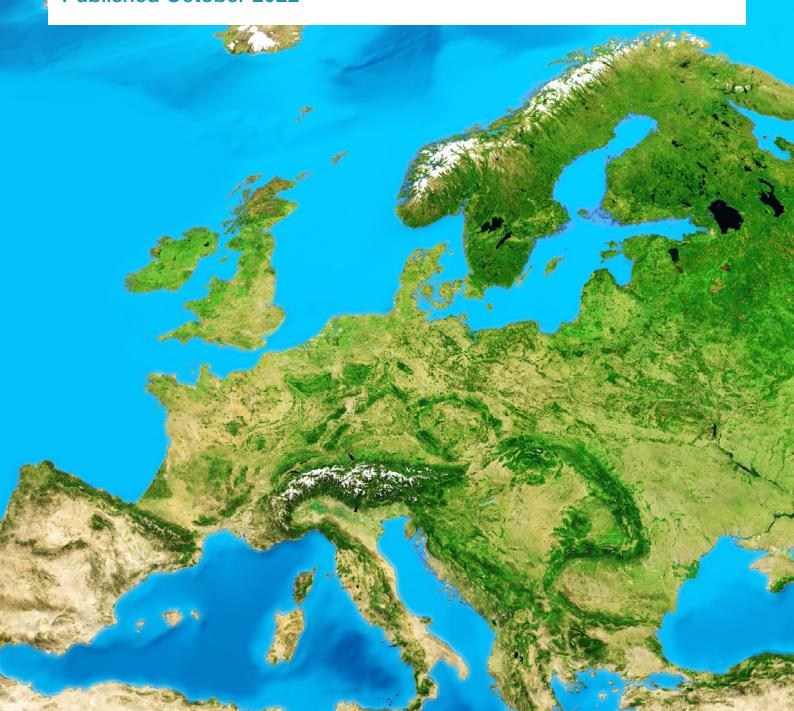


International Capital Market Association European Repo Market Survey

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Executive Summary

In June 2022, the European Repo and Collateral Council (ERCC) of the International Capital Market Association (ICMA) conducted the 43rd in its series of semi-annual surveys of the repo market in Europe, which provide an unrivalled picture of the development of that market.

The survey asked a sample of financial institutions in Europe for the value and breakdown of their repo contracts that were still outstanding at close of business on June 8, 2022. Replies were received from 56 institutions, mainly banks. Data were also reported separately by the principal automatic repo trading systems (ATS) and tri-party repo agents in Europe, giving the size and composition of almost all automatic electronic repo trading and tri-party repo in Europe.

Total repo business

The total value of the repo contracts outstanding on the books of the 56 institutions who participated in the latest survey was a record **EUR 9,680 billion**. This compares with EUR 9,198 billion in the December survey. The rise in the headline number was 5.2% since December and 10.9% year-on-year, which are very similar rates of growth to those between the June and December 2021 surveys.

Trading analysis

There was a further acceleration in the growth of the outstanding value of repos executed on ATS but virtually no growth in turnover over the period as a whole, suggesting smaller and/or longer-term transactions.

There also appears to have been a recovery in automated electronic training, which is largely dealer to customer, and a similar lengthening of maturities.

Tri-party repo continued to revive as competition from central bank money eased.

Geographical analysis

The growth in ATS was cross-border within the eurozone.

Clearing and settlement analysis

In line with the growth of ATS, the share of anonymous (CCP-cleared) repo trading in the survey recovered some of the ground it had lost over the second-half of 2021. On the other hand, there was less post-trade clearing.

GC financing facilities continued to gain share in line with the recovery of all tri-party repo.

Cash currency analysis

The share of the euro in the survey fell back by June 2022 as the shares of the US dollar and Japanese yen expanded.

Collateral analysis

There was little change in the composition of collateral over the first-half of 2022. The growth in ATS was focused on German, French and Italian government securities. The survey sample remained a large net borrower of German government securities and US Treasuries, and net lender of Italian and UK government securities. UK gilts remained the largest single component of the tri-party collateral pool.

Contract analysis

There was another significant increase in the share of repo legal agreements which were Global Master Repurchase Agreement (GMRA).

Repo rate analysis

There was another significant increase in the share of the Global Master Repurchase Agreement (GMRA).

Maturity analysis

The survey showed the usual mid-year seasonality in the form of a rebound in the share of short-dated repos and a corresponding decrease in the weighted average term to maturity, except perhaps on electronic platforms.

Product analysis

The share of securities lending conducted on repo desks continued its recent seasonal pattern by retreating from the level reached in December.

Concentration analysis

The concentration of business in the survey increased, reflecting the smaller number of repo books which expanded over the survey period.

Chapter 1: The Survey

On June 8, 2022, the European Repo and Collateral Council (ERCC) of the International Capital Market Association (ICMA) conducted the 43rd in its series of semi-annual surveys of the repo market in Europe. The first of these surveys took place in June 2000 and the series of survey reports now provides an unrivalled picture of the development of the European repo market.

The survey was carried out and the results analysed on behalf of ICMA by the author, Richard Comotto, under the guidance of the ERCC Council.

1.1 What the survey asked

The survey asked financial institutions operating in Europe for the value of the cash side of repos and reverse repos that were still outstanding at close of business on Wednesday, June 8, 2022 (in other words, the stock of transactions that had not matured or been terminated by the survey date rather than the flow of transactions between two dates). The survey covered all types of true repo, which means repurchase transactions, reverse repurchase transactions, buy/sell-backs and sell/buy-backs but not synthetic or pledge structures.

In addition, the survey asked participating institutions to break down their data into repo and reverse repo, as well as by the location of counterparty; method of execution; cash currency; type of contract; type of repo rate; remaining term to maturity; method of clearing and settlement; origin of collateral; and some other categories. In addition, institutions were asked to report the outstanding value and composition of any securities lending and borrowing conducted from their repo desks.

Since 2017, the survey has asked for the value of turnover since the previous survey and, since 2019, the numbers and types of legal agreements under which they can transact repos.

An extract of the accompanying Guidance Notes for survey participants is reproduced in Appendix A.

As well as reports provided by participating institutions, data has also been provided separately since 2003 by the principal automatic repo trading systems (ATS) since and by the main tri-party repo agents in Europe. The latter have also been reporting tri-party securities lending since 2016. Members of the Wholesale Market Brokers' Association provided data separately between 2002 to 2017.

1.2 The response to the survey

The latest survey was completed by 56 offices of 50 financial groups. The number of participants is unchanged from the December 2021 survey.¹

Of the current 56 survey participants, 46 were headquartered across 15 European countries, including Norway (1), Switzerland (2) and the UK (6). 35 participants were headquartered across 12 of the 27 member states of the EU (there continue to be no institutions in the survey from Finland and Sweden, and only one from a former Accession State). 31 participants were headquartered across 11 of the 19 countries of the eurozone. Others survey participants were headquartered in Japan (5) and North America (9). 16 participants were branches or subsidiaries of foreign parents or supranational entities. Most of these (15) were located in the UK.

Many institutions provided data for their entire European repo business. Others provided separate returns for one or more (but not necessarily all) of their European offices. Participants were asked to report both their UK and EU offices. A list of the institutions that have participated in the ICMA's repo surveys is contained in Appendix B.

¹ The number for the December 2021 survey has been corrected to 56 participants.

1.3 The next survey

The next survey is scheduled to take place at close of business on Wednesday, December 8, 2022.

Any financial institution wishing to participate in the next survey will be able to download copies of the questionnaire and accompanying Guidance Notes from ICMA's website. The latest forms will be published shortly before the next survey at www.icmagroup.org/surveys/repo/participate.

Questions about the survey should be sent by e-mail to reposurvey@icmagroup.org.

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

Chapter 2: Analysis of Survey Results

The aggregate results of the latest two surveys (December 2021 and June 2022) and of the surveys in each June in the four previous years (2018-2021) are set out in Appendix C. The full results of all previous surveys can be found at www.icmagroup.org. Please note that the ICMA is not at liberty to disclose data reported by individual participants.

Total repo business (Q1)

The total value, at close of business on June 8, 2022, of repos and reverse repos outstanding on the books of the 56 institutions which participated in the latest survey was an all-time record of **EUR 9,680.3 billion**, compared with the previous record of EUR 9,197.5 billion in the December 2021 survey. The latest number represents a rise of 5.2% since the last survey and 10.9% year-on-year.

The survey sample as a whole continues to be a net cash lender to (and therefore a net securities borrower from) the rest of the market, now by a record margin. The survey sample has been a net lender continuously since 2012.

Figure 2.1 - Total business

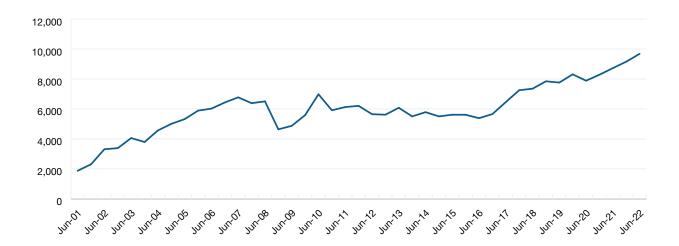


Table 2.1 – Total repo business

survey	total	repo	reverse repo
2022 June	9,680	47.4%	52.6%
2021 December	9,198	47.8%	52.2%
2021 June	8,726	48.2%	51.8%
2020 December	8,285	48.0%	52.0%
2020 June	7,885	48.6%	51.4%
2019 December	8,310	48.5%	51.5%
2019 June	7,761	48.1%	51.9%
2018 December	7,846	48.5%	51.5%
2018 June	7,351	48.7%	51.3%
2017 December	7,250	47.8%	52.2%
2017 June	6,455	48.5%	51.5%
2016 December	5,656	48.1%	51.9%
2016 June	5,379	48.0%	52.0%
2015 December	5,608	47.5%	52.5%
2015 June	5,612	48.0%	52.0%
2014 December	5,500	48.8%	51.2%
2014 June	5,782	48.6%	51.4%
2013 December	5,499	49.2%	50.8%
2013 June	6,076	49.8%	50.2%
2012 December	5,611	49.1%	51.9%
2012 June	5,647	48.7%	51.3%
2011 December	6,204	50.3%	49.7%
2011 June	6,124	50.7%	49.3%
2010 December	5,908	51.0%	49.0%
2010 June	6,979	53.5%	46.5%
2009 December	5,582	50.0%	50.0%
2009 June	4,868	52.2%	47.8%
2008 December	4,633	49.9%	50.1%
2008 June	6,504	48.8%	51.2%
2007 December	6,382	49.4%	50.6%
2007 June	6,775	50.8%	49.2%
2006 December	6,430	50.7%	49.3%
2006 June	6,019	51.7%	48.3%
2005 December	5,883	54.6%	45.4%
2005 June	5,319	52.4%	47.6%
2004 December	5,000	50.1%	49.9%
2004 June	4,561	50.6%	49.4%
2003 December	3,788	51.3%	48.7%
2003 June	4,050	50.0%	50.0%
2002 December	3,377	51.0%	49.0%
2002 June	3,305	50.0%	50.0%
2001 December	2,298	50.4%	49.6%
2001 June	1,863	49.6%	50.4%

