaneously belong to an investment-compensation scheme and another deposit guarantee scheme. This is specifically the case in France, the United Kingdom and Italy. In the first two countries, both types of schemes are administered by one institution, but credit institutions must provide specific contributions to finance each one of them. In the Italian case, both the management and the financing of both types of schemes are independent.

Treatment of intermediaries not authorised to hold their clients' money or financial instrument balances

Most countries have opted to require that all investment firms, even though they are not authorised to hold their clients' monetary or financial instrument balances, belong to a compensation scheme. The main exception is in France, where individualised portfolio management companies are not required to belong to a scheme. Initially, Spain did not require this either, but it became a requirement in 2003 (under Act 53/2002, of 30 December, on Taxation, Administrative Provisions and Social Affairs), as a result of the Gescartera case. Furthermore, following approval of Directive 2001/107/EC, which allowed the possibility of authorising collective investment undertaking management companies with a Community passport (UCITS)[9] to provide individualised portfolio management services, most Member States have extended the obligation to belong to an investor-compensation scheme to collective investment management companies with authorisation to provide the aforementioned service.

Organisation of investor-compensation schemes in Germany, France, Italy, the United Kingdom and Spain TABLE 2

	Germany	France	Italy	United Kingdom	Spain
Cover in the case of credit institutions	Deposit guarantee schemes	Deposit guarantee schemes	Common scheme with non-banking institutions	Common scheme with non-banking institutions	Deposit guarantee schemes
Institutions not authorised to hold clients' assets	Included	Excluded (portfolio management companies)	Included	Included	Included
Management of the schemes and role of authorities	Banks: managed by participants Non-banks: managed by public bank BaFin supervises both types of schemes	Banks and non-banks: the Ministry of Economy appoints the chairman of the management company and approves the appointment of the other members (elected by the participants)	Common scheme managed by representatives of the participants (approved by the Ministry of Economy)	Sub-scheme within the Financial Services Compensation Scheme (FSCS). Management appointed by the FSA	Banks: Management appointed by the Bank of Spain Non-banks: managed by the participants (approval of the CNMV - Spanish National Securities and Exchange Commission)

Source: Oxera (2005) plus own preparation.

9 Undertakings of Collective Investments in Tradable Securities.

Management of the schemes and the role of the supervisor

Only Holland, Portugal and Sweden have opted for schemes managed directly by supervisors or by another public authority. In most Member States, the system for managing the schemes provides for a certain level of participation by the investment firms, but there is considerable variety in terms of their structure and management, as well as the level of control which the administrative authorities, generally the securities market supervisor, exercises over them. The differences can even be seen within the same country, especially when the cover is carried out through separate schemes for investment firms and credit institutions.

In the case of the main European countries, the most noteworthy characteristics are as follows:

- In Germany, four schemes which cover credit institutions (private banks, public banks, savings banks and credit cooperatives) belong to, and are managed by, the corresponding professional associations for each type of institution, while the compensation scheme corresponding to investment firms is administered by a public bank. All the schemes are supervised by the German financial services authority (BaFin).
- In France, the investor-compensation scheme, which is common for credit institutions and investment firms, is managed by a private law institution - the Deposit Guarantee Fund (Fonds de Garantie des Dépôts), which also administers the deposit guarantee scheme. The Ministry of Economy appoints the chairperson of the managing institution, while the other directors are elected by a committee made up of representatives of the affiliated institutions, which supervises the actions of the Fund. The managing institution operates the Fund independently with regard to the relevant regulators, in this case, the Banking Commission and the Financial Markets Authority, with which it nevertheless maintains close contact.
- The Italian investor-compensation scheme (Fondo Nazionale di Garanzia), which is also common for credit institutions and investment firms, is also a private law institution, whose management body is made up of representatives of the contributing institutions. Appointment of the members of this body however requires approval from the Ministry of Economy.
- In the United Kingdom, the investment-compensation system falls within the Financial Services Compensation Scheme, which also offers cover for bank deposits and some insurance products. The FSCS is a private institution incorporated under the British system of Guarantee Company, whose owners (guarantors) are the institutions affiliated to the schemes. However, all the members of the board of directors are appointed by the FSA, which is responsible for supervising the financial system as a whole.
- In the case of Spain, each one of the three deposit guarantee funds is a legal institution. Half of their management bodies are made up of representatives of the Bank of Spain and the participating institutions, all of which are appointed by the Ministry of Economy and Taxation. However, the investor-compensation scheme (Fondo General de Garantía de Inversiones – FOGAIN) is merely a fund without being a legal institution and is administered by a public limited company whose shareholders are the participating investment firms. Appointment of the members of this company requires approval from the CNMV (Spanish National

Securities and Exchange Commission), which also has a representative on the board, with speaking but no voting rights.[10]

4.3 Aspects related to funding the schemes

The investor-compensation schemes basically cover two types of expense: compensation payments to investors and the scheme's operating expenses.[11] Practically all compensation schemes fund the operating expenses through mandatory contributions from the participating institutions which are made once the annual budget is approved. In the case of compensation, financing may be "ex ante", with contributions from the participating institutions based on a forecast or "ex post", based on known commitments. The schemes which have opted for an "ex ante" funding system include the German, French and Spanish schemes, whereas Italy and the United Kingdom have opted for "ex post" funding.

The characteristics of the funding system adopted in the main countries are summed up below:

- Germany
  - German schemes are financed independently from each other and do not provide for the possibility of cross-financing between them to cover any possible lack of funds.
  - The regulation establishes that the banking schemes must achieve a certain minimum funding for volume, while this requirement is not applied to the scheme for non-banking investment firms.
  - In the scheme for non-banking investment firms, the contributions from the participating institutions are graded according to the type of authorised activities. The contributions are applied on the gross revenue for fees and, in some cases, the gross revenue from financial transactions reflected in the institution's balance sheet, varying between 0.35% and 2.2%. The contribution base does not include 90% of the gross revenue for transactions with investors not covered by the scheme. There is a minimum contribution of €300 per institution. Additional contributions may be required, if necessary, up to a maximum limit of 10% of the institution's net revenue.
  - In the schemes for credit institutions there is no specific contribution based on the investment assets held on the clients' behalf. Contributions are based on the total commitments towards the clients recorded in the balance sheet, and are set at 0.008% of each entry.
  - German schemes may resort to credit in order to cover situations in which there is a lack of funds. The possibility of obtaining funding from the State is not provided for.

10 The three autonomous communities with competence in securities markets: Catalonia, the Basque country and the Valencian Community also have a representative on the board of the management company.

11 The expenses associated with determining the right to investor compensation and, as the case may be, the amount of the compensation may be included in either of these two items, although they are more closely related to compensation payments.

- France:
  - There is no legal requirement which determines the minimum size for the funds accumulated by the scheme. The regulator (Banking Commission) determines the total amount of the contributions annually.
  - Assigning contributions among the participants is based on the risk generated for clients. For this purpose, a net risk quota is calculated for each institution, which takes into account the different assets covered and their contribution to the risk (for example, it is assumed that holdings in cash have more risk than those of financial instruments), the cover in terms of equity and the profitability of the institution's current transactions. This quota is applied to the target aggregate contribution from the institutions in order to determine the individual contribution. A minimum contribution of €800 is set for non-banking investment companies and €400 for credit institutions.
  - The scheme can only apply for loans from the participating institutions. State funding is not provided for.
- Italy:
  - Operating expenses are covered by annual contributions, which are the same for all participating institutions. If the income for this item is greater than expenses, the difference is kept in the scheme.
  - The participating institutions contribute "ex post" to cover the compensation commitments. There is no limit to the individual contributions. They are determined by a coefficient first applied to gross revenue, in the case of trading on behalf of third parties, placements, administration of individual portfolios and order reception and transmission, and secondly, to the brokerage volume, if relating to trading on its own account. There our adjustments to lower the coefficient in specific cases, which include, for example, if the institution simultaneously belongs to a deposit guarantee scheme.
  - The scheme may not apply for loans, and State funding is not provided for.
- United Kingdom:
  - Participating institutions are firstly subject to an initial levy which is paid in instalments over three years, and secondly, a periodic levy to cover the scheme's basic expenses which does not depend on the level of activity, and thirdly, specific levies to cover both the payment of compensation and the costs for verifying and evaluating said compensation.
  - The contributions for the payment or verification of contributions are determined by forecasts based on claims presented or on the cases of known insolvency (pay as you go). The annual budget usually includes contributions of this type, but they may be required at any other time based on needs. However, there is a maximum annual limit of £400 million for the amount which may be collected.
  - As has been indicated, the British scheme covers the financial services industry as a whole. For operational and funding purposes it is divided into subschemes based on three large sectors (banking, insurance and securities), which, in turn, are divided into contribution groups based on the different types of activities authorised to the participating institutions (one institution may belong to different groups based on its activities). Compensation

payments are made exclusively through contributions from the participating institutions in the affected contribution group, although there is the possibility of lending, at a cost, surpluses to other groups or even to other sub-schemes. The sub-scheme corresponding to investment activities has seven groups: fund managers, managers of AUT, ACDs and depositaries, dealers as principal, advisory brokers with authorisation to hold client balances and instruments, advisory brokers without authorisation to hold client assets, corporate advisers and a contribution group associated with the programme for pension reviews.

— Except for the initial contribution, the individual contributions from the participants are calculated in accordance with the same criteria used to set the tariffs paid to the supervisor, in this case the FSA. These criteria are in turn based on activity indicators which vary depending on the type of activity, for example, assets under management for fund managers, gross revenue for managers of AUT, ACDs and depositaries, number of people authorised to trade or broker etc.

— In addition to the internal lending of surpluses among groups, the scheme may resort to an external loan. State funding is not provided for.

- Spain:

— The scheme for investment firms, FOGAIN, and the three deposit guarantee funds are funded and meet their obligations independently, without allowing cross-use of surpluses among each other.[12]

— FOGAIN requires its members to pay annual contributions to meet the operating expenses and payments related with investor compensation, as well as to maintain a sufficient reserve fund. The regulation does not provide for the fund to have a minimum size. The annual individual contribution from participating institutions is obtained as the sum of the following quantities:

– A fixed amount of €20,000 for investment firms with gross revenue lower than €5 million, €30,000, for gross revenue between €5 million and €20 million, and €40,000 for gross revenue above €20 million.

– 0.2% of the money and 0.05% of the value of the financial instruments belonging to the clients covered by the guarantee.

– The result of multiplying the number of clients covered by three euros.

— With regard to deposit guarantee funds, individual contributions from their members are set annually at 0.02% of the guaranteed deposits plus 5% of the market value of the financial instruments held on behalf of the clients and covered by the guarantee. The Ministry of Economy and Taxation may reduce the percentages for one year if it considers that the funds have reached a sufficient size (generally speaking, if equity reaches an amount above 1% of the sum of the deposits covered and 5% of the balance in securities covered).

— The possibility of requiring extraordinary contributions is provided for both as regards FOGAIN and banking funds.

12 Exceptionally, in 2001, when the ICSD was transposed, it was necessary for all the schemes to contribute to the payment of compensation generated by some cases of insolvency which had taken place among non-banking investment firms prior to the transposition.

— FOGAIN may be funded through external commercial loans, but this possibility is not provided for banking schemes. Resorting to the State is only provided for banking funds in extraordinary circumstances, while FOGAIN may resort to the supervisor, in this case the CNMV (Spanish National Securities and Exchange Commission), to obtain extra funding.

Funding of investor-compensation schemes in Germany, France, Italy, the United Kingdom and Spain TABLE 3

	Germany	France	Italy	United Kingdom	Spain
Funding: contributions from participants	"Ex ante" (accumulated fund). Minimum size for banking schemes	"Ex ante" (accumulated fund). No minimum size stablished	"Ex ante" for recurring expenses and "ex post" for compensation (commitments)	"Ex ante" for recurring expenses and "ex post" for compensation (commitments and forecasts based on claims). Contributions by group (services)	"Ex ante" (accumulated fund). Suggested minimum size for banking schemes
Funding between schemes	No	No	No	Yes (non-free loans between groups)	No
Access to commercial loans	Yes	Only from participating institutions	Not provided for	Yes	Only the non-banking scheme
Access to public funding	Not provided for	Not provided for	Not provided for	Not provided for	Provided for: State and CNMV for banking and non-banking schemes, respectively

Source: Oxera (2005) plus own preparation.

5 Some issues relating to a possible review of the ICSD

In February 2009, the European Commission published a document which called for the opinion of authorities and participants in the markets about different issues relating to the ICSD in view of its possible modification. The call for evidence[13] followed in the wake of a parallel reform initiative of the Directive on Deposit Guarantee Schemes of 1994, whose first step took place in March 2009 with a partial amendment which meant, among other measures, raising the minimum coverage from €20,000 to €50,000 from June of that year, with the possibility of an even greater increase, up to €100,000, at the end of 2010.[14] Similarly, the European commission is considering developing guarantee systems for insurance.

In the aforementioned document, the European Commission underlined the need to take into account the fact that since the ICSD was approved, certain factors have emerged which could be having an impact on the effectiveness of this Directive to

13 See European Commission (2009).

14 The decision about this possible additional increase will take into account, among other factors, the results of an impact analysis for the measure which is being carried out on behalf of the European Commission.

protect client money and financial instruments entrusted to investment firms. In particular, the Commission highlights the three following factors:

- The replacement of the Investment Services Directive by the MiFID, whose scope is broader than the ISD in terms of investment services and financial instruments.
- The above-mentioned revision of the DGSD, under way, brought about by the particularly difficult conditions affecting the banking sector recently. The European Commission believes there may be a need to maintain alignment between the two Directives.
- The differences which can be noted among Member States with regard to the characteristics and functioning of the investor-compensation schemes. In particular, the European Commission aims to assess whether these differences limit the effectiveness of Community regulations.

Bearing in mind these factors, the European Commission suggested concentrating the reflection on whether to revise the following aspects: the scope of the Directive's application, the amount of compensation, the funding of the schemes, restrictions on the carryover of unpaid reimbursement debts and the reduction of payout delay. Furthermore, the Commission raised an additional issue with respect to whether a guarantee mechanism should be established for monetary investment funds, with the aim of avoiding possible market distortion, given the perception which many investors have of these instruments as equivalents to deposits. The consultation period closed in April 2009.[15] At the publication date of this article, the European Commission had not yet made any steps in this regard.

The remainder of this section briefly analyses some of the issues put forward by the European Commission regarding the amount of the compensation, the range of activities to be covered and the funding of the schemes.

Minimum amount of compensation

The European Commission raised the question of whether the ICSD should be aligned with the Directive on Deposit Guarantee Schemes. If the potential impact of these mechanisms in preventing or mitigating systemic risk and protecting small savers is considered, then equating the cover does not seem necessary. Both types of guarantee contribute to increasing investor confidence in the financial system and, therefore, may act to cushion public reactions in situations of financial instability. However, it is doubtful that this effect will have the same intensity in both cases. Given the characteristics of deposits (liquidity, dissemination in small savings channels, integration in the balance sheet of credit institutions and relatively high weight in the financial system etc), it is reasonable to suppose that the guarantee systems for these financial assets have greater importance in the two above-mentioned objectives than investor-compensation schemes.

It is also worth considering the impact that guarantees have on investment decisions. In this regard, it has been argued in some of the responses to the European Commission questionnaire that the existence of different minimum guarantees between both asset types (deposits and financial instruments) would distort these deci-

15 The responses with publication authorisation from the participants can be consulted on the Internet: **http://ec.europa.eu/internal_market/consultations/2009/investor_compensation_en.htm**.

sions and would penalise one part of the financial industry (in this case, if the ICSD is not adapted to non-banking institutions).

Apart from the discussion about whether to equate the minimum guarantee applied to deposits, the appropriateness of raising the guarantee for investment services has also sometimes been justified for competition reasons, in this case due to the comparison between different jurisdictions. The current ICSD already takes this perspective into account by allowing the branches of institutions to top-up the home Member State guarantee by also joining the host Member State compensation scheme to cover the difference between both guarantees. From a Community perspective, this point of view may have certain importance if we bear in mind that, in the United States, the minimum guarantee provided by the investor-compensation scheme is $500,000, including a maximum of $100,000 for cash balances.

The argument in favour of equalling the minimum deposit guarantee or simply, in favour of increasing the guarantee in investment services takes for granted, at least implicitly, that the intermediaries could afford the costs of this increase. This assumption is to some extent supported by experience, given that, as Oxera (2005) indicates, the level of incidents in the scope covered by the ICSD has so far fallen, and therefore, the amount paid out by way of compensation.

Possible extension of the activities to be covered

Among other possible extensions, the European Commission questionnaire touches on the following:

- Activities included in the MiFID which were not included in the Investment Services Directive of 1993. In particular, the document refers to the transactions of multilateral trading facilities (MTFs). This is not, in principle, an excessively important issue as retail investors rarely have direct access to this type of infrastructure. In any case, if the MiFID allows the possibility of direct access of these investors to MTFs, or any other trading infrastructure, then cover seems reasonable. More relevant would be a possible extension of cover to financial advisory services. In this case, the extension should be dependent on a prior clarification of the scope of these services, which is an issue being examined by the European Commission in the current revision of the MiFID.
- Institutions whose authorisation does not include holding clients' assets and institutions which only provide services to non-retail clients. In these cases, the main argument in favour of including them is the difficulty for the client to get suitable information about the system for authorising the activities of intermediaries. Those who maintain this opinion assume that investors would have less confidence in the sector if they were responsible for obtaining information about the institution's authorisation. However, a measure of this type could generate significant moral risk problems, which would lead to an increase in non-authorised activities. Therefore, if inclusion is adopted, it would be advisable to complement it with an increase or improvement in supervision and, possibly, with stricter sanctions.
- Claims based on the insolvency of third parties. This extension considers cases of insolvency of institutions to which an intermediary, acting on behalf of its client, has transferred the client's assets in order to carry out specific transactions. Two important examples of third parties in this case are depository institutions and

institutions mandated to safe keep assets. It does not seem reasonable for the investor-compensation mechanism to be activated if the main intermediary, that is, the intermediary with whom the client maintains a contractual relationship, is not in a situation of insolvency. While this is not the case, it should be said intermediary which assumes responsibility for the client's assets in its transactions with third parties. It would be different if the institutions, for example those that safe keep assets, which do not have a direct contractual relationship with the owners of the assets were obliged to contribute to an investor-compensation system. This contribution seems reasonable, because these institutions can generate risks for the investor's assets which, in the case of the insolvency of the main intermediary, would require the intervention of the compensation mechanism.

- Retail investor losses as a consequence of breaches of conduct of business rules. As has been indicated above, this type of cover is already guaranteed, under certain conditions, in the United Kingdom. Including this type of undue loss in the ICSD seems reasonable providing the investor's right is substantiated, given that it is not a situation which is conceptually different to covering the risk of "physical" disappearance of the assets. However, the substantiation of these rights may require a complex and extensive legal process, which would undoubtedly lead to complications in operating the schemes and could generate certain legal insecurity.

Funding the schemes

As has been indicated, investor-compensation schemes are almost all funded by contributions from the institutions providing investment services. However, there are considerable differences among countries and even among the schemes from the same country. In the call for evidence, the European Commission requested opinions about harmonisation in this area but the differences in the starting points make consensus on this issue difficult.

Some of the responses from the European Commission's consultation argue for certain general principles in the Directive regarding the funding of schemes. In particular, they advocate including financial capacity criteria, management efficiency, risk weighting etc. in distributing the levies and neutrality on the levies with regard to competition among different institutions.

With regard to capacity criteria, some participants suggest that the "ex ante" compensation systems, that is, those based on accumulating a reserve fund, naturally offer a better guarantee of strength regarding meeting compensation obligations and can generate better confidence among investors than "ex post" systems. Indeed, among other advantages, the existence of a reserve fund may facilitate the payment of compensations in shorter periods and ensure, unlike "ex post" systems, that insolvent institutions which lead to the activation of the compensation mechanism contribute towards the payment of compensations through their past contributions. Similarly, when the guarantee is activated in moments of special difficulties in the sector, systems based on a reserve fund have less negative impact on income statements.

Other responses, on the other hand, underline that the important thing with regard to the fund's capacity to meet its obligations is not harmonising the funding systems, but ensuring that they are in conditions to obtain liquidity when they need it, especially at critical moments. In order to achieve this capacity, it may not be enough to resort to reserve funds or new contributions from the institutions. They therefore stress that it is advisable to be able to take on debt or to receive public funding.

Irrespective of the approach to reserve funds, it may be advisable for the Directive to establish more specific criteria which ensure the existence of sufficient financial capacity, even in exceptional cases due to the size of the losses to be compensated. Obviously, in practice no guarantee can be unlimited, so perhaps the aim should be for a consensus with regard to the overall limit of compensation payments or, better still, about how to determine such a limit, given that this decision may be important with regard to systemic risk and may require different judgement at different moments. Leaving this decision exclusively in the hands of the States, as currently occurs, brings risks of lack of coordination, which may be potentially serious in moments of financial instability, distortions in investment decisions and risks of altering the competitive framework for investment firms.

6 Conclusions

Situations of insolvency of intermediaries may lead to asset losses for their clients, mainly for two reasons: non-segregation of their clients' assets and exposure of the clients' assets to the intermediary's operational risks. Investment-compensation schemes provide protection to clients of institutions which provide investment services when they are in a situation of insolvency, ensuring the return of assets which the clients entrusted to the intermediary if they cannot obtain them directly. Compensation schemes are normally activated as a last resort mechanism. Therefore, whether they are needed or not depends to a greater or lesser degree on the effectiveness of other measures provided for in the regulation to protect investors in their relationships with intermediaries.

The Directive regulating investor-compensation schemes in the European Union, the ICSD, approved in 1997, establishes a harmonisation of minimums, which leaves the Member States with extensive leeway in key issues such as cover, organisation and funding schemes. The main provisions of the regulation include (i) the Member States must ensure the existence of one or several schemes in their territory; (ii) the minimum cover per client is set at 90% of the value of the assets, with a limit of €20,000; (iii) the scope of the cover in terms of securities and services is referenced to the old Investment Services Directive of 1993, without including the new items within the scope of the MiFID; (iv) it foresees flexible treatment of the cover of investment services provided by credit institutions, with Member States being allowed to decide whether this is given through deposit guarantee schemes; (v) it allows the branches of institutions from other countries to fit into the scheme of the host Member State to top-up their cover; (vi) it fundamentally protects retail investors; (vii) it establishes that the compensation mechanism is activated, either following a judicial decision or following recognition of insolvency by the administrative authority and (viii) the Member States must ensure that the schemes incorporated in their territory are able to meet their commitments, but no specific requirements on organisation or funding are established.

