

International Capital Market Association European Repo Market Survey

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Executive Summary

In December 2020, the European Repo and Collateral Council (ERCC) of the International Capital Market Association (ICMA) conducted the 40th in its series of semi-annual surveys of the repo market in Europe, marking the 20th anniversary of the survey.

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 December 9, 2020. Replies were received from 60 institutions, mainly banks. Returns were also made directly 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 collateral management in Europe.

The latest survey was the last one before the end of the Brexit Transition Period on 31 December 2020.

Total repo business

The total value of the repo contracts outstanding on the books of the 60 institutions who participated in the latest survey was **EUR 8,285 billion**, compared with EUR 7,885 billion in June and the record EUR 8,310 billion in December 2019. This was a rise in the headline number of 5.1% since June and a fall of 0.3% year-on-year. Adjusting for the change in the number of institutions in the survey over the last three surveys, growth rates were +1.8% and -3.6%, respectively.

Trading analysis

The absolute amount of repos transacted on automatic trading systems (ATS) fell back from the all-time record touched in the June survey during the ‘dash for cash’ at the height of the Covid panic and the share of this type of electronic trading in the survey also declined as direct business, particularly into the eurozone, expanded more rapidly.

There is evidence of persistent growth in automated trading, driven by the need to cope with increased trading volumes and to ‘work from home’.

The share of voice-brokers seems to have stabilized, at least for the time being, perhaps because of the support that voice-brokers can offer clients during difficult market conditions.

Clearing and settlement analysis

Tri-party repo (including GC financing) appears to be weighed down again by abundant central bank liquidity. Both its share of the survey and the absolute size reported by the principal tri-party agents contracted.

Cash currency analysis

The share of the euro decreased, probably due to reduced trading in US dollar.

Collateral analysis

The share of collateral represented by European government securities (EU-27 plus UK) advanced to an all-time high, reflecting a strong recovery in the use of German and, to a lesser extent, French and UK government securities. The share of Italian government securities continued to retreat. These changes may have reflected more rapid issuance in France and Germany compared to Italy, and a switch by Italian banks from the repo market to ECB funding.

A new question in the survey suggested that securities issued by EU institutions could account for some 27% of tri-party collateral.

Maturity analysis

The December survey showed the usual end-of-year behaviour (increased average term to maturity and more activity in the one to six-month range typically used for tactical collateral transformation). The usual seasonal contraction in repo books may have been intensified this year by uncertainty over the impact of the end of the Brexit Transition Period.

The survey sample continues to run an overall negative gap (borrowing short-term and lending longer-term).

Product analysis

The share of business conducted on repo desks that took the form of securities lending increased again.

Concentration analysis

The concentration of business in the survey was broadly unchanged and remained historically high.

Other analysis

Over 73% of the master agreements used by survey participants were the ICMA Global Master Repurchase Agreement (GMRA).

Chapter 1: The Survey

On December 9, 2020, the European Repo and Collateral Council (ERCC) of the International Capital Market Association (ICMA) conducted the 40th in its series of semi-annual surveys of the repo market in Europe, which has now therefore been running for 20 years.

The survey was managed and the results analysed on behalf of ICMA by the author under the guidance of the ERCC Steering Committee (“ERCC Committee”).

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, December 9, 2020. The survey covered all types of repo (which means repurchase transactions, reverse repurchase transactions, buy/sell-backs and sell/buy-backs but not synthetic structures).

The survey also asked participating institutions to break down their data by: repo and reverse repo; 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 value of their turnover since the previous survey, the legal agreements under which they transacted repos and about any securities lending and borrowing conducted from 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 by the main tri-party repo agents in Europe.

The latest survey took place prior to the end of the Brexit Transition Period, which was on December 31, 2020.

1.2 The response to the survey

The latest survey was completed by 60 offices of 55 financial groups. The current total is one less than in the June 2020 survey. This is the result of two institutions rejoining the survey and three dropping out.

Of the current 60 participants, 43 were headquartered across 15 European countries, including Norway (1), Switzerland (2) and the UK (5). 40 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). 33 participants were headquartered across 11 of the 19 countries of the eurozone. Others were headquartered in Australia (2), Japan (3) and North America (10). 22 respondents were branches and subsidiaries of foreign parents. Most of these (18) 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. A list of the institutions that have participated in the ICMA's 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, June 9, 2021. This will be first survey after the end of the Brexit Transition Period.

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 and of the surveys in each December in the four previous years (2016-2020) are set out in Appendix C. The full results of all previous surveys can be found at www.icmagroup.org.

Total repo business (Q1)

The total value, at close of business on December 9, 2020, of repos and reverse repos outstanding on the books of the 60 institutions which participated in the latest survey was **EUR 8,285.4 billion** compared with EUR 7,885.4 billion in June 2020 and a record EUR 8,310.3 billion in December 2019. This means the latest survey showed a rise of 5.1% since the June 2020 survey but a year-on-year fall of 0.3%.

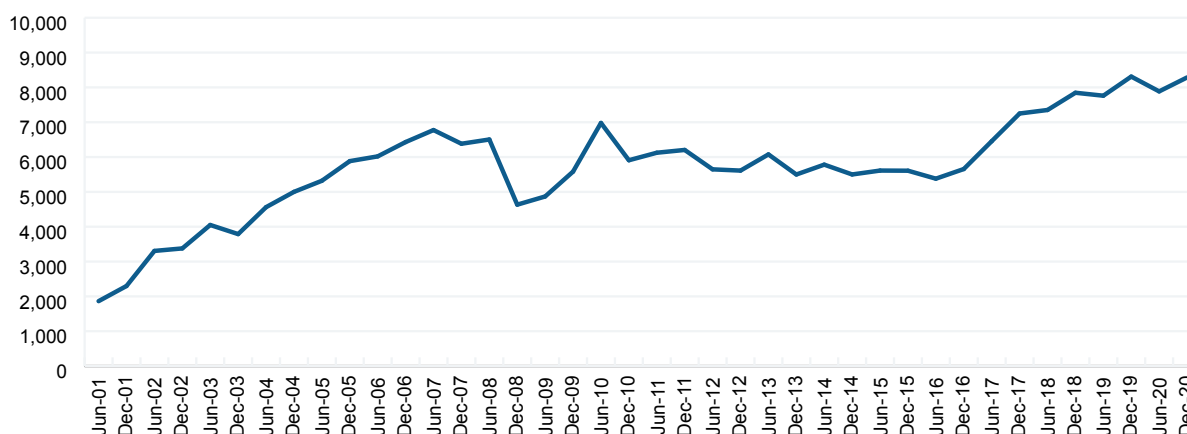
Institutions accounting for 50% of the total value of the survey also reported their repo turnover over the six months since the previous survey. Grossing up for those survey participants who did not report their turnover, on the basis of their relative weighted shares of the survey, suggests that the daily average turnover for the whole survey sample was 2,317 billion per day compared to EUR 1,947 billion between the December 2019 and June 2020 surveys (an increase of 19%).

Table 2.1 – Total repo business from 2001 to December 2020 (EUR billion)

survey	total	repo	reverse repo
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%

survey	total	repo	reverse repo
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 2.1 – Total business (EUR billion)



It is important to remember that the ICMA 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, measures risk and permits deeper analysis but is difficult to reconcile with the flow numbers published by some other sources. It also means that the share of shorter-term repos is understated compared with turnover data, given that more shorter-term than longer-term repos will run off between surveys.

In addition, the values measured by the survey have not been adjusted for the double-counting of the same transactions by pairs of survey participants. However, a study (see the report of the December 2012 survey) suggested that the problem of double-counting was not very significant.

Nor does the survey 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 valid to simply compare headline survey numbers. Some of the changes will 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.

Out of the 60 institutions participating in the latest survey, 52 had participated in the last three surveys. Overall, the aggregate value of outstanding repos and reverse repos transacted by that constant sample of 52 institutions rose by 1.8% since the June 2020 survey but fell by 3.6% year-on-year (compared with +5.1% and -0.3%, respectively, in the headline number). The change for the 56 institutions which had participated in at least the last two surveys was also a rise of 1.8% since the June survey. Comparison with the change in the headline number of the survey shows that a significant part of the change in the headline number between June and December was due to differences in the composition of the survey samples.

Between June and December 2020, 25 of the 56 institutions who responded to the latest survey and were also in the previous survey expanded their repo books (the same number as between December 2019 and June 2020). The repo books of 30 institutions contracted over the same period (also the same as between the previous two surveys). The median percentage change was -2.3% compared to -5.5% to June. This means that institutions who expanded their repo books did so by more than those who contracted their books (the average unweighted increase was 37.6%, whereas the average unweighted decrease was 20.5%).

