



# **International Capital Market Association**

## **European repo market survey**

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## **ABOUT THE AUTHOR**

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The author has written a number of books and articles on a range of financial topics, including the foreign exchange and money markets, swaps and electronic trading systems. He takes particular interest in the impact of 'electronic brokers' on the foreign exchange market and in the more recent introduction of electronic trading systems into the bond and repo markets.

The author served for ten years at the Bank of England, within its Foreign Exchange Division and on secondment to the International Monetary Fund in Washington DC.

## EXECUTIVE SUMMARY

In June 2008, the European Repo Council (ERC) of the International Capital Market Association (ICMA) conducted the 15th in its series of semi-annual surveys of the repo market in Europe.

The latest survey asked a sample of financial institutions in Europe for the value of their repo contracts that were still outstanding at close of business on June 11, 2008. Replies were received from 61 offices of 58 financial groups, mainly banks. Returns were also made directly by the principal tri-party repo agents and automatic repo trading systems (ATS) in Europe, and by the London-based Wholesale Market Brokers' Association (WMBA).

### Total repo business

The total value of repo contracts outstanding on the books of the 61 institutions who participated in the latest survey was EUR 6,504 billion, compared to EUR 6,382 billion in December 2007 and the peak of EUR 6,775 billion reached in June 2007.

The headline number increased despite the reduction in the survey sample. However, because the headline numbers are for different samples, they do not give an accurate impression of market growth. A better picture is

given by comparing the aggregate returns from a sample of institutions that have participated in several surveys. On this basis, the repo market appears to have contracted slightly in the six months to June 2008. It may also have contracted by a small amount in the previous six months, but could have grown slightly. Year-on-year, growth was therefore probably flat to negative.

Of the 61 institutions in the latest survey, the repo books of 19 expanded, while 41 contracted. This is the first time in the survey that there has been a significant negative imbalance between the expansion and contraction of repo books. The average size of repo books increased again, to reach EUR107 billion from EUR 94 billion in December 2007.

### Counterparty analysis

Electronic trading advanced strongly to 24.4% from 21.2% in December 2007, almost exactly mirrored by a retreat in the share of voice-brokers to 21.1% from 24.3%.

### Geographical analysis

The share of outstanding repo contracts that were negotiated anonymously on an ATS and settled with a central clearing counterparty (CCP) jumped to 12.7% from 10.5%.

### **Settlement analysis**

The share of tri-party repos recovered to 10.1% from 9.1%.

### **Cash currency analysis**

The pound sterling fell back to 14.5% from its record high of 15.5%, but the US dollar recovered slightly to 12.7%.

### **Collateral analysis**

Once again, despite reduced risk appetite in the market, the share of collateral issued in EU countries accounted for by government bonds continued its downward trend to reach a record low of 81.0%. The share of government bonds in tri-party repos also contracted sharply, down to 33.7%, although it remained above normal levels, ie as reported in surveys prior to June 2007.

### **Contract analysis**

The share of floating-rate repos fell back from its record high of 13.3% in December 2007 to 10.4%. The share of open repo remained depressed at about 4.8%.

### **Maturity analysis**

The average duration of outstanding repo transactions shortened. In the main survey, there was a significant increase in maturities of between one week and

one month. The maturity profile of tri-party repos showed a dramatic shift out of transactions with maturities of more than one year to terms of one month or less.

### **Product analysis**

The share of total business conducted on repo desks that was accounted for by securities lending and borrowing increased to 21.7%.

### **Concentration analysis**

There was a slight increase in the concentration of the repo market, but a large reduction in the concentration of tri-party repo business.

## **CHAPTER 1: THE SURVEY**

On June 11, 2008, the European Repo Council (ERC) of the International Capital Markets Association (ICMA) conducted the fifteenth in its series of semi-annual surveys of the repo market in Europe.

The ICMA survey was actively supported by the ACI – The Financial Markets Association, and has been welcomed by the European Central Bank and European Commission. The survey was managed and the results analysed on behalf of ICMA by the ICMA Centre at Reading University in England under the guidance of the ERC Steering Committee (“ERC Committee”).

### **1.1 What the survey asked**

The survey asked financial institutions operating in a number of European centres for the value of the cash side of repo and reverse repo contracts still outstanding at close of business on Wednesday, June 11, 2008.

The questionnaire also asked these institutions to analyse their business in terms of the currency, the type of counterparty, contract and repo rate, the remaining term to maturity, method of settlement and source of collateral. In addition, institutions were asked about securities lending and borrowing conducted on their repo desks.

The detailed results of the survey are set out in Appendix C. An extract of the accompanying Guidance Notes is reproduced in Appendix A

Separate returns were made directly by the principal automatic repo trading systems (ATS) and tri-party repo agents in Europe, and an aggregate return was made directly by the London-based Wholesale Market Brokers’ Association (WMBA).

### **1.2 The response to the survey**

The latest survey was completed by 61 offices of 58 financial groups. This compares with 68 offices of 62 financial groups in June 2007. While 8 institutions which participated in the December 2007 survey dropped out of the latest survey, one institution rejoined. Several of the departures were again due to mergers and the consolidation of repo books.

The institutions surveyed were based in 13 European countries, as well as in North America (6) and Japan (3). 51 institutions were based in 12 of the 27 member states of the EU (unfortunately, no institutions from Finland, Portugal, Sweden, or any former Accession State participated in the latest survey), and 46 were based in 10 of the 15 countries of the eurozone. However, although some institutions were based in one country, much of their business

was conducted in others. Many institutions provided data for their entire European repo business. Others provided separate returns for each office with its own repo book. A list of the institutions that have participated in ICMA repo surveys is contained in Appendix B.

### **1.3 The next survey**

The next survey is scheduled to take place at close of business on Wednesday, December 10, 2008.

Any financial institution wishing to participate in the next survey can download copies of the questionnaire and accompanying Guidance Notes from ICMA's web site. The latest forms will be published shortly at the following website:

[www.icmagroup.org/surveys/repo/participate](http://www.icmagroup.org/surveys/repo/participate).

Questions about the survey should be sent by e-mail to [reposurvey@icmagroup.org](mailto:reposurvey@icmagroup.org).

Institutions who participate in the survey receive, in confidence, a list of their rankings in the various categories of the survey.



## CHAPTER 2: ANALYSIS OF SURVEY RESULTS

The aggregate results for the latest two surveys and the June surveys in the three previous years (2005-2008) are set out in Appendix C. Full details for all previous surveys can be found at [www.icmagroup.org](http://www.icmagroup.org).

### Total repo business (Q1)

The total value at close of business on June 11, 2008, of repos and reverse repos outstanding on the books of the 61 institutions which participated in the latest survey was EUR 6,504 billion. In aggregate, the market, as measured by the survey sample, slightly increased its position as a net lender in repo. It has usually been a marginal net borrower. Of the sample of 61 institutions, 29 were net lenders, a broadly similar proportion to the last survey.