The comparison of the investor-compensation schemes incorporated in the five largest countries in the European Union (Germany, France, Italy, the United Kingdom and Spain) clearly shows the existence of significant differences in the scope of cover, organisation and funding. With regard to the scope of cover, it is worth noting that the United Kingdom has broadened the risks and services covered compared with the minimums provided for in the Directive. Specifically, the United Kingdom extends cover not only to the risk of "physical" disappearance of the assets, but also

to losses caused through the breach of standards of conduct, providing the client cannot obtain the return of the assets due to the intermediary's insolvency. Furthermore, the United Kingdom has also extended the services covered to include, among others, financial advisory services. Similarly, cover in the United Kingdom, Germany and Italy includes products not provided for in the ICSD. It is also worth pointing out the differences with regard to the amount of the cover. In this case, France, the United Kingdom and Spain clearly offer guarantees over and above those of the ICSD.

With regard to organisation, Germany, France and Spain allow cover of the investment services of credit institutions through deposit guarantee schemes, while Italy and the United Kingdom maintain one sole scheme. It must be pointed out that the British scheme is in reality a scheme which is made up of various differentiated and independent sub-schemes for funding and contribution payment purposes. These include those corresponding to bank deposits and securities (credit institutions with deposit and investment services must belong to both). With regard to funding, the main difference arises at the moment of making the contribution: in some cases this is performed "ex ante", allowing the accumulation of reserve funds, while in others the contributions are made "ex post", as a response to known commitments to pay compensation. Germany, France and Spain are in the first group, while Italy and the United Kingdom are in the second. Differences have also been observed in the criteria to determine the contributions and flexibility in obtaining resources through other means (commercial loans, use of surpluses from other schemes and public funding).

The European Union is considering the possibility of reforming the ICSD to take into account, among other factors, the replacement of the ISD by the MiFID, the process in progress of revising the Directive on Deposit Guarantee Schemes and the impact on ICSD objectives of the differences observed among the compensation schemes in the different Member States. Last February, the European Commission requested the opinion of the national regulatory authorities, the industry and consumers about the different possibilities for reform. These include possibly equalling the new minimum guarantee which has been approved for the DGSD, which rises from €20,000 to €50,000, with the possibility of an additional increase up to €100,000 at the end of 2010. Equating the cover of both Directives does not seem necessary if we take into consideration the potential impact of both types of schemes in preventing systemic risk and protecting small savers, which is greater in the deposit guarantee. However, it may be appropriate to raise the ICSD cover significantly, with the aim of reducing the distortion effect on savers' decisions as a result of an excessive difference in cover between the two Directives. In principle, this increase would not lead to an excessive cost for the investment firms if we take into account the lower level of incidents observed nowadays within the scope covered by the ICSD.

Another interesting issue with regard to a possible reform of the ICSD is extending the cover criteria. Perhaps the most important of these, although it has not been explicitly suggested in the Commission's consultation, is including financial advisory services. In this case, given the current confusion relating to its scope, it would be beneficial to clearly define what these services are. Another interesting suggestion is to include protection against the risk of undue losses as a result of breaches in standards of conduct committed by the intermediaries. This type of protection is no different conceptually from that relating to the "physical" disappearance of assets,

but operationally and legally it may have serious disadvantages which should be analysed carefully.

Finally, it is worth pointing out the possibility that the reform leads to a certain harmonisation relating to funding the schemes. As has been indicated, the level of incidents within the scope of the ICSD has so far fallen and the investor-compensation schemes have met their obligations without significant problems. However, some participants in the consultation have raised doubts about adapting the provisions of national legislations relating to funding the schemes, which are currently very different, in order to meet extraordinary situations. Although it is not easy to reach a consensus about this issue, given the starting differences on a national level, it would be appropriate to make an effort to incorporate some common funding criteria to the ICSD as this would strengthen the schemes' ability to meet their commitments.

7 Bibliography

Basel Committee on Banking Supervision (2006): "Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework - Comprehensive Version". June.

European Commission (2009): "Directive 1997/9/EC on Investor-Compensation Schemes. Call for Evidence". Document available at **http://ec.europa.eu/internal_market/consultations/2009/investor_compensation_en.htm**

Oxera (2005): "Description and assessment of the national investor compensation schemes established in accordance with Directive 97/9/EC". Available at **http://ec.europa.eu/internal_market/consultations/2009/investor_compensation_en.htm**

The consolidation process of market infrastructures

Javier González Pueyo (*)

* Javier González Pueyo works in the Studies, Statistics and Publications Department of the CNMV.

1 Introduction

The aim of this article is to analyse the consolidation processes experienced by the stock markets and entities providing post-trading services, which constitute the original infrastructures of the securities markets where shares are traded, cleared, settled, registered and provided with custodial services.[1]

Since their creation, and until relatively recently, securities markets carried out their business in an entirely non-competitive environment. This situation persisted until their status quo was affected at the end of the 20th century by the appearance of new competitors and the widening of their field of activity. As a response to the new competitive global framework, the securities markets embarked on a new phase of consolidation whereby they grew in size via mergers. At first this concentration took place between different markets and infrastructures within each country, but this gradually changed to give rise to transnational and even intercontinental mergers.

There is some evidence that a second phase is underway in which the securities markets will have to face new changes in their structure, mainly due to the fragmented nature of settlement services and the advent of new automated business strategies (high frequency trading). These changes may dissolve the traditional barriers between regulated markets and alternative platforms even further, as consolidation may be produced between the traditional stock markets and the new trading alternatives.

This article identifies the factors which bring about the processes of consolidation, describes the concentration processes already completed, and analyses the future perspectives in this area.

The article is organised as follows. Section two describes the processes which form the value chain for share trading and the type of supply companies for each of them, distinguishing between trading and post-trading infrastructures. Section three describes the main factors which bring about industry concentration. Among others, these factors include technological advances and the regulatory framework of the market. Sections four and five provide a summary of consolidations produced in the trading and post-trading infrastructures of the U.S. and Europe, and the differences between the processes are highlighted. Finally, section six analyses the predicted changes in market structure and the new competitive framework which the regulated markets are facing. The situation of the alternative trading platforms in Spain and the European Central Bank's Target 2 Securities project are described, and possible regulations for the field of post-trading in Europe are proposed.

1 This article concentrates on the consolidation processes of the infrastructures of the equity markets. The objective of the article is not to analyse the evolution of the infrastructures or specific strategic movements with origins in other business sectors, such as the fixed income or derivatives markets, as these will be covered in other studies. Reference is occasionally made to other sectors when they share an infrastructure as a result of the market consolidation processes. In an attempt to unify international terminology, we generically refer to the secondary regulated markets of the stock exchanges dealing mainly in shares as "stock markets", and more widely as "regulated markets" or "securities markets". This implies simplification to a certain extent, as in some countries, such as Spain, other kinds of securities are also dealt in (fixed income securities, warrants, etc).

2 Market infrastructure and the trading value chain

Although the terms integration and consolidation are frequently used indiscriminately, it is important to establish the difference between them. According to Baele et al. (2004), a financial services market is fully integrated when all the participants are subject to the same rules, have equal access to the market and are treated equally. Integration thus defined, which is the notion adopted in this article, allows investors to pay the same price for the same service regardless of their geographical location. Consolidation, on the other hand, refers to the process of concentration of the entities which provide the market infrastructure. Consolidation facilitates integration and allows service costs to be reduced, as long as the savings made on the exploitation of economies of scale and network effects, as described below, are transferred to the consumer.

The completion of a stock market purchase order in a secondary market involves a series of activities which form the trading value chain. The chain begins with the decision to make the purchase (pre-trading) and ends with the settlement and the registration of the transaction. Depending on the stage in which the activities are carried out, these fit into two significant categories of market infrastructures: the trading infrastructures and the post-trading infrastructures (clearing, settlement and custody-registration):

- Trading infrastructures: where supply and demand meet and the prices and quantities for each transaction are determined. These comprise regulated markets (stock exchanges), multilateral trading facilities (MTF, operated by investment companies or regulated markets), and systematic internalisers (investment companies). It is also possible to buy and sell shares over the counter (OTC) or on alternative platforms such as dark pools,[2] although these alternatives are generally limited to institutional investors.
- Post-trade infrastructures which provide services for each of the following market trade stages:
  - Clearing. This is the process which takes place between the trading and the settlement of the trade, where the payment amount is calculated for the buyer of the shares, and the amount of shares to be sold by the seller of the shares. The clearing services are provided by entities created specifically for the purpose (clearing houses), the central securities depositories (CSD),[3] the international central securities depositories (ICSD)[4] and the central counterparty clearing houses (CCP).[5]
  - Settlement. This is the phase where money and securities are exchanged. It requires the intervention of a settlement bank (generally a central bank)

2 Dark pools are alternative private and anonymous trading platforms which do not publish the order prices or the transactions made. They are used mainly by institutional investors. In the U.S. they must be registered as stock exchanges or broker-dealers. According to the Securities and Exchange Commission (SEC) there are 29 dark pools operating in the U.S.A. with a 7% market share.

3 The CSD are bodies which hold and manage securities. They are responsible for transferring the securities, most usually via book entries.

4 The ICSD settle trades in international and domestic securities. The two main European ICSD, Euroclear and Clearstream, are authorised and supervised as banks.

5 The CCP are bodies which guarantee trades end well by acting as a buyer in front of the sellers and as a seller in front of the buyers.

and of the central securities and custody depositories for the transfer of the securities.

— Custody-registration. This is the final phase when the corresponding book entries are made of the purchases and settlements once they have been finalised. Registration is carried out by the CSD and their participating members, the custodians. Among others, their duties include keeping the securities books (including registering ownership and supplying information to help manage economic and political rights (dividends and voting rights). In many jurisdictions, including Spain, several settlement entities may be authorised, but in practice only one entity is authorised to carry out the duties of the central registry.

In Spain, the three post-trading processes (clearing, settlement and registration) are carried out by one entity, IBERCLEAR. This entity acts as a central depository for securities admitted for trade on the stock exchange, on the public debt market by book entry, on AIAF (fixed income market), and on Latibex. MEFF (financial derivatives) and MFAO (futures contracts on olive oil) are the clearing, settlement and counterparty clearing houses for the derivatives markets. MEFF also manages MEFFClear, which operates a CCP for fixed income securities trading.

3 Determiners in the consolidation of market infrastructures

From the creation of the very first stock exchanges in the 14th century, right up to the 20th century, stock markets carried out their activity in a thoroughly non-competitive environment, almost akin to a monopoly, a situation guaranteed in many cases by national regulations.

Advances made in communications, the incorporation of electronic trading systems, the changes in, and amalgamation of, international regulations, and the changes in the ownership structure of the stock markets have helped create competition between markets, broaden the field of activity and establish consolidation processes, as a strategy to deal with the new global competitive environment.

In this context, two types of infrastructure consolidation can be identified:

- Horizontal consolidation, where there is a merger between institutions or systems which provide the same trading or post-trading services in different markets and / or jurisdictions.
- Vertical consolidation, which gives rise to the so-called "silos", that comprise all the processes of the trading value chain (trade and post-trade). Examples of European silos which stand out are Deutsche Börse Group and Bolsas y Mercados Españoles (BME).

Some of the most common reasons for markets to enter into strategic agreements or mergers, are the following: i) to increase market power or defend themselves against competition via the acquisition of / merger with their main rivals; ii) to increase the range of products on offer; iii) to enter foreign markets; iv) to diversify income and areas of business, and v) to access trading systems with superior technology.

Stated below are the main factors which favour the consolidation processes of market infrastructures. Both endogenous factors (such as the economy if the industry) and

exogenous factors (such as the regulatory framework) that configure and condition the competitive environment of the trading platforms stand out. An increase in competition brought about by technological advances and regulation, is often accompanied by an increase in the number of mergers conceived as a defensive response strategy.

3.1 Technological development

Advances in communications and information systems have widened the field of activity and the competitive environment of the securities markets, facilitating and favouring concentration processes.[6]

In this way, electronic trading systems have reduced entry costs as well as allowing the physical offshoring of the securities markets. However, although this technology has opened the doors for new competitors to enter, it has also aided access to new markets and transborder alliances between regulated markets.

Over the last few years, technology has also changed demand, favouring a new group of investors who make intensive use of trading-orientated technology. A new tool, known as algorithmic trading or high-frequency trading,[7] means stock markets must have trading systems which allow the purchase orders to be channelled extremely quickly, thereby reducing the time between an order being relayed to the market and it being executed (latency). The continual investment in the improvement of trading systems justifies the need for alliances or mergers with other markets to allow shared use of the trading platforms and, therefore, to achieve the critical mass of transactions required to guarantee their survival and profitability.[8]

3.2 Economies of scale, of scope and network effects

Both the regulated markets and the post-trading infrastructures are industries characterised by high fixed costs (related to the need to carry out large investments in information and communications systems) and falling marginal costs which may even be non-existent. These characteristics were highlighted by Malkamäki (1999), who pointed out the importance of economies of scale in securities markets. In a later study in conjunction with Schmiedel and Tarkka (2002), the three of them analysed settlement and registration activities, and found evidence of significant economies of scale. This last factor determines the search for a critical mass for transactions by providing access to a greater number of investors. Such access may also be achieved by facilitating remote trading and via business transactions such as alliances and concentration, as long as there are no regulatory and / or technical restrictions preventing it.

Another of the characteristics of the industry is the presence of economies of scope, resulting from the efficiencies created when trading is offered on several products

6 McAndrews and Stefanais (2002) identify one of the first examples in the 19th and 20th centuries as being the appearance of telegraph and telephone conferences which eliminated geographical barriers and enabled competition between the different regional stock markets in the U.S.A.

7 High Frequency trading is an investment strategy in which purchase orderes are created automatically in accordance with signals that arise from the prices and market orders.

8 In Spetember 2009, the London Stock Exchange purchased Millennium, a software company, to develop their new electronic trading platform.

(cash and derivatives, for example) and / or several different activities are carried out (trading and post-trading) on one trading platform. Economies of scope benefit the supply platforms as much as their users, and this means the majority of investors, especially institutional ones, prefer the markets which offer a wide range of services and products (a one stop shop), and which mean significant savings by trading and settling in just one operational and regulatory environment. The markets which currently offer this variety of products and services are generally ones which are the result of a consolidation process.

Several writers on the subject have highlighted the existence of network effects in the trading and post-trading of securities. The basic argument is that the incorporation of a new user increases the network value for all participants. Economides (1993), in particular, identifies two types of effects on the financial markets with reference to trading infrastructures:

- The first comes from the liquidity of the market,[9] which improves with size and which reinforces itself. In other words, the more liquid a market is, the greater its attractiveness to its participants, which, in turn, attracts more participants, further increasing its degree of liquidity.
- The second effect refers to the market price-formation process, the efficiency of which increases with the size and number of transactions. There is a general consensus that the regulated markets continue to carry out the price-formation process and that the rest of the infrastructures use these prices as a reference. In spite of the increase in multilateral systems in both Europe and the U.S.A., these alternative platforms generally use the regulated market prices as a reference.

Along with the network effects, the economies of scale and scope act as an incentive for the creation of greater scope for the securities markets. In fact, several writers have expressed the perfect solution to be a single service provider offering comprehensive services (in securities trading and post-trading), as is usual in railway, airport and telecommunications infrastructures.

Regarding the activities of the central counterparty, Duffie and Zhu (2009) defend the idea of one single CCP for each type of derivative instrument, in an aim to reduce the need for collateral. From a user's point of view, having to deal with several CCP does not allow them to reap the profits from the decrease in the demand guarantees regarding positions with adverse risk. However, although there are benefits of having a single counterparty entity, there is also the systemic risk that comes with concentrating all market positions and risks in one CCP. Pirrong (2007) had previously highlighted the tendency of the trading and post-trading infrastructures to merge vertically. His arguments in favour of such mergers were that they generate greater efficiency in transaction costs and decrease duplicate demand guarantees.

9 In this context, it is understood that a market becomes more liquid as it becomes easier to buy or sell an asset without the operation having an effect on its price. This notion of liquidity has two dimensions: the immediacy of the execution of the trade and the ability to execute orders without having an imnpact on the prices.

3.3 Regulatory framework and market ownership structure

The U.S. markets work with a single currency and under national jurisdiction. However, as opposed to the European system, the regulation and supervision is divided between the cash markets and the derivatives markets: the Securities and Exchange Commission (SEC) regulates and supervises the cash markets, and the Commodity Futures Trading Commission (CFTC) does the same with the derivatives markets. One of the implications of this division is the absence of concentrations between the derivatives and cash markets in the U.S.A., in contrast to the situation in Europe.

In this way, the consolidation processes of the trading infrastructures under the different European jurisdictions have been favoured by the creation of a combined regulatory and supervisory framework. As reinforcement to this regulatory harmonisation, the introduction of the euro eliminated the currency risk for the securities in this currency and widened the investment horizons for institutional and individual investors. Another of the outcomes resulting from the creation of the common currency was the convergence of sovereign risk premiums, which meant the loss of differentiation between the different national futures bond contracts. The result was the concentration of the trading of these contracts on a single market (Eurex), and the disappearance of the rest of the European markets.

At the end of the nineties, the first consolidation processes began in Europe. At first these took place in each country[10] to create "national champions" able to compete in a unique environment the size of a continent. Later, the first transnational alliances were formed, which included reciprocal access to the markets on behalf of the members of the alliance and, on occasion, the fusion between different markets.

Directive 93/22/CEE regarding investment services, and, more specifically, the Markets in Financial Instruments Directive 2004/39/CE (MiFID), have provided the 27 Member States of the European Union (EU) with a common regulatory framework. The MiFID is one of the pillars of the 1999 Financial Services Action Plan (FSAP), which has the objective of integrating all the financial markets in the EU. The MiFID has incorporated two fundamental changes to allow competition between markets: i) to end the trading monopoly of the established regulated markets, and ii) to create common and homogeneous regulations for the regulated markets and the alternative platforms. As Davies (2008) points out, two years after coming into force, it has already accomplished one of its objectives; to increase competition between the different trading platforms in the majority of countries. However, the possibility remains that this initial greater competition may decrease in the future if the new platforms do not reach the volumes of trade required to cover their operational costs. In this case, mergers may be a good survival strategy.

The MiFID does not, however, contain any recommendations regarding post-trading activities apart from establishing freedom of choice and access to the clearing, settlement and central counterparty systems for members of the regulated markets, investment companies[11] and the multilateral trading systems.

10 In 1999, independent mergers between the cash and derivatives markets in France, Brussels and Portugal took place. The merger between the German CSD Deutsche Börse Clearing and Cedel (an ICSD) to form Clearstream also took place in 1999.

11 The MiFID defines an investment company as any legal person whose profession or habitual business activity consists of providing one or more investment services, or of carrying out one or more investment activities in a professional capacity for third parties.

As regards the ownership structure of the markets, these were originally owned by their members who had exclusive access (mutual ownership). This mutual organisation coincided with a local area of trade, open-outcry pits, and the absence of any international connections or investors not resident in the country. However, in the early nineties, the markets began a demutualising process which separated members and shareholders. The securities markets opened up their capital to investors and many of them made public offers of sale and began to be floated on the markets they ran. This process coincided with the expansion of electronic trading systems and advances made in communications, and with the increase in competition between markets.

Aggarwal (2002) highlights two reasons for the change in corporate governance and the ownership structure of the stock markets: one is the markets being afforded greater flexibility with regards to strategic business decisions, and two, their obtaining funds which allow them to invest in infrastructures or purchase competitors. An open shareholder structure makes the market merger or purchase process easier and, therefore, aids the consolidation of infrastructures.

The table below shows the dates of demutualisation, flotation on the stock market and the start of consolidation between the main markets. For the majority of markets, the demutualisation and later flotation on the stock market precede the consolidation processes. Apart from the BME, which was the fruit of a horizontal (stock, fixed income and derivatives markets) and vertical (trading and post-trading) national consolidation process, the rest of the competitor markets form part of transnational groups created by the consolidation of several markets and entities.

Demutualisation of the main regulated markets TABLE 1

Stock market	Demutualisation	Flotation on stock market	Start of consolidation
Stockholmsbörsen (NASDAQ OMX)	1993	1993	2003
Helsinski Stock market (NASDAQ OMX)	1995	1993	1997
Borsa Italiana (LSE[1]-Borsa Italiana)	1997	–	2007
Amsterdam Exchange (NYSE Euronext)	1997	2001	2000
London Stock Exchange (LSE-Borsa Italiana)	1999	2001	2007
Deutsche Börse Group	2000	2001	2000
Bolsas y Mercados Españoles (BME)	2000	2006	2003
NASDAQ (currently NASDAQ OMX)	2002	2002	2007
NYSE-Archipelago (NYSE Euronext)	2006	2006	2007

Source: Fleckner (2006) and own creation with data from the stock markets

1 LSE London Stock Exchange.

4 The consolidation process of trading infrastructures

The consolidation processes of market infrastructures took place at a different speed in Europe compared with the United States. One of the main reasons for this was the regulatory, fiscal, monetary, cultural and linguistic unity in the U.S. as opposed to the diversity found in Europe. This may be one of the reasons why such an important technological advancement as the telephone had such major repercussions in the consolidation and integration of U.S. markets, yet hardly had any effect in Europe.

The determining factors in the consolidation of trading infrastructures in Europe have been the introduction of the euro, the different community initiatives for regulatory harmonisation and the encouragement of competition, which have acted

as catalysts for technological advances. In spite of the delay in the consolidation processes of the European markets, once the concentrations in each member state were finished, the following phase (involving international mergers and alliances), was carried out almost immediately and before the same step was taken in the United States.

4.1 The consolidation of regulated markets in the United States

The beginning of the 20th century brought with it the first consolidation phase for the trading infrastructures of U.S. markets. One of the determining factors was the introduction of the telephone, which broke down entrance barriers and increased rivalry between the one hundred regional stock markets of the time. This resulted in regional stock exchanges all but disappearing and trading being concentrated on the New York Stock Exchange (the NYSE).

After the incorporation of these advances in communications, there were no notable changes until the last quarter of the century. It was then, in 1975, that the electronic NASDAQ market was created, specialising in technology-related securities. Alternative electronic trading systems also began to appear as competition for the NYSE.

The next consolidation phase took place at the beginning of the 21st century and was limited to the local environment, in other words, mergers took place solely between U.S. markets. However, something new and of interest did happen: a merger / acquisition took place between regulated markets such as NYSE and NASDAQ, and alternative trading systems such as Archipelago and Instinet. Both acquisitions are an example of defensive moves made by regulated markets when faced with a new kind of competitor that is beginning to detract an increasing amount of business from them.

The third phase began in 2007 after NASDAQ and NYSE were floated on the stock market. This move allowed them to gather enough resources to acquire European markets. NASDAQ then acquired the Nordic group OMX, and NYSE merged with Euronext to create the largest world market in existence.