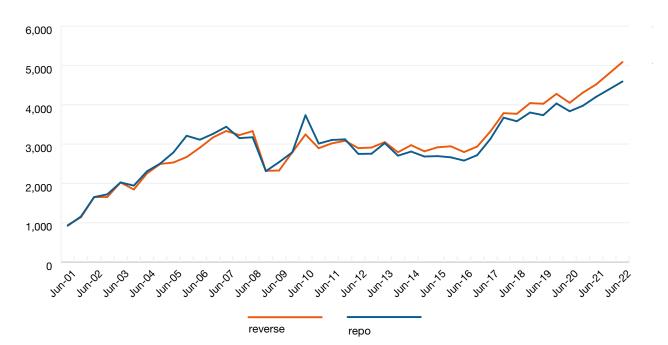


Figure 2.2 - Total repo versus reverse repo business

It has been explained that the ICMA survey measures the value of outstanding transactions at close of business on the survey date. Measurement of the flow of new repos between two dates can be useful for some business analyses but measuring the stock of transactions at one date gauges risk exposure and open interest in the market. It is important to note that outstanding value understates the share of shorter-term repos compared with turnover data, given that shorter-term repos run off faster between surveys than longer-term repos.

The values measured by the survey have not been adjusted for the double-counting of the same transactions reported by pairs of survey participants. However, a study by the author (see the report of the December 2012 survey) suggested that the problem of double-counting was not very significant. Interestingly, a trade repository in Europe has estimated that two-sided reporting has been less than 30% under EU SFTR and less than 15% under UK SFTR, which is consistent with the author's estimate of double-counting in 2012.

The survey also does not measure the very significant value of repos transacted with central banks as part of official monetary policy operations.

In order to accurately gauge the growth of the European repo market (or at least that segment represented by the institutions who have participated in the survey), it is not usually valid to simply compare headline survey numbers. Some of the changes may represent the entry and exit of institutions into and out of the survey, mergers between banks and the reorganization of repo books across banking groups. To overcome the problem caused by changes in the sample of survey participants, comparisons are made of the aggregate outstanding contracts reported by a sub-sample of institutions which have participated continuously in several surveys. However, as the survey sample did not change between December 2021 and June 2022, the survey and constant samples grew at much the same rates since the last survey.

Between December 2021 and June 2022, 23 of the 56 institutions who responded to the latest survey expanded their repo books (down from 33 out of 56 between June and December 2021). The repo books of 26 institutions contracted over the same period (up from 21 between the previous two surveys). The median percentage change was zero compared to +3.6% in the half-year to December. The average unweighted change for the respondents who increased the size of their repo books was +32.2% and -19.5% for those who cut their books, while the weighted average change was +8.6%. The growth in the size of the survey over the first-half of 2022 was therefore more concentrated that over the previous semester.

Data published under the Securities Financing Transactions Regulations (SFTR) in the EU and the UK show that the value of all outstanding repos reported on June 10, 2022, (the reporting date closest to the survey date) was EUR 12,040.5 billion in the EU and EUR 9,341.0 billion in the UK, totalling EUR 21,381,5 billion (compared to EUR 17,844 billion on December 10, 2021: a rise of 19.8%). The ICMA survey is now equivalent to 45% of the EU and UK total, compared with 53% in December (but note that SFTR data are believed to be inflated by various factors, which were discussed in a review of the first year of the regulation).

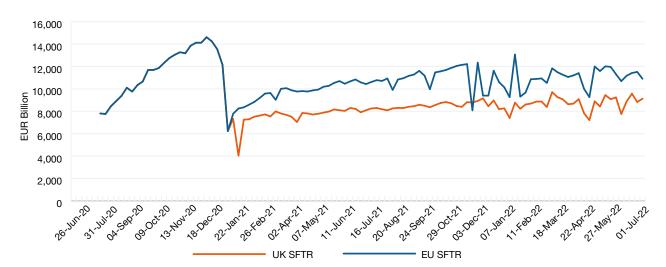


Figure 2.3 – ICMA survey versus SFTR public data: outstanding amounts

Institutions accounting for 49% of the total value of the survey reported their repo turnover over the six months since the previous survey. Grossing up on the basis of survey shares for those survey participants who did not report their turnover suggests that the daily average turnover for the whole survey sample over the first-half of 2022 was EUR 2,784 billion per day, compared to EUR 2,507 billion between the June and December 2021 surveys (+11.1%).

Turnover in repo reported under SFTR between the week ending December 10, 2021, and the week ending June 10, 2022, which is approximately the same period as that covered by the survey, was EUR 2,167 billion per day in the EU and EUR 1,696 billion per day in the UK, totaling EUR 3,863 billion. This represents a fall of 11.6% over the previous six-month period. The turnover estimated in the ICMA survey increased to 72% of the SFTR number.

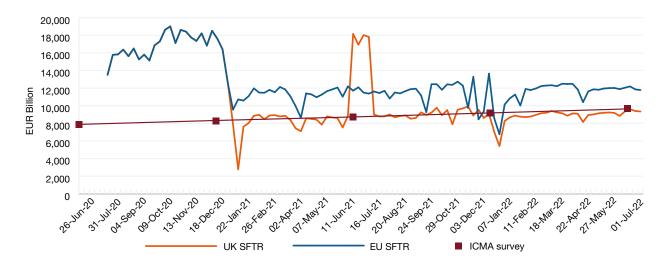


Figure 2.4 - ICMA survey versus SFTR public data: weekly turnover

Trading analysis (Q1.1)

Table 2.2 - Trading analysis

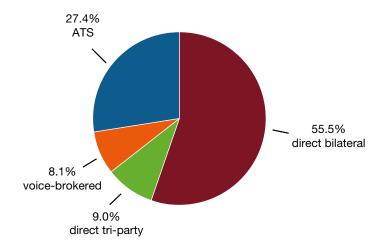
	June	2022	Decemb	er 2021	June	2021
	share	users	share	users	share	share
direct	64.5%	56	63.1%	56	63.4%	59
of which tri-party	9.0%	42	8.6%	45	8.0%	43
voice-brokers	8.1%	36	10.1%	34	8.3%	31
ATS	27.4%	45	26.8%	46	27.5%	46

The shares of trading venues continued to fluctuate within narrow bands. The seasonal recovery of the share of direct trading in June persisted. It may be that these seasonal patterns reflect the impact of the shrinkage of intermediary balance sheets at year-end on dealer-to-customer business, which is part of direct trading.

Table 2.3 - Numbers of participants reporting particular types of business

	Jun-22	Dec-21	Jun-21	Dec-20	Jun-20	Dec-19
ATS	45	46	46	48	46	46
anonymous ATS	40	44	41	42	42	41
voice-brokers	36	34	31	38	43	43
tri-party repos	42	45	43	42	37	41
total	56	56	59	60	61	58

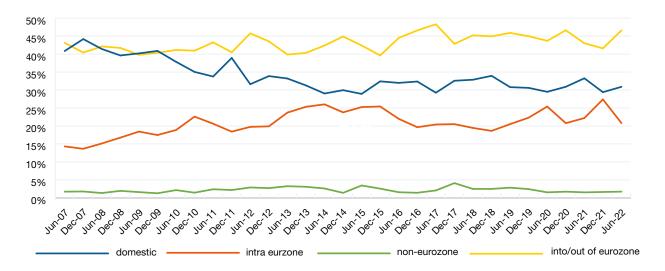
Figure 2.5 - Trading analysis



Data provided separately by the principal automatic trading systems (ATS) in Europe showed further acceleration in their growth with the outstanding value of repos executed on these platforms increasing by 18.8% to EUR 1,426.8 billion by June 2022 and the number of transactions surging by 38.5% to some 24,000 per day over the first-half of the year. On the other hand, turnover was virtually static at just over EUR 560 billion per day, suggesting that there were more smaller and longer-term transactions across the ATS. Performance continued to vary significantly between the different ATS.

Growth in automatic electronic trading was driven by cross-border business within the eurozone, which jumped to 37.9% from 27.4%, largely at the expense of domestic business and transactions into and out of the eurozone (the latter fell to 38.7% from 41% in December).

Figure 2.6 - Outstanding of ATS business by location of counterparties



Activity recovered on **automated repo trading systems**, which are often called request-for-quote (RFQ) systems and are largely used for dealer-to-client business (whereas automatic systems almost exclusively execute interdealer business). Tradeweb, which may be the largest automated repo trading system in Europe and is the only automated system to publish data, saw average daily turnover of repo on its European platform in the first-half of 2022 recover to its rate in Q3 2021 (a rise of about 3.0% compared with the second-half of 2021). There was a rise of 66.9% in the value of outstanding repos over the same period (see Figure 2.7), suggesting a significant lengthening of average term to maturity (business on automated systems anyway tends to be longer-term than that on ATS).



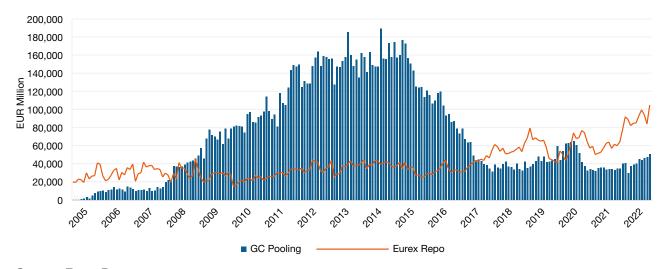
Figure 2.7 - Monthly turnover and outstanding value in European repo on Tradeweb

Source: Tradeweb

On Eurex Repo and GC Pooling, which are both CCP-cleared, average daily turnover grew strongly in first-half of 2022. Eurex Repo, which trades both GC and specific/special collateral, expanded to EUR 120.9 billion per day in mid-June 2022 from EUR 79.9 billion in mid-December 2021 (+51.3%). GC Pooling rose to EUR 71.0 billion from EUR 26.7 billion over the same period (+166%). Note that all Eurex turnover figures are published on a termadjusted basis, which inflates the data.