**Table 2.1 – Total repo business from 2001 to 2008**

survey	total (EUR bn)	repo	reverse repo
<b>2008 June</b>	6,504	48.8%	51.2%
<b>2007 December</b>	6,382	49.4%	50.6%
<b>2007 June</b>	6,775	50.8%	49.2%
<b>2006 December</b>	6,430	50.7%	49.3%
<b>2006 June</b>	6,019	51.7%	48.3%
<b>2005 December</b>	5,883	54.6%	45.4%
<b>2005 June</b>	5,319	52.4%	47.6%
<b>2004 December</b>	5,000	50.1%	49.9%
<b>2004 June</b>	4,561	50.6%	49.4%
<b>2003 December</b>	3,788	51.3%	48.7%
<b>2003 June</b>	4,050	50.0%	50.0%
<b>2002 December</b>	3,377	51.0%	49.0%
<b>2002 June</b>	3,305	50.0%	50.0%
<b>2001 December</b>	2,298	50.4%	49.6%
<b>2001 June</b>	1,863	49.6%	50.4%

It is important to remember that the survey measures the value of outstanding transactions at close of business on the survey date. Measuring the stock of transactions at one date rather than the flow between two dates permits deeper analysis but is difficult to reconcile with the flow numbers published by other sources. As the survey is a 'snapshot' of the market, it can miss peaks and troughs in business

between survey dates, especially of short-term transactions.

In addition, the values measured by the survey are gross figures, which mean that they have not been adjusted for the double counting of transactions between pairs of survey participants.

Nor does the survey measure the value of repos transacted with

central banks as part of official monetary policy operations.

In order to gauge the year-on-year growth of the European repo market (or at least of that segment represented by the institutions which have participated in the survey), it is not valid to simply compare the total value of repos and reverse repos with the same figures in previous surveys. Some of the changes represent the entry and exit of institutions into and out of the survey, mergers between banks and the reorganization of repo books within banks. To overcome the problem caused by changes in the sample of survey participants, comparisons were made of the aggregate outstanding contracts reported only by a sub-sample of institutions which had participated in several surveys. However, the size and direction of the change is very dependent on the choice of sample.

Thus, the repo business of the 60 institutions that participated in the June 2007 and June 2008 surveys (but not necessarily December 2007) contracted by 2.5% year-on-year. On the other hand, the repo business of the 59 institutions which participated in the last three surveys contracted by only 0.2% over the year to June 2008. Moreover, in the six months to June 2008, the same sample of 59 contracted by 2.3%, which implies growth of about 2.1% in six months between June and December 2007. Yet, the survey of

December 2007 suggested a contraction of over 11% in the same period. On balance, it would appear that repo market growth over the year has been flat to negative.

Of the 61 institutions in the latest survey, the repo books of 19 expanded, while 41 contracted. This is the first time in the survey that there has been a significant negative imbalance between expansion and contraction of repo books. However, this evidence of deleveraging is contradicted by the increase in the headline number for market size despite a reduction in the survey sample, as well as by the fact that the survey sample overall became a net lender, and by the further increase in the average size of repo books to EUR107 billion from EUR 94 billion. It may be that some institutions are using their strong balance sheets to exploit widespread demand for liquidity and are doing so within the safe environment of the repo market.

**Counterparty analysis (Q1.1)**

**Table 2.2 – Counterparty analysis**

	June 2008		December 2007		June 2006	
	users	share	users	share	users	share
<b>direct</b>	61	54.5%	68	54.5%	77	59.4%
<b>of which tri-party</b>	30	10.1%	36	9.1%	45	11.8%
<b>voice-brokers</b>	46	21.1%	51	24.3%	54	18.7%
<b>ATS</b>	47	24.4%	48	21.2%	56	21.9%

Whereas the most notable change revealed by the December 2007 survey was a jump in the share of brokered business (the first increase since the survey started in 2001), the most

significant development in the latest survey was the sharp recovery of electronic repo trading, entirely at the expense of voice-brokers. Tri-party business also recovered.

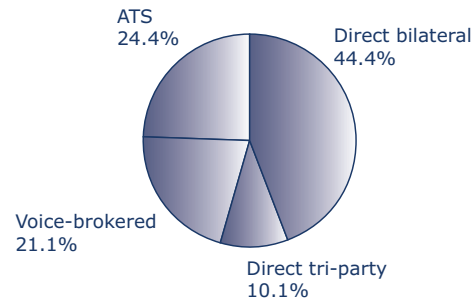
**Table 2.3 – Numbers of participants reporting particular types of business**

	Jun-05	Jun-06	Dec-06	Jun-07	Dec-07	Jun-08
<b>ATS</b>	53	54	51	56	48	47
<b>anonymous ATS</b>	36	34	33	39	35	33
<b>voice-brokers</b>	57	58	54	54	51	46
<b>tri-party repos</b>	40	42	37	45	36	30
<b>total</b>	81	79	73	77	68	61

The principal automatic trading systems (ATS) operating in Europe – BrokerTec, Eurex Repo and MTS – provided data directly to the survey. The directly-reported value of repos outstanding on June 11, 2008, was EUR 816.8 billion, sharply up (18.4%) from the EUR 689.6 billion recorded in December 2007 but still below the EUR 961.1 billion peak in June 2007.

The share of the sub-set of directly-transacted repos settled through tri-party arrangements recovered to 10.1% from 9.1% in December 2007 but remained below the record 11.8% seen in June 2007.

**Figure 2.1 – Counterparty analysis**



## Geographical analysis (Q1.1)

**Table 2.4 – Geographical analysis**

	June 2008		December 2007		June 2007	
	share	users	share	users	share	users
<b>domestic</b>	32.2%		34.7%		32.0%	
<b>cross-border</b>	55.1%		54.7%		57.7%	
<b>anonymous</b>	12.7%	33	10.5%	35	10.3%	37

The share of anonymous trading across ATS's expanded significantly to 12.7%, but remains below its peak of 14.6% in December 2006. The share of anonymous electronic trading in the business reported directly by the ATS's recovered slightly to 77.9% from 77.0% in December 2007. Because anonymous electronic business is executed through central clearing counterparties (CCP's) and automatically netted, it is more attractive for institutions seeking to reduce risk.

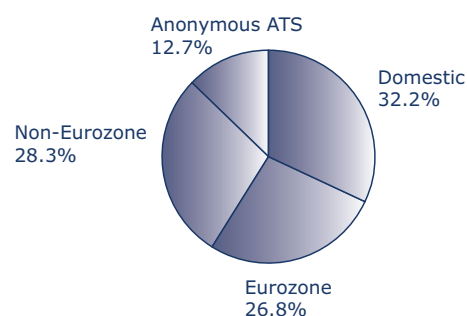
Cross-border business across ATS's rebounded to 58.6% from 55.8%. The bulk of cross-border business across ATS's (42.1% of all electronic business) is into and out of the eurozone, reflecting the major role of London in the European repo market.

The recovery in cross-border business was also seen by voice-brokers and tri-party agents. Data reported by the WMBA for London-based brokers showed cross-border business rising to 64.7% from 60.4%. Tri-party agents reported an increase in

cross-border business to 73.0% from 71.4%. The increase in brokered cross-border business was mainly into the eurozone. In tri-party repos, there was a shift within cross-border activity from transactions into and out of the eurozone (56.1% to 52.8%) to intra-eurozone business (15.3% to 20.2%).

The general recovery in cross-border business may reflect greater confidence in the market and willingness to trade with a wider circle of counterparties.