One of the other characteristics peculiar to the U.S. financial markets is the presence of two specialised financial centres: New York for the cash and share options market and Chicago for the regulated derivatives markets. Currently, the panorama of the U.S. securities markets can be described as follows:

- Stock markets: operated by two large international groups, Nasdaq-OMX and NYSE-Euronext, with a joint quota of the U.S. market of 90% of trade. Apart from these two large groups, there are thirty-nine alternative trading systems in operation.
- Derivatives markets: the CME Group, fruit of the consolidation of the Chicago Mercantile Exchange (CME), the Chicago Board of Trade (CBOT) and the New York Mercantile Exchange (NYMEX), and with a central clearing counterparty house forming part of the group (CMEC).
- Post-trading: with a single company, the Depositary Trust & Clearing Corporation (DTCC). This company clears, settles and registers all the transactions made on the regulated stock markets.

4.2 The consolidation of regulated markets in Europe

In spite of the fact that the European securities markets were especially innovative in their incorporation of electronic trading systems, the lack of a general regulatory framework and a single currency delayed the consolidation processes between different markets until the end of the 20th century.

At the end of the nineties, the majority of European countries began a national consolidation process for their trading and post-trading infrastructures. The different markets in each country became integrated into holding companies which in some cases (Germany, Spain and Italy for example), gave rise to vertical silos incorporating all the trading and post-trading processes and, as is the case of the BME and the Deutsche Börse, all the cash market and derivatives market processes as well. It could be said that these processes were generally aimed at creating large groups on a national scale, which would be able to compete in the Europe-wide environment that the launch of the Euro promised.

The second phase began almost without interruption and brought about consolidations between different markets in the EU. As a result of this process, four large transnational groups were formed. These groups have united the majority of European countries and cover three quarters of all trade on the continent:

- Euronext. In 2000, the Amsterdam, Brussels and Paris stock markets merged to create Euronext. In 2002, the Lisbon and Oporto stock exchanges joined Euronext and the group acquired the London derivatives market LIFFE.[12] In 2007, Euronext merged with the NYSE group to form NYSE-Euronext, the first global group to operate on two continents. NYSE-Euronext currently has six cash markets and eight derivatives markets in the seven countries they operate in.

  Each of the markets that make up the Euronext group has kept its individual license and is supervised by the corresponding body according to its country of origin. This division of supervision within the group according to the jurisdiction of their country of origin was also kept after the merger with the NYSE. In order to coordinate the supervision of the group, the different European bodies in charge of the supervision of the markets integrated in Euronext have signed two Memorandums of Understanding (MOU).

  Since 2009, all the markets in the NYSE-Euronext group have been operating with the same trading platform. By doing so they have achieved one of the objectives of market mergers: the use of economies of scale and scope and network effects which will allow them to continue with the increased investment in improvements in trading systems.

  Clearing and settlement services are not currently vertically integrated in the Euronext group, as the group has been divesting its minor participation in post-trading infrastructures LCH.Clearnet and Euronext. In the first phase, the central clearing counterparty houses in Belgium, France and Holland merged to create Clearnet Ltd. which, in 2001, became the settlement infrastructure for the markets operated by Euronext. In 2003, Clearnet merged with the London Clearing House to form LCH.Clearnet (with a 5% share owned by Euronext). As regards the central registry, this is still kept by the central depositories in each of the countries belonging to the Euroclear group (of which 5% is owned by Euronext) and Interbolsa in Portugal.

12 London Financial and Futures Exchange.

- London Stock Exchange (LSE)-Borsa Italiana. The LSE is the second largest stock market in Europe as regards volume of trade, and has been the object of several failed attempts at acquisition by OMX of Sweden (2000), Deutsche Börse (2004), Macquarie Bank (2005) and NASDAQ, which reached a point in 2006 where it possessed 30% of its capital. In 2007, when NASDAQ saw its acquisition offer had been rejected by the LSE shareholders, it sold its participation to Dubai Borse. Previously, in 2000, the LSE had announced, and later cancelled, its merger with Deutsche Börse.

  In 2007, the LSE completed its acquisition of the Borsa Italiana, and two different trading models were integrated. Whereas, the LSE is a stock market that does not have integrated clearing and settlement systems, and is the precursor for the opening of competition in post-trading services, the Borsa Italiana, has stock, fixed income and derivatives markets as well as integrated post-trading services (Cassa di Compensazione e Garanzia y Monte Titoli).

  The LSE and Borsa Italiana trading systems are not integrated and, as with the rest of the European groups, their supervision is divided according to the markets in their countries of origin: the LSE is supervised by the Financial Services Authority in the United Kingdom, and the Borsa Italiana by the Italian CONSOB.

- Deutsche Börse Group. This is a vertical silo, as its activities include trading (shares, bonds and derivatives) and post-trading services. The group has its origins in the Frankfurt stock market which became Deutsche Börse in 1992.

  Eurex was created in 1998, and is the second largest derivatives market in the world. It resulted from a merger between the German and Swiss derivatives markets (DTB and SOFFEX respectively). After that, in 2000, Deutsche Börse Clearing merged with the international central securities depository Cedel to form Clearstream International. This became the group's post-trading infrastructure, offering clearing, settlement and registration services and a central counterparty clearing house. In 2007 this group acquired the International Securities Exchange (ISE), which is supervised by the SEC in the U.S.

  The trading systems for the cash and derivatives markets are not integrated, although a single trading platform has been planned for them for 2011. The group is supervised by the BaFIN, a German financial authority with jurisdiction over the cash and derivatives markets.

- NASDAQ-OMX. In 1985, the OMX derivatives market based in Sweden was created. In 1998 OMX merged with the Stockholm stock exchange. Later mergers saw the incorporation of several other Nordic and Baltic stock exchanges (Copenhagen, Helsinki, Iceland, Estonia, Latvia and Lithuania). Towards the end of 2007, OMX was acquired by NASDAQ. The new group, NASDAQ-OMX, has an integrated trading system shared by the markets which comprise it. NASDAQ-OMX is not vertically integrated as its post-trading services are provided by Euroclear. The Baltic markets have kept their central securities depositories.

Other markets operate on the periphery of these four large, pan-European groups, including the Bolsas y Mercados Españoles (or Spanish Markets and Stock Exchanges - BME), which was created in 2003 as a result of the vertical consolidation of the Spanish trading infrastructures (stock, fixed income and derivatives markets) and post-trading infrastructures (IBERCLEAR). With regards to volume of equity trade, the BME is fourth in line after NYSE-Euronext, LSE-Borsa italiana, Deutsche

Börse and, at the head of the group, NASDAQ-OMX. BME has different trading systems for the stock, derivatives and fixed income markets, and the group is supervised by the CNMV and the Bank of Spain (trading in public debt). Figure 2 shows the organisation of the main European securities markets.

Organisation of main European markets TABLE 2

Country	Cash market	Derivatives market	Post-Trading	Consolidation type
Germany, Switzerland (DB Group)	Deutsche Börse	Eurex & ICE	Clearstream & Eurex	Vertical
Austria (Wiener Börse)	Wiener Börse	Wiener B.	CCP.A	Vertical
Spain (BME)	BME	MEFF	IBERCLEAR & MEFF	Vertical
Norway (Oslo Bors VPS Group)	Oslo Bors VPS[1]	Oslo Bors	Oslo Clearing & VPS	Vertical
United Kingdom and Italy	LSE[2] Borsa Italiana	EDX London, IDEM	LCH.Clearnet[3], Euroclear, X-Clear Monte Titoli & CC & G	Horizontal and vertical
Belgium, France, Holland, Portugal, United Kingdom (NYSE Euronext)	NYSE Euronext	NYSE Liffe	LCH.Clearnet & Euroclear[4]	Horizontal
Denmark, Estonia; Latvia, Lithuania, Finland, Iceland, Sweden (NASDAQ OMX)	NASDAQ OMX[5]	NASDAQ OMX	Euroclear (2008) & NASDAQ OMX & CSD (Baltic)	Horizontal

Source: Own work.

1 Until June 2009 NASDAQ OMX had a 6% share. This was sold when the alliance between the Oslo Bors and LSE was announced.

2 Borse Dubai Limited has a 20% share of LSE and the Qatar Investment Authority a 26% share.

3 Shares in LCH.Clearnet are owned by Euronext (reduced to 5%) and Euroclear.

4 Euronext has a 4% share of Euroclear.

5 Borse Dubai has a 19.9% share of NASDAQ OMX.

Figure 3 highlights the key moments in the consolidation process of the U.S. and European trading infrastructures.

Differences in time scale between the U.S. and European concentration processes

TABLE 3

United States	Europe
At the beginning of the 20th century, the level of competition began to increase and the first mergers between the 100 regional stock markets took place.	Towards the end of the last century the demutualisation of the markets began and the first local consolidations were seen.
In 1975, the SEC imposed the obligatory integration of post-trading infrastructures which concluded in 1990.	In 2000, the first pan-European consolidations took place (Euronext).
The NASDAQ and NYSE demutualised in 2002 and 2006 respectively.	
In 2005, NYSE and NASDAQ acquired two of their MTF competitors, Archipelago and Instinet, respectively.	
In 2007 NYSE merged with Euronext and NASDAQ acquired OMX.	In 2007 LSE acquired the Borsa Italiana.
2009 Two large regulated markets. 39 multilateral trading systems. Consolidated post-trading (DTCC).	2009 Four large pan-European groups.[1] 123 multilateral systems. Fragmented post-trading.
	2013 T2S BCE Project. Settlement consolidation.

Fuente: McAndrews and Stefanadis, and own work.

1 NYSE Euronext, NASDAQ-OMX; LSE-Borsa Italiana, Deutsche Börse.

5 The consolidation process of post-trading infrastructures

In the consolidation process of the regulated markets, the role of the regulating authorities has, in most cases, been limited to the provision of a comprehensive regulatory framework which has, along with other factors (i.e. technology, or in some cases the existence of a common currency), promoted competition and the later concentration of the securities markets.

However, in the case of the post-trading infrastructures in the United States, the regulator has played a key role and the same could happen in Europe. The 2013 launch of the Target 2 Securities project by the European Central Bank (for cash and securities settlement) could become an institutionally-motivated route to the consolidation of settlement services in the euro area.

At the beginning of the 20th century, the predominant trading model in the United States was the regional vertical silo. Within these vertical silos, each stock market had its own clearing and settlement infrastructures. The later market concentration processes reduced the number of vertical silos to seven in 1975.

Up until that time, the consolidation of post-trading infrastructures had replicated that of the markets themselves and was led and favoured by the industry. However, the U.S. regulator was forced to intervene at the end of the sixties when there were problems with the settlement of physical securities. During a period referred to as the paperwork crisis, the regulator forced the markets to close one day a week and

reduce their trading hours as it had become impossible to carry out all the pending settlements. After this episode, in a proposal to Congress, the SEC suggested a change in the Law on Securities Markets to create a National Market System with the aim of establishing a unified national clearing and settlement system.

In spite of the fact that this consolidation was promoted directly by the regulator, twenty-five years passed until the Depository Trust & Clearing Corporation (DTCC) was finally created in 1999. The DTCC is a holding company which consolidates the two companies providing clearing and settlement services and the U.S. central securities depository.[13]

The European post-trading infrastructures also went through a consolidation process starting at the end of the nineties. Apart from pan-European exceptions such as Euroclear and Clearstream, consolidation in Europe was limited locally, among CSDs responsible for different sections of their national market (shares, fixed income). In 1999, Schmiedel and Schönenberger (2005), counted twenty-three domestic CSDs in the twelve countries which formed the euro area at that time, and eighteen in 2004. According to the latest information from the register kept by the CESR, there are currently twenty-seven CSDs, one for each of the EU Member States. Figure 4 shows the most significant concentration processes of post-trading infrastructures to take place in Europe.

Consolidation of the central securities depositories (CSD) TABLE 4

Countries	CSD	Resulting CSD
Germany and Luxembourg	Deutsche Börse Clear. and Cedelbank	Clearsteam Int. (2000)
France, Holland, United Kingdom, Belgium and Ireland	SICOVAM, Necigef, CREST, CIK, CBISSO	Euroclear (2001)
Sweden and Finland	VPC and APK	NCDS[1] (2004)
Spain	SCLV and CADE	IBERCLEAR (2003)

Source: Schmiedel, Schönenberger and Fleckner (2005) and own work.

1 In 2008 NCSD was acquired by Euroclear.

6 The current situation and perspectives on the consolidation process

The current panorama of the securities markets as regards competition gives us two large transcontinental groups: NYSE-Euronext and NASDAQ-OMX (both fruit of an intercontinental consolidation process), the LSE-Borsa Italiana group and several markets which are not yet involved in international consolidation processes, such as Deutsche Börse, the Bolsas y Mercados Españoles (BME) and the Asian stock markets. Given that an NYSE-Euronext-NASDAQ-OMX merger is highly unlikely due to the concentration of market power the resulting entity would have, the next consolidation moves could well see Asian stock markets as the main players in the creation of a large global group. Along these lines, the NYSE has already entered a strategic agreement with the Tokyo stock exchange as a first step towards a possible merger.

13 These two companies are the National Securities Clearing Corporation (NSCC) and the Depository Trust Company (DTC) respectively.

In Europe there are still several markets which are not integrated into transnational groups and which could either reach an agreement among themselves or with the large, already-established groups. Another possibility is expansion towards Eastern Europe where, due to historical and geographical ties, the Deutsche Börse is in the best position to acquire and / or merge with other regulated markets. In fact, the Deutsche Börse has already made an offer for a majority share in the Warsaw stock exchange.

An increase in size may be the right answer given the new situation, especially when the objective is to obtain economies of scale and critical mass in the volume of trade. However, this is not the ideal option when trying to compete with platforms specialising in particular areas where economies of scale are not determining factors.

The future competitive environment of the securities markets will be conditioned by changes in the structure of the markets. These changes will determine the strategic responses and possible concentration processes, and will have two separate roots:

- the new demand motivated by high frequency trading strategies; and,
- the division of settlement between the regulated markets and alternative platforms head by the MTFs, the systematic internalisers and the dark pools.

6.1 The new demand stemming from high frequency trading

Investors specialising in this type of trading continuously carry out a large number of purchasing transactions on the regulated market and MTFs. The two most obvious differences in the way they operate are the concentration of their activity on the most liquid securities and the use of small orders enabling them to guarantee they are executed simultaneously on several markets and alternative platforms. To be able to carry out their activity, they need a trading system which reduces the time an order is sent out to the time it is executed to a minimum.

At the same time, the reduction in the effective volume of orders executed on the markets has led other institutional investors to seek out anonymity and the guarantee of the execution of large orders at a single price in the dark pools. The proliferation of dark pools is a response to the specific need of part of the consumer demand and, in this sense, mergers between regulated markets do not seem to be an effective strategic defensive option.

The attention being focussed on these new areas of demand will compel the markets to invest heavily in trading and communications systems, and infrastructures which will allow the location of the servers they use for these kinds of transactions within (or close to) their own facilities (co-location)[14] and a reduction in response time. In this case, the consolidation processes can be the right strategic response to the new market structure, as it permits a faster investment amortisation by using shared trading and communication systems.

6.2 Division of settlement due to the broadening of competition

It is highly probable that the advent of multilateral trading systems to compete with the regulated markets will generate new concentration moves with regards to

14 The CSD are bodies which hold and manage securities. They are responsible for transferring the securities, most usually via book entries.

trading infrastructures. Since their launch, the MTFs have tried to reach a sufficient volume of trade to obtain a critical mass which will guarantee their survival. One of the strategies they have used to attract volume has been competitiveness on prices (tariffs) in comparison with the regulated markets. In some European markets, such as London, Paris and Frankfurt, the MTFs have (according to the information published by Fidesa) reached a market quota of over 30%, whilst in Spain they have only reached 1%.

Up until now, market participants have benefitted from a reduction in trade tariffs thanks to the competition between the regulated markets and the MTFs. However, it is not likely that all the MTFs currently in existence will survive and, for that reason, consolidations between different MTFs, and between MTFs and regulated markets should not be discounted. As Christiansen and Kolderstsova (2009) point out, the increase in the MTFs' market quota took place in a phase when the volumes of trade were increasing annually and their future survival depended on their ability to keep growing in an environment with a global reduction in trade. A defensive move on behalf of the regulated markets is predictable in such a new competitive environment with increased rivalry. The regulated markets have the following strategic options:

- To purchase those MTF which pose a threat to the hegemony of the regulated markets. Two examples of this are the aforementioned acquisitions, in 2005, of Archipelago and Instinet by the NYSE and NASDAQ respectively. In Europe, LSE and Turquoise have recently announced an agreement to create a new trading platform resulting from a merger between Turquoise and Baikal, whose main shareholder will be LSE. This represents the first consolidation to take place between a regulated market and an MTF in Europe, and could, to a certain extent, mean a return to the environment which existed prior to the MiFID, as the levels of rivalry would be reduced.
- To launch MTFs themselves. This move would be complemented by the entering into direct competition with other regulated markets, including the possibility of trading shares of foreign companies which are floated on other stock markets. This is the strategy that Deutsche Börse will initiate with its Xetra International Market platform. In its first phase, this platform will allow trading of all shares, including those of the DJ EURO STOXX 50 index. This will later be expanded to include the main securities (blue chips) on the Belgian, Spanish, Finnish, French, Dutch and Italian markets.

6.3 MTF performance in the Spanish market

The market quota held by the MTFs that offer trading on Spanish securities included on the Ibex-35 does not reach even 1% of BME trading. This figure contrasts with the quotas reached by MTFs in other European markets. The reasons for such a reduced level of trade in Spanish securities by the MTFs may lie in the current situation of the settlement and registration system as described below.

The Spanish stock market registration system relies on registration codes. IBERCLEAR, in its capacity as the Spanish CSD, keeps a file of registration codes which cover the number of securities that the participating entities have in their accounts. The registration codes are generated by the stock exchanges' governing bodies whenever a sale is made or there is a change in ownership, and the contribution they make is

vital for settlements to be made. One of the advantages of this registration system is that it is easy to trace and supervise transactions.

With this system, the corresponding registration codes need to be generated for the settlement of transactions carried out by the MTFs. For this reason, a purchase transaction carried out by an MTF on a Spanish security will be subject to additional costs unlike those made on securities floated on other regulated European markets. With regards to this, it is worth highlighting the recent approval of a modification to the IBERCLEAR's Regulations on Organisation and Operation, which will allow the settlement and registration of transactions carried out in the MTFs without having to go through the regulated market.

Another of the idiosyncratic characteristics of the Spanish regulated market is the high market quota that Spanish intermediaries have in the transactions carried out on the BME and the absence of these intermediaries among the shareholders of the alternative platforms currently in operation.

The BME is currently maintaining a strategy of specialisation in the Spanish securities markets and is not part of any international group. However, it has had a go at diversification with the launch, in 1999, of Latibex, an MTF with Latin-American securities floated in euros.

6.4 Possible action in European post-trading activity

In 2001, a group of experts led by Alberto Giovannini compiled a report at the request of the European Commission (EC). This report identified fifteen barriers preventing the integration of post-trading services in Europe (Giovannini Report). These barriers, which were divided into three large groups (technical, tax and legal differences), mean larger settlement costs for transborder transactions. The report explained that some of these barriers could be removed by the industry, but others would require the intervention of the governments who would need to establish tax and regulatory measures.

In 2004, once the areas to act on had been identified by the Giovannini Report, the EC announced its intention to create a directive to be applied to post-trading services. However, two years later it changed its criteria and put the onus on the industry to find solutions to lessen the obstacles for integration of these markets on a European level.

Among the initiatives put forward by the industry, one in particular stands out: the Code of Conduct. Approved in 2006, one of the main measures in the Code is the inter-linking of all the different national infrastructures. The Link Up Markets[15] project details how this measure will be put into practice, and will permit inter-operability among participating European CSDs. One of the criticisms of the project is that the local infrastructures of each of the CSDs are maintained, rather than creating a new, single entity along the lines of the DTCC in the United States. The industry has chosen to preserve the status quo, rather than propose a single post-trading service provider which could access economies of scale and network effects more efficiently.

---

15 Link Up Markets is a company formed by the following depositories: Germany (Clearstream Banking Frankfurt), Austria (Österreichische Kontrollbank), Cyprus (Cyprus Stock Exchange), Denmark (VP), Spain (IBERCLEAR), Greece (Hellenic Exchanges), Norway (VPS) and Switzerland (SIX SIS).

Some of the post-trading aspects with the most potential for intervention by the regulators are:

- The reinforcement of the security system, given its implications on systemic risk. On the one hand, one entity's problem with securities settlements can spread to other participants but, on the other, a registration system is needed which will guarantee the integrity of the ownership of the securities.
- The implementation of a homogeneous regulatory framework for post-trading which fosters competition in processes where, from an economical efficiency point of view, this is possible at a reasonable cost. Plus, it must be guaranteed that the prices for accessing the post-trading services in vertically consolidated groups do not prevent competition in trading services.

As well as the matters of access and competition, with regards to clearing and settlement services, another aspect which could be resolved by the intervention of the regulators is the current heterogeneity of the central counterparty clearing houses, as regards legal concepts, supervision and own resources. The need for a certain level of homogeneity and minimum standards is especially relevant within the framework of reform in the derivatives markets. This reform is currently underway both in the United States and Europe, and will give the clearing houses a determining role to play in the containment of systemic risk.

6.5 The European Central Bank's Target 2 Securities project

In July 2006, at a time when it seemed the fragmented state of the post-trade services was set to persist, the ECB announced that the Eurosystem[16] was prepared to offer national and transborder securities settlement services with Central Bank cash. This service will be operational in 2013, and will involve the integration of both settlement areas (cash and securities) into a single platform.

Target 2 Securities (hereinafter T2S) is limited exclusively to settlement, with registration and custody remaining with the respective national CSDs. These will continue to manage all the economic and political rights of the securities and to carry out all notarial duties.

The success of the ECB project is, therefore, determined by the number of settlement entities which decide to participate. Given that the development and maintenance costs[17] comprise the lion's share of the fixed costs of the project, the more CSDs that participate, the fewer the average cost per transaction. Plus, further indirect costs would have to be added and that could be avoided by not having to pay the back office costs which arise from operating with several different infrastructures and maintaining guarantees, which could be compensated for by using a single platform for settlement.

The ECB estimates that the settlement costs for a transborder transaction would change from the current average of three euros to around fifteen cents, a sum comparable to the cheapest domestic prices. T2S commission is based on charges for costs, not the generation of profit.

16 The Eurosystem comprises the European Central Bank and the central national banks of all the countries in the Eurozone.

17 The T2S development costs have been estimated at € 200 million, and the annual maintenance costs at € 60 – 100 million, according to the T2S Economic impact assessment. ECB May 2008.