In terms of outstanding amounts at mid-month, the picture at Eurex was mixed. Balances on Eurex Repo contracted to EUR 78.8 billion in June 2022 from EUR 95.3 billion in December 2021 (-17.3%), while GC Pooling increased to EUR 46.0 billion from EUR 36.8 billion (+25.0%). The implication is that the average maturity of specific/special repo shortened on Eurex Repo but lengthened on GC Pooling. This would be consistent with a combination of increased collateral scarcity (which should boost the trading of specific/special collateral but for shorter periods) and greater interest rate volatility (which would tend to boost GC trading particularly in longer-term repos).

Figure 2.8 – Monthly turnover on Eurex Repo and GC Pooling (EUR million, 20-day moving average, adjusted for double-counting)



Source: Eurex Repo

Tri-party repo further increased its share of the survey to 9.0% from a revised 8.6% in December. The outstanding value of all tri-party business reported separately by the five principal tri-party agents operating in Europe (Bank of New York Mellon, Clearstream, Euroclear, JP Morgan and SIS) grew by 2.1% to EUR 685.0 billion, which is virtually the whole of the tri-party repo market in Europe.

The share of tri-party repo reported separately by the agents that was traded on GC financing facilities (electronic markets for CCP-cleared, tri-party repos) continued to increase, reaching 12.3% from a revised share of 10.3% in December. The value of outstanding repo traded on these facilities (which include GC Pooling) increased to EUR 84.0 billion from a revised EUR 69.1 billion in December, a rise of 21.6%.

Tri-party repo continued to provide the survey sample with net cash but, within that net number, the share of gross tri-party lending by the survey sample increased to 36.6% from 28.8%.

Geographical analysis (Q1.1)

Table 2.4 - Geographical analysis

	June 2022		December 2021		June 2021	
	share	users	share	users	share	users
domestic	22.8%		25.9%		24.8%	
cross-border to (other) eurozone	18.7%		19.7%		18.4%	
cross-border to (other) non-eurozone	41.1%		38.4%		38.8%	
anonymous	17.4%	40	16.0%	44	17.9%	41

Figure 2.9 - Geographical analysis

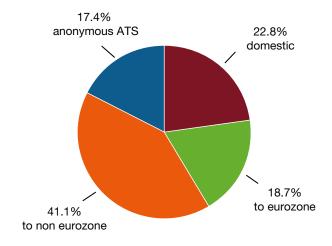


Table 2.5 - Geographical comparisons in June 2022 (December 2021)

	main survey	ATS	tri-party
domestic	22.8% (25.9%)	27.2% (29.4%)	34.4% (39.2%)
cross-border	59.8% (58.1%)	72.7% (70.6%)	65.6% (60.8%)
anonymous	17.4% (16.0%)		

The share of **domestic repo** business in the survey resumed the downward trend which began in June 2020. Domestic activity also fell back in tri-party repo and ATS. The counterpart was an increase in the share of **cross-border business within the eurozone**. There was also growth in **cross-border business into and out of the eurozone** in both tri-party and ATS repo (in contrast to the survey sample).

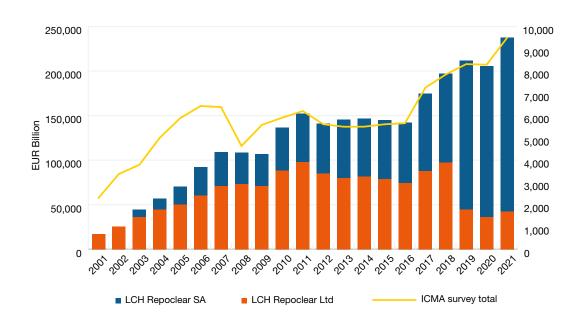
Clearing and settlement analysis (Q1.2 and Q1.8)

The share of anonymous (CCP-cleared) repo trading in the survey recovered some of the ground it had lost over the second-half of 2021. This activity has fluctuated around a downward trend since June 2016, when the share of anonymously-traded repo fell off the plateau of about 25% that had been reached in 2013. The value of anonymous trades in the survey also recovered, by 4.9% to EUR 1,537.0 billion (note than this number is not directly comparable with that reported separately by the principal ATS, which is a better measure of the size of CCP-cleared automatic electronic repo market in Europe).

The share of ATS business that was cleared on a CCP continued to grow, reaching 99.1% from 98.4% in December.

Turnover data from LCH RepoClear, the largest repo CCP in Europe, continued to be correlated with the survey (see Figure 2.10). LCH turnover grew by 10.1% in the first-half of 2022. This was similar to the growth in the estimated turnover of the survey sample (+11.1%), suggesting that the expansion of clearing was focused on the interdealer market, which is the core of the survey.

Figure 2.10 - Annual cleared notional turnover on LCH RepoClear (EUR billion, double-counted)



Monthly data published by LCH shows that the growth in RepoClear turnover accelerated in Q1 2022 before being dented by the reduced number of trading days in April due to Easter.

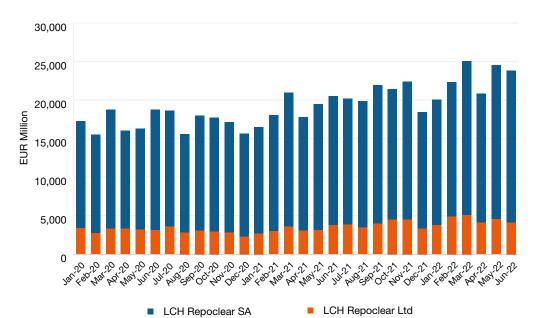
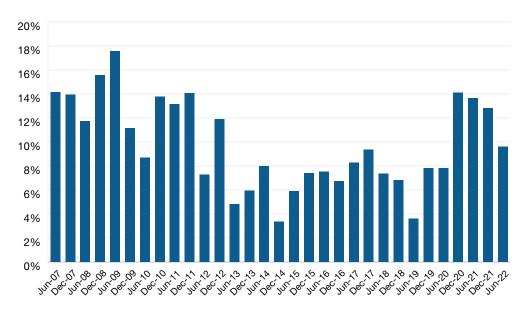


Figure 2.11 - Monthly cleared notional turnover on LCH RepoClear in 2020 (EUR billion, double-counted)

Source: LCH

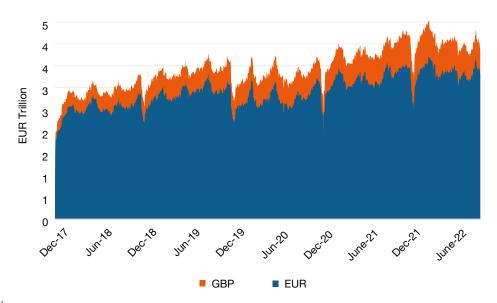
Figure 2.13 shows the outstanding value of repos cleared by LCH (open interest). After surging to a record high in early March 2022, outstanding value fell back over the remainder of the first semester. Average daily outstanding CCP-cleared euro repo on LCH SA grew by 3.2% in the first-half of 2022 compared to the second-half of 2022 (compared with a revised 4.2% between the previous semesters), while sterling repo on LCH Ltd grew by 7.6%% (compared with a revised 21.5% between the previous semesters).

Figure 2.12 – Daily outstanding value of cleared repos on LCH RepoClear 2018-June 2022 (EUR trillion, double-counted: calculated using same methodology as ICMA survey)



While the bulk of CCP-clearing is of repos transacted on ATS, a significant proportion of CCP-cleared repo continues to be transacted directly and registered with a CCP post trade. However, post-trade clearing continued to retrace the growth that took its share to the recent high seen in December 2020 and it touched 9.6% from 12.3% in December 2021.

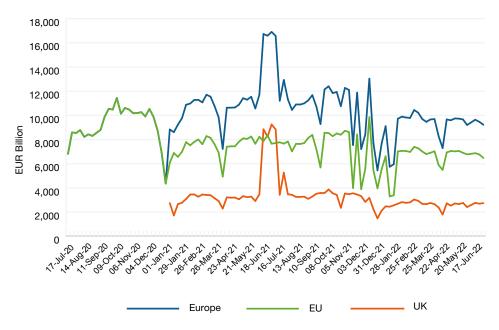
Figure 2.13 - Post-trade CCP-clearing



Source: LCH

After violent fluctuations over the turn of the year, the value of new cleared repo reported under SFTR tended to drift lower in the EU over the first-half of 2022 but was steadier in the UK.

Figure 2.14 – new CCP-cleared repos reported under SFTR (EUR trillion)



Source: DTCC, Regis-TR, Unavista

The outstanding value of cleared repos reported under SFTR in the first-half of 2022 unsurprisingly reflected the pattern seen at LCH, peaking in Q1 and settling back after Easter to lower levels. In contrast to LCH data, SFTR shows balances in 2022 below those in the previous year, likely reflecting differences in methodology.

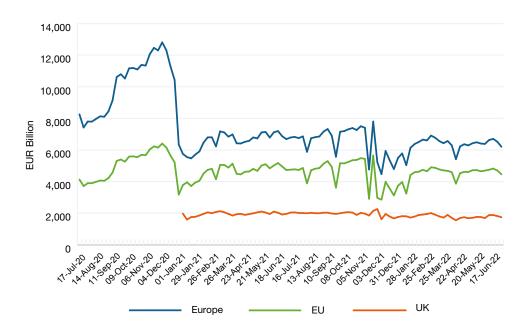


Figure 2.15 – outstanding CCP-cleared repos reported under SFTR (EUR trillion)

Source: DTCC, Regis-TR, Unavista

As noted earlier, the share of **GC financing** (mainly through Eurex's GC Pooling service but also LCH's €GCPlus) increased in the first-half of 2022. As a percentage of the tri-party business reported by the survey sample, the share of GC financing grew to 0.8% from 0.7% in June and its share of tri-party repo, as reported separately by the principal agents, expanded to 12.3% from a corrected December share of 8.1%. However, GC financing's share of electronic business, as reported directly by ATS, fell to 3.1% from 3.3%, reflecting the overall surge in ATS trading.

Cash currency analysis (Q1.3 and Q1.4)

Table 2.6 - Cash currency analysis

	June 2022	December 2021	June 2021
EUR	54.7%	56.8%	54.5%
GBP	15.6%	15.7%	16.9%
USD	20.3%	19.1%	19.5%
DKK, SEK	1.3%	1.5%	1.6%
JPY	5.7%	4.7%	5.2%
CHF	0.0%	0.1%	0.0%
other APAC	1.1%	0.9%	1.1%
other currencies	1.4%	1.2%	1.2%
cross-currency	1.8%	1.9%	2.3%

The share of the euro in the survey retreated as the shares of the US dollar and Japanese yen expanded. The share of the euro in tri-party repo reported by the agents continued to contract, touching a new low of 43.5% from 44.5% in December, while the dollar increased to an all-time high of 45.6% from 42.9% (the previous record was 44.6% in June 2007). The pound sterling fell back to 8.3% from 9.2%.