The total value of all outstanding repos reported under the EU Securities Financing Transaction Regulation (SFTR) on 11 December, 2020 (the publication date closest to a survey date) was EUR 14,237 billion. The ICMA survey is therefore equivalent to 58% of the EU total, a substantial share, even allowing for double-counting in the ICMA survey. Turnover in repo reported under SFTR in the week ending December 11 was EUR 3,525 billion per day compared to turnover estimated in the ICMA survey of EUR 2,317 billion (which was therefore 66% of the SFTR number).

Analysing SFTR data published by the trade repositories

Reporting by EU-based and located users of securities financing transactions (SFTs) started in July 2020 with credit institutions, investment firms, CSDs and CCPs. They were followed in October by non-bank financial institutions. EU-based and located non-financial institutions began to report in January 2021 but UK-based and located non-financials are exempt under the now separate UK version of SFTR.

SFTs for the purpose of SFTR include repos (both repurchase transactions and buy/sell-backs) of securities and commodities, securities and commodities lending and borrowing, and margin lending between prime brokers and clients. ESMA has also decided to include pledge-based loans where these are called repos, even though they are not really repos.

Parties reporting under EU SFTR do so to one of four ESMA-authorized trade repositories in the EU (DTCC, PPDW, Regis-TR and Unavista). Parties subject to UK SFTR report to either DTCC or Unavista, who operate FCA-authorized repositories in the UK.

The statistics being published by the trade repositories measure **turnover** over each week and the **stock** of transactions still outstanding at the end of the week in terms of:

- **loan value**, either the cash principal in the cash of repo or margin lending, or the market value of loaned securities or commodities;
- **number** of transactions;
- **market value of collateral** allocated to reported transactions.

Each of these amounts is broken down in terms of the following categories:

- **type** of SFT --- repo, sub-divided into repurchase transactions and buy/sell-backs; securities and commodities borrowing and lending; margin lending;
- whether **cleared** by the clearing member of a CCP for own account or on behalf of a clearing client;
- whether the **Reporting Counterparty** and the **Other Counterparty** are both located within the EEA, or one is located within the EEA and the other outside, or both are outside the EEA;
- **market segment** --- whether the SFT is executed on an EEA or non-EEA trading venue, or in the OTC market, or in the OTC market and then registered post trade on a trading venue;
- **method of collateralization** --- title transfer; security interest with right of re-hypothecation; and security interest without right of re-hypothecation.
- **reconciliation status** --- whether a transaction has been reported by two parties to the same trade repository or to different repositories.
- **floating-rate indices** --- to which interest rate index a floating-rate transaction is linked, provided turnover in that index was more than EUR 5 billion over the week and at least six different parties traded.

Unfortunately, the collateral statistics published by the trade repositories are beset by technical problems. No uniform methodology was prescribed for their compilation, in particular, on how to aggregate collateral allocated against individual trades and collateral allocated against the net exposure of portfolios. There are also difficulties in reconciling collateral reported as given and collateral reported as taken. Consequently, the collateral statistics published under SFTR are aberrations and do not yet provide any meaningful information.

ICMA collects, aggregates, tabulates and charts these statistics, publishing them each week on its [website](#).

Reporting performance

During 2020, when EU and UK-based and located entities reported together under EU SFTR, loan values built up gradually, reflecting not just market growth but an improvement in reporting efficiency as parties ironed out operational problems. Some growth also reflected the late entry of some reporting parties. The phasing in of non-bank financial institutions in October 2020 and non-financial institutions in January 2021 should not have made much difference given that most repos are traded with credit institutions or investment firms on one side, so would already have been reported by the time buy-side institutions started to report (however, there may have been a technical disruption to reporting when EU non-financial institutions started reporting --- see below).

Figure 1 - Repo turnover reported under SFTR (July-December 2020)

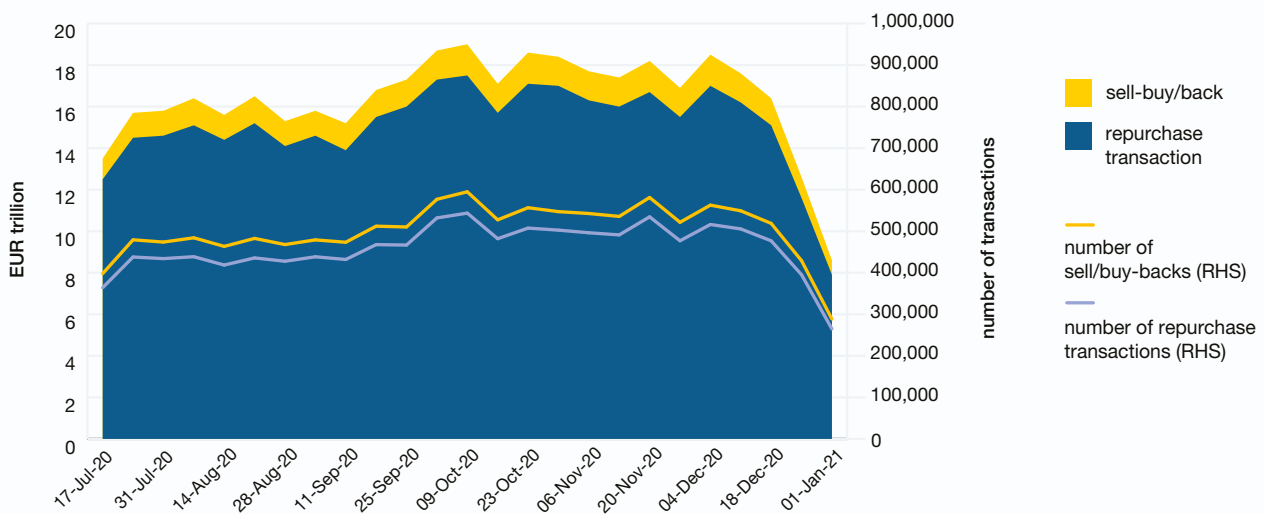
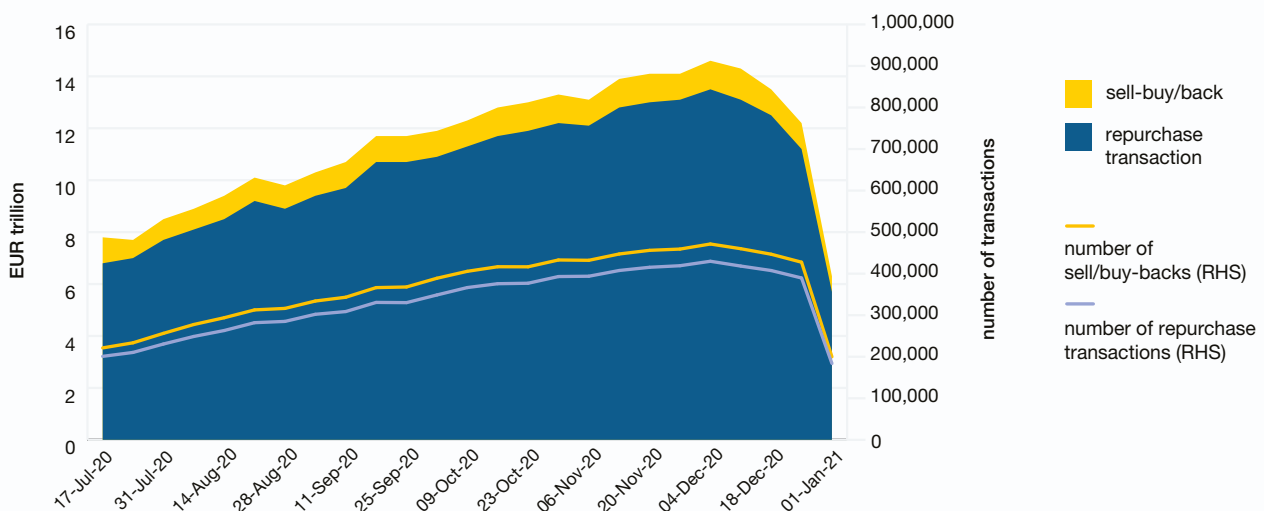


Figure 2 - Outstanding repo under SFTR (July-December 2020)



Two commonly-used measures of SFTR reporting performance have been the validation and reconciliation rates reported by the trade repositories and similar statistics from third-party service-providers. Validation is a test of whether reports meet certain technical and substantive standards, including conformity to the XML message standard imposed by SFTR, authorisation of the report submitting entity, logical rules such as no duplication of reports or attempts to modify cancelled reports, and business rules such as completeness of mandatory data fields and valid data format. Reconciliation is the matching of prescribed data fields between reports from two

parties where both are subject to SFTR. Up to 43 repo data fields were reconcilable at the start of the SFTR roll-out: a total of 58 will be reconcilable by January 2023 (although not all the reconcilable fields are required for each report).