**Figure 2.2 – Geographical analysis**



**Table 2.5 – Geographical comparisons in June 2008**

	main survey	ATS	tri-party	WMBA
<b>domestic</b>	32.2%	41.4%	27.0%	35.3%
<b>cross-border</b>	55.1%	58.6%	73.0%	64.7%
<b>anonymous</b>	12.7%			n/a

**Table 2.6 – Cash currency analysis (Q1.3 and Q1.4)**

	June 2008	December 2007	June 2007
<b>EUR</b>	66.6%	64.8%	65.2%
<b>GBP</b>	14.5%	15.5%	12.4%
<b>USD</b>	12.7%	11.7%	15.5%
<b>DKK, SEK</b>	2.2%	2.4%	2.5%
<b>JPY</b>	2.8%	3.7%	2.8%
<b>CHF</b>	0.2%	0.2%	0.2%
<b>etc</b>	0.9%	1.7%	1.4%
<b>cross-currency</b>	1.0%	2.3%	5.2%

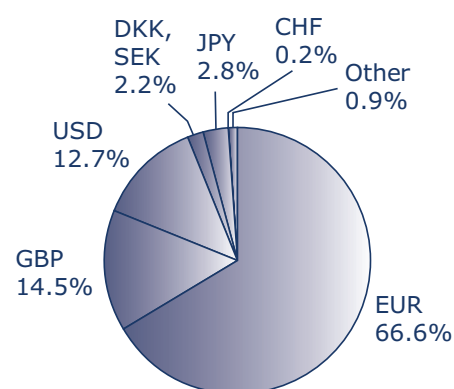
The share of the euro rebounded and the US dollar recovered, largely at the expense of the pound sterling and yen.

The pound sterling also gave ground modestly to the euro and US dollar in electronic business (as reported directly by the ATS's), as did the Swiss franc. The pound fell back to 7.5% from 8.3% and the Swiss franc to 6.6% from 7.2%, while the euro rose to 84.9% from 84.3% and the dollar to 0.9% from zero.

The pound sterling also retreated in tri-party business (as reported directly by tri-party agents), but more sharply, falling from 17.0% to 10.5%, close to its level in June 2007. However, the share of the US dollar also fell in tri-party business. This continued the shift recorded in the last survey, with the share of the dollar

dropping to 17.3% from 18.2%, compared to the record 44.6% seen in June 2007.

Cross-currency business continued to weaken, touching 1.0% in the main survey, and falling to 21.0% from 25.1% in tri-party business.

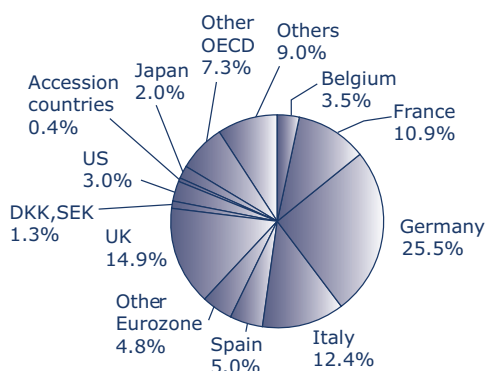
**Figure 2.3 – Currency analysis**

**Table 2.7 – Currency comparison in June 2008**

	main survey	ATS	tri-party	WMBA
<b>EUR</b>	66.6%	84.9%	71.1%	62.9%
<b>GBP</b>	14.5%	7.5%	10.5%	30.5%
<b>USD</b>	12.7%	0.9%	17.3%	3.4%
<b>DKK, SEK</b>	2.2%	0.1%	0.0%	1.9%
<b>JPY</b>	2.8%	0.0%	0.0%	0.7%
<b>CHF</b>	0.2%	6.6%	0.4%	0.0%
<b>etc</b>	0.9%	0.0%	0.6%	0.5%
<b>cross-currency</b>	1.0%		21.0%	n/a

**Collateral analysis (Q1.9)****Table 2.8 – Collateral analysis**

	June 2008	December 2007	June 2007
<b>Germany</b>	25.5%	25.1%	24.4%
<b>Italy</b>	12.4%	13.5%	13.2%
<b>France</b>	10.9%	9.7%	11.2%
<b>Belgium</b>	3.5%	2.8%	2.7%
<b>Spain</b>	5.0%	4.9%	4.1%
<b>other eurozone</b>	9.8%	8.4%	8.5%
<b>UK</b>	14.9%	16.0%	12.8%
<b>DKK, SEK</b>	1.3%	1.4%	1.7%
<b>US</b>	3.0%	2.3%	4.0%
<b>Accession countries</b>	0.4%	0.5%	0.8%
<b>Japan</b>	2.0%	2.9%	2.5%
<b>other OECD</b>	7.3%	7.4%	7.9%
<b>other</b>	2.8%	3.7%	4.7%
<b>equity</b>	1.1%	1.3%	1.6%

**Figure 2.4 – Collateral analysis**

The share of EU collateral issued by central governments continued to contract, touching a new record low of 81.0% from 81.3%.

The share of government bonds in directly-reported tri-party repo also fell back. At 33.7%, it is well below the peak of 43.8% recorded in December 2007, but remains higher than normal, reflecting persistent concerns about credit risk. The share of collateral of EU origin in tri-party repo jumped sharply to 79.0% from 54.6%, driven by greater use of government bonds from France and Italy, and non-government bonds issued in Belgium, Germany, Ireland, Netherlands, Spain and

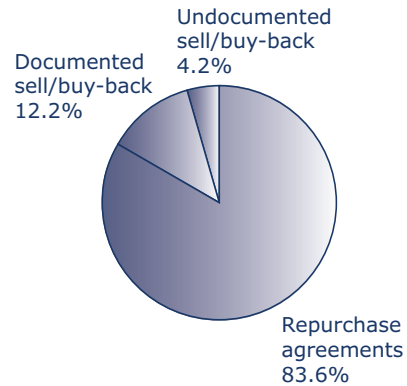
the UK (but it is possible that some of this change reflects reclassification of “collateral of unknown origin”, which was 12.6% in June and December 2007). On the other hand, the share of equity in tri-party fell back sharply to 2.4% from 15.1% in December 2007 and 21.0% in June 2007. Equity was favoured as tri-party collateral at the start of current market difficulties because of the ready availability of prices for valuation from the public order books of equity exchanges.

**Contract analysis (Q1.5)**

The share of reported outstanding repo contracts taking the form of repurchase agreements dropped to 83.6% from 84.6%.

In contrast, the share of documented sell/buy-backs in electronic trading jumped to 31.1% from 24.4%.

**Figure 2.5 – Contract analysis**



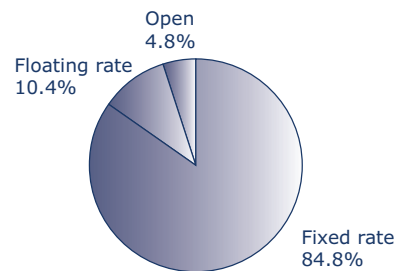
**Table 2.9 – Contract comparison in June 2008**

	main survey	ATS	tri-party
<b>repurchase agreements</b>	83.6%	68.9%	100.0%
<b>documented sell/buy-backs</b>	12.2%	31.1%	0.0%
<b>undocumented sell/buy-backs</b>	4.2%	0.0%	0.0%

**Repo rate analysis (Q1.6)**

The share of floating-rate repos (typically indexed to EONIA) retreated from its record high of 13.3% in December 2007 to 10.4%. Floating-rate repos in electronic business, as reported directly by ATS’s, eased back to 12.2% from 13.1% in the last survey. These reductions may have reflected increased uncertainty over the direction of future interest rate changes.