Figure 2.16 - Currency analysis

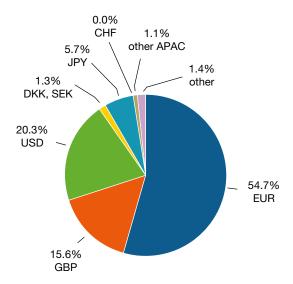


Table 2.7 - Currency comparison in June 2022

	main survey	ATS	tri-party
EUR	54.7%	90.0%	52.9%
GBP	15.6%	9.2%	9.8%
USD	20.3%	0.7%	34.4%
DKK, SEK	1.3%	0.0%	0.4%
JPY	5.7%	0.0%	1.3%
CHF	0.0%	0.0%	0.5%
other APAC	1.1%	n/a	0.2%
etc	1.4%	0.0%	0.6%
cross-currency	1.8%		12.7%

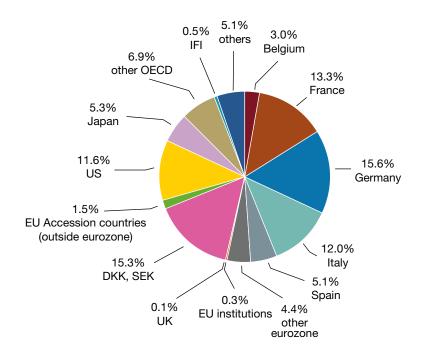
Collateral analysis (Q1.9)

There was little change in the composition of collateral over the first-half of 2022 other than a sharp recovery in the use of securities issued in non-APAC OECD countries.

Table 2.8 - Collateral analysis

	June 2022	December 2021	June 2021
Germany	15.6%	15.8%	14.8%
Italy	12.0%	11.9%	11.6%
France	13.3%	13.7%	13.2%
Belgium	3.0%	3.3%	3.6%
Spain	5.1%	5.9%	5.5%
other eurozone	4.4%	4.6%	4.5%
DKK, SEK	1.5%	1.7%	2.2%
former EU Accession	0.3%	0.4%	0.5%
EU institutions	0.1%	0.3%	0.3%
UK	15.3%	15.4%	16.0%
international institutions	0.5%	0.4%	0.2%
US Treasuries	9.4%	10.9%	8.7%
other US	2.2%	2.2%	2.3%
Japan government	4.0%	3.9%	0.5%
other Japan	1.3%	1.1%	3.5%
other OECD ex APAC	6.6%	3.4%	6.4%
other APAC OECD	0.2%	0.3%	0.4%
eurobonds	1.5%	1.5%	1.7%
other fixed income	3.1%	3.0%	3.1%
equity	0.5%	0.4%	0.3%

Figure 2.17 - Collateral analysis (main survey)



The combined share of European (EU plus UK) collateral in the form of government securities regained share to reach 91.5% from 90.5%.

The growth in ATS was focused on their core business: German government securities increased to 15.6% from 13.9%; French government securities to 12.1% from 11.2%; and Italian government securities to 44.5% from 42.6%. UK gilts were steady at 9.8% but Spanish government securities fell to 7.6% from 8.1%.

The share of securities issued by EU institutions that were used as repo collateral dropped to 0.1% of the survey from 0.3% but recovered a little ground in tri-party repo as reported separately by the agents, reaching 5.1% from 4.4%.

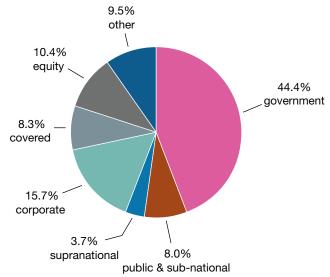
The survey sample remained a large net borrower of German government securities and US Treasuries (equivalent to 2.2% and 3.4%, respectively, of the survey). It became a significant lender of Belgian government and "other OECD" securities (1% and 0.5%, respectively). The sample remained a significant net lender of Italian and UK government securities (equivalent to 2.6% and 2.4%, respectively). It became a net lender of JGBs (0.9%).

The share of government securities used as collateral in tri-party repo managed by the ICSDs retreated to 44.4% from 48.7% in December. This was mainly due to an increase in the allocation of non-US eurobonds and falls in the use of French, Italian and Japanese government securities. However, allocations of US Treasuries and UK and Spanish government securities increased. UK gilts remained the largest single component of the tri-party collateral pool.

Table 2.9 – Tri-party repo collateral analysed by type of asset

	June 2022	December 2021	December 2020
government securities	44.4%	48.7%	44.6%
public agencies / sub-national governments	8.0%	8.2%	5.5%
supranational agencies	3.7%	4.2%	4.7%
corporate bonds	15.7%	10.6%	11.6%
covered bonds	8.3%	6.4%	5.6%
residential mortgage-backed	0.9%	1.0%	1.2%
commercial mortgage-backed	0.3%	0.3%	0.3%
other asset-backed	1.3%	1.4%	1.5%
CDO, CLN, CLO, etc	1.5%	1.1%	2.2%
convertible bonds	2.7%	2.9%	2.5%
equity	10.4%	13.1%	20.0%
other	2.7%	2.0%	0.1%





The share of AAA-rated securities recovered and that of AA-rated securities continued to grow.

Table 2.10 - Tri-party repo collateral analysed by credit rating

	June 2022	December 2021	June 2021
AAA	20.0%	18.4%	21.9%
AA	29.2%	27.5%	26.3%
A	10.8%	12.8%	8.9%
BBB	13.3%	13.4%	11.5%
below BBB-	9.2%	10.1%	6.2%
A1/P1	3.8%	4.0%	2.7%
A2/P2	0.1%	0.1%	0.0%
Non-Prime	0.0%	0.1%	0.0%
unrated	13.7%	13.8%	22.3%

Figure 2.19 - Collateral analysis (tri-party agents) by credit rating - changes

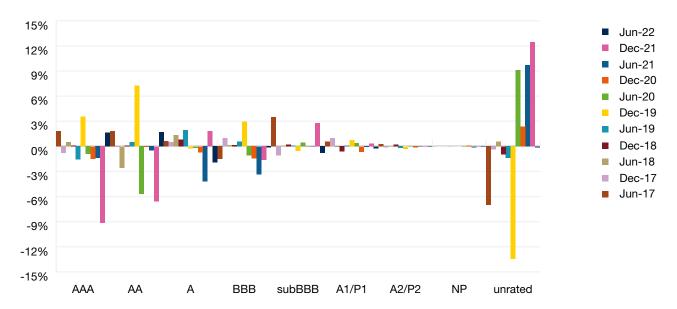
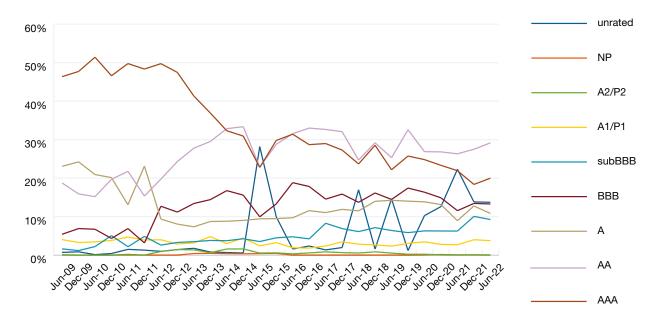


Figure 2.20 - Historic collateral analysis (tri-party agents) by credit rating



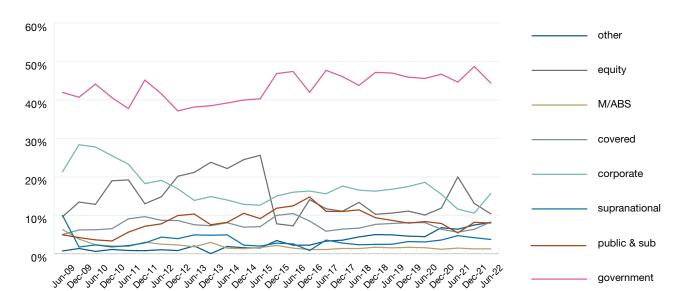


Figure 2.21 - Historic collateral analysis (tri-party agents) by type of asset

The weighted average haircut on government securities continued to narrow. Public sector haircuts also narrowed. In contrast, haircuts on corporate issues, CMBS, collateralised securities and equity widened.

Table 2.11 - Tri-party repo collateral weighted-average haircuts analysed by type of asset

	June 2022	December 2021	June 2021
government securities	1.8%	2.5%	3.1%
public agencies / sub-national governments	3.0%	2.7%	2.6%
supranational agencies	2.4%	1.8%	1.4%
corporate bonds (financial)	3.7%	3.3%	3.2%
corporate bonds (non-financial)	4.9%	3.1%	3.2%
covered bonds	1.3%	1.0%	2.7%
residential mortgage-backed	2.6%	1.7%	2.2%
commercial mortgage-backed	3.4%	1.3%	2.6%
other asset-backed	6.4%	4.1%	4.5%
CDO, CLN, CLO, etc	4.0%	2.5%	2.5%
convertible bonds	7.5%	2.8%	3.7%
equity	6.7%	1.7%	2.7%
other	3.1%	1.5%	1.2%

Contract analysis (Q1.5)

Figure 2.22 - Contract analysis

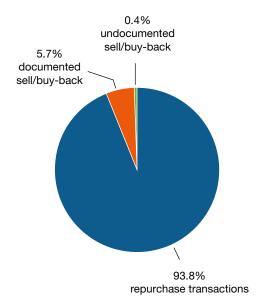


Table 2.12 - Contract comparison in June 2022 (December 2021)

	main survey	ATS	tri-party
repurchase transactions	93.8% (93.2%)	93.5% (92.6%)	100.0% (100.0%)
documented sell/buy-backs	5.7% (6.4%)	6.5% (7.6%)	
undocumented sell/buy-backs	0.4% (0.4%)		

Of the master agreements in place among survey participants, a record 92.0% were reported to be the ICMA Global Master Repurchase Agreement (GMRA), up from 84.9% in December.

Repo rate analysis (Q1.6)

There were increases in the shares of floating-rate repos in the survey and in trading on the ATS. This would have been expected in an environment of rising rates. The share of floating-rate repos in the survey has been increasing since 2020.

However, there was dramatic increase in the share of fixed-rate transactions in tri-party repo, which may mean that borrowers have been able to lock in current rates.