This move by the ECB can be explained from two angles. One, cash and securities settlement is essential for the integrity of financial stability and, two, the lack of integration of the post-trading processes causes higher cost for participants and negatively affects competition in the European markets.

A majority participation by the CSDs in the ECB would produce all the same advantages as operating with a single entity, but with tariffs calculated to only cover costs, thereby eliminating any possible abuse of market power. Nevertheless, although this is a significant advantage, another of the main problems attributed to a monopoly still has to be resolved: the problem of the lack of incentive for innovation.

7 Conclusion

The trading model of the securities markets remained unchanged from the time of its creation until the end of the 20th century. During that time, the stock markets were limited to their local area, were protected from competition from other markets and there were no alternative trading platforms. The regulations in each country often guaranteed local markets a monopoly and, in general, the absence of real time communication prevented interlinking and competition between markets. Regulatory harmonisation, technological advances and, in Europe, the adoption of a single currency, have all increased competition between the regulated markets and the multilateral trading facilities (MTFs). Moreover, the specific needs of a new section of users (one which requires intensive use of automated trading techniques and anonymity in their transactions) has led to the appearance of new, alternative trading platforms such as dark pools. In this environment characterised by a greater rivalry, consolidation is one of the strategies which has been adopted by the United States and Europe to confront the new trading infrastructures and achieve economies of scale and scope which will allow them to deal with, and make a profit on, investments in trading and communications' systems.

In Europe, Directive 2004/39/CE (MiFID) opened trading infrastructures up to competition and allowed MTFs to act in what were previously clearing monopolies. In the short term this has produced an increase in competition and a decrease in commission. However, it is quite likely that in the mid to long term consolidation will take place between current MTFs, and that a regulated market may acquire those MTFs that are a threat to its hegemony, as has happened in the past.

The securities markets are currently faced with significant changes in their infrastructure as a consequence, on the one hand, of a greater fragmentation in settlement services and, on the other hand, of the new algorithmic trading strategies (high frequency trading) These changes will continue to force the regulated markets to invest heavily in technology which will determine the profitability of the industry and the future consolidation processes of the trading infrastructures.

Regarding the post-trading services, in spite of their importance for safeguarding financial stability, there is no homogeneous regulatory framework in Europe which favours competition and integration through consolidation of existing infrastructures that, until recently, were local in nature. This lack of integration leads to greater settlement costs on transborder transactions. However, the European Central Bank's Target 2 Securities project could result in the a definitive institutional push towards European consolidation of settlement services. In the U.S.A., the consolidation of

the post-trading industry was promoted in 1975 by the Securities and Exchange Commission via a reform in the securities market Law, and was completed in 1999.

8 Bibliography

Aggarwal, R. (2002). "Demutualization and corporate governance of stock exchanges". *Journal of applied corporate finance*, Spring, p. 108.

Arnold, T., Hersch, J., Harold, M. and Netter J. (1999). "Merging markets". *Journal of finance*, 54, No. 3, pp. 1083-1107.

Baele, L., Ferrando, A., Höhrdahl, P., Krylova, E. and Monnet, C. (2004). "Measuring integration in the euro area". ECB, *Occasional Paper Series*, No. 14, April.

Christiansen, H. and Koldertsova, A. (2009). "The role of stock exchanges in corporate governance". OECD, *Financial markets trends.*

CNMV - BdE (joint report, 2007). *Los sistemas de compensación, liquidación y registro de valores en Europa. Situación actual, proyectos en curso y recomendaciones*.

Davies, R. (2008). *MiFID and a changing competitive landscape.* Babson College.

Duffie, D. and Zhu, H. (2009). "Does a central clearing counterparty reduce counterparty risk?". Rock Center for corporate governance, *Working Paper 46*.

Economides, N. (1993). "Network economics with application to finance". *Financial markets, institutions & instruments*, pp. 89-97.

Linciano, N., Siciliano, G. and Trovatore, G. (2005). "The clearing and settlement industry. Structure, competition and regulatory issues". CONSOB, *Quaderni di Finanza,* N. 58.

Malkamäki, M. (1999). "Are there economies of scale in stock exchange activities? Bank of Finland, *Discussion Papers*, 4/99.

McAndrews, J. and Stefanadis, C. (2002). *The consolidation of European stock exchanges*. Federal Reserve Bank of New York.

Milne, A. (2002). "Competition and the rationalisation of European securities clearing and settlement". City University Business School, London, *Working paper*.

Pirrong, C. (2007). *The industrial organization of execution, clearing and settlement in financial markets*. University of Houston.

Ramos, S. (2003). "Competition between stock exchanges: a survey". Fame-International Center for Financial Asset Management and Engineering, *Research paper,* No. 77.

Schmiedel, H., Malkamäki, M. and Tarkka, J. (2002). *Economies of scale and technological development in securities depository and settlement systems.* Bank of Finland Discussion Papers.

Schmiedel, H. and Schönenberger, A. (2005). "Integration of securities market infrastructure in the euro area". European Central Bank, *Occasional paper series,* July.

III Regulatory novelties

The record-keeping obligations of supervised entities

Adela Aguilar Fernández (*)

* Adela Aguilar Fernández is a member of the CNMV Market Participant Authorisation and Registration Department.

1 Introduction

This article describes and examines legislation obliging financial entities to maintain certain records in relation to the provision of investment services. These obligations, which form part of the organisational requirements of entities for their authorisation and functioning, provide a highly useful instrument for investor protection, since records help to reconstruct the conditions under which an intermediary provided its services and permit positions in securities which customers maintain in the custody of the entity, as well as the state of pending transactions, to be ascertained at all times. The records are available to the supervisory authority, or judicial authorities as the case may be, but are also useful to external auditors and for the internal control and compliance functions of the firm itself.

Spanish legislation in the field of maintenance of records by entities providing investment services is set in the context of Community legislation, the basic text of which in this field is Directive 2004/39/EC, on markets in financial instruments (hereinafter MiFID).[1] In accordance with the mandate established in the MiFID, the provisions of this legislation regarding records were subsequently implemented by two measures (Level 2 of the Lamfalussy scheme): Directive 2006/73/EC (hereinafter MiFID Level 2)[2] and Regulation 1287/2006/EC.[3]

As indicated further on, the promulgation of Community regulation did not involve a substantial change in Spanish regulation in the field of record-keeping, since the majority of the provisions in this field now contained in European legislation had already been introduced. Transposition of the MiFID into the Spanish domestic legal system meant a partial reform of the Spanish Securities Market Act (Ley del Mercado de Valores) by means of Act 47/2007[4] and the Level 2 MiFID was transposed by Royal Decree 217/2008.[5]

Together with the foregoing legislation, this article examines the recommendations issued by the Committee of European Securities Regulators, CESR, in February 2007 regarding the list of obligatory minimum records of investment services firms provided for by the Level 2 MiFID. This Directive left responsibility for establishing the content of this list in the hands of the competent authority in each Member

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

2 Directive 2006/73/EC of the European Commission, of 10 August, in implementation of Directive 2004/39/EC of the Parliament and Council, on organisational requirements and operating conditions for investment firms.

3 Regulation 1287/2006/EC of the European Commission, of 10 August, in implementation of Directive 2004/39/EC of the European Parliament and Council, in relation to record-keeping obligations of investment firms, information on transactions, market transparency, admission of financial instruments to trading, and terms defined for the purposes of the said Directive.

4 Act 47/2007, of 19 December, amending the Securities Market Act, 24/1988 of 28 July.

5 Royal Decree 217/2008, of 15 February, on the legal regime of investment services firms and other entities providing investment services, and partially amending the Regulations under the Collective Investment Undertakings Act, 35/2003 of 4 November, promulgated by Royal Decree 1309/2005, of 4 November.

States. In the case of Spain, the decision lay with the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores, CNMV), and materialised by resolution adopted by this supervisory body on 7 October 2009, which is also the subject of analysis in this work.

Finally, the article also explains the implications which Directive 2009/65/EC[6] will have for management companies of undertakings for collective investment in transferable securities (UCITS) in the field of record-keeping. This Directive consolidates the Directives which previously regulated UCITS.

The article is organised as follows: Section 2 examines Spanish legislation in the context of Community legislation, Section 3 is concerned with the recommendations of the CESR on the minimum list of records laid down by the Level 2 MiFID, Section 4 examines the resolution of the CNMV which establishes the contents of this list in Spain, and finally Section 5 examines the implication of the new Directive on UCITS in respect of recording obligations of management companies.

2 Spanish legislation in the context of Community legislation

Regulation in the field of record-keeping is set within the organisational measures required of undertakings which provide investment services. The new Community regulation in this field, already reflected as mentioned in Spanish legislation, pursues three major objectives: (i) adaptation by financial intermediaries to the new requirements, (ii) reinforcement of the measures aimed at investor protection, to which end a broad catalogue of rules is established governing the actions of those who provide investment services, and (iii) reinforcement of the organisational requirements of these entities in order to ensure that their organisation is adapted to the complex range of services which they provide.

In order to comply with these objectives, firms which provide investment services must have an adequate internal structure for the activities which they are to engage in, with sufficient organisational and human resources and a clear allocation of responsibilities within the firm. This is referred to by Section 70 ter 1 of the Spanish Securities Market Act, which regulates organisational requirements, when providing that investment services firms "and other entities which, in accordance with the provisions of this Title, provide investment services, must define and apply adequate policies and procedures to guarantee that the firm, its executives, personnel and agents comply with the obligations imposed on them by Securities Market legislation".

The following can be highlighted as novelties in the new regulation with respect to organisational requirements:

1. The requirements are applicable, as well as to investment services firms, to credit institutions and collective investment undertaking management companies which provide investment services.
2. The intensity of these requirements must be adequate for the nature, scale and complexity of the services which are provided.

6 Directive 2009/65/EC of the European Parliament and Council, of 13 July, on coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS).

3 Three control functions are established: legislative compliance, risk and internal auditing.

4 Conflict of interest control is required, to which end entities must have detection systems and mechanisms to prevent and resolve these conflicts as appropriate.

5 The maintenance of records is required in respect of all transactions in securities and financial instruments and of the investment services which they provide.

In particular, with respect to the obligation to maintain records, Section 70 ter 1 of the Securities Market Act, in sub-section e), incorporates the contents of Article 13.6 of the MiFID, which requires all investment services firms to keep records of all services and transactions they engage in, which must be sufficient to enable the authorities to monitor compliance with the requirements laid down, and in particular all obligations of the investment firm to its clients and potential clients. In the same sub-section, the Spanish legislation provides that the data to be included in records of transactions must be those laid down in Commission Regulation 1287/2006, whilst other matters relating to the obligation to maintain records will be determined by regulations. Sub-section f) of the same Section stresses the importance of records as an instrument for identifying and protecting the assets which clients have entrusted to their intermediaries, when providing that the internal records of the entity "must permit at all times and without delay the position of securities and transactions in progress of each client to be ascertained, particularly in the event of insolvency of the undertaking".

Royal Decree 217/2008, which as indicated transposed the Level 2 MiFID into Spanish law, sets out in Chapter I of Title II a broad range of organisational requirements and determines their scope, for investment services firms, credit institutions which provide these services, and collective investment undertaking management firms authorised to engage in discretionary portfolio management activities, advice in the investment field and custodianship, and administration of shares and holdings in CIUs. In particular, there is detailed regulation of requirements relating to maintenance of records of their activities and transactions, which without doubt will provide greater legal certainty for intermediaries. The provisions of the said Royal Decree contain references to various records, files and obligations to obtain and preserve certain documents. In this context Section 2 of the said Chapter I can be emphasised, Sections 32 and 33 of which respectively regulate the keeping of records and certain special features in relation to recording orders from clients and transactions.

With respect to the preservation of records, an obligation is laid down to preserve the data included in the records in general for a period of five years, except for the register of contracts, which must be maintained whilst the relationship with the client persists. It further provides for the need to use a medium which permits storage of the information in a manner accessible to the CNMV and reconstruction of each of the processing stages of each transaction.

With respect to records of orders and transactions, the contents of which are established by Regulation 1287/2006/EC, Section 33 of Royal Decree 217/2008 indicates those documents which the register of orders must contain, the need for IT support for recording transactions, and the necessary correspondence between the two records (each transaction must be backed up by an order).

For its part, Regulation 1287/2006/EC, of direct application to Member States, provides details in Articles 7 and 8 of the contents, firstly of the register of client orders and trading decisions taken when providing the portfolio management service, and secondly of the register of transactions. With respect to the former, it requires inclusion, amongst other data on the order, of the identity of the client or the person acting on behalf thereof, date and time, nature of the order and type of financial instrument to which it relates. With respect to the register of transactions, immediately after executing an order or receiving confirmation of its execution, amongst other aspects the identity of the client, date and time of the transaction, person responsible for execution, price and, if a transaction is other than sale and purchase, the nature of the transaction, must be recorded.

Of these rules, the extraordinary importance emerges acquired by organisational requirements, in particular of record-keeping which, on the one hand, is applied uniformly to all entities which provide investment services, and on the other is configured as an instrument which will facilitate supervision by the CNMV. Furthermore, as well as ensuring continuity and regularity in the provision of services, these rules will contribute to improving the internal control of entities, the transparency of transactions and compliance with rules of conduct. This will all mean an improvement in investor protection which will give rise to greater confidence by them in the financial system.

Notwithstanding its importance, the new regulation does not contain major novelties with respect to Spanish legislation previously in force, since virtually all of the legislation had been incorporated since 1988. We should recall that CNMV Circular 3/1993 of 29 December, on recording of transactions and filing of order records, in implementation of the repealed Royal Decree 629/1993 of 3 May, on rules governing actions in securities markets and obligatory records, already treated order records and receipt files as valuable instruments for internal control of entities, transparency of transactions and consequent investor confidence. This circular established the minimum rules for maintaining the order file, such that it served as support for entries in the register of transactions and permitted verification of their background. This circular further established the requirements and structure of the transactions register.

In addition, Article 51.3 of the Level 2 MiFID provided, in application and implementation of Article 13.6 of the MiFID, that "The competent authority of each Member State shall draw up and maintain a list of the minimum records investment firms are required to keep under Directive 2004/39/EC and its implementing measures».

This mandate was set out in the said Section 32.3 of Royal Decree 217/2008 in the following terms: "The Securities Market Commission must publish the list of records required in accordance with the provisions of sub-section 1".

3 CESR recommendations regarding list of minimum records

As indicated, the Level 2 MiFID delegates to the competent authority of each Member State the preparation and maintenance of a list of minimum records which, in accordance with the said legislation, must conform to the MiFID and its subsidiary rules. In the context of the Level 3 competencies which the European Commission

granted to it with respect to the MiFID (uniform and harmonised implementation of the Directive), in October 2006 the CESR submitted proposed recommendations regarding list of minimum records for public consultation,[7] requesting comments, basically on three aspects: (i) the possible benefits to investors and industry, (ii) the contents of the list, including proposals for new records or removal of some of them, and (iii) the desirability of including records relating to financial advice.

On 27 February 2007 the CESR published its recommendations[8] together with a document summarising the most relevant comments received during the consultation period,[9] and the criteria on which the final recommendations were based. Some of the most relevant comments made by participants in the consultation and the principal considerations of the CESR regarding the three aspects on which their opinion was requested are described below:

- **Benefits to investors and industry.** Majority agreement that the lists benefit investors and industry, although some comments expressed open disagreement and other considered that they would only be useful if States could not lay down additional requirements. Some participants suggested including additional records in relation to best execution, client information and codes of conduct. The CESR indicated that it was not a question of harmonising the contents of the national lists and that its recommendations could be applied without prejudice to national authorities including other record-keeping obligations deriving from other provisions.
- **Contents of the list (and proposals for new records or removal of some of them).** Faced with the reservations made by participants in the consultation regarding the contents and time of making some of the records, the CESR suggested that each Member State could consider specific circumstances when preparing its list of records. Furthermore, on other comments questioning the legal basis for requiring some records (register of clients, information on incentives, cumulative transactions, allocation and re-allocation of orders, reports, etc.), since there was no express requirement for them in the MiFID, the CESR stated that the intention of the MiFID was for records to help authorities to monitor compliance with the obligations of intermediaries. Thus, making a broad interpretation of Article 13.6 of the MiFID, the CESR expressly required not only inclusion in the list of records relating to the provision of services in the strict sense, but also of other records closely connected with it, such as those which relate to compliance with the necessary requirements for such provision (e.g. information requirements, implementation of the know-your-customer rules, etc.). In short, the CESR argued that if it was wished that supervisory authorities should supervise compliance with the obligations of intermediaries, it was necessary to have a technical basis, in this case records, which enable it.
- **Desirability of records relating to financial advice.** Some of the comments indicated that advice is too long and complex a process to enter in a register. For its part, the CESR argued that the register must at least include the retail client to whom the service is provided, the recommendation and the financial instrument recommended.

7 CESR public consultation, list of minimum records in Article 51(3) of the MiFID implementing Directive (Ref. CESR/06-552).

8 CESR Level 3 Recommendations on the List of minimum records in article 51(3) of the MiFID implementing Directive (Ref. CESR/06-552c).

9 CESR Level 3 Recommendations of the list of minimum records in article 51 (3) of the MIFID implementing Directive. Feedback statement. (Ref. CESR/07-085).

From a general perspective, the recommendations of the CESR basically have four objectives: (i) facilitating transposition, (ii) facilitating supervisory convergence, (iii) facilitating the "internationalisation" of services and investment activities, and (iv) ensuring minimum common bases for investor protection. Based on these objectives, the list of records included in the CESR recommendations respond to the following general characteristics:

- **non-exhaustive nature:** the list is merely for guidance, not exhaustive, and therefore the supervisory authorities of each Member State will be able to include additional records in addition to those recommended.
- **indicative nature:** without prejudice to these recommendations, entities must assess whether the recommended records are sufficient in the light of the particular features of their own activities, structure, volume, clientele, organisation and complexity. In particular, it is important to underline that following up the CESR record recommendations will not exonerate entities from the liability they may incur if these records are not sufficient or adequate based on such particular characteristics.
- **non-harmonising nature:** the CESR is not attempting to harmonise at European level either the content or time of creation, maintenance or form of the different records.

In short, the list of records included in the recommendations is aimed at complying with one of the fundamental objectives of the MiFID: permitting supervisory authorities to verify compliance with obligations imposed by legislation, in turn enabling entities themselves at all times to ascertain the state and degree of compliance therewith.

4 Resolution of the CNMV on minimum records

In Spain, establishment of the list of minimum records required by the Level 2 MiFID took place, with prior authorisation of Section 32.3 of Royal Decree 217/2008, by the CNMV Resolution of 7 October 2009 on the minimum records to be maintained by undertakings which provide investment services. This section describes in detail the more relevant aspects of this legislation.

- **Subjective scope of application.** The Resolution is aimed at all undertakings which provide investment services in accordance with Section 65 of the Securities Market Act and Section 1 of Royal Decree 217/2008, i.e. (i) investment services firms, (ii) credit institutions which provide investment services, and (iii) collective investment undertaking management companies which are authorised to engage in discretionary and individualised investment portfolio management activities, advice in the investment field, custodianship and administration of holdings in investment funds, or of shares in investment companies as the case may be.
- **Nature of the list.** The list of records contained in the Resolution, following the general principles of the CESR recommendations, is of a non-exhaustive nature such that, complying with the basic objectives sought, the principle of proportionality is respected and obligations are not imposed on undertakings which are not in balance with their nature, range of services and the investment activities which they undertake.

Without prejudice to the foregoing, it is important to note that it will be entities themselves which must analyse and assess whether the proposed records and the data or information to be entered are sufficient for due compliance with the obligations imposed on them by current legislation at any time, and they may not rely on compliance with maintenance of the records contained in the Resolution to exonerate themselves from the liability which they may incur if they are not sufficient or adequate based on the particular characteristics of the undertaking.

Furthermore, the list is established without prejudice to any other recording obligation deriving from other legislation applicable to such entities, for example that relating to data protection, market abuse, transparency and major holdings.

- **Contents of the list.** In order to prepare the list account was taken of the CESR recommendations in this field, adapting their content and legislative references in all cases to the Spanish legal system. The list thus indicates in detail the indicative contents of each of the records, containing exhaustive references to the rules applicable to each of them. The governing principles followed in drawing up the contents of the list were as follows:

  1) Some of the records recommended by the CESR were grouped on the basis of the nature and uniformity of their content, without prejudice to the corresponding breakdowns in each case. In particular, it was considered that the grouping does not remove efficacy or reliability from these records nor prevent rapid access to the information. The groups taken into account were as follows:

     – Orders. Register of orders received from clients, decisions to trade in the field of portfolio management, and orders transmitted to a third party for execution. Specifically, there must be inclusion of the data and information required by Article 7 of Regulation 1287/2006/EC and Section 33 of Royal Decree 217/2008, previously mentioned.

     – Transactions. Register of transactions for own account and transactions for third party account, whether or not executed by third parties. For these purposes the data and information must be entered laid down by Article 8 of Regulation 1287/2006/EC and Section 33 of Royal Decree 217/2008.

     – Cumulative transactions. Records of cumulative transactions, allocation and re-allocation of transactions. As well as cumulative transactions the criteria must be recorded for allocation and re-allocation and any other information for compliance with Section 81 of Royal Decree 217/2008.

     – Reports. Records of reports on risk management, internal auditing and legislative compliance, in accordance with Sections 29 (Risk management) and 31.2 (Responsibility of senior management) of Royal Decree 217/2008.

     – Financial instruments. Records of financial instruments and of financial instruments available for or subject to securities financing, in accordance with Sections 39 (Protection of client assets), 40 (Custodianship of client financial instruments) and 42.1 (Deposit of client funds) of Royal Decree 217/2008. These records must contain any information necessary to permit entities to distinguish the assets of each client from their own. These records must also identify financial instruments covered by the Investment Guarantee Fund.

– Complaint management. Record of complaints or claims received from clients and the measures or decisions taken to resolve them.

2) Consistently with the recommendations of the CESR, which suggest flexible application by the competent authorities in each State such that they can establish records beyond those recommended, two additional records have been added in Spain:

– register of confirmations, which must contain information regarding the content of transactions executed and unconnected with portfolio management; and

– register of representative relationships, which must record agreements, mandates, documents, correspondence, invoices as well as the documentation evidencing the verification carried out of compliance by the agent with the requirements laid down by Section 65 bis 2 of the Securities Market Act (integrity, knowledge and experience).

In summary, the list of records contained in the Resolution is essential for compliance, amongst others, with the requirements of internal organisation, client protection obligations and rules of conduct, and their maintenance constitutes an effective instrument for reconstructing facts, data, information and actions relating to the services and activities of undertakings which provide investment services. The obligations imposed in this field take into account the organisational structure of entities and the nature and complexity of their activities.