Validation rates reported by the trade repositories have approached 100%. Reconciliation rates are lower, considerably so in the case of collateral data fields. Reconciliation tests at a major third-party service-provider achieved about 60% for repo loan reports but only around 5% for repo collateral reports by the end of 2020.

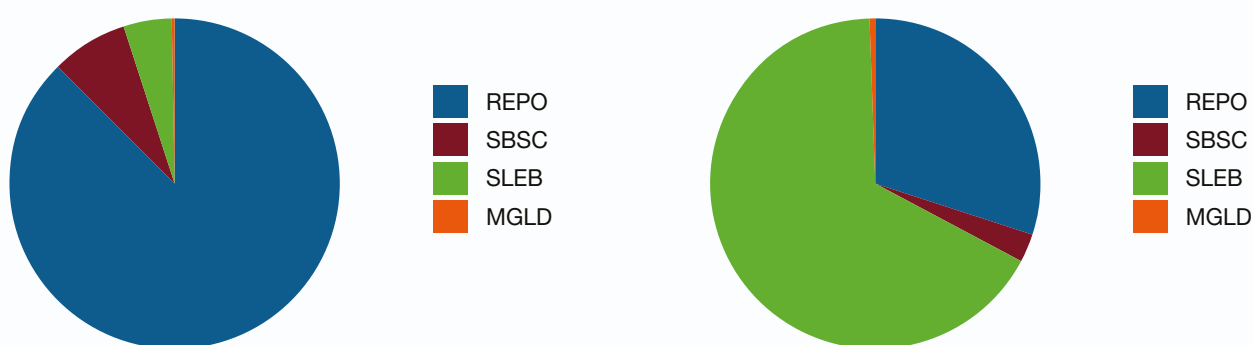
In terms of validation and reconciliation, SFTR has proved far more successful than the earlier EU regulation mandating the reporting of derivatives (EMIR). However, validation and reconciliation rates do not confirm that all entities subject to SFTR are reporting nor that all reporting entities are reporting all their SFTs nor that all the reported data are correct. Anecdotal evidence suggests that there may be significant scope for further improvements in the extent and quality of reporting. To some extent, this will depend upon clarification of and changes in the regulation.

What EU SFTR public data revealed in 2020

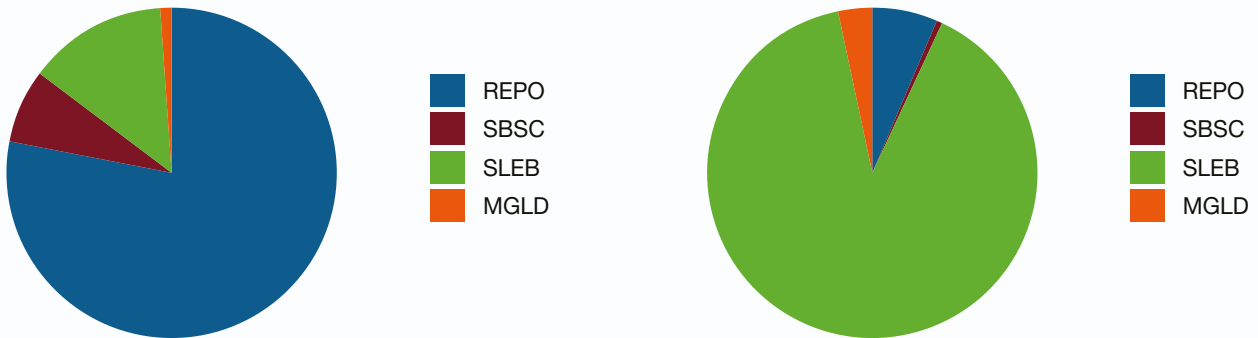
The average daily turnover of **all types of SFT** from the start of reporting to the end of 2020 was some 282,000 transactions with a total daily loan value of about EUR 3,447 billion. On average, almost 2,970,000 transactions worth EUR 13,837 billion were outstanding at end-week during 2020.

As Figures 3 and 4 show, much as expected, repo has accounted for the bulk of SFTs in terms of loan value, particularly of turnover, but securities lending has accounted for the largest number of transactions, particularly the number outstanding at the end of each week (although the difference between the two markets has been exaggerated by a flaw in the reporting rules that require loans of multiple securities to be broken up into reports of loans of individual securities). In **repo**, average daily turnover over 2020 was about 98,200 transactions worth EUR 3,277 billion in total. In **securities lending**, there were some 183,000 securities loans per day worth EUR 169 billion. The average outstanding at the end of each week in 2020 was about 72,000 transactions of repos worth EUR 2,286 billion and some 488,000 securities loans worth EUR 442 billion.

Figures 3a & 3b - Types of SFT - turnover & number (final week 2020)

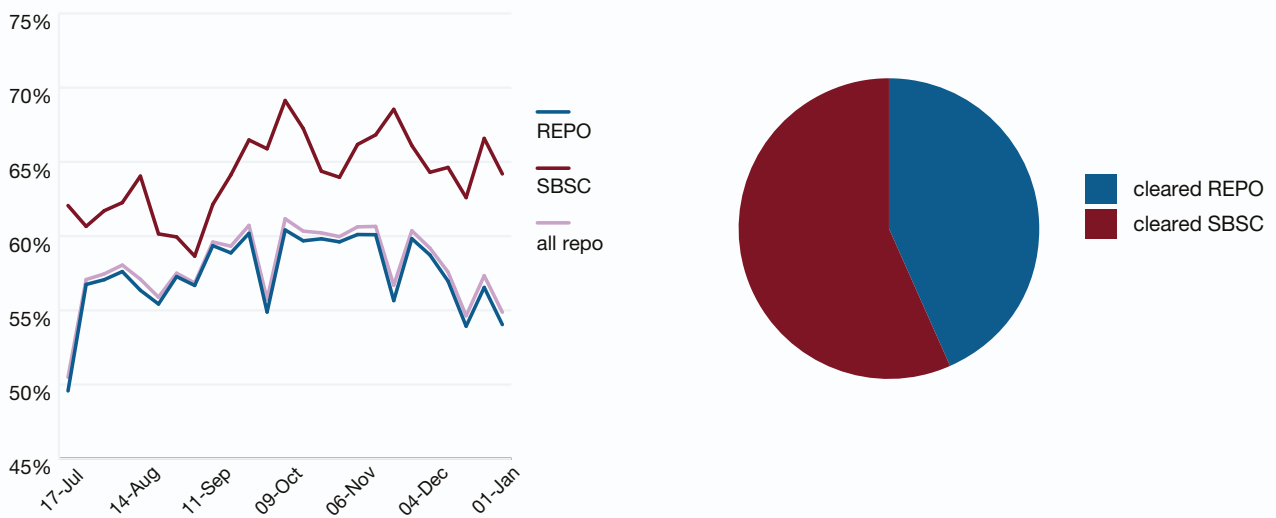


Figures 4a & 4b - Types of SFT - outstanding & number (end-2020)

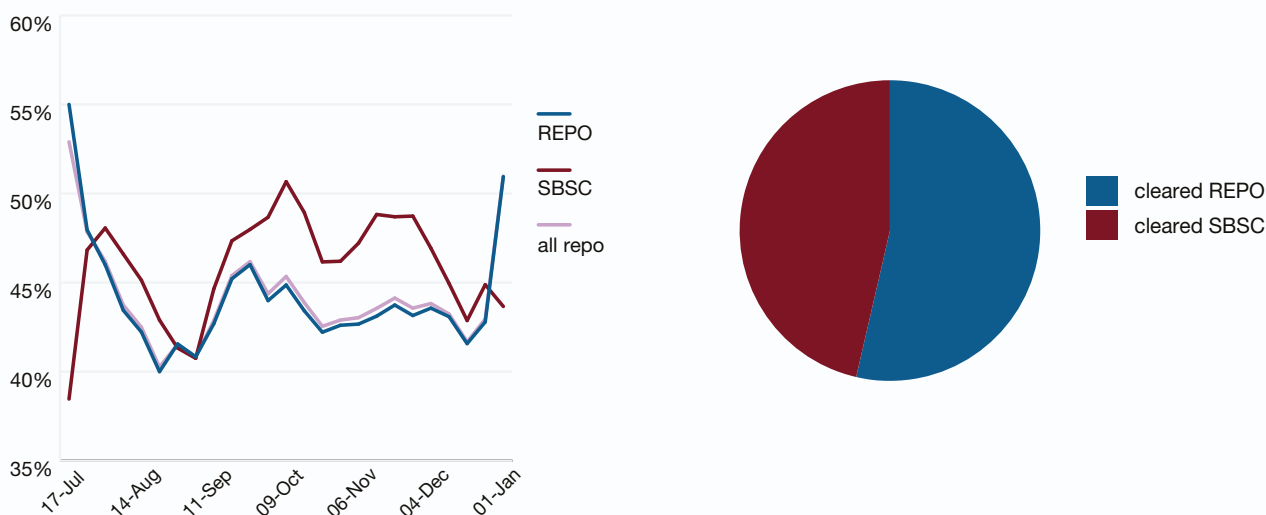


The total loan value reported under SFTR of all repos outstanding on 11 December 2020 (the SFTR publication date closest to the December ICMA survey date) was EUR 14,237 billion compared with EUR 8,285 billion in the ICMA survey, which was therefore equivalent to 58% of the reported EU repo market. This is a substantial share, even allowing for double-counting in the ICMA survey. Average daily turnover in repo reported under SFTR in the week ending 11 December was EUR 3,525 billion compared to turnover estimated in the ICMA survey of EUR 2,317 billion (which was therefore 66% of the SFTR number).