**Figure 2.6 – Repo rate analysis**

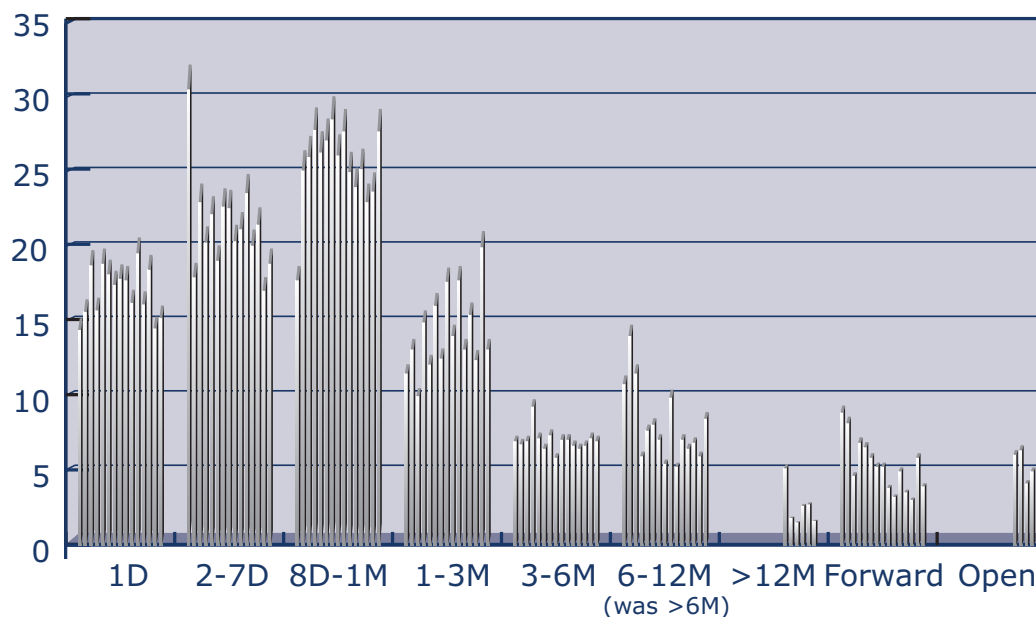


**Table 2.10 – Repo rate comparison in June 2008**

	main survey	ATS	tri-party
<b>fixed rate</b>	84.8%	87.8%	86.5%
<b>floating rate</b>	10.4%	12.2%	n/a
<b>open</b>	4.8%	0.0%	13.5%

**Maturity analysis (Q1.7)****Table 2.11 – Maturity analysis**

	June 2008	December 2007	June 2007
<b>1 day</b>	15.1%	14.4%	18.3%
<b>2 days to 1 week</b>	18.7%	16.9%	21.3%
<b>1 week to 1 month</b>	27.5%	23.5%	22.8%
<b>&gt;1 month to 3 months</b>	13.0%	19.8%	12.3%
<b>&gt;3 months to 6 months</b>	6.9%	7.1%	6.6%
<b>&gt;6 months to 12 months</b>	8.4%	5.9%	6.8%
<b>&gt;12 months</b>	1.6%	2.7%	2.6%
<b>forward-start</b>	3.9%	5.8%	3.0%
<b>open</b>	4.9%	4.1%	6.3%

**Figure 2.7 – Maturity analysis**

The share of open repo remained depressed. The fall in the share of open repo from 8.1% in June 2007 to 4.5% in December

2007, and its continued low level in June 2008, has been attributed to the obstacles presented by accounting and regulatory rules to



the netting of open repos. Where banks are seeking to reduce their risk exposures, as they have been over the last year, netting is a vital risk reduction tool.

On the other hand, open repos recovered from 5.0% to 7.9% of the tri-party business reported in the main survey, but fell back as a share of directly-reported tri-party repo business (from 19.5% to 13.5%).

There was a significant shortening of maturities between December 2007 and June 2008. Short-dated repos (one or month or less to maturity) increased to 61.3% from 54.7%. Remaining terms of between one week and one month increased the most. This increase was more than accounted for by a fall in repos with remaining terms of between one and three months. However, there was an increase in the share of repos with more than six months but less than a year remaining to maturity. The shortening of maturities in June is partly a seasonal reaction to the lengthening of maturities in December, when banks try to lock in term borrowing over the turn of the year.

Forward-start repos fell back to 3.9% from 5.8%. As these instruments are used for interest rate positioning, reduced demand may reflect increased uncertainty over the future direction of central bank rates.

The bulk of outstanding contracts reported directly by the ATS's continued to have a remaining term to maturity of one day, although this declined to 76.6% from 78.9%. However, there was a significant extension of electronic trading beyond one week and out to one month (the share of this maturity band increasing to 10.2% from 2.3%).

In tri-party repo, there was an even more dramatic reduction in average duration. The share of short-dated transactions jumped to 60.1% from 32.9%. This was mainly at the expense of transactions with 12 months or more remaining to maturity, which collapsed to 1.1% from 23.5%.

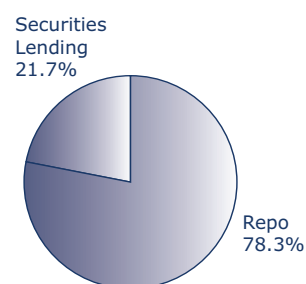
In brokered business, as reported by the WMBA, maturities of between one week and one month increased to 13.0% from 8.1%, and maturities of between six and 12 months increased to 12.3% from 8.3%, largely at the expense of the intermediate one-six months terms (18.3% from 25.0%) and forward-forwards (44.5% from 46.7%).

**Table 2.12 – Maturity comparison in June 2008**

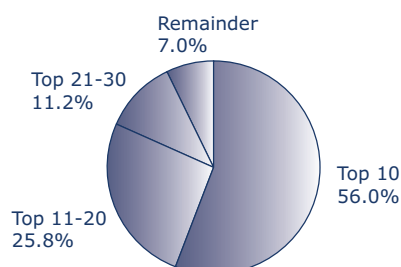
	main survey	ATS	tri-party	WMBA
<b>1 day</b>	15.1%	76.6%	29.1%	3.8%
<b>2 days to 1 week</b>	18.7%	11.2%	11.0%	6.9%
<b>1 week to 1 month</b>	27.5%	10.2%	20.0%	13.0%
<b>&gt;1 month to 3 months</b>	13.0%	0.7%	7.1%	13.4%
<b>&gt;3 months to 6 months</b>	6.9%	0.3%	7.5%	4.9%
<b>&gt;6 months to 12 months</b>	8.4%	0.6%	3.1%	12.3%
<b>&gt;12 months</b>	1.6%	0.0%	1.1%	0.9%
<b>forward-start</b>	3.9%	0.4%	21.1%	44.5%
<b>open</b>	4.9%			0.3%

**Product analysis (Q2)**

The share of total business on repo desks accounted for by securities lending and borrowing conducted was larger, at 21.7% compared with 20.4% in December 2007. The share of equity in securities lending continued to fall back, touching 10.8% compared with 12.4% previously.