Figure 2.23 - Repo rate analysis

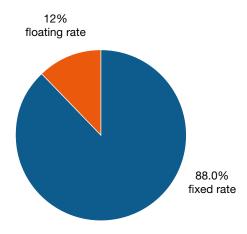


Table 2.13 - Repo rate comparison in June 2022 (December 2020)

	main survey	ATS	tri-party
fixed rate	88.0% (89.0%)	96.4% (97.7%)	79.8% (52.9%)
floating rate	12.0% (11.0%)	3.6% (2.3%)	20.2% (47.1%)

Maturity analysis (Q1.7)

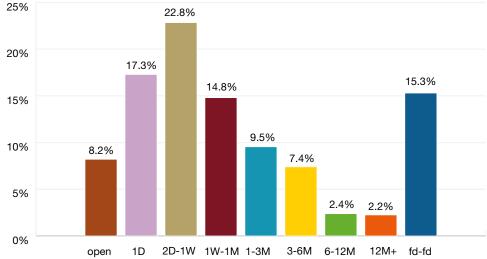
The survey showed the usual mid-year seasonality in the form of a rebound in the share of short-dated repos (one month or less remaining to maturity). Short dates typically shrink at year-end as cash borrowers seek term funding into the new year and then recover by mid-year. In June 2022, the shift was largely into open and short-dated repo (by 7.4 percentage points).

Table 2.14 - Maturity analysis

	June 2022	December 2021	June 2021
open	8.2%	6.3%	7.5%
1 day	17.3%	16.8%	18.8%
2 days to 1 week	22.8%	18.8%	21.5%
1 week to 1 month	14.8%	13.8%	17.3%
>1 month to 3 months	9.5%	16.9%	9.8%
>3 months to 6 months	7.4%	8.0%	7.5%
>6 months to 12 months	2.4%	3.2%	3.8%
>12 months	2.2%	2.5%	2.4%
forward-start	15.3%	13.6%	11.4%

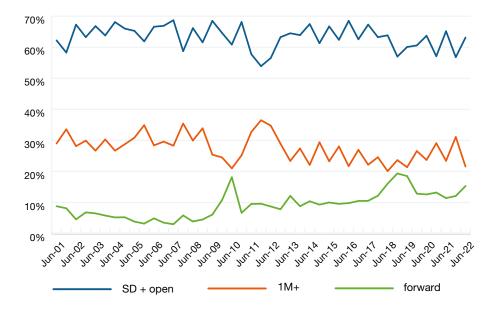
25% 22.8%

Figure 2.24 - Maturity analysis (main survey)



Reflecting the shift back towards short dates, the weighted average term to maturity of outstanding repos contracted to 28-64 days from 34-77 days in December.²

Figure 2.25 - Maturity analysis: short dates, longer terms & forwards (main survey)



The lower end of the range assumes that all transactions have the minimum term in each maturity band: the upper end assumes the maximum and a term of 31

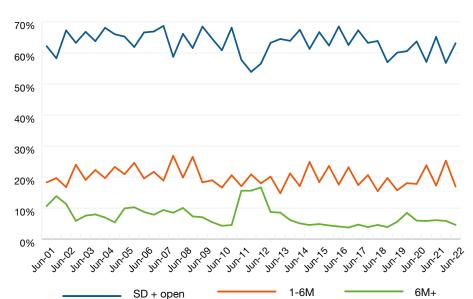


Figure 2.26 - Maturity analysis: non-forward terms (main survey)

The share of forward repo rose sharply by June 2022 in contrast to recent June surveys. This growth may have been driven by position-taking in response to expectations of further rises in official interest rates in the context of inflationary pressures. However, some forward repos are reported to be the product of longer-term trades being broken up to facilitate netting (short-term transactions are easier to match) rather than natural forwards.

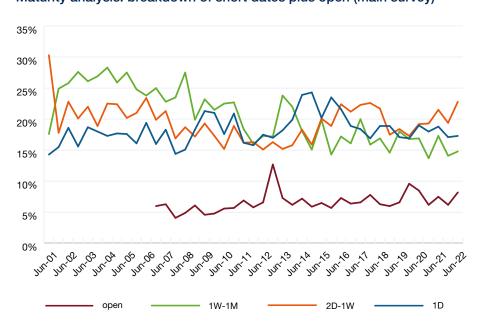


Figure 2.27 - Maturity analysis: breakdown of short dates plus open (main survey)

The survey sample continued to run a negative funding gap (borrowing short-term and lending longer-term). Net borrowing remains strongly seasonal between two and seven days, as did net lending between one and three months.

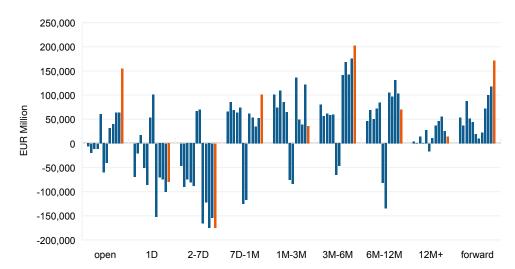
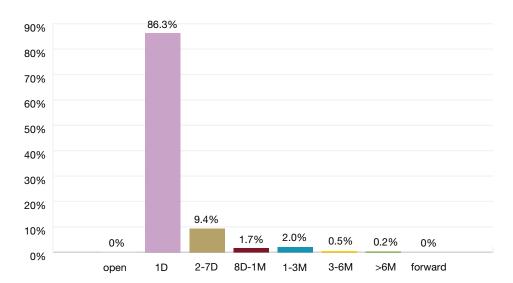


Figure 2.28 - Maturity analysis: maturity transformation profile --- net reverse repo (main survey)

In contrast to other market segments, there was a modest lengthening of the remaining term to maturity between one week and one year reported separately by the ATS.





In line with the survey, tri-party agents reported a shift back into short-dated positions.

Figure 2.30 – Maturity analysis (tri-party agents)

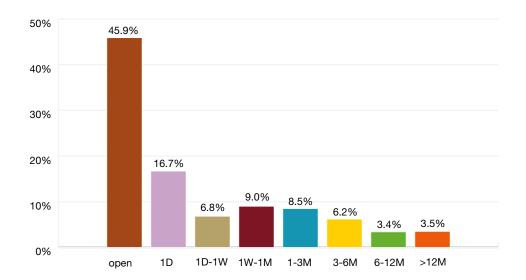


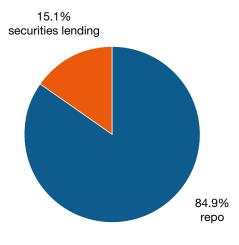
Table 2.15 – Maturity comparison in June 2022 (December 2021)

	main survey	ATS	tri-party
open	8.2% (6.3%)	n/a	45.9% (45.6%)
1 day	17.3% (16.8%)	86.3% (87.4%)	16.7% (16.2%)
2 days to 1 week	22.8% (18.8%)	9.4% (9.4%)	6.8% (4.8%)
1 week to 1 month	14.8% (13.8%)	1.7% (0.8%)	9.0% (6.3%)
>1 month to 3 months	9.5% (16.9%)	2.0% (1.8%)	8.5% (10.4%)
>3 months to 6 months	7.4% (8.0%)	0.5% (0.4%)	6.2% (8.0%)
>6 months to 12 months	2.4% (3.2%)	0.2% (0.0%)	3.4% (5.0%)
>12 months	2.2% (2.5%)	0.0% (0.0%)	3.5% (3.5%)
forward-start	15.3% (13.6%)	0.0% (0.0%)	

Product analysis (Q2)

The share of securities lending conducted on repo desks relapsed to 15.1% from 17.7% in December, continuing its recent seasonal pattern of fluctuations.

Figure 2.31 - Product analysis



Concentration analysis

Table 2.16 - Concentration analysis

The survey became more concentrated in June 2022, with the top 10 institutions taking share from the rest of the survey sample. This reflected the smaller number of repo books which expanded in the first-half of 2022.

	June 2022	December 2021	June 2021
top 10	69.1%	65.9%	69.0%
top 20	87.8%	87.0%	87.2%
top 30	95.3%	95.2%	95.1%
other	4.7%	4.8%	4.9%

Figure 2.32 - Concentration analysis

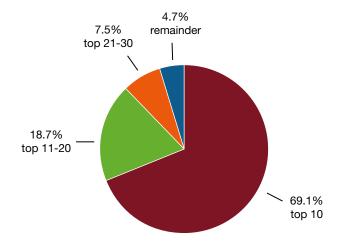
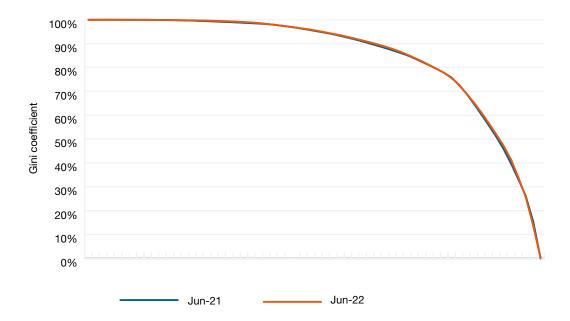


Table 2.17 - Herfindahl Index³

	index	numbers in survey
December 2003	0.045	76
June 2004	0.040	81
December 2004	0.047	76
June 2005	0.043	81
December 2005	0.043	80
June 2006	0.042	79
December 2006	0.050	74
June 2007	0.041	76
December 2007	0.040	68
June 2008	0.044	61
December 2008	0.049	61
June 2009	0.051	61
December 2009	0.065	59
June 2010	0.105	57
December 2010	0.064	57
June 2011	0.074	58
December 2011	0.065	62
June 2012	0.062	60
December 2012	0.054	69
June 2013	0.046	63
December 2013	0.046	66
June 2014	0.046	64
December 2014	0.043	64
June 2015	0.044	64
December 2015	0.041	70
June 2016	0.050	66
December 2016	0.056	65
June 2017	0.052	64
December 2017	0.049	64
June 2018	0.053	62
December 2018	0.060	59
June 2019	0.054	59
December 2019	0.059	60
June 2020	0.069	61
December 2020	0.062	60
June 2021	0.064	59
December 2021	0.058	56
June 2022	0.060	56

³ The Herfindahl Index is the sum of the squares of market shares divided by the square of the sum of market shares. The higher the index, the lower the degree of competition. If the index is higher, the more a single institution has a dominant market share and/or the more insignificant the market shares of all the other survey participants. A market in which several institutions have very large market shares can therefore have a relatively low index

Figure 2.33 - Cumulative distribution of market share



Chapter 3: Conclusion

The post-Covid rally in overall repo market activity continued into the first-half of 2022. Otherwise, this was a quiet time in the European repo market.

Growth was most evident in rapid increase in trading on most automatic electronic trading systems (ATS) and the recovery of automated electronic trading. Tri-party repo, long suppressed by central bank cash, continued to revive.