5 Implications of the new UCITS Directive on recording obligations of management companies

Given the importance of collective investment as investment alternative for small savers, it is worthwhile considering the implications of the recent Directive 2009/65/EC in relation to the keeping and requirements of records and which, as indicated, consolidates the previous directives regarding UCITS. Amongst aspects, the new text provides for regulation of the organisational requirements which all UCITS management companies must comply with (Chapter III, Section 3) which, as mentioned in Article 12.1.a), must have a good administrative and accounting organisation, with control and security mechanisms for electronic data processing and adequate internal control procedures which enable a guarantee at least that each transaction connected with UCITS can be reconstructed in relation to its origin, the parties involved, its nature and the time and place when it took place.

In Article 12.3 the Directive required the European Commission to approve measures specifying the procedures and provisions to which this obligation relates. The Commission asked the CESR to issue a report on the possible measures which could be adopted in this respect. After submitting its proposal for public consultation, on 28 October 2009 the CESR published its report on measures applicable to organisational requirements of UCITS management companies,[10] which includes a section on electronic data processing and recording requirements.

The measures proposed by the CESR are aimed at ensuring that each transaction carried out within a UCITS can be reconstructed in accordance with its origin, nature,

10 Consultation on CESR's technical advice at level 2 on the format and content of Key Information Document disclosures for UCITS (Ref. CESR/09-552).

the parties involved and the time and place when the transaction was executed. The CESR divides these measures into three blocks: (i) recording requirements, (ii) electronic data processing, and (iii) recording subscription and repayment orders. The contents of these measures are summarised below:

- **Recording requirements.** Management companies must, for each transaction carried out in relation to a UCITS, immediately record sufficient information in order to be able to reconstruct each order and its execution in detail, including, amongst others: the name of the UCITS and identity of the person acting on its behalf, the identity of the securities and their quantity, the type of transaction, the price, exact date and time of the transaction, and the reasons for the transaction as the case may be.
- **Electronic data processing.** Management companies must have the necessary infrastructure to process data electronically in accordance with the nature and volume of their activity. This infrastructure must ensure full security, integrity and confidentiality of the information processed and recorded.
- **Record of subscription and repayment orders.** The CESR advises management companies to record subscription and repayment orders from investors electronically, including a specific true record of their terms and conditions. The information contained in this record must be harmonised and include the identity of the investor and of the UCITS together with the liquidating value applicable to the order and any other relevant information regarding it. This information must insofar as possible be centralised such that the procedures for avoiding bad practice such as late trading and market timing can be based on these records.

Incorporation of this report into European legislation, as indicated in the said Article 12.3 of the Directive, must take place by the European Commission prior to 1 July 2011, on which date both the revised text of the UCITS and Level 2 measures contemplated therein must come into force and effect.

IV Legislative Annex

New legislation promulgated since publication of the CNMV bulletin for the third quarter of 2009 was as follows, in chronological order:

- **Resolution of 7 October 2009** of the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores) on minimum records to be maintained by undertakings which provide investment services.

  This Resolution contains a list of the records which must be maintained by undertakings which provide investment services, published pursuant to Section 32.1 of Royal Decree 217/2008, on the legal regime of investment services firms. It will be the undertakings themselves in any event, however, which must analyse whether the records proposed are sufficient, firstly to facilitate due compliance with the obligations imposed on them by current legislation, and secondly in order that the supervisory authority can duly carry out its work, and they may not consequently rely on maintenance of the records contained in this Resolution to exonerate themselves from the liability which may result from them being insufficient or inadequate based on the particular characteristics of each undertaking.

  The Resolution provides for the following records: activity and organisation, clients, contracts, assessment of suitability, evaluation of desirability, orders, transactions, confirmations, cumulative transactions, periodic statements, client financial instruments, client cash, publicity communications, investment reports, conflicts of interest, legislative compliance reports, risk management and internal auditing, claims management, listed prices, personal transactions, information on incentives, investment advice, representative relationships, and compliance procedures.

- **Act 11/2009, of 26 November,** regulating Listed Real Estate Market Investment Companies.

  This Act introduces into our legal system the concept of Listed Real Estate Market Investment Companies (*sociedades anónimas cotizadas de inversión en el mercado inmobiliario* – SOCIMIs), inspired by the foreign regime of REITS (Real Estate Investment Trusts). Its aim is to promote the real estate rental market and the real estate market as a whole in general.

  SOCIMIs are companies whose principal activity is direct or indirect investment in real estate assets of an urban nature for rental, including both dwellings and commercial premises, care homes, hotels, garages and offices, amongst others. In order to allow indirect investment SOCIMIs are allowed to participate in other SOCIMIs or in undertakings which fulfil the minimum requirements for investment and distribution of profits laid down for them, whether or not resident in Spanish territory or listed or otherwise on regulated markets. The obligation is laid down that these undertakings systematically must distribute a very high percentage of the profits which they obtain.

  A special tax regime is established for them, pursuant to which they will be taxed at a rate of 18% on distributed profits, provided that at least 80% of their assets are invested in urban real estate devoted to leasing and acquired in full ownership or through holdings in companies which fulfil the same investment and profit distribution requirements. If the member is an individual he or she will have a tax exemption on the income from dividends received from the SOCIMIs. Nevertheless, by way of exception to the general tax regime for transactions in

securities, the transfer of shares in SOCIMIs is not exempt from the asset transfer mode of the Tax on Asset Transfers and Stamp Duty (*Impuesto sobre transmisiones patrimoniales y actos jurídicos documentados*).

- **Circular 4/2009, of 4 November,** of the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores), on communication of relevant information.

  The Circular implements the powers granted to the CNMV by the Ministerial Order on relevant information, which in turn implements Section 82 of the Securities Market Act, all legislation relating to the conduct of issuers when communicating relevant information to investors.

  Up to now undertakings have been sending relevant events and other communications based on the content of the information which is communicated; as from now the possibility disappears of sending the information through the "Other Communications" procedure, since the sending of information must be adapted to cases which can have a significant influence on the quotation of a security.

  The form and procedure for making these communications is also established and a direct real time communications channel introduced between the issuer and the CNMV, through the figure of the "interlocutor", who must be appointed by issuer undertakings before 12 December 2009, and who will facilitate provision of relevant information to the public immediately and with a certain, complete and clear content, and whenever possible quantified. Issuers must preferably make their communications through a remote system.

  Provision is made for the modification of relevant events already notified and, on an exceptional basis, the possibility of eliminating the communication of a relevant event. The Circular also incorporates a non-exhaustive list for guidance of possible relevant events.

- **Act 16/2009, of 13 November,** on payment services.

  This legislation guarantees that payments made in the ambit of the European Union, specifically transfers, direct debits and payment transactions made by card, can be carried out with the same ease, efficiency and security as the internal national payments of Member States, and that it is also possible to operate with a single current account throughout the territory of the European Union. It also requires greater speed in payment transactions within the European Union such that in general they must be completed within a period of one business day.

  In addition, it also regulates the information requirements and rules for protection of payment service users, and in particular the person ordering a payment transaction will only partially bear losses deriving from unauthorised payment transactions resulting from the use of a stolen or removed payment instrument, meeting losses solely in a maximum amount of 150 euros. A rule is introduced as a new feature that in every provision of payment services which does not include conversion into foreign currencies, the expenses will be shared between person ordering and beneficiary.

The legislation also establishes a new type of authorised entity for the provision and execution of payment services: payment entities, for which capital requirements are established and their supervision by the Bank of Spain and a list of permitted activities, which exclude capturing repayable funds from the public.

In other respects, this Act also introduces other legislative amendments. In particular, of Act 211/1964, of 24 December, on regulation of the issue of debentures by companies which have not adopted the form of a joint stock company, association or other legal entity and creation of the Bondholders' Syndicate can be highlighted, in order that this legislation is not applicable to the issuers of securities of public undertakings to which the regime of State Debt extends. Various insolvency aspects are also regulated, regarding maintenance of contractual set-off agreements.

- **Regulation (EC) 839/2009, of the Commission, of 15 September 2009,** amending Regulation (EC) 1126/2008 adoption certain international accounting standards in accordance with Regulation (EC) 1606/2002 of the European Parliament and Council, as regards International Accounting Standard (IAS) 39.

  This Regulation incorporates various modifications into European Union Law promulgated by the International Accounting Standards Board (IASB) in relation to IAS 39. These modifications deal with various questions regarding application of hedging accounting to the inflation component of financial instruments and to option agreements when used as hedging instruments.

- **Directive 2009/65/EC of the European Parliament and Council, of 13 July 2009,** on the coodination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS).

  This legislation replaces Directive 85/611/EEC of the Council, of 20 December 1985, on collective investment undertakings (CIUs) after a long review process which has taken as background publication of the European Commission Green Paper on investment funds (2005) and White Paper on investment funds and impact assessments (2006).

  One of the main objectives of the Directive is to eliminate obstacles to the commercialisation of CIUs in other Member States, since the 1985 notification procedure often turned out to be long and inflexible, with frequent imposition by the authority of the host State of stricter requirements than those established in the Directive. The approach adopted in this Directive consists of implementing the necessary and sufficient basic harmonisation to ensure mutual recognition of authorisation and prudential supervision systems, making the grant possible of a single authorisation valid throughout the European Union, with supervisory powers given to the State of origin. In order to avoid regulatory and supervisory arbitrage, however, the precaution is adopted that the host State can refuse authorisation of a CIU when it is not authorised to commercialise holdings in it in its State of origin. The possibility remains for the Member State of origin to establish stricter rules than those contained in the Directive for undertakings supervised by it.

  Another major objective of the Directive consists of promoting an increase in the size of CIUs in order to take advantage of the economies of scale and cost reductions which this brings about for investors. The regulation of cross-border

mergers of CIUs or the possibility of a CIU investing its assets in another CIU known as principal CIU (entity pooling or principal-subordinate structures) must be interpreted in this respect, being exempt from the general prohibition on investing more than 10%, or 20% as the case may be, of their assets in a single CIU.

Thirdly, the Directive also pursues the objective of management companies being able to manage CIUs in another Member State without the need to create management companies in each Member State.

Finally, it must also be emphasised that the aim of the Directive is that the simplified prospectus of CIUs be shorter and less complex and that its preparation by entities is also quicker and less onerous.

- **Directive 2009/101/EC of the European Parliament and Council, of 16 September 2009,** on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent.

  This legal text simply consolidates Directive 68/151/EEC of the Council, of 9 March 1968, updating the text with the modifications which have been made to it since its promulgation. It is applicable to civil or mercantile undertakings and also to cooperatives and other legal public or private law entities, except for those which are non-profit making.

- **Directive 2009/102/EC of the European Parliament and Council, of 16 September 2009,** on company law on single-member limited liability companies.

  This legal text is limited to consolidating Directive 89/667/EEC of the Council, of 21 December 1989, in the field of company law limited liability companies with a single member, updating the text with the modifications made to it since its promulgation.

- **Directive 2009/109/EC of the European Parliament and Council, of 16 September 2009,** amending Council Directives 77/91/EEC, 78/855/EEC and 82/891/EEC, and Directive 2005/56/EC as regards reporting and documentation requirements in the case of mergers and divisions.

  This legislation is set in the context of an initiative by the European Commission to reduce the administrative burdens falling on European Union companies to the minimum necessary. In particular, the Directive relates to mergers and demergers of companies, both cross-border mergers and demergers of Directive 2005/56/EC of the European Parliament and Council, and to domestic mergers and demergers.

  Together with other aspects already provided for in our domestic law, it provides that the websites of companies or other websites can be an alternative to the public registries of companies for the purpose of complying with information obligations which are required of these structural modifications. The Directive must be transposed into domestic law before 30 June 2011.

- **Directive 2009/111/EC of the European Parliament and Council, of 16 September 2009,** amending Directives 2006/48/EC, 2006/49/EC and 2007/64/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management.

  The own funds requirements of credit institutions and investment services firms are regulated. The principal modifications proposed are as follows:

  — Regulation of risk concentration limits is harmonised.

  — The supervision of cross-border banking groups is improved. Colleges of supervisors are created for banking groups which operate in several EU countries. The powers and responsibilities of national supervisory authorities are clarified and their cooperation made more effective.

  — The regulation is improved of the quality of own funds of banks, particularly in relation to "hybrid" instruments. For the purpose of solvency regulation a distinction is made between instruments which do not have the same ranking as ordinary shares during liquidation or which do not absorb losses in normal situations with the same ranking from ordinary shares.

  — Various adaptations are made relating to liquidity risk management.

  — The risk management of securitized instruments is improved. Companies which assign their assets in the securitization process will have to retain part of the risk associated with these securities, whilst companies which invest in them will have to show due diligence and sufficiently inform themselves, or otherwise will be subjected to heavy capital penalties.

  — The obligation is introduced in the Community sphere, in force in our internal legal system, for financial institutions to create anti-cyclical "cushions" in boom times which can be used during recession phases.

  — In order to guarantee financial stability, the European Commission is entrusted, in relation to Credit Default Swaps, with strengthening the transparency of extra-stock exchange markets and attenuate counterparty risks through the creation of central counterparties subject to prudential rules and effective supervision.

- **Regulation (EC) 1060/2009 of the European Parliament and Council, of 16 September 2009**, on credit rating agencies.

  The European Union has regulated credit rating agencies given the role which they play in financial decision-making by investors, issuers, borrowers and public authorities, and given the importance that these undertakings reflect deterioration in market conditions in their ratings with sufficient promptness. The Regulation therefore has the objective that the activities of credit rating agencies take place in accordance with the principles of integrity, transparency, responsibility and good governance.

  To this end, the legislation has adopted several measures. Firstly, it provides that engaging in auxiliary activities by credit rating agencies must not compromise the independence or integrity of their credit rating agency activities. In particular, they are not authorised to provide consultancy or advisory services nor can they make proposals or recommendations regarding the configuration of a structured financing instrument. These entities are also required to guarantee the independence of part of the members of their management or supervisory

bodies without the remuneration of these independent members being linked to the results of the entity. In order to avoid the drawbacks deriving from prolonged relationships with entities rated, mechanisms are also imposed for rotating analysts and responsible persons of credit rating agencies.

In addition, a central register is created at European level in which these agencies must be registered and which must also contain information on their prior performance and the credit ratings issued by them in the past. The credit rating agencies which have been registered by the competent authority of one Member State must be authorised to issue ratings throughout the European Union, with their supervision lying with the Member State of origin. Furthermore, a system of endorsement is introduced which permits credit rating agencies established in the European Union and registered in accordance with this Regulation to endorse credit ratings issued in third countries.

Thirdly, the Regulation provides that credit rating agencies must publicise information regarding the methods, models and fundamental hypotheses which they use in their credit rating activities, although it must be indicated that the Regulation rules out any type of interference by supervisory authorities in the content of the ratings or the methodologies used.

V Statistics Annex

1 Markets

1.1 Equity

Share issues and public offerings[1]

TABLE 1.1

	2006	2007	2008	2008 IV	2009 I	II	III	IV[2]
CASH VALUE[3] (Million euro)	29,436.3	69,955.5	16,349.3	9,199.5	5,932.0	2,060.2	1,080.0	763.6
Capital increases	26,977.4	67,887.0	16,339.7	9,199.5	5,932.0	2,060.2	1,080.0	763.6
Of which, primary offerings	644.9	8,502.7	292.0	0.0	0.0	0.0	0.0	0.0
With Spanish tranche	302.9	4,821.3	292.0	0.0	0.0	0.0	0.0	0.0
With international tranche	342.0	3,681.4	0.0	0.0	0.0	0.0	0.0	0.0
Secondary offerings	2,458.9	2,068.5	9.5	0.0	0.0	0.0	0.0	0.0
With Spanish tranche	1,568.2	1,517.1	9.5	0.0	0.0	0.0	0.0	0.0
With international tranche	890.7	551.4	0.0	0.0	0.0	0.0	0.0	0.0
NOMINAL VALUE (Million euro)	1,272.9	6,441.5	1,835.8	946.0	970.4	596.8	142.0	126.3
Capital increases	1,154.1	6,358.4	1,835.7	946.0	970.4	596.8	142.0	126.3
Of which, primary offerings	51.3	1,122.9	100.0	0.0	0.0	0.0	0.0	0.0
With Spanish tranche	17.6	676.0	100.0	0.0	0.0	0.0	0.0	0.0
With international tranche	33.7	446.9	0.0	0.0	0.0	0.0	0.0	0.0
Secondary offerings	118.7	83.2	0.1	0.0	0.0	0.0	0.0	0.0
With Spanish tranche	75.7	46.0	0.1	0.0	0.0	0.0	0.0	0.0
With international tranche	43.0	37.1	0.0	0.0	0.0	0.0	0.0	0.0
NO. OF FILES[4]	86	100	54	19	9	14	10	12
Capital increases	77	91	53	19	9	14	10	12
Of which, primary offerings	8	8	2	0	0	0	0	0
Of which, bonus issues	20	19	18	8	1	3	9	9
Secondary offerings	14	12	2	0	0	0	0	0
NO. OF ISSUERS[4]	58	57	39	16	8	9	8	10
Capital increases	53	52	38	16	8	9	8	10
Of which, primary offerings	6	6	2	0	0	0	0	0
Secondary offerings	10	8	2	0	0	0	0	0

1 Includes registered offerings with issuance prospectuses and listings admitted to trading without register issuance prospectuses.
2 Available data: November 2009.
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	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
PRIMARY OFFERINGS	644.9	8,502.7	292.0	0.0	0.0	0.0	0.0	0.0
Spanish tranche	303.0	4,646.2	282.0	0.0	0.0	0.0	0.0	0.0
Private subscribers	8.7	2,841.0	191.5	0.0	0.0	0.0	0.0	0.0
Institutional subscribers	294.3	1,805.2	90.5	0.0	0.0	0.0	0.0	0.0
International tranche	342.0	3,681.4	0.0	0.0	0.0	0.0	0.0	0.0
Employees	0.0	175.2	10.0	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	2,458.8	2,068.5	9.5	0.0	0.0	0.0	0.0	0.0
Spanish tranche	1,565.0	1,505.7	9.5	0.0	0.0	0.0	0.0	0.0
Private subscribers	390.0	393.9	0.0	0.0	0.0	0.0	0.0	0.0
Institutional subscribers	1,175.0	1,111.8	9.5	0.0	0.0	0.0	0.0	0.0
International tranche	890.7	551.4	0.0	0.0	0.0	0.0	0.0	0.0
Employees	3.1	11.4	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: November 2009.

Companies listed[1]

TABLE 1.3

	2006	2007	2008	2008 IV	2009 I	II	III	IV[2]
Total electronic market[3]	135	143	136	136	136	136	133	133
Of which, without Nuevo Mercado	124	142	136	136	136	136	133	133
Of which, Nuevo Mercado	11	1	0	0	0	0	0	0
Of which, foreign companies	6	5	5	5	5	5	5	5
Second Market	12	11	8	8	8	8	7	7
Madrid	2	2	2	2	2	2	2	2
Barcelona	9	9	6	6	6	6	5	5
Bilbao	0	0	0	0	0	0	0	0
Valencia	1	0	0	0	0	0	0	0
Open outcry ex SICAV	38	31	29	29	29	29	29	29
Madrid	16	13	13	13	13	13	13	13
Barcelona	24	20	19	19	19	19	19	19
Bilbao	10	9	8	8	8	8	8	8
Valencia	13	9	7	7	7	6	6	6
Open outcry SICAV	744	8	3	3	3	3	2	1
MAB[4]	2,405	3,287	3,347	3,347	3,322	3,296	3,277	3,263
Latibex	34	34	35	35	33	34	34	33

1 Data at the end of period.
2 Available data: November 2009.
3 Without ETF (Exchange Traded Funds).
4 Alternative Stock Market.