**Figure 2.8 – Product analysis****Concentration analysis****Table 2.13 – Concentration analysis**

	June 2008	December 2007	June 2007
<b>top 10</b>	56.0%	54.2%	53.6%
<b>top 20</b>	81.7%	79.0%	78.1%
<b>top 30</b>	92.9%	90.4%	89.8%
<b>other</b>	7.1%	9.6%	10.2%

**Figure 2.9 – Concentration analysis**

There was a continued increase in the concentration of the surveyed repo market in June 2008.

However, there was little change in the concentration of electronic trading. The top 10, 20 and 30 institutions accounted for shares of 60.8%, 88.3% and

97.5% of electronic trading, compared with 60.6%, 87.1% and 83.4%, respectively, in December 2007. On the other hand, there was an increase in the concentration of anonymous electronic trading (73.7%, 94.9% and 99.9% compared with 67.9%, 91.9% and 99.6%, respectively).

The concentration of tri-party repo business as reported in the main survey fell back to more normal levels. The share of the top 10, 20 and 30 users was 67.8%, 94.4% and 100.00%, compared with 84.8%, 99.1% and 100% in December 2007.

### **CHAPTER 3: CONCLUSION**

The last three surveys provide a picture of the impact on the European repo market of the market turbulence triggered by the “sub-prime crisis”. The repo market has demonstrated its resilience. The survey total, which fell from EUR 6,775 billion in June 2007 (just before market conditions deteriorated sharply) to EUR 6,382 billion in December 2007, recovered to EUR 6,504 billion in June 2008. The relatively modest fall in the six months to December 2007, and the growth in the following six months, occurred despite reductions in the number of banks in the survey, itself a reflection of preoccupations with the difficult conditions in the market. If changes in the survey sample are removed by taking a constant sample of institutions that have participated in several surveys, the rate of growth in the European repo market can be judged to have stalled to anywhere between zero and minus 12%.

Either way, there does not appear to be massive deleveraging in the European repo market overall. Of course, the situation of individual institutions varies enormously. Of the 61 institutions in the latest survey, the repo books of 19 expanded, while 41 contracted. This is the first time in the survey that there has been a significant negative imbalance between the expansion and contraction of repo books. The contrast between the overall resilience of the market and the

varied response of individual institutions, and the fact that the survey sample as a whole has become a net lender in repo, suggest that some institutions are using their strong balance sheet to exploit widespread demand for liquidity and are doing so within the safe environment of the repo market.

There are some signs of greater stability in the repo market. The surge in the share of voice-brokers in December 2007, the first increase since the survey started and attributed to the value of brokers in searching out liquidity in difficult market conditions, was reversed and mirrored by a recovery in electronic trading and tri-party repo.

Improved confidence may also be reflected in the rebound in cross-border trading in the main survey, in electronic and brokered trading, and in tri-party repo. Greater confidence in the marketplace is likely to be translated into greater willingness to trade with a wider circle of counterparties. Market turbulence may have been responsible for the reduction in cross-border business by forcing firms to seek liquidity closer to home, in their domestic markets.

Market difficulties have not stopped the apparently secular growth in credit repo (although the composition of non-government collateral has almost certainly changed). The decline in the share of EU collateral issued by central governments continued, to reach a new record low of 81.0%. The share

of government bonds in tri-party repo also fell back. At 33.7%, it is well below the peak of 44.2% recorded in December 2007, although it remains higher than before the crisis. It is also noteworthy that the share of equity in tri-party repos fell back sharply to 2.4% from 15.1% in December 2007 and 21.0% in June 2007. Equity was favoured as tri-party collateral at the start of current market difficulties because of the ready availability of prices for valuation from the public order books of equity exchanges. Less use of equity suggests it has become easier to value other collateral. Of course, its recent substitution may also reflect subsequent volatility in equity prices.

The increase in the share of the US dollar, the currency whose liquidity was most affected by market difficulties, may be further evidence of some easing of strains, although by how much may be questioned by the apparent scarcity of dollars in tri-party repos and the decline of cross-currency repos (typically, US dollar cash against collateral in other currencies).

That market participants, on balance, remain cautious and more risk averse may be evident in the increase in anonymous electronic trading, which benefits from the netting services provided by central clearing counterparties (CCP's), as well as anonymity. The advantages of anonymous electronic trading may also have encouraged the significant extension of electronic trading beyond one week and out to one

month. On the other hand, the continued contraction in open repos may be due to the obstacles presented by accounting and regulatory rules to the netting of this type of instrument.

## APPENDIX A: SURVEY GUIDANCE NOTES

The following extract is based on the Guidance notes issued to participants in conjunction with the survey that took place on June 11, 2008.

The data required by this survey are: the total value of the repos and reverse repos booked by your repo desk that are still outstanding at close of business on Wednesday, June 11, 2008, and various breakdowns of these amounts.

Branches of your bank in other countries in Europe may be asked to complete separate returns. If your repo transactions are booked at another branch, please forward the survey form to that branch. If branches of your bank in other countries run their own repo books, please copy the survey form to these branches, so that they can also participate in the survey. Please feel free to copy the survey form to other banks, if you discover that they have not received it directly.

### General guidance

a) Please fill in as much of the form as possible. For each question that you answer, you will receive back your ranking in that category.

b) If your institution does not transact a certain type of repo business, please enter 'N/A' in the relevant fields.

On the other hand, if your institution does that type of business but is not providing the data requested by the survey, please do not enter anything into the relevant field. If your institution does that type of business but has no transactions outstanding, please enter zero into the relevant field.

c) You only need to give figures to the *nearest million*. However, if you give figures with *decimal points*, please use full stops as the symbols for the decimal points, *not* commas. For *nil returns*, please use zeros, *not* dashes or text.

d) Please do not re-format the survey form, ie change its lay-out, and do not leave formulae in the cells of the underlying spreadsheet.

e) Include all repurchase agreements (classic repos), sell/buy-backs and similar types of transaction (e.g. pensions livrées). There is a separate question (see question 2) on securities lending and borrowing transactions (including securities lending and borrowing against cash collateral).

f) Exclude repo transactions undertaken with central banks as part of their official money market operations. Other repo transactions with central banks, e.g. as part of their reserve management operations, should be included.

g) Give the value of the *cash* which is due to be repaid on all repo and reverse repo contracts (*not* the market value or nominal value of the collateral) that are still *outstanding at close of business on Wednesday, June 11, 2008*. This means the value of transactions at their repurchase prices.

h) "Outstanding" means repos and reverse repos with a repurchase date or which will roll over on or after Thursday, June 12, 2008. You should include all *open repos and reverse repos* that have been rolled over from Wednesday, June 11, 2008 to a later date and all *forward-forward repos and reverse repos* that are still outstanding at close on Wednesday, June 11, 2008.

i) Give separate totals for (a) repos including sell/buy-backs and (b) reverse repos including buy/sell-backs.

j) The survey seeks to measure the value of repos and reverse repos on a *transaction date basis*, rather than a purchase date basis. This means that you should include all repo and reverse repo contracts that have been agreed before close of business on Wednesday, June 11, 2008, even if their purchase dates are later.

k) Give *gross* figures, i.e. do *not* net opposite transactions with the same counterparty. If this is not possible, please indicate that your figures are net.

l) In the case of equity repo, for synthetic structures, please give the value of the cash payment.