Figures 5a & 5b - CCP-cleared repos as share of loan value of all new repos (July-December 2020) and composition (final week 2020)



Figures 6a & 6b - CCP-cleared repos as share of loan value of all outstanding repos (July-December 2020) and composition (final week 2020)

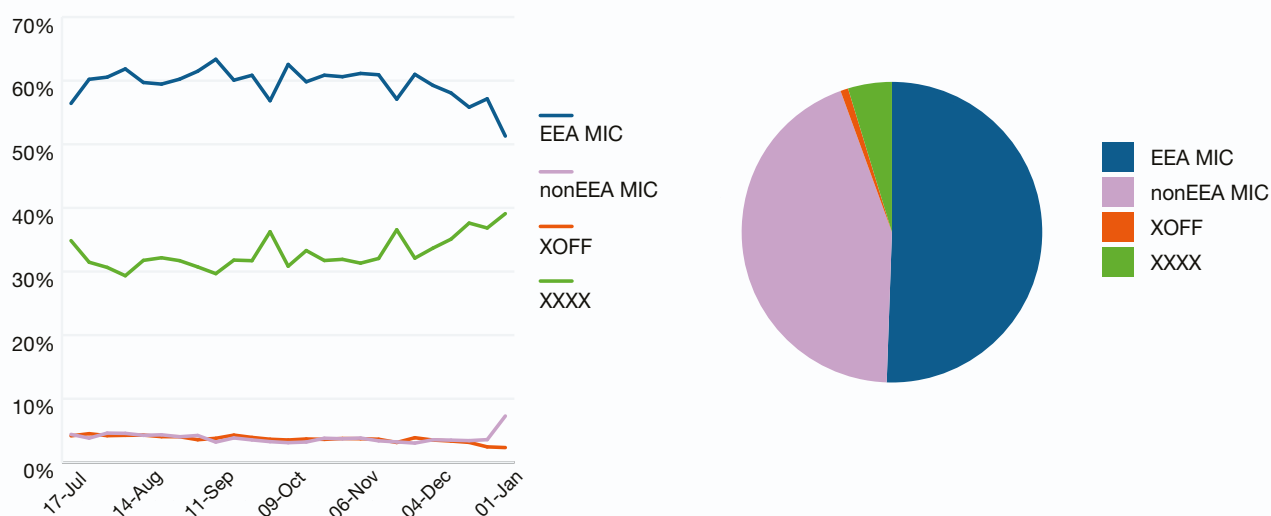


CCP-cleared repos represented 50.7% of the loan value of weekly turnover at the end of 2020 (averaging 55.8% over 2020). At end-2020, 49.5% of repurchase transactions were cleared and 64.4% of buy/sell-backs. In terms of outstanding loan value at end-2020, 51.0% of repos were CCP-cleared (44.2% over 2020), 43.7% of repurchase transactions and 50.9% of buy/sell-backs.

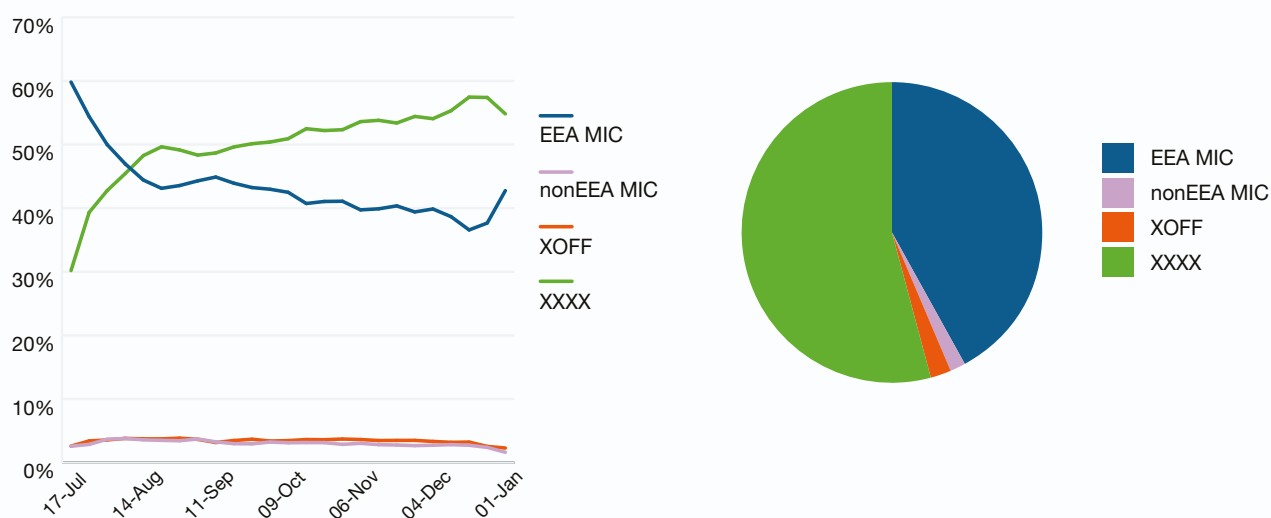
The December ICMA survey put the share of CCP-cleared repo at 32.1%, well below the share reported under SFTR. The difference probably reflects, at least in part, the fact that, under SFTR, both sides of a CCP-cleared repo are reported. In the ICMA survey, that will only be the case where both parties are survey participants. SFTR also includes clearing across the interoperable link between LCH SA and CC&G as cleared repos, thereby adding another transaction to the total. In addition, repos between CCP members and clearing clients are classed as cleared repos under SFTR but not in the ICMA survey. And of course, the ICMA survey is only a sample of the market (60 firms, albeit including the major repo houses).

The same reasons explain the difference between the value of CCP-clearing reported under SFTR and the estimated turnover based on data published by the CCPs (plus the fact that SFTR measures the cash side of repos but CCP data measures the nominal value of collateral). In December, the estimated turnover of four EU repo CCPs, including the three largest, was about EUR 22 trillion. This compares with EUR 37.5 trillion reported under SFTR over the same month.

Figures 7a & 7b - Execution venues as share of loan value of new repos (July-December 2020) and composition (final week 2020)



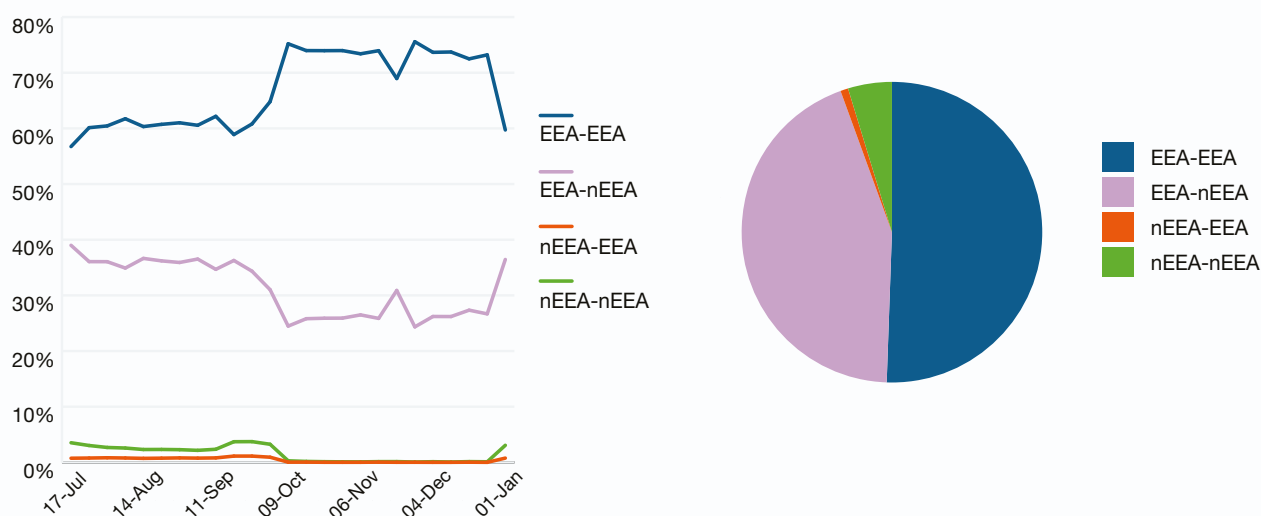
Figures 8a & 8b: execution venues as share of loan value of outstanding repos (July-December 2020) and composition (final week 2020)