Capitalisation[1]

TABLE 1.4

Million euro	2006	2007	2008	2008 IV	2009 I	II	III	IV[2]
Total electronic market[3]	813,765.1	892,053.8	531,194.2	531,194.2	435,027.6	534,519.3	623,810.3	613,151.3
Of which, without Nuevo Mercado	800,148.0	891,875.7	531,194.2	531,194.2	435,027.6	534,519.3	623,810.3	613,151.3
Of which, Nuevo Mercado	13,617.1	178.1	0.0	0.0	0.0	0.0	0.0	0.0
Of which, foreign companies[4]	105,600.9	134,768.6	61,317.5	61,317.5	52,843.4	68,600.4	80,146.3	80,731.5
Ibex 35	512,828.0	524,651.0	322,806.6	322,806.6	276,053.0	334,760.9	401,655.7	398,074.1
Second Market	392.7	286.8	109.9	109.9	76.1	82.4	82.9	81.1
Madrid	18.9	27.8	22.8	22.8	21.4	23.0	24.9	25.1
Barcelona	184.2	259.0	87.1	87.1	54.7	59.4	58.0	56.0
Bilbao	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valencia	189.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Open outcry ex SICAV	7,905.3	7,444.9	5,340.7	5,340.7	4,438.8	4,142.7	4,278.8	4,099.3
Madrid	2,698.1	1,840.6	1,454.7	1,454.7	1,225.5	968.6	1,091.0	1,049.3
Barcelona	4,966.3	4,627.8	3,580.2	3,580.2	2,808.5	2,898.7	3,501.8	3,287.5
Bilbao	59.5	108.2	45.9	45.9	45.9	45.9	338.9	429.6
Valencia	741.9	1,206.5	760.4	760.4	792.1	467.4	526.9	534.5
Open outcry SICAV[5]	9,284.1	245.4	155.0	126.8	106.9	125.1	94.3	27.5
MAB[5,6]	29,866.3	41,659.8	35,520.2	24,718.6	24,020.8	24,896.2	26,318.9	26,092.7
Latibex	271,641.8	427,773.6	287,188.9	287,188.9	319,943.1	436,745.3	490,861.9	401,676.9

1 Data at the end of period.
2 Available data: November 2009.
3 Without ETF (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	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
Total electronic market[2]	1,144,562.9	1,653,354.8	1,228,392.4	249,638.7	182,762.4	223,468.1	214,547.9	174,377.2
Of which, without Nuevo Mercado	1,118,546.1	1,627,369.5	1,228,380.9	249,638.7	182,762.4	223,468.1	214,547.9	174,377.2
Of which, Nuevo Mercado	26,016.8	25,985.3	11.4	0.0	0.0	0.0	0.0	0.0
Of which, foreign companies	11,550.3	7,499.3	1,407.1	265.7	418.7	1,141.5	1,616.9	1,117.8
Second Market	49.3	192.9	31.7	1.2	1.2	1.4	0.2	0.4
Madrid	7.2	8.9	3.4	1.1	0.3	1.1	0.2	0.4
Barcelona	41.6	182.3	28.3	0.1	0.9	0.3	0.0	0.0
Bilbao	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valencia	0.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Open outcry ex SICAV	737.6	792.7	182.1	63.0	12.3	24.0	6.1	5.7
Madrid	257.9	236.1	73.9	3.7	5.1	8.3	1.8	0.9
Barcelona	297.8	402.8	103.6	59.1	6.9	10.3	3.2	4.8
Bilbao	159.9	0.1	0.1	0.1	0.0	0.0	1.1	0.0
Valencia	22.0	153.8	4.5	0.1	0.3	5.4	0.0	0.0
Open outcry SICAV	4,580.6	361.6	25.3	9.6	7.2	3.0	7.9	1.4
MAB[3]	1,814.2	6,985.2	7,060.3	2,041.8	1,177.5	1,109.4	1,248.8	953.5
Latibex	723.3	868.2	757.7	116.4	89.4	115.2	110.1	62.2

1 Available data: November 2009.
2 Without ETF (Exchange Traded Funds).
3 Alternative Stock Market.

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

TABLE 1.6

Million euro	2006	2007	2008	2008 IV	2009 I	II	III	IV[2]
Regular trading	1,080,117.5	1,577,249.5	1,180,835.9	241,955.6	178,078.6	207,873.9	204,427.1	166,631.8
Orders	658,839.2	985,087.6	774,718.1	159,841.1	117,321.9	130,334.7	122,153.3	92,728.1
Put-throughs	105,910.7	155,085.1	105,673.9	18,800.1	11,402.0	12,739.6	12,043.7	10,798.6
Block trades	315,367.7	437,076.8	300,443.9	63,314.4	49,354.7	64,799.6	70,230.1	63,105.2
Off-hours	11,651.6	18,301.5	10,175.2	2,148.1	79.9	284.1	1,379.4	2,723.2
Authorised trades	4,052.0	4,189.6	3,183.2	1,300.5	752.6	2,710.4	443.6	859.3
Art. 36.1 SML trades	6,439.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tender offers	18,094.6	26,284.3	17,461.2	0.0	0.0	7,085.4	100.0	0.0
Public offerings for sale	3,264.0	11,177.4	292.0	0.0	0.0	1,325.0	0.0	12.5
Declared trades	10,347.9	2,954.4	1,066.8	177.3	594.4	205.2	4,394.0	9.0
Options	8,279.8	10,240.4	9,661.9	2,938.7	1,695.1	2,731.1	1,953.7	1,868.9
Hedge transactions	2,315.7	2,957.8	5,716.3	1,118.5	1,561.8	1,253.0	1,850.1	2,272.5

1 Without ETF (Exchange Traded Funds).
2 Available data: November 2009.

Margin trading for sales and securities lending

TABLE 1.7

Million euro	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
TRADING								
Securities lending[2]	550,850.4	835,326.9	583,950.8	109,281.2	82,710.3	118,161.0	111,062.6	115,950.9
Margin trading for sales of securities[3]	379.9	555.4	624.9	150.8	168.0	202.7	180.6	111.1
Margin trading for securities purchases[3]	511.9	411.3	154.7	33.2	25.2	27.7	32.0	14.1
OUTSTANDING BALANCE								
Securities lending[2]	62,058.2	79,532.9	43,647.8	43,647.8	36,825.4	42,636.4	42,993.7	45,033.0
Margin trading for sales of securities[3]	73.6	112.4	20.7	20.7	24.7	38.3	63.1	22.1
Margin trading for securities purchases[3]	70.1	59.4	7.0	7.0	3.6	4.5	7.4	7.3

1 Available data: November 2009.
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			
	2006	2007	2008	IV	I	II	III	IV[2]
NO. OF ISSUERS	159	173	179	75	62	88	58	46
Mortgage covered bonds	11	10	19	5	16	6	11	12
Territorial covered bonds	5	4	7	1	0	1	0	0
Non-convertible bonds and debentures	46	41	30	9	14	38	22	20
Convertible bonds and debentures	1	0	1	1	0	1	2	1
Backed securities	61	77	88	34	21	24	15	8
Commercial paper	68	80	77	29	20	16	11	12
Of which, asset-backed	3	3	2	1	0	1	0	1
Of which, non-asset-backed	65	77	75	28	20	15	11	11
Other fixed-income issues	0	2	0	0	0	0	0	0
Preference shares	9	5	8	1	6	15	8	1
NO. OF ISSUES	336	335	337	107	111	180	103	61
Mortgage covered bonds	37	32	47	8	31	11	13	13
Territorial covered bonds	6	8	8	1	0	1	0	0
Non-convertible bonds and debentures	115	79	76	29	31	106	51	25
Convertible bonds and debentures	1	0	1	1	0	1	3	2
Backed securities	82	101	108	37	21	26	16	8
Commercial paper	84	107	88	29	20	16	11	12
Of which, asset-backed	3	3	2	1	0	1	0	1
Of which, non-asset-backed	81	104	86	28	20	15	11	11
Other fixed-income issues	0	3	0	0	0	0	0	0
Preference shares	11	5	9	2	8	19	9	1
NOMINAL AMOUNT (Million euro)	523,131.4	648,757.0	476,275.7	133,726.6	116,426.5	130,128.7	66,721.8	48,159.1
Mortgage covered bonds	44,250.0	24,695.5	14,300.0	1,245.0	10,473.9	10,175.0	3,870.0	9,980.0
Territorial covered bonds	5,150.0	5,060.0	1,820.0	800.0	0.0	500.0	0.0	0.0
Non-convertible bonds and debentures	46,687.5	27,416.0	10,489.6	1,926.9	15,492.0	28,248.9	6,138.1	8,654.2
Convertible bonds and debentures	68.1	0.0	1,429.1	1,429.1	0.0	300.0	2,200.0	700.0
Backed securities	91,607.7	141,627.0	135,252.5	60,473.0	27,358.5	31,035.3	12,956.3	3,975.2
Spanish tranche	30,885.7	94,049.0	132,730.1	60,473.0	27,358.5	28,483.9	11,750.6	3,575.2
International tranche	60,722.1	47,578.0	2,522.4	0.0	0.0	2,551.5	1,205.7	400.0
Commercial paper[3]	334,457.0	442,433.5	311,738.5	66,852.7	61,552.2	49,696.5	40,340.4	24,829.7
Of which, asset-backed	1,992.7	464.8	2,843.1	2,568.1	1,333.9	1,226.7	952.8	1,045.0
Of which, non-asset-backed	332,464.3	441,968.7	308,895.4	64,284.6	60,218.3	48,469.8	39,387.6	23,784.7
Other fixed-income issues	0.0	7,300.0	0.0	0.0	0.0	0.0	0.0	0.0
Preference shares	911.0	225.0	1,246.0	1,000.0	1,550.0	10,173.0	1,217.0	20.0
Pro memoria:								
Subordinated issues	27,361.5	47,158.3	12,949.5	7,119.6	8,484.3	5,571.2	4,679.0	1,327.1
Underwritten issues	92,213.5	86,161.1	9,169.5	928.1	0.0	2,559.0	1,450.0	500.0

1 Includes issuance and trading prospectuses.
2 Available data: November 2009.
3 The figures for commercial paper refer to the amount placed in the year.

Issues admitted to trading on AIAF

TABLE 1.9

				2008	2009			
Nominal amount in million euro	2006	2007	2008	IV	I	II	III	IV[1]
Total	507,525.3	640,096.2	476,710.4	120,809.0	126,940.2	112,139.7	80,868.2	46,896.7
Commercial paper	332,328.4	439,787.3	314,417.4	65,221.2	63,663.5	49,459.9	41,194.3	24,374.6
Bonds and debentures	45,155.4	30,006.9	10,040.3	1,490.6	15,358.6	25,239.7	9,304.6	7,947.2
Mortgage covered bonds	43,720.0	27,195.5	14,150.0	1,480.0	10,623.9	7,925.0	5,820.0	9,250.0
Territorial covered bonds	2,650.0	7,450.0	1,930.0	800.0	0.0	500.0	0.0	0.0
Backed securities	83,042.5	135,149.5	135,926.6	51,817.3	35,794.3	26,211.9	16,041.6	4,583.0
Preference shares	629.0	507.0	246.0	0.0	1,500.0	2,803.2	8,507.7	742.0
Matador bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1 Available data: November 2009.

AIAF. Issuers, issues and outstanding balance

TABLE 1.10

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
NO. OF ISSUERS	438	492	556	556	585	611	624	626
Commercial paper	69	73	72	72	73	72	70	69
Bonds and debentures	80	92	93	93	95	104	105	105
Mortgage covered bonds	14	14	22	22	25	25	26	28
Territorial covered bonds	5	7	11	11	11	11	11	11
Backed securities	257	316	383	383	409	425	439	441
Preference shares	46	50	52	52	53	57	60	60
Matador bonds	20	15	12	12	12	12	12	12
NO. OF ISSUES	3,681	4,314	4,639	4,639	4,487	4,334	4,218	4,109
Commercial paper	2,242	2,493	2,489	2,489	2,206	1,926	1,696	1,558
Bonds and debentures	398	445	450	450	460	526	577	587
Mortgage covered bonds	83	111	146	146	175	181	192	197
Territorial covered bonds	11	19	26	26	26	25	25	25
Backed securities	856	1157	1436	1,436	1,528	1,577	1,624	1,632
Preference shares	65	71	78	78	78	85	90	96
Matador bonds	26	18	14	14	14	14	14	14
OUTSTANDING BALANCE[2] (Million euro)	588,942.3	758,559.8	819,637.7	819,637.7	851,854.3	874,640.9	887,608.4	881,049.0
Commercial paper	70,778.6	98,467.6	71,762.2	71,762.2	68,065.3	57,337.7	54,560.4	48,512.8
Bonds and debentures	131,107.8	139,586.3	122,001.9	122,001.9	125,691.2	138,770.0	143,761.9	148,436.8
Mortgage covered bonds	129,710.0	150,905.5	162,465.5	162,465.5	171,439.4	178,166.9	183,686.9	189,314.4
Territorial covered bonds	9,525.0	16,375.0	17,030.0	17,030.0	17,030.0	16,030.0	16,030.0	16,030.0
Backed securities	222,866.1	328,924.6	422,010.7	422,010.7	444,611.0	456,646.7	454,922.0	444,512.3
Preference shares	23,115.6	23,062.6	23,308.6	23,308.6	23,958.6	26,630.7	33,588.4	33,183.8
Matador bonds	1,839.2	1,238.2	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8	1,058.8

1 Available data: November 2009.
2 Nominal amount.

AIAF. Trading

TABLE 1.11

Nominal amount in million euro	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
BY TYPE OF ASSET	910,493.9	1,127,477.7	2,521,040.1	975,625.6	1,198,410.3	1,505,457.8	946,141.6	611,571.9
Commercial paper	489,069.5	568,009.6	591,943.8	167,322.0	166,493.3	130,286.2	125,139.0	72,285.1
Bonds and debentures	82,421.1	87,035.7	80,573.8	17,674.7	35,260.3	94,118.5	83,499.1	67,352.7
Mortgage covered bonds	70,113.5	80,811.2	129,995.3	23,439.6	52,026.3	101,235.5	59,334.2	38,029.9
Territorial covered bonds	3,659.1	7,749.8	10,142.3	3,484.9	3,308.9	1,535.1	1,584.0	539.7
Backed securities	257,628.9	378,005.2	1,704,341.8	762,280.4	939,890.0	1,176,736.3	675,114.4	432,410.5
Preference shares	4,647.8	4,492.4	4,030.0	1,419.6	1,399.2	1,535.8	1,470.9	951.8
Matador bonds	2,954.1	1,373.8	13.2	4.4	32.3	10.4	0.0	2.2
BY TYPE OF TRANSACTION	910,493.9	1,127,477.7	2,521,040.1	975,625.6	1,198,410.3	1,505,457.8	946,141.6	611,571.9
Outright	386,368.8	416,477.9	387,897.1	104,266.6	107,411.4	120,106.9	64,565.1	60,182.4
Repos	330,839.9	441,362.7	381,505.0	99,100.6	98,632.7	85,740.8	94,429.8	54,040.1
Sell-buybacks/Buy-sellbacks	193,285.1	269,637.1	1,751,638.0	772,258.4	992,366.3	1,299,610.1	787,146.7	497,349.4

1 Available data: November 2009.

AIAF. Third-party trading. By purchaser sector

TABLE 1.12

Nominal amount in million euro	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
Total	702,608.8	837,308.5	744,652.5	194,739.0	188,576.5	186,777.9	148,153.9	107,139.6
Non-financial companies	260,108.1	364,490.6	285,044.4	64,374.3	73,858.5	72,117.7	60,996.6	31,559.5
Financial institutions	247,876.4	282,816.9	334,851.6	97,617.7	85,276.1	77,035.9	63,803.2	48,005.4
Credit institutions	83,999.1	99,492.0	130,056.0	41,816.2	37,024.9	43,243.2	17,547.5	19,056.0
IIC[2], insurance and pension funds	145,911.5	152,429.2	154,709.8	36,255.0	31,537.2	23,311.1	31,404.8	18,858.7
Other financial institutions	17,965.8	30,895.6	50,085.8	19,546.5	16,714.0	10,481.7	14,850.9	10,090.6
General government	7,058.9	7,762.4	6,331.2	2,233.1	2,622.8	1,018.1	1,267.5	601.2
Households and NPISHs[3]	23,675.9	28,534.8	13,344.0	3,126.5	4,082.5	2,506.6	2,026.9	3,993.7
Rest of the world	163,889.4	153,703.8	105,081.2	27,387.4	22,736.6	34,099.6	20,059.7	22,979.8

1 Available data: November 2009.
2 IIC: 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

				2008		2009		
	2006	2007	2008	III	IV	I	II	III[2]
NOMINAL AMOUNTS (Million euro)	1,928.1	9,020.3	3,390.6	738.0	1,310.8	0.0	500.0	3,700.0
Non-convertible bonds and debentures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Convertible bonds and debentures	68.1	0.0	0.0	0.0	1,310.8	0.0	500.0	2,700.0
Backed securities	1,860.0	2,020.3	3,390.6	738.0	0.0	0.0	0.0	1,000.0
Others	0.0	7,000.0	0.0	0.0	0.0	0.0	0.0	0.0
NO. OF ISSUES	22	16	33	9	1	0	1	6
Non-convertible bonds and debentures	0	0	0	0	0	0	0	0
Convertible bonds and debentures	1	0	0	0	1	0	1	2
Backed securities	21	15	33	9	0	0	0	4
Others	0	1	0	0	0	0	0	0

1 Private issuers. Includes issuance and trading prospectuses.
2 Available data: November 2009.

Equity markets. Issuers, issues and outstanding balances

TABLE 1.14

				2008	2009			
	2006	2007	2008	IV	I	II	III	IV[1]
NO. OF ISSUERS	57	53	58	58	59	58	58	60
Private issuers	40	40	45	45	46	45	45	47
Non-financial companies	10	6	5	5	7	7	6	6
Financial institutions	30	34	40	40	39	38	39	41
General government[3]	17	13	13	13	13	13	13	13
Regional governments	3	3	3	3	3	3	3	3
NO. OF ISSUES	264	249	271	271	273	265	263	267
Private issuers	131	133	157	157	155	150	149	153
Non-financial companies	18	12	9	9	11	11	10	10
Financial institutions	113	121	148	148	144	139	139	143
General government[3]	133	116	114	114	118	115	114	114
Regional governments	89	83	82	82	87	82	80	79
OUTSTANDING BALANCES[2] (Million euro)	17,105.4	25,654.7	29,142.6	29,142.6	30,804.3	31,829.4	31,571.0	36,214.3
Private issuers	6,784.3	14,958.1	17,237.9	17,237.9	18,299.1	17,908.5	17,914.3	21,403.1
Non-financial companies	492.1	452.5	381.0	381.0	1,691.7	1,691.7	1,691.7	1,689.1
Financial institutions	6,292.2	14,505.6	16,856.9	16,856.9	16,607.4	16,216.8	16,222.6	19,714.1
General government[3]	10,321.1	10,696.6	11,904.7	11,904.7	12,505.1	13,920.9	13,656.7	14,811.2
Regional governments	8,319.8	8,862.6	9,972.5	9,972.5	10,573.6	11,978.2	11,577.3	12,624.3

1 Available data: November 2009.
2 Nominal amount.
3 Without public book-entry debt.

Trading on equity markets

TABLE 1.15

				2008	2009			
Nominal amounts in million euro	2006	2007	2008	IV	I	II	III	IV[1]
Electronic market	257.3	444.8	1,580.1	487.0	64.8	150.5	138.1	219.4
Open outcry	5,009.9	7,154.3	7,842.1	1,188.8	182.1	634.2	299.6	1,071.2
Madrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Barcelona	4,879.6	7,040.1	7,674.9	1,131.9	146.9	601.4	273.5	1,053.0
Bilbao	24.8	7.5	6.1	0.8	2.6	0.7	0.6	0.3
Valencia	105.5	106.7	161.1	56.1	32.7	32.1	25.5	17.9
Public book-entry debt	35.6	33.6	46.2	18.9	14.3	14.0	11.2	7.3
Regional governments debt	84,443.6	84,178.3	71,045.0	17,798.7	18,666.5	19,367.6	16,815.4	10,714.5

1 Available data: November 2009.

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

TABLE 1.16

				2008	2009			
Nominal amounts in million euro	2006	2007	2008	IV	I	II	III	IV[1]
Total	263,170.3	174,046.3	132,327.4	15,351.2	41,915.2	38,433.8	55,827.0	42,075.8
Outright	180,471.0	134,147.0	89,010.5	6,627.5	11,685.5	15,644.0	36,141.0	35,069.0
Sell-buybacks/Buy-sellbacks	82,110.3	39,899.3	43,316.9	8,723.7	30,229.7	22,789.8	19,211.0	6,524.8
Others	589.0	0.0	0.0	0.0	0.0	0.0	475.0	482.0

1 Available data: November 2009.

1.3 Derivatives and other products

1.3.1 Financial derivatives markets: MEFF

Trading on MEFF

TABLE 1.17

Number of contracts	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
Debt products	15	13	12	2	6	4	4	0
Debt futures[2]	15	13	12	2	6	4	4	0
Ibex 35 products[3,4]	7,119,853	9,288,909	8,433,963	1,936,368	1,520,980	1,663,403	1,503,939	1,009,035
Ibex 35 plus futures	6,408,961	8,435,258	7,275,299	1,643,742	1,330,851	1,461,307	1,321,524	918,706
Ibex 35 mini futures	159,830	286,574	330,042	88,747	70,698	88,829	85,642	51,107
Call mini options	288,542	227,535	323,874	80,383	56,410	60,400	59,988	16,710
Put mini options	262,521	339,542	504,749	123,497	63,021	52,868	36,785	22,512
Stock products[5]	33,655,790	34,887,808	64,554,817	17,297,456	21,082,892	22,320,897	20,467,870	9,645,178
Futures	21,229,811	21,294,315	46,237,568	10,936,605	13,024,306	14,386,553	11,674,200	2,563,472
Call options	7,664,125	6,775,525	7,809,423	2,979,971	3,689,989	4,025,150	5,103,159	4,164,198
Put options	4,761,854	6,817,968	10,507,826	3,380,880	4,368,597	3,909,194	3,690,511	2,917,508
Pro-memoria: MEFF trading on Eurex								
Debt products[6]	1,117,956	1,059,113	869,105	173,444	157,746	171,829	90,935	52,896
Index products[7]	1,423,441	1,371,250	1,169,059	276,397	286,512	211,834	128,087	81,920

1 Available data: November 2009.
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

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
WARRANTS[2]								
Premium amount (Million euro)	5,143.1	8,920.3	12,234.4	2,820.6	1,950.5	522.9	1,439.7	737.6
On stocks	3,697.6	6,215.1	6,914.1	1,417.0	1,074.8	251.0	755.6	379.7
On indexes	1,064.9	2,311.2	4,542.8	1,160.6	628.4	198.0	559.3	322.0
Other underlyings[3]	380.6	394.0	777.5	243.0	247.3	73.9	124.9	35.9
Number of issues	4,063	7,005	9,790	2,548	2,516	1,111	2,099	844
Number of issuers	8	7	8	6	6	6	9	3
OPTION BUYING AND SELLING CONTRACTS								
Nominal amounts (Million euro)	206.8	151.0	77.0	0.0	0.0	0.0	0.0	15.0
On stocks	196.2	145.0	77.0	0.0	0.0	0.0	0.0	15.0
On indexes	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other underlyings[3]	10.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of issues	12	9	4	0	0	0	0	1
Number of issuers	4	3	1	0	0	0	0	1

1 Available data: November 2009.
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

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
WARRANTS								
Trading (Million euro)	2,907.4	5,129.6	2,943.7	665.1	491.3	488.2	407.0	279.6
On Spanish stocks	1,805.3	3,200.7	1,581.9	364.1	222.7	213.2	210.4	137.5
On foreign stocks	293.3	474.2	145.7	17.5	22.3	21.4	21.1	13.8
On indexes	695.6	1,376.6	1,063.3	233.4	208.7	233.2	158.9	112.4
Other underlyings[2]	113.1	78.1	152.8	50.1	37.6	20.4	16.5	15.9
Number of issues[3]	4,284	7,837	9,770	4,151	3,655	3,451	3,086	2,658
Number of issuers[3]	9	9	10	9	9	9	10	10
CERTIFICATES								
Trading (Million euro)	58.8	49.8	16.8	3.9	7.6	8.5	13.4	7.9
Number of issues[3]	15	14	26	20	21	16	16	16
Number of issuers[3]	5	5	4	4	4	2	2	2
ETF								
Trading (Million euro)	-	4,664.5	6,938.1	1,643.0	604.3	916.6	856.9	788.9
Number of funds	-	21	30	30	30	31	32	32
Assets[4] (Million euro)	-	885.8	1,630.3	1,630.1	1,523.0	1,443.9	1,510.5	n.a.