### **Guidance on specific questions in the survey form**

Q1.1 Transactions (1.1.1) direct with counterparties or Q(1.1.2) through voice-brokers should *exclude* all repos transacted over an ATS (see below). These should be recorded under Q(1.1.3).

Q(1.1.2) Transactions through voice-brokers should be broken down in terms of the location of the counterparties, rather than the location of the voice-brokers.

Q(1.1.3) "ATSs" are automatic trading systems (e.g. BrokerTec, Eurex Repo and MTS, but not voice-assisted electronic systems such as e-speed and GFInet). Transactions through voice-assisted systems should be included in Q(1.1.2). Anonymous transactions through an ATS with a central counterparty or CCP (e.g. CCG, LIFFE-Clearnet and Eurex Clearing) should be recorded in Q(1.1.3.4).

Q1.2 This item includes all the transactions recorded in Q(1.1.3) plus any transactions executed directly with counterparties and via voice-brokers which are then registered with and cleared through a central counterparty.

Q1.5 “Repurchase agreements” (also known as “classic repos”) include transactions documented under the Global Master Repurchase Agreement (GMRA) 1995 and the Global Master Repurchase Agreement (GMRA) 2000 *without* reference to the Buy/Sell-Back Annexes, and transactions documented under other master agreements. “Sell/buy-backs” are therefore taken to include all transactions that are not documented.

Repurchase agreements include pensions livrées. Repurchase agreements are characterised by the immediate payment by the buyer to the seller of a manufactured or substitute payment upon receipt by the buyer of a coupon on the collateral held by the buyer. If a coupon is paid on collateral during the term of a sell/buy-back, the buyer does not make an immediate manufactured or substitute payment to the seller, but reinvests the coupon until the repurchase date of the sell/buy-back and deducts the manufactured or substitute payment (plus reinvestment income) from the repurchase price due to be received from the seller.

Sell/buy-backs may be quoted in terms of a forward price rather than a repo rate. Where sell/buy-backs are documented (e.g. under the Buy/Sell-Back Annexes to the GMRA 1995 and GMRA 2000), periodic adjustments to the relative amounts of collateral or

cash – which, for a repurchase agreement, would be performed by margin maintenance transfers or payments – are likely to be made by early termination and adjustment or re-pricing. All open repos are likely to be repurchase agreements.

Q1.7 This section asks for the *remaining* term to maturity (not the original term to maturity) of repos to be broken down as follows:

Q(1.7.1.1) 1 day – this means:

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Thursday, June 12, 2008;
- overnight, tom/next, spot/next and corporate/next contracts transacted on Wednesday, June 11, 2008.

Q(1.7.1.2) 2–7 days – this means:

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Friday, June 13, 2008, or any day thereafter up to and including Wednesday, June 18, 2008;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date no later than Wednesday, June 18, 2008 (irrespective of the purchase date, which will vary).

Q(1.7.1.3) More than 7 days but no more than 1 month – this means:



- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Thursday, June 19, 2008, or any day thereafter up to and including Friday, July 11, 2008;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date no later than Friday, July 11, 2008 (irrespective of the purchase date, which will vary).

Q(1.7.1.4) More than 1 month but no more than 3 months – this means:

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Monday, July 14, 2008, or any day thereafter up to and including Thursday, September 11, 2008;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date no later than Thursday, September 11, 2008 (irrespective of the purchase date, which will vary).

Q(1.7.1.5) More than 3 months but no more than 6 months – this means:

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Friday, September 12, 2008, or any day thereafter up to and including Thursday, December 11, 2008;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date no later than Thursday, December 11, 2008 (irrespective of the purchase date, which will vary).

Q(1.7.1.6) More than 6 months but no more than 12 months – this means;

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Friday, December 12, 2008, or any day thereafter up to and including Thursday, June 11, 2009;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date no later than Thursday, June 11, 2009 (irrespective of the purchase date, which will vary).

Q(1.7.1.7) More than 12 months – this means;

- all contracts transacted prior to Wednesday, June 11, 2008, with a repurchase date on Friday, June 12, 2009, or any day thereafter;
- contracts transacted on Wednesday, June 11, 2008, with an original repurchase date on or after Friday, June 12, 2009 (irrespective of the purchase date, which will vary).

Q(1.7.2) Forward-forward repos are defined for the purposes of this survey as contracts with a purchase date of Monday, June 16, 2008, or later. There is therefore an overlap with corporate/next transactions. If the latter cannot be identified separately, it is accepted that they will be recorded as forward-forward repos.

Q(1.7.3) Open repos are defined for the purposes of this survey as contracts that have no fixed repurchase date when

negotiated but are terminable on demand by either counterparty. This item should be equal to item Q(1.6.3).

Q1.8 Please confirm whether the transactions recorded in the various questions in Q(1.7) include your tri-party repo business. Some institutions do not consolidate their tri-party repo transactions with their direct or voicebrokered business because of delays in receiving reports from tri-party agents or the complexity of their tri-party business.

Q1.9 Eurobonds should be included as fixed income securities issued "by other issuers" in the countries in which the bonds are issued. This will typically be Luxembourg Q(1.9.10) and the UK Q(1.9.15). Equity collateral should be recorded in Q(1.9.34).

Q(1.9.28) "US in the form of fixed income securities but settled across Euroclear or Clearstream" means only domestic and Yankee bonds. This includes Reg.144a bonds, but excludes Eurodollar and US dollar global bonds, which should be treated as bonds issued "by other issuers" in the countries in which the bonds were issued.

This will typically be Luxembourg Q(1.9.10) and the UK Q(1.9.15).

Q(1.9.30) "Other OECD countries" are Australia, Canada, Iceland, Korea, Mexico, New

Zealand, Norway, Switzerland, Turkey and the US. In the case of collateral issued in the US, only collateral settled across the domestic US settlement system should be included in Q(1.9.30). US collateral settled across Euroclear and Clearstream Luxembourg should be recorded in Q(1.9.28).

Q(1.9.34) "Equity" includes ordinary shares, preference shares and equity-linked debt such as convertible bonds.

Q2 "Total value of securities loaned and borrowed by your repo desk" includes the lending and borrowing of securities with either cash or securities collateral. Exclude any securities lending and borrowing done by desks other than your repo desk. If your repo desk does not do any securities lending and borrowing, this line will be a nil return.

Q3 "Active" means about once a week or more often.

**For further help and information**

If, having read the Guidance Notes, you have any further queries, please e-mail the ICMA Centre at [reposurvey@icmagroup.org](mailto:reposurvey@icmagroup.org) or contact one of the following members of the ERC Steering Committee:

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This survey is being conducted by the ICMA Centre, University of Reading, UK, at the request of ICMA's European Repo Council (ERC).