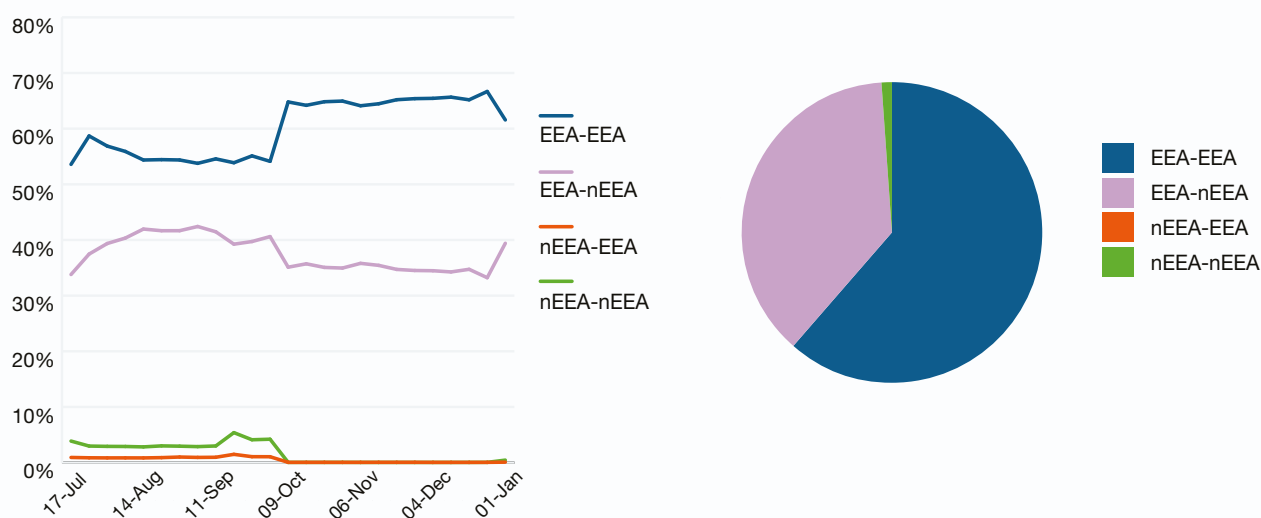
In terms of **execution venues**, most repo trading reported under SFTR is on venues with EEA Market Indicator Codes (MICs). It cannot be assumed that all these so-called EEA MICs are electronic trading platforms. EEA MICs include voice-brokers who are registered as OTFs or MTFs under MiFID II and some trade-support, confirmation and market information systems. The inclusion of these other entities gives rise to a difference with the share of electronic trading measured by the ICMA survey plus the fact that the ICMA survey covers only automatic systems (BrokerTec, Eurex and MTS), whereas SFTR includes automated trading systems (eg GLMX and Tradeweb). In December, the share of EEA MICs averaged 42.5% of repos outstanding at end-week, while electronic trading was just 27.1% of the December ICMA survey.

Another significant share of the repo market as reported under SFTR is accounted for by uncleared OTC trading, which has an average share of turnover of 35.4% of the loan value of new repos over 2020. However, the shares of non-EEA MICs and repos executed in the OTC market and then registered on electronic trading systems (SFTR venue code XOFF) were small (averaging 4.5% and 3.3% respectively in 2020).

Figures 9a & 9b - Location of counterparties as share of loan value of new repos (July-December 2020) and composition (final week 2020)



Figures 10a & 10b - Location of counterparties as share of loan value of outstanding repos (July-December 2020) and composition (final week 2020)



In terms of the **location of counterparties**, the average share of turnover between EEA counterparties in 2020 was 63.8% but another significant share (33.5%) was between EEA and non-EEA counterparties. In terms of average end-week outstanding values, EEA to non-EEA repos accounted for 39.4%.

Misreporting of third-country branches in the EU may be inflating the EEA to non-EEA numbers (and may also have something to do with the collapse of the non-EEA to non-EEA numbers in October). Non-EEA counterparties are most likely to be in US and Japan. The December ICMA survey puts APAC counterparties at 5.3% but there are no data on the share of other third-country counterparties.

No numbers on floating-rate repos have been published in the SFTR data. This has to be because no index accounted for more than EUR 5 billion of the repo business reported to any trade repository, which is the threshold below which no aggregated data is released. In the ICMA survey, floating-rate repo accounted for 9.3% of outstanding repos in December 2020.

In the last two weeks of 2020, both turnover and the outstanding stock of repos plummeted. The severity of the falls suggest that the usual end-year contraction of repo books for window-dressing purposes may have been accentuated by caution about the impact of the end of the Brexit Transition Period on 31 December.

What EU and UK SFTR public data revealed about the UK share of the EU repo market

Since the start of 2021, there have been two streams of SFTR reporting, one for the EU and one for the UK. Each market is of course smaller than the EU-28 market in 2020. The split has confirmed that the UK repo market was a significant part of the EU-28 market, perhaps more than suggested by the 2021 numbers, given that some repo trading may have been relocated from the UK.

Unfortunately, a full analysis of the two markets is not possible because of anomalies and gaps in the data published by the trade repositories, both at the start of the new year and in the week during which EU-27 non-financial institutions started to report. A comparison between the two markets is also complicated by mutual double-counting. And looking for trends is complicated by the end-year contraction of repo trading. In addition, one trade repository has so far been unable to re-categorize execution venues in the UK in terms of UK and non-UK MICs.

Figure 11 - Repo turnover reported under SFTR (2020-21)

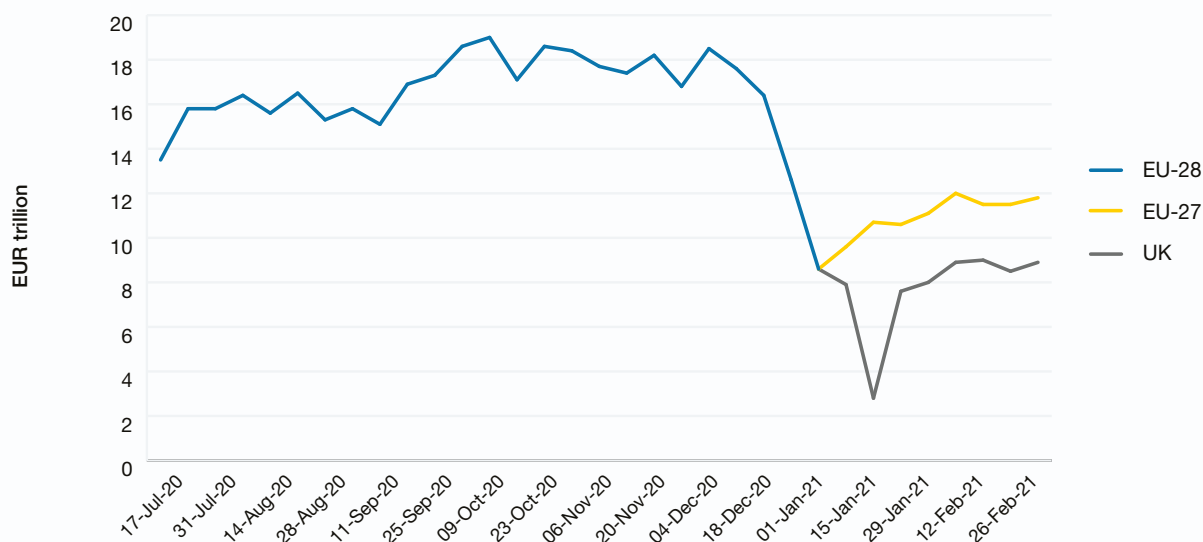


Figure 12 - Outstanding repo reported under SFTR (2020-21)