1 Available data: November 2009.
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	2006	2007	2008	2008 IV	2009 I	II	III	IV[2]
On olive oil								
Extra-virgin olive oil futures[3]	35,079	46,405	48,091	12,365	29,615	36,455	42,310	17,345

1 Olive oil futures market.
2 Available data: November 2009.
3 Nominal amount of the contract: 1,000 kg.

2 Investment services

Investment services. Spanish firms, branches and agents

TABLE 2.1

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
BROKER-DEALERS								
Spanish firms	47	46	51	51	50	50	50	50
Branches	108	102	83	83	78	78	77	77
Agents	6,610	6,657	6,041	6,041	5,840	5,930	5,991	5,994
BROKERS								
Spanish firms	57	53	50	50	49	49	49	49
Branches	11	12	9	9	8	9	9	9
Agents	589	625	638	638	682	645	629	619
PORTFOLIO MANAGEMENT COMPANIES								
Spanish firms	15	11	10	10	10	9	9	9
Branches	4	4	4	4	5	5	5	5
Agents	5	6	6	6	6	5	5	5
FINANCIAL ADVISORY FIRMS[2]								
Spanish firms	-	-	-	-	-	3	6	12
CREDIT INSTITUTIONS[3]								
Spanish firms	204	201	195	195	196	196	194	194

1 Available data: November 2009.
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

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
Total	1,321	1,766	2,222	2,222	2,270	2,300	2,363	2,360
European Economic Area investment services firms	973	1,394	1,808	1,808	1,849	1,878	1,945	1,937
Branches	22	29	36	36	35	35	36	36
Free provision of services	951	1,365	1,772	1,772	1,814	1,843	1,909	1,901
Credit institutions[2]	348	372	414	414	421	422	418	423
From EU member states	339	363	405	405	411	412	408	413
Branches	44	52	56	56	54	54	54	53
Free provision of services	294	310	348	348	356	357	353	359
Subsidiaries of free provision of services	1	1	1	1	1	1	1	1
From non-EU states	9	9	9	9	10	10	10	10
Branches	8	8	8	8	8	8	8	8
Free provision of services	1	1	1	1	2	2	2	2

1 Available data: November 2009.
2 Source: Banco de España and CNMV.

Intermediation of spot transactions[1]

TABLE 2.3

Million euro	III 2008				III 2009			
	Spanish organised markets[2]	Other Spanish markets	Foreign markets	Total	Spanish organised markets	Other Spanish markets	Foreign markets	Total
FIXED-INCOME								
Total	5,557	2,152,306	369,162	2,527,025	127,746	2,368,841	223,570	2,720,157
Broker-dealers	5,085	265,006	45,982	316,073	110,024	45,070	33,270	188,364
Brokers	472	1,887,300	323,180	2,210,952	17,722	2,323,771	190,300	2,531,793
EQUITY								
Total	497,609	958	21,004	519,571	198,067	1,278	14,852	214,197
Broker-dealers	471,786	817	18,367	490,970	184,200	1,092	12,815	198,107
Brokers	25,823	141	2,637	28,601	13,867	186	2,037	16,090

1 Period accumulated data.
2 For this period, it refers only to Spanish Stock Exchange.

Intermediation of derivative transactions[1,2]

TABLE 2.4

Million euro	III 2008				III 2009			
	Spanish organised markets	Foreign organised markets	Non-organised markets	Total	Spanish organised markets	Foreign organised markets	Non-organised markets	Total
Total	188,804	1,742,662	830,446	2,761,912	747,306	1,417,180	507,142	2,671,628
Broker-dealers	168,709	1,434,880	86,847	1,690,436	708,031	1,222,386	26,152	1,956,569
Brokers	20,095	307,782	743,599	1,071,476	39,275	194,794	480,990	715,059

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

	III 2008			III 2009		
	Total	IIC[2]	Other[3]	Total	IIC[2]	Other[3]
NUMBER OF PORTFOLIOS						
Total	14,460	122	14,338	12,678	86	12,592
Broker-dealers	7,959	30	7,929	6,723	14	6,709
Brokers	3,455	57	3,398	3,380	41	3,339
Portfolio management companies	3,046	35	3,011	2,575	31	2,544
ASSETS UNDER MANAGEMENT (Thousand euro)						
Total	10,424,926	987,598	9,437,328	8,201,101	597,875	7,603,226
Broker-dealers	4,527,698	204,978	4,322,720	3,194,579	104,123	3,090,456
Brokers	2,451,981	553,315	1,898,666	2,159,902	297,870	1,862,032
Portfolio management companies	3,445,247	229,305	3,215,942	2,846,620	195,882	2,650,737

1 Data at the end of period.
2 IIC: Instituciones de Inversión Colectiva / CIS: Collective Investment Schemes.
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.

Aggregated income statement. Broker-dealers[1]

TABLE 2.6

Thousand euro[2]	2006	2007	2008	2008 IV	2009 I	II	III	IV[3]
I. Financial income	17,325	-29,968	109,682	109,682	54,459	98,211	132,653	145,866
II. Net commission	775,377	893,803	674,204	674,204	132,918	263,558	389,667	430,779
Commission revenues		1,181,772	943,619	943,619	187,315	393,081	578,824	642,850
Brokering	629,952	775,418	648,036	648,036	130,572	274,327	404,912	453,595
Placement and underwriting	73,278	62,145	42,502	42,502	12,301	21,567	23,616	23,659
Securities deposit and recording	22,367	25,351	21,198	21,198	4,224	7,911	11,993	13,374
Portfolio management	23,883	29,649	17,306	17,306	2,673	4,858	7,403	8,272
Design and advising	55,918	65,083	56,671	56,671	9,528	28,642	43,552	47,627
Stocks search and placement	0	9	12	12	6	6	6	10
Market credit transactions	33	23	19	19	4	10	11	12
IIC subscription and redemption	141,312	138,481	91,167	91,167	13,970	27,509	44,368	49,637
Other	62,346	85,613	66,708	66,708	14,036	28,251	42,963	46,664
Commission expenses	233,712	287,969	269,415	269,415	54,397	129,523	189,157	212,071
III. Net income from securities trading[4]	92,719	-239,572	800,194	800,194	36,623	51,163	56,609	35,399
IV. Net exchange differences and other operating products and expenses	109,130	486,643	-626,527	-626,527	-38,326	383	1,697	28,740
V. Gross income	994,551	1,110,906	957,553	957,553	185,674	413,315	580,626	640,784
VI. Operating income	490,336	587,354	434,209	434,209	79,440	185,957	210,563	238,018
VII. Earnings from continuous activities	430,651	540,390	365,374	365,374	88,475	173,295	264,988	294,163
VIII. Net earnings of the period	430,651	540,390	367,665	367,665	88,475	173,295	264,988	294,163

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: October 2009.
4 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[1]

TABLE 2.7

	Total		Financial income		Securities portfolio[3]		Exchange differences and other[4]	
Thousand euro[2]	III 2008	III 2009	III 2008	III 2009	III 2008	III 2009	III 2008	III 2009
Total	666,078	188,746	53,300	132,653	1,140,505	56,609	-527,727	-516
Money market assets and public debt	5,694	5,605	7,611	622	-1,917	4,983	-	-
Other fixed-income securities	77,162	-167,267	53,237	65,677	23,925	-232,944	-	-
Domestic portfolio	71,090	-164,236	51,784	63,936	19,306	-228,172	-	-
Foreign portfolio	6,072	-3,031	1,453	1,741	4,619	-4,772	-	-
Equities	-524,531	820,408	50,338	67,455	-574,869	752,953	-	-
Domestic portfolio	-147,675	242,917	16,283	41,806	-163,958	201,111	-	-
Foreign portfolio	-376,856	577,491	34,055	25,649	-410,911	551,842	-	-
Derivatives	1,709,089	-461,173	-	-	1,709,089	-461,173	-	-
Repurchase agreements	-11,717	-19,522	-11,717	-19,522	-	-	-	-
Market credit transactions	0	1	0	1	-	-	-	-
Deposits and other transactions with financial Intermediaries	-68,334	1,694	-68,334	1,694	-	-	-	-
Net exchange differences	-511,353	-8,426	-	-	-	-	-511,353	-8,426
Other operating products and expenses	n.a.	10,123	-	-	-	-	n.a.	10,123
Other transactions	-9,932	7,303	22,165	16,726	-15,723	-7,210	-16,374	-2,213

1 From IV quarter 2008 on data come from information sent to the CNMV by investment services companies (ESI) 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 Securities portfolio income does not include provisions for losses in value of securities portfolio, nor their recovering and application.
4 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.
n.a.: No available data.

Aggregated income statement. Brokers[1]

TABLE 2.8

Thousand euro[2]	2006	2007	2008	2008 IV	2009 I	II	III	IV[3]
I. Financial income	12,934	14,395	7,980	7,980	1,060	1,679	2,301	2,355
II. Net commission	233,447	237,403	149,874	149,874	30,688	63,582	93,005	103,175
Commission revenues	297,030	310,892	172,344	172,344	34,647	72,250	105,442	116,860
Brokering	114,111	131,976	62,345	62,345	15,132	30,001	41,786	46,234
Placement and underwriting	3,183	2,501	4,847	4,847	307	1,081	1,148	1,185
Securities deposit and recording	1,520	1,680	676	676	73	166	343	371
Portfolio management	28,672	27,457	21,137	21,137	3,956	9,284	14,067	15,514
Design and advising	2,360	2,224	4,962	4,962	486	1,033	1,535	1,892
Stocks search and placement	0	0	0	0	0	0	0	0
Market credit transactions	0	0	10	10	0	3	10	16
IIC subscription and redemption	68,513	74,918	31,287	31,287	5,004	9,943	15,993	19,035
Other	78,671	70,136	47,081	47,081	9,688	20,740	30,560	32,614
Commission expenses	63,583	73,489	22,470	22,470	3,959	8,668	12,437	13,685
III. Net income from securities trading[4]	3,841	2,212	-1,176	-1,176	-364	26	265	371
IV. Net exchange differences and other operating products and expenses	-282	-407	3,526	3,526	90	-289	-986	-1,043
V. Gross income	249,940	253,603	160,204	160,204	31,474	64,998	94,585	104,858
VI. Operating income	85,744	85,423	20,377	20,377	-1,252	1,843	4,376	4,962
VII. Earnings from continuous activities	62,449	86,017	14,372	14,372	-1,775	125	3,725	4,380
VIII. Net earnings of the period	62,449	86,017	14,372	14,372	-1,775	125	3,725	4,380

1 From IV quarter 2008 on data come from information sent to the CNMV by investment services companies (ESI) 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: October 2009.
4 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 2.9

Thousand euro[2]	2006	2007	2008	2008 IV	2009 I	II	III	IV[3]
I. Financial income	895	1,442	1,482	1,482	163	247	305	324
II. Net commission	15,195	15,501	12,044	12,044	2,632	5,175	7,964	8,778
Commission revenues	27,625	27,340	23,877	23,877	5,416	10,653	16,237	17,912
Portfolio management	22,068	24,239	20,683	20,683	4,683	8,995	13,634	15,084
Design and advising	4,951	2,614	2,484	2,484	595	1,316	2,141	2,325
IIC subscription and redemption	261	34	66	66	5	7	9	11
Other	345	453	644	644	134	335	453	492
Commission expenses	12,430	11,839	11,833	11,833	2,784	5,479	8,273	9,134
III. Net income from securities trading[4]	15	96	-108	-108	-53	25	91	85
IV. Net exchange differences and other operating products and expenses	-14	-37	-418	-418	-119	-247	-308	-328
V. Gross income	16,091	17,002	13,000	13,000	2,624	5,200	8,051	8,859
VI. Operating income	5,937	6,896	1,157	1,157	277	508	1,150	1,204
VII. Earnings from continuous activities	4,112	4,837	765	765	112	291	836	870
VIII. Net earnings of the period	4,112	4,837	765	765	112	291	836	870

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: October 2009.
4 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 2.10

	Surplus		Number of companies according to its surplus percentage									
Thousand euro	Total amount	%[3]	< 50[4]	<100	<150	<200	<300	<400	<500	<750	<1000	>1000
Total	1,517,756	341.56	13	18	15	13	13	8	5	12	4	7
Broker-dealers	1,424,207	370.33	1	5	6	4	11	6	4	6	1	6
Brokers	70,104	154.18	11	12	7	6	2	2	1	5	3	0
Portfolio management companies	23,445	163.88	1	1	2	3	0	0	0	1	0	1

1 Available data: September 2009.
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.
4 Includes companies which have not sent information.

Return on equity (ROE) before taxes[1]

TABLE 2.11

		Number of companies according to its annualized return								
	Average[2]	Losses	0-5%	6-15%	16-30%	31-45%	46-60%	61-75%	76-100%	>100%
Total	19.83	30	16	25	14	9	4	2	2	6
Broker-dealers	20.95	12	8	11	6	7	1	0	1	4
Brokers	7.33	16	7	12	6	2	1	2	1	2
Portfolio management companies	4.41	2	1	2	2	0	2	0	0	0

1 Available data: September 2009.
2 Average weighted by equity, %.

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

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

TABLE 3.1

				2008	2009			
	2006	2007	2008	IV	I	II	III	IV[1]
Total financial IIC	6,006	6,296	6,354	6,354	6,294	6,168	6,050	5,948
Mutual funds	2,850	2,954	2,943	2,943	2,898	2,808	2,705	2,625
Investment companies	3,149	3,290	3,347	3,347	3,330	3,294	3,278	3,258
Funds of hedge funds	2	31	40	40	40	40	40	38
Hedge funds	5	21	24	24	26	26	27	27
Total real estate IIC	17	18	18	18	18	17	16	16
Real estate investment funds	9	9	9	9	9	8	8	8
Real estate investment companies	8	9	9	9	9	9	8	8
Total foreign IIC marketed in Spain	340	440	563	563	566	555	577	577
Foreign funds marketed in Spain	164	225	312	312	313	309	327	321
Foreign companies marketed in Spain	176	215	251	251	253	246	250	256
Management companies	114	120	120	120	120	120	121	122
IIC depositories	132	126	125	125	125	125	124	124

1 Available data: November 2009.

a IIC: 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 2009-II Bulletin on, hedge funds and funds of hedge funds data is shown on table 3.12.
e From December 2008 on, foreign collective investments schemes shareholders and total net assets data do not include exchange traded funds (ETF).

Number of IIC investors and shareholders

TABLE 3.2

				2008	2009			
	2006	2007	2008	IV	I	II	III	IV[1]
Total financial IIC	9,048,184	8,487,205	6,358,730	6,358,730	6,053,408	5,924,375	5,878,213	5,863,661
Mutual funds	8,637,781	8,053,049	5,923,346	5,923,346	5,626,786	5,497,753	5,461,473	5,458,082
Investment companies	410,403	434,156	435,384	435,384	426,622	426,622	416,740	405,579
Total real estate IIC	151,053	146,353	98,327	98,327	96,222	90,398	88,832	88,675
Real estate investment funds	150,304	145,510	97,390	97,390	95,284	89,461	87,903	87,746
Real estate investment companies	749	843	937	937	938	937	929	929
Total foreign IIC marketed in Spain	779,165	850,931	587,032	587,032	510,695	n.a.	n.a.	-
Foreign funds marketed in Spain	144,139	142,782	99,873	99,873	75,486	n.a.	n.a.	-
Foreign companies marketed in Spain	635,026	708,149	487,159	487,159	435,209	n.a.	n.a.	-

1 Available data: October 2009. Real estate investment companies and foreign IIC send this information quarterly.
n.a.: No available data.

IIC total net assets

TABLE 3.3

				2008	2009			
Million euro	2006	2007	2008	IV	I	II	III	IV[1]
Total financial IIC	300,559.0	286,522.4	200,522.2	200,522.2	192,776.1	191,25.0	195,352.4	194,387.7
Mutual funds[2]	270,406.3	255,040.9	175,865.3	175,865.3	168,829.4	167,133.5	169,458.4	169,471.2
Investment companies	30,152.7	31,481.5	24,641.6	24,641.6	23,946.7	24,791.5	25,894.0	24,916.5
Total real estate IIC	9,052.0	9,121.4	7,778.8	7,778.8	7,127.2	6,907.9	6,807.3	6,820.4
Real estate investment funds	8,595.9	8,608.5	7,406.9	7,406.9	6,758.1	6,547.2	6,494.3	6,508.7
Real estate investment companies	456.1	512.9	371.9	371.9	369.1	360.7	313.0	311.7
Total foreign IIC marketed in Spain	44,102.8	37,092.7	18,181.3	18,181.3	14,639.3	n.a.	n.a.	-
Foreign funds marketed in Spain	12,099.3	7,010.3	2,245.5	2,245.5	1,661.8	n.a.	n.a.	-
Foreign companies marketed in Spain	32,003.5	30,082.4	15,935.8	15,935.8	12,977.6	n.a.	n.a.	-

1 Available data: October 2009. Real estate investment companies and foreign IIC send this information quarterly.
2 For July 2009, mutual funds investments in financial IIC reached 7.8 billion euro.
n.a.: No available data.

Mutual funds asset allocation[1]

TABLE 3.4

				2008		2009		
Million euro	2006	2007	2008	III	IV	I	II	III[2]
Asset	270,406.3	255,040.9	175,865.3	197,305.6	175,865.3	168,829.4	167,161.0	169,458.4
Cash[3]	10,462.4	15,413.5	19,374.7	20,578.7	19,374.7	18,374.5	19,338.4	19,165.5
Portfolio investment	260,002.9	239,266.6	155,897.8	176,239.7	155,897.8	150,295.6	147,751.2	150,189.8
Domestic securities	127,355.4	134,564.1	96,498.7	105,007.9	96,498.7	92,798.9	88,597.4	89,458.7
Shares	13,806.8	11,550.1	4,022.3	5,501.0	4,022.3	3,264.8	3,743.8	4,453.7
Mutual funds units	17,322.8	18,662.1	10,134.3	13,587.1	10,134.3	9,037.4	8,300.8	8,123.9
Public money market assets	2,887.7	2,206.6	7,985.5	4,488.8	7,985.5	10,219.9	10,120.8	8,374.3
Other public fixed-income	9,891.6	8,708.7	5,940.0	6,334.9	5,940.0	7,723.1	8,161.6	10,618.8
Private money market assets	28,483.2	37,486.9	16,276.4	30,277.3	16,276.4	14,233.7	15,526.0	15,012.1
Other private fixed-income	23,105.3	24,251.5	23,665.5	20,885.2	23,665.5	22,503.2	20,749.5	22,616.8
Spanish warrants and options	603.3	553.2	411.2	309.7	411.2	373.8	395.9	488.7
Repos	31,229.4	31,144.9	28,062.7	23,623.7	28,062.7	25,441.4	21,597.7	19,769.0
Unlisted securities	25.4	0.2	1.0	0.2	1.0	1.5	1.3	1.3
Foreign securities	132,647.4	104,702.5	59,399.1	71,231.8	59,399.1	57,496.7	59,153.8	60,731.1
Euros	118,664.1	94,085.1	56,364.7	66,423.8	56,364.7	54,720.7	55,845.6	56,740.7
Shares	11,418.0	10,771.3	3,313.2	4,588.6	3,313.2	2,627.5	3,361.6	4,206.5
Mutual fund units	23,414.2	13,029.8	2,783.9	5,021.6	2,783.9	2,479.4	2,673.3	3,297.0
Fixed-income	78,933.4	65,972.8	49,300.6	55,158.9	49,300.6	48,759.6	49,080.5	48,458.5
Foreign warrants and options	4,898.7	4,311.2	966.9	1,654.6	966.9	854.2	730.1	778.7
Unlisted securities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	13,983.3	10,617.4	3,034.4	4,808.0	3,034.4	2,776.0	3,308.2	3,990.4
Shares	7,343.0	5,960.3	1,920.7	3,104.1	1,920.7	1,747.1	2,034.4	2,448.6
Mutual fund units	5,491.5	3,894.6	740.5	1,337.3	740.5	674.4	908.2	1,146.5
Fixed-income	1,011.7	631.1	337.0	336.4	337.0	333.1	351.3	383.8
Foreign warrants and options	136.0	130.5	36.1	30.2	36.1	21.3	14.2	11.4
Unlisted securities	1.2	0.9	0.0	0.0	0.0	0.0	0.0	0.2
Net balance (Debtors - Creditors)	-58.9	360.8	592.8	487.2	592.8	159.3	71.5	103.1

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.
2 Provisional data.
3 Includes portfolio deposits.