List of respondents	Jun -01	Dec -01	Jun -02	Dec -02	Jun -03	Dec -03	Jun -04	Dec -04	Jun -05	Dec -05	Jun -06	Dec -06	Jun -07	Dec -07	Jun -08
Bayerische Landesbank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
BBVA	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
BHF-Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
BHF-Bank Luxembourg							x			x	x		x	x	x
BNP Paribas	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Bundesrepublik Deutschland Finanzagentur			x	x	x	x	x		x		x	x	x	x	x
BW-Bank		x													
Caixa d'Estalvis de Catalunya					x				x				x	x	x
Caixa Geral de Depositos			x	x											
Caja de Ahorros y Monte de Piedad de Madrid (Caja Madrid)			x	x	x	x			x	x	x	x	x	x	
Calyon		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Capitalia			x				x	x	x	x	x				
CDC IXIS Capital Markets Zweigniederlassung Deutschland			x	x	x	x	x	x	x		x		x	x	x
Citigroup Global Markets Ltd	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Commerzbank	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Confederación Española de Cajas de Ahorros (CECA)	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Credito Valtellinese					x										
Croatian National Bank		x			x										
Credit Suisse Securities (Europe) Ltd	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Danske Bank									x	x			x	x	x
Daiwa Securities SMBC Europe	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Dekabank Deutsche Girozentrale	x	x	x	x					x	x					
Delta Lloyd Securities					x										
DePfa ACS				x	x	x	x	x	x	x	x	x	x	x	
DePfa Bank				x	x	x	x	x	x						
Deutsche Bank	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Deutsche Postbank			x	x	x	x	x	x	x	x	x	x	x	x	x
Dexia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Dexia BIL						x				x	x	x		x	



List of respondents	Jun -01	Dec -01	Jun -02	Dec -02	Jun -03	Dec -03	Jun -04	Dec -04	Jun -05	Dec -05	Jun -06	Dec -06	Jun -07	Dec -07	Jun -08
Landesbank Sachsen Girozentrale	x	x	x	x	x	x	x	x	x	x	x	x	x		
Lehman Brothers		x	x	x	x		x	x	x	x	x	x	x	x	x
Maple Bank	x	x	x												
Merrill Lynch	x	x	x	x	x	x	x	x	x	x	x		x	x	x
Mitsubishi Securities International		x	x	x	x	x	x	x	x	x					
Mizuho International	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Morgan Stanley	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Natexis Banques Populaires		x	x	x		x									
National Bank of Greece	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Nomura International	x	x	x	x	x		x	x	x	x	x	x	x	x	x
Norddeutsche Landesbank Girozentrale	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Nordea Markets			x	x	x	x	x	x	x	x	x	x	x	x	x
Norinchukin Bank						x	x	x	x	x	x	x	x		
Nova Ljubljanska Banka d.d.							x							x	x
Omega Bank			x	x											
Piraeus Bank			x												
Rabobank		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Royal Bank of Scotland			x	x	x	x	x	x	x	x	x	x	x	x	x
RZB	x	x	x		x		x	x	x	x	x	x	x		
Sal. Oppenheim Jr.	x	x	x			x	x	x					x		
Sampo Bank			x	x					x	x		x			
SEB		x		x											
Société Générale		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Toronto Dominion Bank					x	x									
UBS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ulster Bank			x	x			x	x	x	x		x			
Unicredit Banca Mobiliare			x	x	x	x	x	x	x	x	x	x	x	x	x
Unicredito Italiano Bank (Ireland)					x										
Vereins und Westbank			x	x	x	x	x								
Westdeutsche Immobilien Bank		x	x												
Westdeutsche Landesbank Girozentrale	x		x			x	x			x	x	x	x	x	x
Zagrbacka Banka				x				x		x	x		x		

## APPENDIX C: SUMMARY OF SURVEY RESULTS

Q1 What are the total gross values of cash due to be repaid by you and repaid to you on repo transactions maturing after Dec 12, 2007 (figures in EUR billions)					
	5,319	6,047	6,775	6,382	6,504
Of the amounts given in response to question (1) above:					
	Jun-05	Jun-06	Jun-07	Dec-07	Jun-08
1.1 How much was transacted:					
<b>direct</b> with counterparties					
• in the <b>same country</b> as you	20.2%	19.2%	19.5%	19.4%	17.3%
• cross-border in (other) <b>eurozone countries</b>	15.6%	17.5%	15.9%	14.9%	14.0%
• cross-border in <b>non-eurozone countries</b>	18.1%	22.1%	23.8%	19.8%	20.4%
through <b>voice-brokers</b>					
• in the <b>same country</b> as you	10.9%	9.1%	7.6%	11.3%	9.9%
• cross-border in (other) <b>eurozone countries</b>	8.7%	7.5%	6.7%	8.1%	7.5%
• cross-border in <b>non-eurozone countries</b>	5.2%	3.8%	4.7%	5.5%	5.7%
on <b>ATs</b> with counterparties					
in the <b>same country</b> as you	5.6%	6.3%	4.8%	4.1%	5.0%
• cross-border in (other) <b>eurozone countries</b>	3.7%	3.5%	3.1%	3.2%	5.3%
• cross border-border in <b>non-eurozone countries</b>	1.5%	2.2%	3.5%	3.2%	2.2%
• anonymously through a central clearing counterparty	10.4%	8.7%	10.3%	10.5%	12.7%
• total through a central clearing counterparty					24.4%
1.2 How much of the cash is denominated in:					
• EUR	70.0%	65.2%	65.2%	64.8%	66.6%
• GBP	11.8%	13.5%	12.4%	15.5%	14.5%
• USD	11.1%	13.9%	15.5%	11.7%	12.7%
• SEK, DKK	2.2%	1.8%	2.5%	2.4%	2.2%
• JPY	3.4%	3.5%	2.8%	3.7%	2.8%
• CHF		0.2%	0.2%	0.2%	0.2%
• other currencies	1.5%	1.9%	1.4%	1.7%	0.9%
1.3 How much is cross-currency?	0.9%	1.5%	5.30%	2.3%	1.0%
1.4 How much is:					
• classic repo	83.0%	83.0%	82.7%	84.6%	83.6%