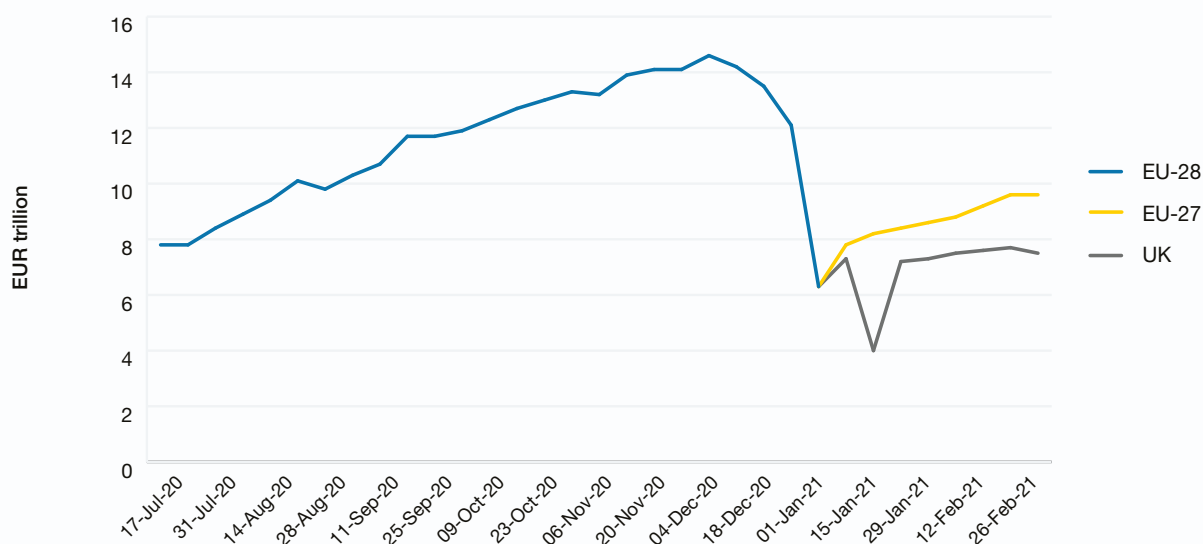
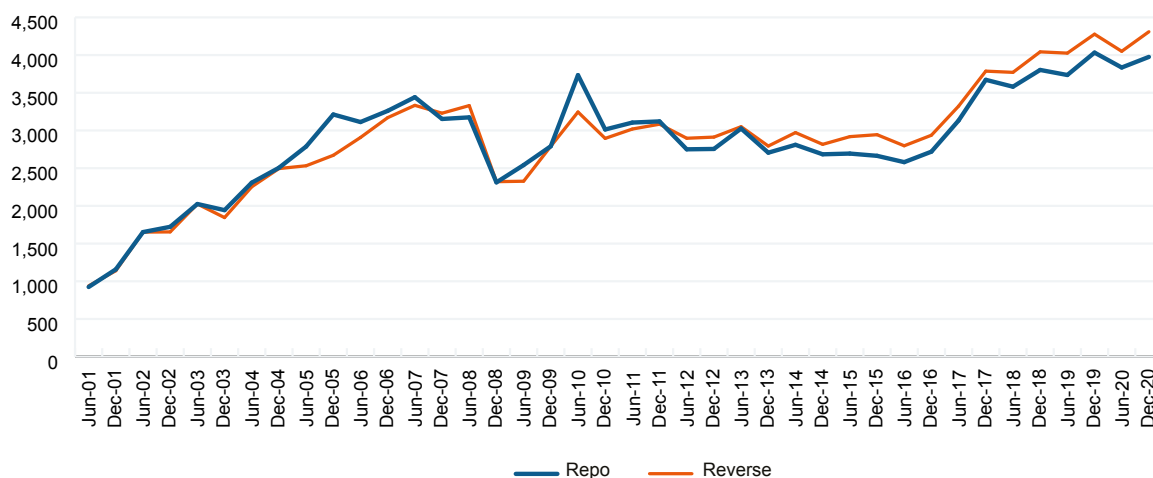


Figure 2.2 – Total repo versus reverse repo business (EUR billion)



Trading analysis (Q1.1)

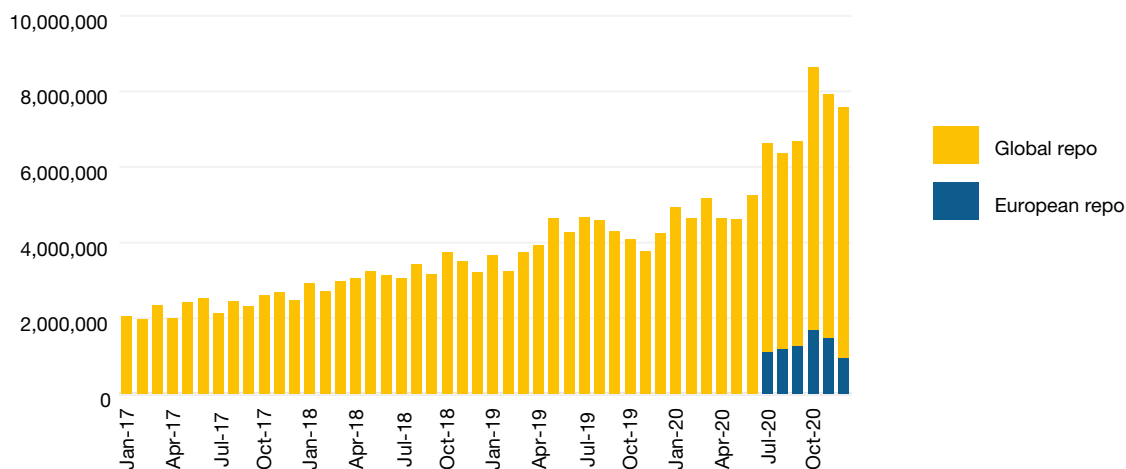
Table 2.2 – Trading analysis

	December 2020		June 2020		December 2019	
	share	users	share	users	share	share
direct	63.4%	60	63.7%	61	61.2%	58
of which tri-party	8.8%	42	9.2%	37	8.7%	41
voice-brokers	9.5%	38	8.8%	43	9.9%	43
ATS	27.1%	48	27.5%	46	28.9%	46

The share of **automatic trading systems (ATS)** continued to fall back from the high of 30.3% in June 2019. A significant component of this retreat reflected a drop in the trading of Italian government securities. There was also a sharp fall in the absolute size of outstanding automatic electronic business to EUR 1,040 billion but this was from the record EUR1,412.7 which was reached in June 2020 during the ‘dash for cash’ at the height of the Covid panic.

The definition of ATS in the survey excludes **automated repo trading systems**, which are often called request-for-quote (RFQ) systems and are platforms for dealer-to-client business (whereas interdealer business is executed on ATS). The largest automated repo trading system in Europe is probably Tradeweb. Turnover data published by Tradeweb showed average daily volume peaking in October 2020 (Figure 2.3 shows monthly data published by Tradeweb for its global repo business and estimates of its European repo business). This surge in automated trading on Tradeweb supports anecdotal evidence of a shift towards more electronic trading as a result of the need to cope with increased trading volumes during the Covid panic and the need to ‘work from home’, albeit that automated systems may often actually be used for post-trade deal capture rather than execution.

Figure 2.3 – Monthly turnover in global repo on Tradeweb (USD million)



The share of **voice-brokers** has been fluctuating sideways since 2018 and continued to do so in the December survey by recovering from the fall reported in June. It remains to be seen whether this sideways evolution is a trend or just a temporary respite from the secular decline seen since 2001. On the one hand, recent levels could be a floor to the share of voice-brokers represented by business in which they possess a comparative advantage over electronic trading (eg forward repos). On the other hand, they could reflect the fact that voice-brokers tend to benefit temporarily from spikes in trading because they can instantly extend price discovery for their clients in difficult market conditions as well as coaxing additional liquidity through relationships with other dealers.

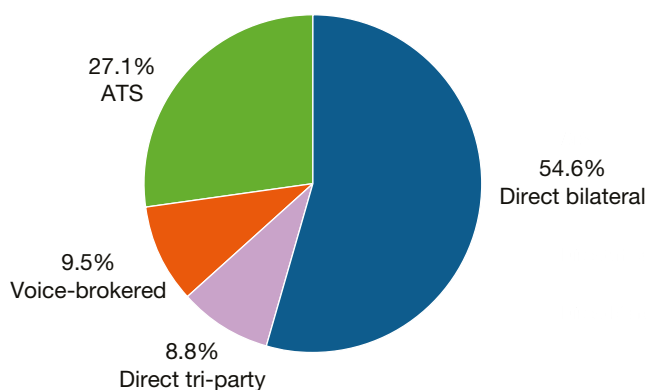
Tri-party repo appeared to be once again weighed down by abundant central bank liquidity. Its share of the survey fell back to 8.8%. However, this is well above the record low of 6.0% plumbed in June 2018 and the absolute size of the use of tri-party by the survey sample was sustained. On the other hand, the absolute size of all tri-party business reported by the five principal tri-party agents operating in Europe (Bank of New York Mellon, Clearstream, Euroclear, JP Morgan and SIS) fell back to EUR 669 billion from its recent high of EUR 710 billion in June 2020. The increased share taken in June suggests that tri-party repo benefitted to some degree from the so-called “dash for cash” triggered by the Covid panic, at least until central banks flooded the money market. The same pattern was seen in the temporary recovery in June and subsequent relapse of activity on Eurex Repo’s GC Pooling market (which combines CCP clearing and tri-party collateral management).