On the other hand, growth in the survey was more concentrated than in previous surveys and the survey sample grew faster than the market as a whole as measured by SFTR public data. Given that the survey is driven largely by the major repo intermediaries, it may be that the interdealer core is outpacing the rest of the market. This suggestion is supported by the strong growth in ATS, which are almost exclusively interdealer.

Fast growth in turnover but slower growth in the outstanding value of automatic and automated electronic business implies a lengthening of maturities in this segment. This was in contrast to the survey as a whole, where there was the usual mid-year shift towards short-dated repos. Longer maturities in electronically-traded repo could reflect a recovery in cash-driven GC (general collateral) business or greater interest in term transactions in response to further expected increases in official interest rates. The continued recovery in tri-party repo supports the suggestion that the demand for cash is recovering.

It may also be relevant that ATS business seems to have decreased in average size, which could indicate more business in specific securities issues (specific repos tend to be smaller than cash-driven GC or general collateral repo). The securities most in demand were German, French and Italian government securities. This would be consistent with reports of persistent or worsening collateral scarcity (and growing concerns about the approaching end-year).

The hypothesis about the drivers of increased activity in both cash and securities-driven repo is supported by the opposite directions of Eurex Repo and GC Pooling. The former trades specifics and GC: the latter is pure GC. The average maturity on Eurex Repo seems to have contracted but the average maturity on GC Pooling seems to have lengthened. This contrast could be a sign of the impact of greater collateral scarcity on trading on Eurex Repo (buyers less willing to lend collateral for longer terms) and more term business on GC Pooling (in response to expected rate rises).

The increase in the share of the US dollar and Japanese yen may reflect the strength of the dollar but also cross-currency basis arbitrage opportunities.

About the Author

This report was compiled by Richard Comotto, who is Senior Consultant to the ICMA's European Repo and Collateral Council. He is also author of the ICMA's 'Guide to Best Practice in the European Repo Market' and its Repo FAQs, Course Director of the ICMA Professional Repo Market and Collateral Management Course and of the ICMA-ISLA GMRA-GMSLA Workshop and author of the ICMA SFTR Task Force's Reporting Recommendations and the ICMA CSDR Cash Penalty Best Practice Recommendations and FAQs. Richard also provides technical assistance on behalf of ICMA, IMF, World Bank, Asian Development Bank and other organisations to developing repo markets around the world.

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 8, 2022.

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 8, 2022, and various breakdowns of these amounts, as well as the total value of all repos and reverse repos turned over the six months since the previous survey (which was on December 8, 2021).

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.

Guidance Notes

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 varieties of repos, ie repurchase transactions (classic repos and pensions livrées) and sell/buy-backs (e.g. simultaneas and PCT). 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 8, 2022. 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 9, 2022. You should include all open repos and reverse repos that have been rolled over from Wednesday, June 8, 2022, to a later date and all forward-forward repos and reverse repos that are still outstanding as forward contracts at close on Wednesday, June 8, 2022.
- i) Give separate totals for (a) repos plus sell/buy-backs and (b) reverse repos plus 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 8, 2022, even if their purchase dates are later.

- An unavoidable consequence of using the transaction date is that tom/next and spot/next transactions that are rolled over will be counted more than once, eg a tom/next repo transacted on the day before the survey date and rolled over on the survey date will feature twice.
- 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.
- I) Do not report synthetic repos.
- m) You should include intra-group transactions between different legal entities or between foreign branches and the parent company.

Guidance on specific questions in the survey form

- 1.1 Transactions (1.1.1) direct with counterparties or (1.1.2) through voice-brokers should exclude all repos transacted over an ATS (see below). These should be recorded under (1.1.3).
 - (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.
 - (1.1.3)"ATSs" are automatic or semi-automatic trading systems (e.g. BrokerTec, Eurex Repo, MTS and eRepo) but not voice-assisted electronic systems used by voice-brokers (where voice-brokers record and communicate transactions agreed by telephone or electronic messaging) or automated systems such as GLMX or TradeWeb (which offer a request-for-quote (RFQ) trading model). Nor does use of an ATS include trading assisted by electronic means of structured messages and confirmations such as Bloomberg's RRRA and similar screens. Transactions on automated trading systems (RFQ systems) should be included in (1.2.2) --- see below. Transactions through voice-assisted systems should be included in (1.1.2). Anonymous transactions through an ATS with a central counterparty (e.g. Euronext Clearing (CC&G), LCH, BME Clearing (MEFFClear) and Eurex Clearing) should be recorded in either (1.1.3.4) or (1.1.3.5). (1.1.3.4) is for GC financing systems. These are ATS that are connected to a CCP and a tri-party repo service. Examples include Eurex Repo Euro GC Pooling (EGCP), LCH SA's €GCPlus and LCH Ltd's £GC. They do not include GC basket trading on ATS in which the seller manually selects the securities to be delivered from a list prescribed by the ATS. This activity may be cleared across a CCP but does not involve a tri-party service and should be recorded in (1.1.3.5).
 - (1.2.1) This item includes all the transactions recorded in (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.
 - (1.2.2) Questions (1.1.3.1) to (1.1.3.5) measure repos and reverse repos transacted on automatic or semi-automatic trading systems such as BrokerTec, Eurex Repo, MTS and eRepo, but not voice-assisted electronic systems used by voice-brokers (where voice-brokers record and communicate transactions agreed by telephone or electronic messaging) or automated systems such as BrokerTec Quote, GLMX, MTS BondVision or TradeWeb (which offer a request-for-quote (RFQ) trading model). This question asked for the total value of business transacted on any electronic trading system, whether automatic, semi-automatic or automated, and therefore including automated systems such as GLMX or TradeWeb, which offer a request-for-quote (RFQ) trading model. Electronic trading Is defined in terms of where the contract is executed and so does not include voice-assisted electronic systems used by voice-brokers or trading assisted by electronic means of structured messages and confirmations such as Bloomberg's RRRA and similar screens.
- 1.5 "Repurchase transactions" (also known as "classic repos") include transactions documented under the Global Master Repurchase Agreement (GMRA) 1995, the Global Master Repurchase Agreement (GMRA)

2000 or the Global Master Repurchase Agreement (GMRA) 2011 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 transactions are characterised by the immediate payment by the buyer to the seller of a compensatory or manufactured payment upon receipt by the buyer of a coupon or other income on the collateral held by the buyer. If a coupon or other income is paid on collateral during the term of a sell/buy-back, the buyer does not make an immediate compensatory or manufactured payment to the seller, but reinvests the income until the repurchase date of the sell/buy-back and deducts the resulting amount (including reinvestment income) from the repurchase price that would otherwise be 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, 2000 or 2011), periodic adjustments to the relative amounts of collateral or cash - which, for a repurchase transaction, would be performed by margin maintenance transfers or payments - are made by adjustment or re-pricing. All open repos are likely to be repurchase transactions.

- "Open" repos, which are reported in (1.7.3), 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. Open repos should also be included in fixed-rate repo (1.6.1) unless their repo rates are linked to interest rate indexes which will be refixed during the life of the repos, in which cases, they would be reported as floating-rate repos (1.6.2).
- 1.7 This section asks for the remaining term to maturity (not the original term to maturity) of repos to be broken down as follows:
 - (1.7.1.1) 1 day this means:
 - all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Thursday, June 9, 2022;
 - overnight, tom/next, spot/next and corporate/next contracts transacted on Wednesday, June 8, 2022.
 - (1.7.1.2) 2-7 days this means:
 - all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Friday, June 10, 2022, or any day thereafter up to and including Wednesday, June 15, 2022;
 - contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on Friday, June 10, 2022, or any day thereafter up to and including Wednesday, June 15, 2022 (irrespective of the purchase date, which will vary).
 - (1.7.1.3) More than 7 days but no more than 1 month this means:
 - all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Thursday, June 16, 2022, or any day thereafter up to and including Friday, July 8, 2022;
 - contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on Thursday, June 16, 2022, or any day thereafter up to and including Friday, July 8, 2022 (irrespective of the purchase date, which will vary).
 - (1.7.1.4) More than 1 month but no more than 3 months this means:
- all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Monday, July 11, 2022, or any day thereafter up to and including Thursday, September 8, 2022;
- contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on Monday, July 11, 2022, or any day thereafter up to and including Thursday, September 8, 2022 (irrespective of the purchase date, which will vary).

- (1.7.1.5) More than 3 months but no more than 6 months this means:
- all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Friday, September 9, 2022, or any day thereafter up to and including Thursday, December 8, 2022;
- contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on Friday, September 9, 2022, or any day thereafter up to and including Thursday, December 8, 2022 (irrespective of the purchase date, which will vary).
- (1.7.1.6) More than 6 months but no more than 12 months this means;
- all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Friday, December 9, 2022, or any day thereafter up to and including Thursday, June 8, 2023;
- contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on Friday, December 9, 2022, or any day thereafter up to and including Thursday, June 8, 2023 (irrespective of the purchase date, which will vary).
- (1.7.1.7) More than 12 months this means;
- all contracts transacted prior to Wednesday, June 8, 2022, with a repurchase date on Friday, June 9, 2023, or any day thereafter;
- contracts transacted on Wednesday, June 8, 2022, with an original repurchase date on or after Friday, June 9, 2023 (irrespective of the purchase date, which will vary).
- (1.7.2) For repos against collateral that includes a transferable security regulated under the EU MiFID and that have been traded or which it is possible to trade on a MiFIR-regulated trading venue (regulated market, multilateral trading facility or organised trading facility), which are subject to the settlement requirements of the EU CSDR, forward-forward repos are defined for the purposes of this survey as contracts with a purchase date of Monday, June 13, 2022, 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. It does not matter than many repos may actually be traded for T+1 (ie a purchase date of Thursday, June 9, 2022). For repos transacted in the OTC market or against collateral not regulated under CSDR, the definition of forward-forward may be different.
- (1.7.3) Open repos in this field should equal open repos in item (1.6.3).
- 1.8 Please confirm whether the transactions recorded in the questions in (1.6 and 1.7) include your tri-party repo business. Some institutions do not consolidate their tri-party repo transactions with their direct or voice-brokered business because of delays in receiving reports from tri-party agents or the complexity of their tri-party business.
 - (1.8.1) and (1.8.2) should not include any repos transacted across GC financing systems and recorded in (1.8.3).
- 1.9 "Eurobonds" (also known as "international bonds") are defined as securities held outside national central securities depositories (CSD), usually in an ICSD such as Clearstream or Euroclear, or a custodian bank; typically with the ISIN prefix XS; often issued in a currency foreign to the place of issuance; and sold cross-border to investors outside the domestic market of the place of issuance. Eurobonds should be recorded in (1.9.30-33), except for those issues by "official international financial institutions", which should be recorded in (1.9.20). Eurobond does not mean a bond denominated in euros.