	Jun-05	Jun-06	Jun-07	Dec-07	Jun-08
• documented sell/buy-backs	10.5%	12.0%	9.4%	10.3%	12.2%
• undocumented sell/buy-backs	6.6%	5.0%	7.8%	5.0%	4.2%
1.5 How much is:					
• fixed rate	86.8%	81.3%	78.9%	82.2%	84.8%
• floating rate	7.6%	10.5%	13.1%	13.3%	10.4%
• open	5.6%	8.2%	8.1%	4.5%	4.8%
<b>1.6 How much fixed and floating rate repo is (1.6.1) for value before June 11, 2008 and has a remaining term to maturity of:</b>					
• <b>1 day</b>	17.6%	19.4%	18.3%	14.4%	15.1%
• <b>2-7 days</b>	20.2%	23.4%	21.3%	16.9%	18.7%
• more than <b>7 days</b> but no more than <b>1 month</b>	27.5%	23.8%	22.8%	23.5%	27.5%
• more than <b>1 month</b> but no more than <b>3 months</b>	13.9%	13.0%	12.3%	19.8%	13.0%
• more than <b>3 months</b> but no more than <b>6 months</b>	7.0%	6.6%	6.6%	7.1%	6.9%
• more than <b>6 months</b>	9.9%	7.0%	6.8%	5.9%	8.4%
• More than 12 months		1.8%	2.6%	2.7%	1.6%
• <b>forward-forward repos</b>	3.8%	4.9%	3.0%	5.8%	3.9%
• <b>open</b>			6.3%	4.1%	4.9%
1.7 How much is tri-party repo:	10.4%	11.3%	11.8%	9.1%	10.1%
• for <b>fixed terms to maturity</b>	93.1%	87.9%	92.6%	96.7%	92.1%
• on an <b>open</b> basis	6.9%	12.1%	6.6%	5.0%	7.8%
1.8 How much is against collateral issued in:					
Austria					
• by the central government	0.8%	0.8%	1.1%	1.1%	1.3%
• by other issuers	0.1%	0.1%	0.1%	0.2%	0.3%
Belgium					
• by the central government	3.6%	3.2%	2.6%	2.8%	3.3%
• by other issuers	0.5%	0.3%	0.1%	0.1%	0.2%
Denmark					
• by the central government	0.2%	0.3%	0.2%	0.1%	0.1%
• by other issuers	0.4%	0.3%	0.2%	0.2%	0.2%
Finland					
• by the central government	0.2%	0.3%	0.2%	0.2%	0.4%
• by other issuers	0.0%	0.1%	0.1%	0.1%	0.0%
France					
• by the central government	9.0%	9.1%	9.8%	8.7%	9.4%
• by other issuers	1.1%	1.0%	1.4%	1.0%	1.5%
Germany					
• by the central government	20.1%	18.4%	19.0%	19.4%	19.9%

	Jun-05	Jun-06	Jun-07	Dec-07	Jun-08
• pfandbrief	1.9%	2.0%	2.3%	1.5%	1.4%
• by other issuers	2.8%	3.2%	3.1%	4.2%	4.2%
Greece					
• by the central government	2.2%	1.8%	2.3%	2.0%	2.5%
• by other issuers	0.0%	0.2%	0.0%	0.0%	0.0%
Ireland					
• by the central government	0.2%	0.2%	0.1%	0.1%	0.2%
• by other issuers	0.1%	0.2%	0.3%	0.5%	0.5%
Italy					
• by the central government	14.9%	14.8%	12.8%	12.7%	11.8%
• by other issuers	0.4%	0.5%	0.5%	0.8%	0.7%
Luxembourg					
• by the central government	0.0%	0.0%	0.3%	0.0%	0.0%
• by other issuers	0.5%	0.5%	0.4%	0.8%	0.7%
Netherlands					
• by the central government	1.9%	1.8%	2.0%	1.7%	2.0%
• by other issuers	0.9%	0.7%	0.5%	0.7%	0.6%
Portugal					
• by the central government	0.6%	0.9%	0.9%	0.8%	1.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.1%
Spain					
• by the central government	5.1%	3.3%	3.2%	3.7%	3.4%
• by other issuers	0.5%	0.9%	1.0%	1.1%	1.6%
Sweden					
• by the central government	1.3%	1.1%	0.9%	0.7%	0.6%
• by other issuers	0.6%	0.4%	0.4%	0.4%	0.3%
UK					
• by the central government	10.3%	11.5%	10.3%	12.2%	11.4%
• by other issuers	2.0%	2.7%	2.5%	3.7%	3.5%
US but settled across EOC/CS	0.0%	2.2%	4.0%	2.3%	3.0%
other countries					
Bulgaria					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Cyprus					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Czech Republic					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Estonia					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.1%	0.0%	0.0%	0.0%	0.0%
Hungary					
• by the central government	0.0%	0.8%	0.5%	0.2%	0.1%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%

	Jun-05	Jun-06	Jun-07	Dec-07	Jun-08
Latvia					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Lithuania					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Malta					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.2%	0.0%	0.0%	0.0%	0.0%
Poland					
• by the central government	0.0%	0.2%	0.2%	0.2%	0.1%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Romania					
• by the central government			0.0%	0.0%	0.0%
• by other issuers			0.0%	0.0%	0.0%
Slovak Republic					
• by the central government	0.0%	0.0%	0.0%	0.1%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%
Slovenia					
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	3.5%	0.0%	0.0%	0.0%	0.0%
Japan		4.5%	2.5%	2.9%	2.0%
other OECD	11.2%	8.8%	7.9%	7.4%	7.3%
non-OECD EMEA	0.5%	0.4%	0.7%	0.7%	0.6%
non-OECD Asian & Pacific	0.3%	0.4%	0.4%	0.4%	0.4%
non-OECD Latin America	0.6%	0.6%	0.6%	0.5%	0.5%
equity	0.4%	0.5%	1.6%	1.3%	1.1%
collateral of unknown origin or type	0.8%	1.3%	3.0%	2.1%	1.3%
Q2 What is the total value of securities loaned and borrowed by your repo desk: to/from counterparties					
in the <b>same country</b> as you					
• in fixed income	47.4%	43.9%	40.8%	35.4%	46.7%
• in equity	7.7%	4.2%	4.4%	4.6%	3.2%
cross-border in (other) <b>eurozone</b> countries					
• in fixed income	21.7%	26.3%	22.1%	31.8%	20.0%
• in equity	3.0%	3.5%	5.6%	5.1%	3.8%
cross-border in <b>non-eurozone</b> countries					
• in fixed income	19.5%	20.7%	23.1%	20.3%	22.5%
• in equity	0.7%	1.5%	3.9%	2.7%	3.8%
for which the term to maturity is					
• fixed	53.7%	60.1%	55.3%	61.5%	70.3%
• open	46.3%	39.9%	44.7%	38.5%	29.7%

## **APPENDIX D: THE EUROPEAN REPO COUNCIL**

The European Repo Council (ERC) is the forum where the repo dealer community meets and forges consensus solutions to the practical problems of a rapidly evolving marketplace. In this role, it has been consolidating and codifying best market practice. The contact and dialogue that takes place at the ERC underpins the strong sense of community and common interest that characterises the professional repo market in Europe.

The ERC was established in December 1999 by the International Capital Market Association (ICMA, which was then called the International Securities Market Association or ISMA) as a body operating under ICMA auspices. Its governing board is the International Repo Committee (IRC Committee), which consists of two representatives appointed by regional repo councils, which in turn comprise those IRC members that are active in the repo market of a particular geographic area. The regional repo councils are to be established by the IRC Committee for those geographic regions in which it considers there to be a reasonable number of ICMA members active in the repo market and a reasonable level of repo dealing.

Membership of the ERC is open to any ICMA member who has commenced, or has undertaken to

commence, a dedicated repo activity, is willing to abide by the rules applicable to members of the IRC and has sufficient professional expertise, financial standing and technical resources to meet its obligations as a member of the IRC. Membership of the ERC is granted by the IRC Committee in consultation with the ERC Steering Committee.

The ERC meets twice a year (usually in February/March and September) at different financial centres across Europe. The Steering Committee now comprises 19 members elected annually and meets four times a year.

More information about the ERC and IRC is available on [www.icmagroup.org](http://www.icmagroup.org).