Tri-party repo continued to provide the survey sample with net cash. Borrowing by the sample accounted for 76.0% of their reported outstanding tri-party repo compared to 77.9% in June but borrowing through GC financing receded to 58.5% from 63.8% in June.

Table 2.3 – Numbers of participants reporting particular types of business

	Dec-20	Jun-20	Dec-19	Jun-19	Dec-18	Jun-18
ATS	48	46	46	45	44	44
anonymous ATS	42	42	41	40	40	40
voice-brokers	38	43	43	40	42	48
tri-party repos	42	37	41	38	42	43
total	60	61	58	55	58	62

Figure 2.4 - Trading analysis



Geographical analysis (Q1.1)

Table 2.4 – Geographical analysis

	December 2020		June 2020		December 2019	
	share	users	share	users	share	users
domestic	26.2%		27.4%		26.3%	
cross-border to (other) eurozone	18.5%		16.8%		14.4%	
cross-border to (other) non-eurozone	37.3%		36.3%		38.2%	
anonymous	18.0%	42	19.5%	42	21.1%	41

Figure 2.5 - Geographical analysis

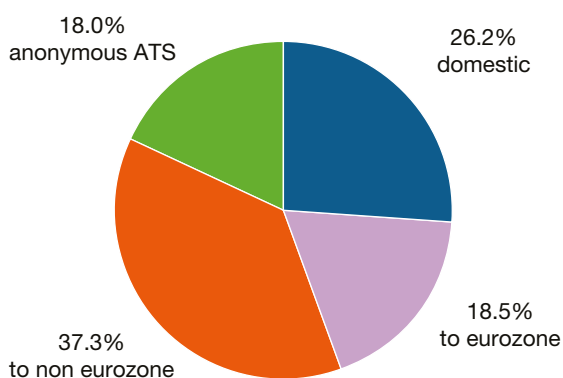


Table 2.5 – Geographical comparisons in December 2020 (June 2020)

	main survey	ATS	tri-party
domestic	26.2% (27.4%)	30.3% (29.5%)	34.9% (34.5%)
cross-border	55.8% (53.1%)	69.7% (70.5%)	65.1% (65.5%)
anonymous	18.0% (19.5%)		

The share of **domestic repo** business in December continued the narrow fluctuation around a sideways trend of just over 26% which has been followed since 2017. Prior to this, domestic business had hit a floor of just under 24% during 2015-2016 after trending down from 49% in the first ICMA survey in 2001. The downtrend over 2001-2014 is assumed to have reflected the structural rationalization of trading operations by market intermediaries into regional or global ‘hubs’. This process may be partially reversed by Brexit.

Domestic business retained its recent shares of automatic electronic trading and tri-party repo.

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

The share of **anonymous (CCP-cleared) repo trading** continued its two-year contraction, which is the latest phase in a wide fluctuation around a downward trend that has been followed since June 2016, when the share of anonymously-traded repo fell off a plateau of about 25% reached in 2013.

However, the reduced share of anonymously-traded repo does not reflect a shift away from CCP-clearing. It is the result of the faster expansion of uncleared business, particularly net cash lending and collateral borrowing cross-border, especially between the eurozone and the rest of Europe. In contrast to its share of the survey, the absolute value of anonymously-traded repo reported in the survey has risen relentlessly since 2016.

Turnover data from LCH RepoClear, the largest repo CCP in Europe, which has become more correlated with the survey total in recent years, also rose swiftly from 2016 (see Figure 2.6). However, unlike the absolute value of outstanding anonymous business in the survey, LCH turnover fell back in 2020, mainly in the first-half, notwithstanding the boost received during the Covid panic (see Figure 2.7). Eurex Repo showed a similar pattern (turnover on GC Pooling market declined in H2 2020 and on Eurex Repo in Q4 --- see Figure 2.9). SFTR public data, which became available from July, confirmed very sharp drops in reported CCP-cleared repos in December in terms of both turnover and outstanding business (see Figure 2.10). The difference with the ICMA survey data is due to the timing of the surveys, which is on the second Wednesday of the month (usually the 9th or 10th) and so mostly precedes the largely-seasonal end-year drop in trading and clearing volumes.

Figure 2.6 – Annual cleared notional turnover on LCH RepoClear (EUR billion, double-counted)

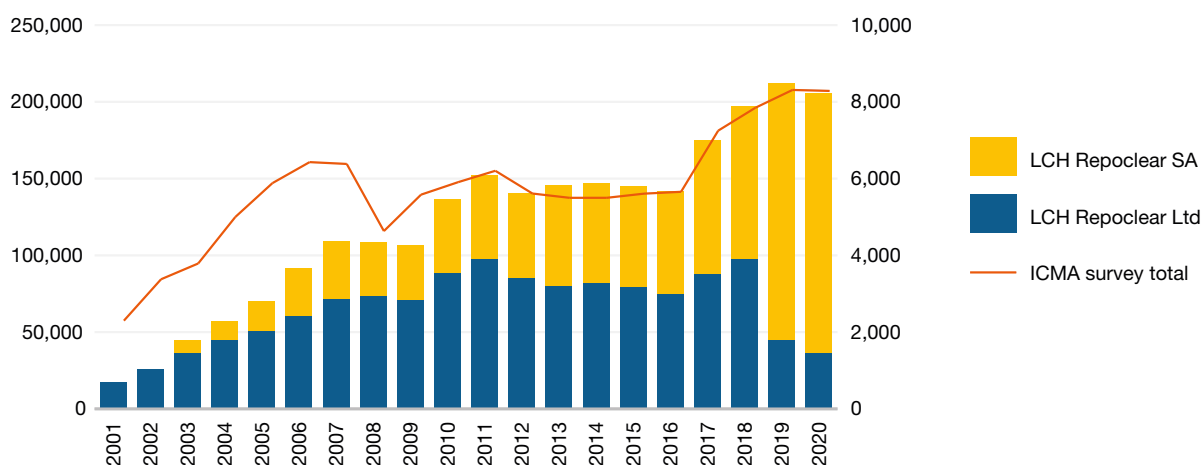


Figure 2.7 – Monthly cleared notional turnover on LCH RepoClear in 2020 (EUR billion, double-counted)

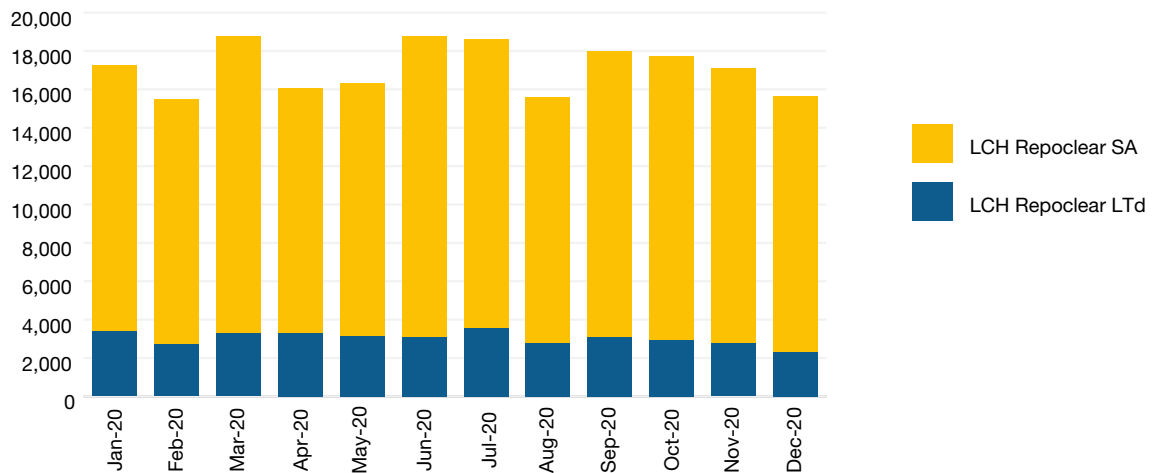


Figure 2.8 shows the outstanding value of repos cleared by LCH. The daily frequency illustrates the strongly seasonal pattern of clearing, which peaks around bond futures delivery dates and drops sharply at end-year. The data shows more clearly the climaxing of clearing in 2019.