(1.9.20) "Official international financial institutions, including multilateral development banks" such as:

African Development Bank (AfDB)

Asian Development Bank (AsDB)

Bank for International Settlements (BIS)

Caribbean Development Bank (CDB)

Central American Bank for Economic Integration (CABEI)

Corporacion Andina de Fomento (CAF)

Council of Europe Development Bank

East African Development Bank (EADB)

European Bank for Reconstruction and Development (EBRD)

Inter-American Development Bank Group (IADB)

International Fund for Agricultural Development (IFAD)

Islamic Development Bank (IDB)

Nordic Development Fund (NDF)

Nordic Investment Bank (NIB)

OPEC Fund for International Development (OPEC Fund)

West African Development Bank (BOAD)

World Bank Group (IBRD and IFC)

Securities issued by the EU (but not individual EU members) should now be included in the new question 1.9.37. EU issuers include:

European Commission

European Financial Stability Mechanism (EFSM)

European Financial Stability Facility (EFSF)

European Investment Bank (EIB)

European Stabilisation Mechanism (ESM)

- (1.9.21) "US Treasury" includes bills, notes and bonds, including floating-rate notes, issued by the US central government but not securities guaranteed by that government, such as Agency securities.
- (1.9.23) "Japanese government" includes bills, notes and bonds issued by the Japanese central government but not securities guaranteed by that government.
- (1.9.25) "Other OECD countries" are Australia, Canada, Chile, Iceland, Israel, Korea, Mexico, New Zealand, Norway, Switzerland and Turkey.
- (1.9.26) "Other non-OECD European, Middle Eastern & African countries" should exclude any EU countries.
- (1.9.34) "Equity" includes ordinary shares, preference shares and equity-linked debt such as convertible
- 2.1 This question asks for the total gross value of transactions with a transaction date on or after December 9, 2021 (the day after the previous survey date), to and including June 8, 2022 (the latest survey date). In other words, it asks for the turnover or flow of business over the six month interval and includes all business transacted since the last survey date, even if it has matured before the survey date. This section is therefore different from the rest of the survey, which asks for the value of business outstanding on the survey date, in other words, the stock of transactions.

- 2.2 This question asks for the number of individual transactions with a transaction date on or after December 9, 2021 (the day after the previous survey date), to and including June 8, 2022 (the latest survey date), even if it has matured before the survey date. In other words, this is the number of tickets written.
- 3 "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.
- 4.1 "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 independent survey administrator at <u>reposurvey@icmagroup.org</u>.

Appendix B: Survey Participants

List of respondents	Dec-	Jun-	Dec-	Jun- 14	Dec-	Jun- 15	Dec-	Jun- 16	Dec-	Jun- 17	Dec-	Jun- 18	Dec- 18	Jun- 19	Dec-	Jun- 20	Dec- 20	Jun- 21	Dec- 21	Jun- 22
ABN Amro Bank	X	X	X	X	X	X	X		10		l		10	10						
Allied Irish Banks	X	X	X	X	X	X	X	X	Х	X	X	X								
AXA Bank Europe	X	X	X	X	X	X	X	X	X	X										
Banc Sabadell	X	X	X	X	X	X	X	X	X	X		X								
Banca d'Intermediazione						ļ														
Mobiliare (IMI)			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х								
Banca Monte dei Paschi di Siena	X	X	X	x	X	X	×	x				×	X	x	X	x	X	X	X	X
Banco BPI			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Banco Santander	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х						
UniCredit Bank Austria (Bank																				
Austria)			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bank fuer Arbeit																				
und Wirtschaft und	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Oesterreichische	^		_ ^	^	_ ^	_ ^	^	^	^	^	^	^		^	^	^	_ ^	^	_ ^	
Postsparkasse (Bawag)																				
Bank of Ireland	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				
Bank Przemyslowo-Handlowy SA	×																			
Landesbank Berlin	X																			
Banque de Luxembourg	X	Х	Х	Х	Х	X	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	X	Х	Х	Х
Banque et Caisse d'Epargne																				
de l'Etat	X	X	X	Х	X	X	Х	X	Х	Х	X	Х	X	Х	Х	X	X	X	X	X
Barclays Capital	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Bayerische Landesbank	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х		
BBVA	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BHF-Bank	Х	Х	Х																	
BHF-Bank International	Х																			
BNP Paribas	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Bundesrepublik Deutschland																				
Finanzagentur	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Caixabank (including Bankia)	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х
Caixa d'Estalvis de Catalunya	Х	Х	Х	Х		Х	Х													
Bankia SA (formerly Caja de																				
Ahorros y Monte de Piedad	X	×	X	Х	X	X	X	×	х	Х	X	X	×	X	Х	X	X			
de Madrid (Caja Madrid))																				
CA-CIB (formerly Calyon)	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Citigroup Global Markets Ltd	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Commerzbank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Canadian Imperial Bank of	×	×	×	×	×	×	×		×	×	×		×	×	×	×	×	×		
Commerce and Credit (CIBC)									^				_^	^	^					
Confederación Española de	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Cajas de Ahorros (CECA)	<u> </u> ^						_^			_^										
Credit Suisse Securities	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
(Europe) Ltd	<u> </u>									_^										
Danske Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Daiwa Securities SMBC	×	X	×	×	×	×	×													
Europe																				

List of respondents	Dec- 12	Jun- 13	Dec- 13	Jun- 14	Dec- 14	Jun- 15	Dec- 15	Jun- 16	Dec- 16	Jun- 17	Dec- 17	Jun- 18	Dec- 18	Jun- 19	Dec- 19	Jun- 20	Dec- 20	Jun- 21	Dec- 21	Jun- 22
Dekabank Deutsche																				
Girozentrale	X	X	X	Х	X	X	X	X	Х	X	X	X	X	X	X	X	X	Х	X	X
Deutsche Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Deutsche Postbank	X	X	X	X	X	X	X	X	X	X	X	Х								
Belfius Bank (formerly Dexia)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Banque Internationale																				
Luxembourg (formerly Dexia									X	X		X			X					
BIL)																				
Dexia Kommunal Bank																				
Deutschland	Х																			
DNB Bank ASA							Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
DZ Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
EFG Eurobank Ergasias	Х	X	Х	Х	Х		Х	Х	Х	Х	X	Х	Х	X	Х	Х	Х	Х	Х	X
Erste Bank der																				\vdash
Oesterreichischen Sparkassen	Х	X	Х	Х	X	X	Х	X	Х	Х	X	Х	Х	X	Х	X	Х	Х	X	X
Euroclear Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х			Х	Х	Х	Х	X
European Investment Bank																	Х	Х	Х	X
Hypothekenbank Frankfurt																				
International (formerly																				
Eurohypo Europäische	X	X	X	X																
Hypothekenbank)																				
Fortis Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Goldman Sachs	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х			Х	Х	Х	Х
HSBC																				
HSBC Athens	Х	X	X	X	X	X	Х	X	Х	X	X	Х	X	X	Х	X	Х	X	X	X
HSBC France																				
HSH Nordbank							Х													
Unicredit Bank Germany																				
(Bayerische Hypo-und-	X	X	X	X	X	X	X	X	X	Х	X	X	Х	X	Х	X	X	X	X	X
Vereinsbank)																				
ICBC Standard Bank							Х	Х	Х											
ING Bank	Х	Х	Х	Х	Х	Х	Х	Х	Х											
Intesa SanPaolo	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Jefferies International Ltd	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
JP Morgan	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KBC	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KfW	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Kingdom of Belgium Federal Public Service Debt Agency	х	х	Х	х	x	x	х	X	x	х	x	Х	Х			Х				
Landesbank Baden- Württemberg, Stuttgart	×	×	×	х	х	×	×	×		х	×	×	Х	×	х	×	×	×	×	Х
Landesbank Hessen-																				\Box
Thüringen -Girozentrale	х	X	X	X	X	X	X	X	X		X									
(Helaba)																				
Lloyds Bank Commercial																				
Banking													X	X	X	X	X	X	X	X
Lloyds Bank Plc										Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Macquarie Bank	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х		
Bank of America Merrill Lynch	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X
Mitsubishi Securities	.,			.,			.,		.,	.,	.,	.,	.,		.,		.,	.,	.,	
International	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	×
Mizuho International	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Morgan Stanley	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
National Australia Bank							Х													

List of respondents	Dec-	Jun-	Dec-	Jun-	Dec-	Jun- 15	Dec-	Jun- 16	Dec-	Jun-	Dec-	Jun- 18	Dec-	Jun- 19	Dec-	Jun-	Dec-	Jun- 21	Dec- 21	Jun- 22
National Bank of Greece								Х	Х											
Newedge	Х	Х																		
Nomura International	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Norddeutsche Landesbank																				
Girozentrale		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Nordea Markets	X	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Norinchukin Bank	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Nova Ljubljanska Banka d.d.	X	Х	Х		Х		Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х
Nykredit Bank A/S															Х	Х	Х	Х	Х	Х
Piraeus Bank							Х	Х	Х		Х									
Rabobank	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Royal Bank of Canada	×			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
NatWest Markets (formerly			.,	,,	.,	.,	.,	.,	.,	.,		,,	,,	.,	,,			.,		.,
Royal Bank of Scotland)	X	X	X	X	X	X	Х	X	X	X	X	X	X	Х	X	Х	Х	X	Х	X
RBI	X										Х									
Société Générale	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Standard Chartered															Х	Х	Х	Х	Х	Х
Toronto Dominion Bank		Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х
UBS	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
UniCredit Bank AG Milano	×	×	×	×		×	x	×	×	×		×			×	×	×	×	×	×
Branch	^						_^		^							_^			^	
Unicredit Bank Spa											×		X	×	X	X	×	X	×	×
Westdeutsche Landesbank Girozentrale																				
Girozentrale	60	62	66	64	64	64	70	66	GE	64	64	60	50	EG.	60	61	60	E0.	57	E.C.
	69	63	66	64	64	64	70	66	65	64	64	62	59	56	60	61	60	59	57	56