Investment companies asset allocation

TABLE 3.5

Million euro	2006	2007	2008	2008 III	2008 IV	2009 I	2009 II	2009 III[1]
Asset	30,152.7	31,481.5	24,656.9	27,143.2	24,656.9	23,946.7	24,791.5	25,894.0
Cash[2]	802.2	1,182.2	2,433.6	2,759.1	2,433.6	2,426.3	2,566.9	2,666.5
Portfolio investment	29,294.1	30,037.4	21,965.7	24,131.2	21,997.9	21,334.1	22,001.6	23,153.3
Domestic securities	15,553.8	17,075.3	14,763.4	15,391.9	14,792.0	13,794.2	13,298.1	12,804.6
Shares	6,727.3	6,173.6	3,214.3	3,756.6	3,238.6	2,602.0	2,888.1	3,387.2
Mutual funds units	1,095.0	1,362.3	1,108.8	1,216.1	1,108.8	1,125.6	1,151.8	1,171.2
Public money market assets	463.4	382.8	359.8	403.9	359.8	416.1	272.4	177.0
Other public fixed-income	678.2	710.2	705.0	559.9	705.0	678.4	748.2	717.5
Private money market assets	555.4	1,568.6	1,149.1	2,102.8	1,149.1	891.0	814.4	592.4
Other private fixed-income	554.8	620.8	1,359.6	943.7	1,359.6	1,402.4	1,168.5	1,263.0
Spanish warrants and options	19.7	22.1	4.0	23.0	8.3	6.7	8.0	7.6
Repos	5,459.1	6,234.1	6,862.1	6,382.2	6,862.1	6,671.0	6,245.7	5,487.9
Unlisted securities	0.8	0.8	0.6	3.9	0.6	1.0	1.0	0.9
Foreign securities	13,740.3	12,962.2	7,202.4	8,739.3	7,205.9	7,539.9	8,703.5	10,348.7
Euros	9,847.7	9,413.7	5,697.6	6,568.0	5,702.9	6,191.3	7,012.9	8,263.2
Shares	3,379.9	3,367.7	1,245.8	1,633.1	1,250.3	1,072.4	1,384.6	1,899.9
Mutual fund units	4,169.1	3,826.1	1,858.2	2,419.5	1,858.2	1,767.4	1,813.8	1,962.8
Fixed-income	2,041.5	2,006.7	2,510.2	2,369.1	2,510.2	3,291.5	3,754.7	4,326.8
Foreign warrants and options	257.2	213.1	81.5	146.2	82.4	59.6	59.5	73.5
Unlisted securities	0.0	0.0	1.9	0.0	1.9	0.5	0.5	0.2
Other	3,892.6	3,548.5	1,504.8	2,171.3	1,502.9	1,348.6	1,690.5	2,085.5
Shares	2,104.7	1,752.2	766.6	1,101.1	769.9	725.7	932.4	1,201.1
Mutual fund units	1,517.7	1,600.6	628.3	945.6	628.3	474.5	585.5	675.6
Fixed-income	234.8	183.2	102.6	111.9	102.6	138.2	154.5	181.1
Foreign warrants and options	11.3	12.5	7.1	12.7	1.9	10.0	18.0	27.5
Unlisted securities	24.1	0.0	0.1	0.0	0.1	0.2	0.1	0.2
Net balance (Debtors - Creditors)	56.4	261.8	257.6	252.9	225.4	186.2	222.9	74.2

1 Provisional data.
2 Includes portfolio deposits.

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

TABLE 3.6

	2006	2007	2008	2008	2009			
				IV	I	II	III	III[2]
NO. OF FUNDS								
Total financial mutual funds	2,822	2,926	2,912	2,912	2,830	2,735	2,628	2,599
Fixed-income[3]	606	600	629	629	631	612	598	585
Mixed fixed-income[4]	212	204	195	195	193	190	171	170
Mixed equity[5]	222	207	202	202	191	181	174	169
Euro equity[6]	232	247	237	237	235	193	185	181
Foreign equity[7]	353	357	330	330	304	271	252	248
Guaranteed fixed-income	220	251	260	260	249	253	241	246
Guaranteed equity[8]	559	590	590	590	586	610	593	585
Global funds	418	470	469	469	441	208	193	193
Passive management[9]	-	-	-	-	-	69	69	69
Absolute return[9]	-	-	-	-	-	148	152	153
INVESTORS								
Total financial mutual funds	8,637,781	8,053,049	5,923,346	5,923,346	5,626,786	5,498,325	5,461,473	5,458,082
Fixed-income[3]	2,960,879	2,763,442	2,204,652	2,204,652	2,145,607	2,067,091	2,044,082	2,036,853
Mixed fixed-income[4]	524,827	493,786	277,629	277,629	247,833	241,097	254,599	267,935
Mixed equity[5]	357,013	331,214	209,782	209,782	194,064	187,244	184,985	183,384
Euro equity[6]	615937	577,522	377,545	377,545	339,285	270,079	277,093	278,773
Foreign equity[7]	959,875	800,556	467,691	467,691	431,575	419,928	434,299	443,733
Guaranteed fixed-income	497,540	549,108	538,799	538,799	525,387	540,428	550,041	550,088
Guaranteed equity[8]	1,783,867	1,715,144	1,402,948	1,402,948	1,339,367	1,339,321	1,271,266	1,247,498
Global funds	937,843	822,277	444,300	444,300	403,668	96,581	79,288	84,383
Passive management[9]	-	-	-	-	-	91,738	97,399	94,772
Absolute return[9]	-	-	-	-	-	244,818	268,421	270,663
TOTAL NET ASSETS (Million euro)								
Total financial mutual funds	270,406.3	255,040.8	175,865.2	175,865.2	168,829.1	167,160.9	169,458.4	169,471.2
Fixed-income[3]	116,511.9	113,234.1	92,813.1	92,813.1	91,472.9	86,711.3	85,935.6	85,977.3
Mixed fixed-income[4]	15,314.5	13,011.9	5,803.0	5,803.0	5,282.6	5,421.8	6,322.4	7,118.3
Mixed equity[5]	10,149.2	8,848.0	3,958.8	3,958.8	3,301.7	3,480.1	3,812.4	3,769.3
Euro equity[6]	18,258.5	16,589.7	5,936.9	5,936.9	4,778.1	4,945.9	6,094.1	5,886.6
Foreign equity[7]	16,957.5	13,948.0	4,256.6	4,256.6	3,808.7	4,108.3	5,020.9	5,140.4
Guaranteed fixed-income	14,484.8	17,674.4	21,281.6	21,281.6	20,952.0	21,664.1	21,322.7	21,003.8
Guaranteed equity[8]	44,796.6	42,042.1	30,742.4	30,742.4	29,433.3	29,120.6	27,835.8	27,168.2
Global funds	33,933.3	29,692.6	11,072.8	11,072.8	9,799.8	3,350.7	3,400.4	3,516.5
Passive management[9]	-	-	-	-	-	2,714.5	3,066.3	3,020.9
Absolute return[9]	-	-	-	-	-	5,643.6	6,647.7	6,869.7

1 Mutual funds that have sent reports to the CNMV (therefore mutual funds in a process of dissolution or liquidation are not included).
2 Data available: October 2009.
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[1]

TABLE 3.7

				2008	2009			
	2006	2007	2008	IV	I	II	III	IV[2]
INVESTORS	8,637,782	8,053,049	5,923,346	5,923,346	5,626,786	5,498,325	5,461,473	5,458,082
Individuals	8,389,302	7,814,633	5,753,966	5,753,966	5,465,873	5,343,778	5,309,003	5,305,915
Residents	8,292,252	7,721,427	5,677,116	5,677,116	5,391,902	5,271,331	5,238,302	5,236,362
Non-residents	97,050	93,206	76,850	76,850	73,971	72,447	70,701	69,553
Legal entities	248,480	238,416	169,380	169,380	160,913	154,547	152,470	152,167
Credit Institutions	1,603	2,235	1,713	1,713	705	689	673	638
Other resident Institutions	244,977	234,376	166,041	166,041	158,816	152,453	150,398	150,501
Non-resident Institutions	1,900	1,805	1,626	1,626	1,392	1,405	1,399	1028
TOTAL NET ASSETS (Million euro)	270,406.3	255,041.0	175,865.3	175,865.3	168,829.4	167,152.8	169,458.4	169,471.2
Individuals	201,408.2	190,512.2	135,754.1	135,754.1	132,447.7	131,667.2	133,194.9	132,735.1
Residents	198,328.1	187,746.8	133,877.8	133,877.8	130,481.7	129,704.0	131,331.5	130,900.0
Non-residents	3,080.1	2,765.4	1,876.2	1,876.2	1,966.0	1,963.2	1,863.4	1,835.1
Legal entities	68,998.1	64,528.7	40,111.3	40,111.3	36,381.7	35,485.6	36,263.5	36,736.1
Credit Institutions	5,296.2	5,721.0	4,193.0	4,193.0	2,339.4	2,319.6	2,455.5	2,386.1
Other resident Institutions	61,646.2	56,974.4	34,738.0	34,738.0	33,151.7	32,275.4	32,833.8	33,332.7
Non-resident Institutions	2,055.7	1,833.3	1,180.3	1,180.3	890.5	890.6	974.1	1,017.3

1 Hedge funds and funds of hedge funds are not included.
2 Available data: October 2009.

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

TABLE 3.8

				2008		2009		
Million euro	2006	2007	2008	III	IV	I	II	III
SUBSCRIPTIONS								
Total financial mutual funds	194,787.4	180,943.1	135,461.7	23,917.5	31,077.6	23,902.8	24,085.5	28,762.9
Fixed-income	118,705.9	116,323.9	101,909.7	17,342.5	24,475.2	18,299.3	15,572.6	19,696.6
Mixed fixed-income	8,476.6	5,859.4	1,914.5	239.0	739.4	361.9	515.0	1,081.7
Mixed equity	2,783.6	2,749.8	1,350.2	272.4	192.9	71.0	156.3	541.5
Euro equity	10,273.7	9,625.7	2,858.0	461.621	576.2	362.1	489.3	589.2
Foreign equity	12,979.0	11,408.2	3,309.6	621.78	336.1	390.8	598.4	775.0
Guaranteed fixed-income	6,126.2	9,161.3	11,937.0	2,692.4	2,974.9	3,180.6	3,783.2	2,544.8
Guaranteed equity	8,914.1	8,070.6	6,544.7	1,549.5	785.4	636.5	1,369.3	1,683.7
Global funds	26,528.3	17,744.2	5,638.0	738.3	997.5	600.6	971.5	389.4
Passive management	-	-	-	-	-	-	62.1	204.4
Absolute return	-	-	-	-	-	-	567.8	1,256.4
REDEMPTIONS								
Total financial mutual funds	198,600,20	202,827,10	202,864,10	39,372.1	49,397.6	30,018.9	29,142.2	30,511.1
Fixed-income	127,469.1	122,178.3	124,242.9	24,503.3	32,332.9	19,963.9	19,433.2	20,090.1
Mixed fixed-income	7,048.4	7,809.6	8,136.6	1,437.2	1,946.2	806.2	549.3	576.6
Mixed equity	3,644.7	4,023.0	4,675.6	900.0	854.7	493.0	284.4	554.2
Euro equity	12,105.4	12,438.0	8,617.2	1,610	1,151.9	751.4	515.9	455.6
Foreign equity	12,210.1	14,358.4	8,657.3	1,642	965.6	506.3	592.0	457.5
Guaranteed fixed-income	5,029.3	6,430.6	9,499.1	1,785.4	3,760.4	3,587.1	3,300.3	4,046.6
Guaranteed equity	11,830.1	11,602.6	18,216.4	3,924.0	4,715.6	2,372.5	2,944.0	3,100.2
Global funds	19,263.1	23,986.6	20,819.0	3,570.2	3,670.3	1,538.5	588.0	141.6
Passive management	-	-	-	-	-	-	307.8	164.3
Absolute return	-	-	-	-	-	-	627.3	924.6

1 Estimated data.

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

TABLE 3.9

				2008		2009		
Million euro	2006	2007	2008	III	IV	I	II	III
NET SUBSCRIPTIONS/REDEMPTIONS								
Total financial mutual funds	-4,524.6	-21,877.6	-67,402.4	-15,158.3	-18,320.0	-6,116.1	-5,056.7	-1,664.9
Fixed-income	-9,423.4	-5,852.4	-22,333.2	-7,021.1	-7,857.7	-1,664.6	-3,860.6	-1,001.2
Mixed fixed-income	1,539.2	-1,942.0	-6,222.1	-1,221.8	-1,206.8	-444.3	-34.3	673.1
Mixed equity	-854.7	-1,277.0	-3,325.4	-636.4	-661.8	-422.0	-128.1	-12.3
Euro equity	-1,831.7	-2,812.2	-5,759.2	-1,654.4	-575.7	-389.3	-26.6	134.7
Foreign equity	768.9	-2,950.2	-5,347.8	-415.2	-629.5	-115.5	6.4	318.0
Guaranteed fixed-income	1,018.9	2,714.6	2,437.9	979.4	-785.5	-406.5	482.9	-1,185.7
Guaranteed equity	-3,021.1	-3,604.9	-11,671.7	-2,545.1	-3,930.2	-1,736.0	-1,574.7	-1,191.0
Global funds	7,302.1	-6,258.9	-15,181.0	-2,643.7	-2,672.8	-937.9	383.5	246.7
Passive management	-	-	-	-	-	-	-245.7	22.7
Absolute return	-	-	-	-	-	-	-59.5	330.1
RETURN ON ASSETS								
Total financial mutual funds	12,733.7	6,675.6	-11,988.0	-1,808.7	-2,945.0	-654.8	3,657.3	4,022.8
Fixed-income	2,260.2	3,082.8	1,927.7	483.4	227.3	193.4	491.6	657.9
Mixed fixed-income	606.6	287.0	-716.8	-98.4	-219.4	-66.7	184.3	229.7
Mixed equity	984.2	266.1	-1,589.0	-265.3	-506.2	-207.0	313.9	346.4
Euro equity	4,047.0	1,072.5	-5,172.6	-896.4	-1,481.7	-764.6	1,065.0	981.7
Foreign equity	1,572.0	21.0	-4,092.4	-961.6	-1,080.1	-304.2	652.6	606.0
Guaranteed fixed-income	112.3	441.5	597.6	156.2	264.5	311.6	225.4	206.0
Guaranteed equity	1,995.2	1,037.0	-1,310.4	140.2	345.1	335.9	263.9	381.2
Global funds	1,156.2	467.7	-1,632.1	-366.8	-494.5	-153.2	205.4	152.7
Passive management	-	-	-	-	-	-	193.0	330.3
Absolute return	-	-	-	-	-	-	62.2	131.0

1 Mutual funds that have sent reports to the CNMV (therefore mutual funds in a process of dissolution or liquidation are not included).

Financial mutual funds return on assets. Detail by category

TABLE 3.10

% of daily average total net assets	2006	2007	2008	2008 III	2008 IV	2009 I	2009 II	2009 III
MANAGEMENT YIELDS								
Total financial mutual funds	5.73	3.45	-4.09	-0.66	-.0,71	-0.13	2.39	2.71
Fixed-income	2.51	3.32	2.53	0.63	0.57	0.39	0.74	0.99
Mixed fixed-income	5.30	2.98	-5.75	-0.94	-1.91	-0.91	3.72	4.43
Mixed equity	11.31	4.25	-23.30	-4.36	-9.30	-5.60	9.51	9.99
Euro equity	25.15	7.04	-47.02	-9.21	-14.08	-14.44	20.00	18.78
Foreign equity	12.04	2.00	-49.55	-11.67	-20.91	-9.83	16.86	14.22
Guaranteed fixed-income	1.67	3.25	3.39	0.91	1.48	1.64	1.23	0.99
Guaranteed equity	5.86	3.65	-1.88	0.78	1.65	1.48	1.23	1.74
Global funds	4.84	2.57	-7.36	-1.90	-4.01	-1.16	4.67	5.17
Passive management	-	-	-	-	-	-	14.13	11.63
Absolute return	-	-	-	-	-	-	1.67	2.44
EXPENSES. MANAGEMENT FEE								
Total financial mutual funds	1.04	1.00	0.87	0.22	0.22	0.21	0.21	0.23
Fixed-income	0.63	0.61	0.58	0.15	0.17	0.15	0.15	0.16
Mixed fixed-income	1.21	1.13	1.14	0.30	0.29	0.29	0.29	0.31
Mixed equity	1.63	1.54	1.54	0.39	0.39	0.38	0.39	0.40
Euro equity	1.74	1.65	1.60	0.39	0.42	0.40	0.43	0.45
Foreign equity	1.86	1.79	1.69	0.41	0.42	0.39	0.44	0.45
Guaranteed fixed-income	0.75	0.62	0.49	0.13	0.14	0.13	0.14	0.15
Guaranteed equity	1.34	1.30	1.29	0.33	0.35	0.33	0.33	0.34
Global funds	1.26	1.16	1.04	0.27	0.28	0.27	0.28	0.31
Passive management	-	-	-	-	-	-	0.15	0.17
Absolute return	-	-	-	-	-	-	0.28	0.30
EXPENSES. DEPOSITORY FEE								
Total financial mutual funds	0.09	0.09	0.08	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	0.10	0.09	0.09	0.02	0.02	0.02	0.02	0.02
Mixed equity	0.11	0.10	0.11	0.03	0.03	0.03	0.03	0.03
Euro equity	0.11	0.10	0.10	0.03	0.03	0.03	0.02	0.02
Foreign equity	0.12	0.12	0.12	0.03	0.03	0.03	0.03	0.03
Guaranteed fixed-income	0.09	0.08	0.07	0.02	0.02	0.02	0.02	0.02
Guaranteed equity	0.11	0.10	0.11	0.03	0.03	0.03	0.03	0.03
Global funds	0.10	0.10	0.09	0.02	0.02	0.02	0.02	0.02
Passive management	-	-	-	-	-	-	0.02	0.02
Absolute return	-	-	-	-	-	-	0.02	0.02

Mutual fund quarterly returns. Detail by category

TABLE 3.11

In %	2006	2007	2008	2008 III	2008 IV	2009 I	2009 II	2009 III
Total financial mutual funds	5.59	2.73	-4.21	-0.79	-0.96	-0.32	2.43	2.80
Fixed-income	1.95	2.68	2.06	0.48	0.45	0.23	0.55	0.88
Mixed fixed-income	4.18	2.01	-7.14	-1.29	-2.43	-1.51	3.48	4.18
Mixed equity	10.34	2.79	-22.21	-4.73	-9.02	-5.66	9.86	10.18
Euro equity	27.33	6.05	-39.78	-10.04	-17.45	-13.02	23.34	19.76
Foreign equity	13.21	1.31	-41.71	-11.95	-20.82	-6.60	20.08	15.15
Guaranteed fixed-income	0.83	2.80	3.29	0.80	1.45	1.14	0.94	1.31
Guaranteed equity	4.66	2.46	-2.61	0.42	1.50	1.11	0.85	1.40
Global funds	4.01	1.58	-8.64	-2.17	-3.88	-1.33	4.90	5.18
Passive management	-	-	-	-	-	-	16.50	12.09
Absolute return	-	-	-	-	-	-	1.54	1.90

Hedge funds and funds of hedge funds

TABLE 3.12

	2006	2007	2008	2008		2009		
				III	IV	I	II	III[1]
HEDGE FUNDS								
Investors/shareholders	21	1,127	1,589	1,583	1,589	1,551	1,768	1,799
Total net assets (million euro)	24.4	445.8	539.4	597.7	539.4	451.4	536.9	557.4
Subscriptions (million euro)	24.4	380.8	390.4	8.2	21.6	23.5	71.6	22.2
Redemptions (million euro)	0.1	2.6	256.7	14.5	47.6	108.3	17.5	14.2
Net subscriptions/redemptions (million euro)	24.3	164.7	134.3	-6.3	-26.0	-84.8	54.1	8.0
Return on assets (million euro)	0.1	0.2	-39.1	-2.8	-30.9	2.7	25.7	14.5
Returns (%)	n.s.	0.84	-4.82	-0.29	-3.59	-0.40	8.12	2.95
Management yields (%)[2]	n.s.	0.57	-2.51	-0.31	-6.29	0.31	5.84	3.34
Management fee (%)[2]	n.s.	1.39	2.50	0.57	0.78	0.65	0.75	0.47
Financial expenses (%)[2]	n.s.	0.33	0.16	0.05	0.02	0.02	0.03	0.02
FUNDS OF HEDGE FUNDS								
Investors/shareholders	2	3,950	8,151	9,739	8,151	5,646	5577	5286
Total net assets (million euro)	0.6	1,000.6	1,021.3	1,427.5	1,021.3	775.2	709.5	678.1
Subscriptions (million euro)	0.6	1,071.2	967.3	165.9	161.5	35.5	44.70	-
Redemptions (million euro)	0.0	65.9	616.6	101.5	215.9	294.6	387.9	-
Net subscriptions/redemptions (million euro)	0.6	1,005.5	350.7	64.4	-54.4	-259.1	-343.2	-
Return on assets (million euro)	0.0	-9.6	-245.7	-29.6	-244.9	13.1	32,0	-
Returns (%)	n.s.	-0.43	-17.80	-7.56	-9.84	1.34	2.59	1.92
Management yields (%)[3]	n.s.	-1.36	-17.84	-1.88	-18.14	1.91	2.86	-
Management fee (%)[3]	n.s.	1.15	1.63	0.36	0.45	0.35	0.37	-
Depository fee (%)[3]	n.s.	0.06	0.11	0.02	0.03	0.03	0.03	-

1 Available data: August 2009. Return refers to the period March-May 2009.
2 % of monthly average total net assets.
3 % of daily average total net assets.
n.s.: It is not significant.

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

TABLE 3.13

	2006	2007	2008	2008		2009		
				III	IV	I	II	III
NUMBER OF PORTFOLIOS								
Mutual funds	2,850	2,954	2,943	2,954	2,943	2,898	2,808	2,705
Investment companies	3,049	3,181	3,240	3,261	3,240	3,226	3,194	3,159
Funds of hedge funds	2	31	40	41	40	40	40	40
Hedge funds	5	21	24	25	24	26	26	27
Real estate investment fund	9	9	9	9	9	9	8	8
Real estate investment companies	8	9	9	8	9	9	9	8
ASSETS UNDER MANAGEMENT (Million euro)								
Mutual funds	270,406.3	255,040.9	175,850.2	197,305.60	175,850.2	168,829.60	167,161.0	169,458.4
Investment companies	28,992.7	30,300.0	24,038.8	26,149.4	24,038.8	23,132.7	23,941.7	24,966.5
Funds of hedge funds	0.6	1,000.6	1,021.3	1,427.5	1,021.3	775.2	709.5	-
Hedge funds	24.4	445.8	539.4	597.7	539.4	451.4	536.9	-
Real estate investment fund	8,595.9	8,608.5	7,406.9	8,166.7	7406.9	6,758.1	6,547.2	6,494.3
Real estate investment companies	456.1	512.9	371.9	363.8	371.9	369.2	360.7	313.0

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.

Foreign Collective Investment schemes marketed in Spain[1]

TABLE 3.14

	2006	2007	2008	2008 III	IV	2009 I	II	III
INVESTMENT VOLUME[2] (Million euro)	44,102.9	37,092.7	18,181.3	22,046.4	18,169.3	14,639.3	n.a.	n.a.
Mutual funds	12,099.3	7,010.3	2,245.5	3,064.6	2,463.8	1,661.8	n.a.	n.a.
Investment companies	32,003.5	30,082.4	15,935.8	18,981.8	15,705.5	12,977.6	n.a.	n.a.
INVESTORS/SHAREHOLDERS	779,165	850,931	587,032	648,457	592,994	510,695	n.a.	n.a.
Mutual funds	144,139	142,782	99,873	112,064	104,287	75,486	n.a.	n.a.
Investment companies	635,026	708,149	487,159	536,393	488,707	435,209	n.a.	n.a.
NUMBER OF SCHEMES	340	440	563	535	563	566	n.a.	n.a.
Mutual funds	164	225	312	290	312	313	n.a.	n.a.
Investment companies	176	215	251	245	251	253	n.a.	n.a.
COUNTRY							n.a.	n.a.
Luxembourg	189	229	274	265	274	275	n.a.	n.a.
France	83	122	161	148	161	161	n.a.	n.a.
Ireland	46	52	63	63	63	64	n.a.	n.a.
Germany	12	15	16	16	16	17	n.a.	n.a.
UK	6	12	14	14	14	14	n.a.	n.a.
The Netherlands	1	1	1	1	1	1	n.a.	n.a.
Austria	1	5	28	22	28	28	n.a.	n.a.
Belgium	1	3	5	5	5	5	n.a.	n.a.
Malta	1	1	1	1	1	1	n.a.	n.a.

1 From December 2008 on, foreign collective investments schemes shareholders and total net assets data do not include exchange traded funds (ETF).
2 Investment volume: participations or shares owned by the investors/shareholders at the end of the period valued at that moment of time.
n.a.: No available data.

Real estate investment schemes

TABLE 3.15

	2006	2007	2008	2008 IV	2009 I	II	III	IV[1]
REAL ESTATE MUTUAL FUNDS								
Number	9	9	9	9	9	8	8	8
Investors	150,304	145,510	97,390	97,390	95,284	89,461	87,903	87,746
Asset (Million euro)	8,595.9	8,608.5	7,406.9	7,406.9	6,758.1	6,547.2	6,494.3	6,508.7
Return on assets (%)	6.12	1.27	0.69	-1.70	-4.50	-1.23	-1.37	-0.52
REAL ESTATE INVESTMENT COMPANIES								
Number	8	9	9	9	9	9	8	8
Shareholders	749	843	937	937	938	937	929	929
Asset (Million euro)	456.1	512.9	371.9	371.9	369.1	360.7	313.0	311.7

1 Available data: October 2009. In this case, return on assets is monthly.