Appendix C: Summary Of Survey Results

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
Q1 What are the total gross values of cash due to be repaid by you and repaid to you on repo transactions maturing after survey date? (figures in EUR billions)	7,351	7,761	7,885	8,726	9,432	9,680
Of the amounts given in response to question (1) above:						
1.1 How much was transacted:						
direct with counterparties						
• in the same country as you	15.0%	17.2%	18.7%	15.9%	16.5%	16.3%
 cross-border in (other) eurozone countries 	11.9%	12.0%	12.9%	13.2%	13.1%	12.5%
 cross-border in non-eurozone countries 	33.7%	32.3%	32.1%	35.1%	33.5%	35.7%
through voice-brokers						
• in the same country as you	5.8%	4.0%	4.0%	4.0%	4.3%	2.9%
• cross-border in (other) eurozone countries	2.6%	3.1%	2.6%	2.7%	3.9%	3.5%
• cross-border in non-eurozone countries	3.0%	1.0%	2.2%	1.6%	1.8%	1.7%
on ATSs with counterparties						
• in the same country as you	4.7%	4.2%	4.8%	4.9%	5.1%	3.6%
 cross-border in (other) eurozone countries 	1.1%	1.9%	1.3%	2.5%	2.6%	2.7%
• cross border-border in non-eurozone countries	1.9%	1.9%	2.0%	2.1%	3.0%	3.7%
anonymously across a GC financing system	1.0%	1.1%	0.9%	0.6%	0.7%	0.8%
anonymously across a central clearing counterparty but not GC financing	19.3%	21.1%	18.5%	17.3%	15.3%	16.6%
total through a central clearing counterparty	27.6%	25.9%	27.2%	31.5%	28.8%	27%
• transacted across any electronic system				32.4%	23.9%	24.4%
1.2 How much of the cash is denominated in:						
• EUR	65.3%	62%	54.1%	54.5%	56.8%	54.7%
• GBP	12.8%	13.3%	15.8%	16.9%	15.7%	15.6%
• USD	13.7%	17.0%	20.6%	19.5%	19.1%	20.3%

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
• SEK, DKK	1.9%	1.7%	1.7%	1.6%	1.5%	1.3%
• JPY	4.6%	4.5%	5.7%	5.2%	4.7%	5.7%
• CHF	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
other Asian and Pacific currencies	0.7%	0.4%	1.0%	1.1%	0.9%	1.1%
other currencies	1.0%	1.0%	1.1%	1.2%	1.2%	1.4%
1.3 How much is cross-currency?	1.7%	1.5%	1.6%	2.3%	1.9%	1.8%
1.4 How much is:						
classic repo	92.4%	92.4%	92.7%	92.3%	93.2%	93.8%
documented sell/buy-backs	7.3%	7.3%	7.0%	7.5%	6.4%	5.7%
undocumented sell/buy-backs	0.3%	0.2%	0.3%	0.2%	0.4%	0.4%
1.5 How much is:						
• fixed rate	72.5%	79%	82.1%	88.8%	89%	88%
floating rate	21.1%	14.1%	9.3%	11.1%	11.0%	12.0%
• open	6.4%	6.9%	8.7%	0.1%		
1.6 How much fixed and floating rate repo is (1.6.1) for value before (survey date) and has a remaining term to maturity of:						
• 1 day	18.9%	17.1%	19.0%	18.8%	16.6%	17.3%
• 2 - 7days	21.7%	18.4%	19.2%	21.5%	18.6%	22.8%
more than 7 days but no more than 1 month	16.9%	18.0%	16.9%	17.3%	13.7%	14.8%
more than 1 month but no more than 3 months	11.2%	11.1%	10.4%	9.8%	16.7%	9.5%
more than 3 months but no more than 6 months	4.3%	4.6%	7.4%	7.5%	7.9%	7.4%
• more than 6 months	3.3%	3.2%	3.1%	3.8%	3.2%	2.4%
• more than 12 months	1.3%	2.5%	2.8%	2.4%	2.7%	2.2%
forward-forward repos	16.1%	18.5%	12.6%	11.4%	14.5%	1.3%
• open	6.3%	6.6%	8.5%	7.5%	6.1%	8.2%
1.7 How much is tri-party repo:	78.9%	82.4%	76.2%	8.0%	82.1%	75.9%
• for fixed terms to maturity	10.9%	6.6%	13.2%	83.1%	6.8%	13.3%
• on an open basis	10.2%	10.9%	10.5%	6.9%	11.1%	10.8%
GCF	6.0%	8.0%	9.2%	9.2%	7.7%	9.0%
1.8 How much is against collateral issued in:						
Austria						
by the central government	0.9%	0.8%	0.9%	0.9%	0.9%	1.0%
• by other issuers	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
Belgium						
by the central government	2.5%	3.1%	3.3%	3.3%	2.9%	2.6%
• by other issuers	0.9%	0.4%	0.5%	0.3%	0.4%	0.5%
Denmark						
by the central government	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%
• by other issuers	0.5%	0.5%	0.7%	0.6%	0.6%	0.6%
Finland						
by the central government	0.6%	0.5%	0.5%	0.4%	0.4%	0.4%
• by other issuers	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
France						
by the central government	14.1%	13.2%	10.3%	12.6%	13.2%	12.8%
• by other issuers	1.4%	0.8%	0.6%	0.5%	0.6%	0.6%
Germany						
by the central government	17.6%	15.0%	12.1%	14.0%	14.3%	14.5%
pfandbrief	1.1%	0.1%	0.2%	0.1%	0.1%	0.5%
• by other issuers	1.1%	1.3%	1.0%	0.7%	1.4%	0.6%
Greece						
by the central government	0.2%	0.2%	0.1%	0.1%	0.2%	0.1%
• by other issuers	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%
Ireland						
by the central government	0.2%	0.3%	0.4%	0.3%	0.4%	0.3%
• by other issuers	0.2%	0.3%	0.2%	0.2%	0.3%	0.3%
Italy						
by the central government	11.0%	14.2%	12.4%	11.2%	11.5%	11.6%
• by other issuers	0.7%	0.6%	0.4%	0.4%	0.4%	0.4%
Luxembourg						
by the central government	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%
• by other issuers	0.2%	0.1%	0.1%	0.3%	0.3%	0.3%
Netherlands						
by the central government	1.8%	1.7%	1.3%	1.2%	1.3%	1.2%
• by other issuers	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%
Portugal						
by the central government	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
• by other issuers	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%
Spain						
by the central government	4.4%	4.6%	4.7%	4.9%	5.2%	4.8%

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
• by other issuers	1.7%	0.7%	0.6%	0.6%	0.7%	0.3%
Sweden						
by the central government	0.7%	0.6%	0.5%	0.5%	0.5%	0.4%
• by other issuers	0.8%	0.7%	0.6%	0.8%	0.3%	0.3%
UK						
by the central government	11.1%	11.9%	14.5%	14.9%	14.1%	13.9%
• by other issuers	2.1%	1.3%	1.3%	1.1%	1.3%	1.3%
US Treasury	4.3%	6.4%	9.1%	8.7%	10.9%	9.4%
US other issuers	0.8%	2.1%	2.9%	2.3%	2.2%	2.2%
US but settled across EOC/CS						
other countries						
Bulgaria						
by the central government						
• by other issuers						
Cyprus						
by the central government						
• by other issuers						
Czech Republic						
by the central government	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
• by other issuers	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%
Estonia						
• by the central government						
• by other issuers						
Hungary						
• by the central government	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Latvia						
• by the central government						
• by other issuers						
Lithuania						
• by the central government						
• by other issuers						
Malta						
by the central government						
• by other issuers						
Poland						
by the central government	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
• by other issuers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania						
by the central government						
by other issuers						
Slovak Republic						
by the central government						
• by other issuers						
Slovenia						
• by the central government						
• by other issuers						
Other EU members by central government	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Other EU members by other issuers	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%
• by official international financial institutions	0.6%	0.5%	0.5%	0.2%	0.4%	0.5%
Japan						
Japanese government	4.0%	3.6%	4.8%	3.5%	3.9%	4.0%
Other Japanese issuers	0.9%	0.2%	1.6%	1.2%	1.1%	1.3%
Other Asian & Pacific OECD countries in the form of fixed income securities, except eurobonds	0.4%	1.8%	0.6%	0.4%	0.3%	0.2%
Other OECD countries in the form of fixed income securities, except eurobonds	4.7%	4.8%	6.0%	6.4%	3.4%	6.6%
Other OECD						
non-OECD EMEA	0.4%	0.7%	0.6%	0.8%	0.7%	0.7%
non-OECD Asian & Pacific	0.5%	0.5%	0.6%	0.6%	0.5%	0.5%
non-OECD Latin America	0.4%	0.5%	0.3%	0.4%	0.3%	0.3%
eurobonds issued by European entities	1.0%	0.8%	0.7%	0.8%	0.8%	0.7%
eurobonds issued by US entities	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
eurobonds issued by Asian & Pacific entities	0.4%	0.3%	0.4%	0.4%	0.3%	0.4%
eurobonds issued by other entities	0.2%	0.4%	0.4%	0.4%	0.3%	0.4%
equity	0.2%	0.4%	0.3%	0.3%	0.4%	0.5%
collateral of unknown origin or type	1.0%	0.6%	0.2%	0.2%	0.1%	0.0%
collateral in tri-party which cannot be attributed to a country or issuer	2.0%	1.5%	1.9%	1.2%	1.4%	1.5%
EU issues				0.3%	0.3%	0.1%
total gross values of repo & reverse repo with APAC	4.8%	4.0%	5.3%	4.3%	3.9%	4.7%

	Jun-18	Jun-19	Jun-20	Jun-21	Dec-21	Jun-22
Q2 What is the total value of securities loaned and borrowed by your repo desk: to/from counterparties						
in the same country as you						
• in fixed income	26.8%	24.3%	23.1%	17.1%	22.1%	25.8%
• in equity	0.2%	0.8%	0.1%	4.4%	0.0%	0.1%
cross-border in (other) eurozone countries						
• in fixed income	29.5%	34.1%	33.9%	19.5%	26.3%	30.7%
• in equity	1.4%	1.1%	0.4%	13.0%	0.3%	0.3%
• cross-border in non-eurozone countries						
• in fixed income	40.8%	37.8%	41.9%	35.6%	50.8%	42.5%
• in equity	1.3%	2.0%	0.7%	10.5%	0.4%	0.6%
for which the term to maturity is						
fixed	62.7%	69.2%	73.4%	52.7%	71.6%	68.0%
open	37.3%	30.8%	26.6%	47.3%	28.4%	32.0%
Number of GMRAs		78.0%	73.0%	80.3%	84.9%	92.0%

Appendix D: The ICMA European Repo And Collateral Council

The ICMA European Repo and Collateral Council (ERCC) (formerly the ICMA European Repo Council) 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 ERCC underpins the strong sense of community and common interest that characterises the professional repo market in Europe.

The ERCC 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.

Membership of the ERCC is open to any ICMA member who transacts repo and associated collateral business in Europe, is willing to abide by the rules and has sufficient professional expertise, financial standing and technical resources to meet its obligations as a member.

The ERCC 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 six or seven times a year.

More information about the ERCC is available on www.icmagroup.org.

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