Figure 2.8 – Daily outstanding turnover on LCH RepoClear 2018-2020 (EUR trillion, double-counted: calculated using same methodology as ICMA survey)

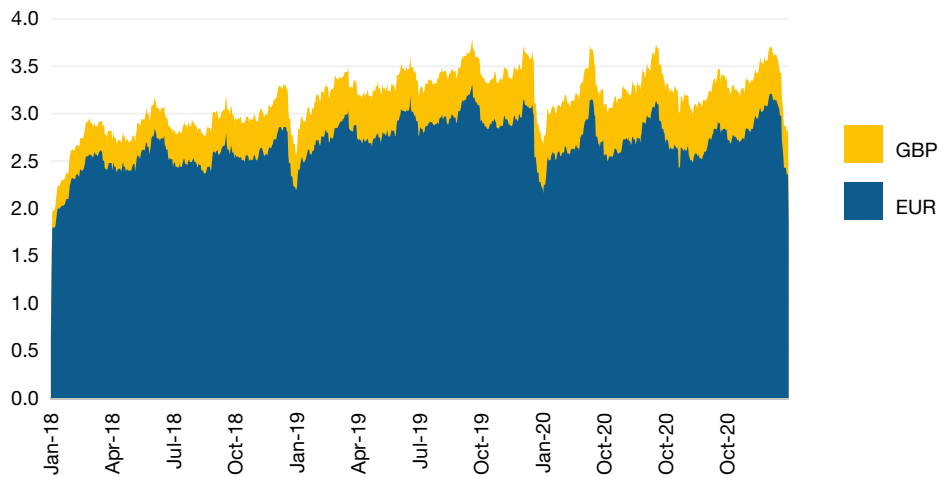


Figure 2.9 – Monthly outstanding turnover on Eurex Repo and GC Pooling (EUR million, 20-day moving average, adjusted for double-counting)

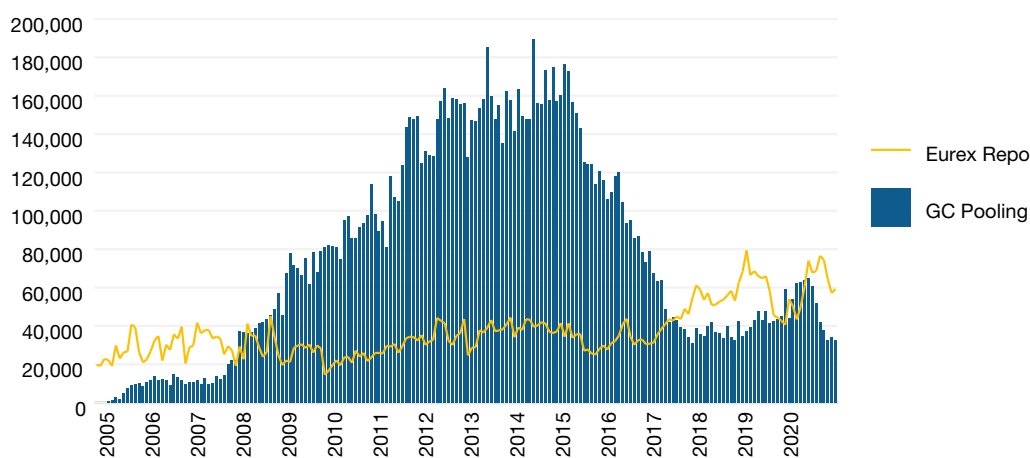
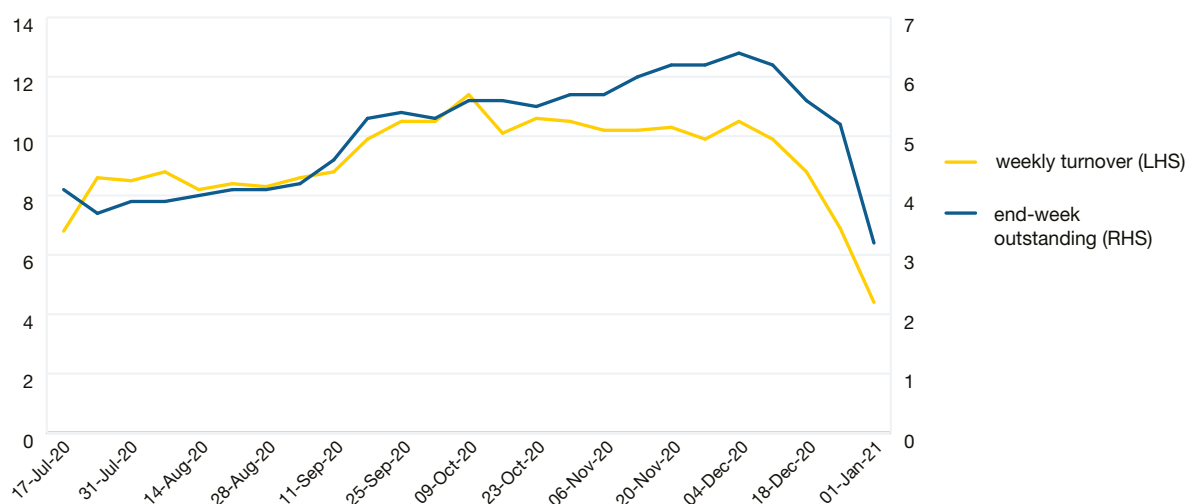


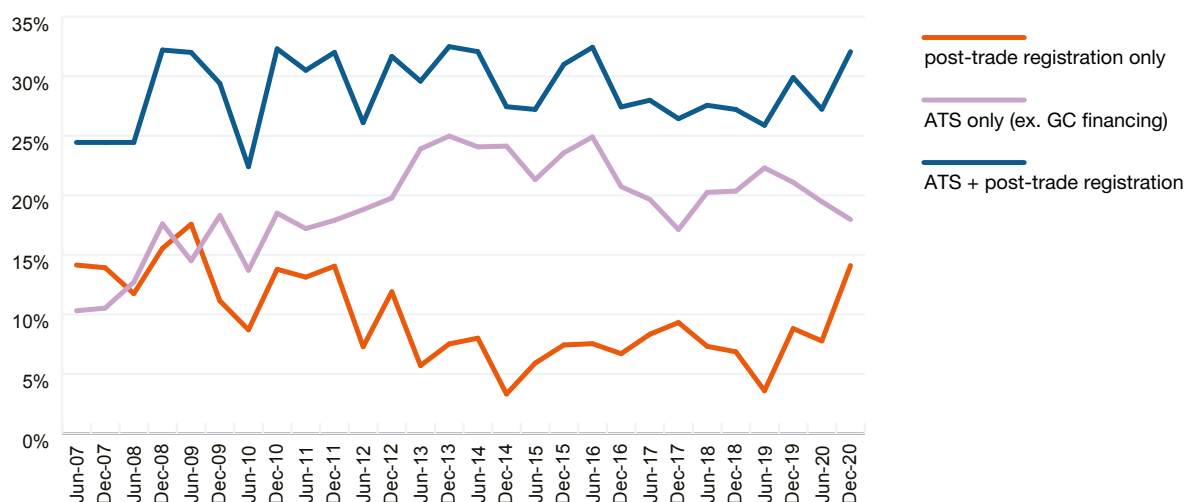
Figure 2.10 – CCP-cleared repos reported under SFTR (EUR trillion)



As noted, the share of **GC financing** (mainly through Eurex Repo’s Euro GC Pooling but also LCH’s EuroGCPlus) suffered between the June and December 2020 surveys. This was not unexpected given that central bank liquidity tends to substitute for all tri-party repo products including GC financing. As a percentage of the tri-party business reported by the survey sample, GC financing fell back to 5.5% from 10.5% in June. Its share of electronic business as reported directly by ATS dropped to 2.9% from 4.5% and its share of tri-party repo contracted to 8.6% from 10.0%, while the estimated absolute size of all GC financing reported by the tri-party agents (including EuroGCPlus) decreased to about EUR 60 billion from some EUR 82 billion.

According to data provided by the principal ATS, the share of their business that was cleared on a CCP reached an all-time high of 99.6%. This apparently reflected the withdrawal of traditional users of uncleared repos from the Italian market, which is where most uncleared electronic trading has taken place.

Figure 2.11 – Evolution of business cleared across CCP



The share of outstanding business negotiated directly between parties, or via voice-brokers and subsequently registered with a CCP, rebounded sharply from 7.8% to 14.1%. This is a very substantial number and, as there is little other evidence to verify post-trade clearing on this scale, further investigation is needed.

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

Table 2.6 – Cash currency analysis

	December 2020	June 2020	December 2019
EUR	54.4%	54.1%	53.6%
GBP	16.5%	15.8%	13.6%
USD	19.2%	20.6%	18.9%
DKK, SEK	1.4%	1.7%	1.9%
JPY	5.7%	5.7%	5.4%
CHF	0.1%	0.0%	0.0%
other APAC	1.5%	1.0%	0.9%
other currencies	1.2%	1.1%	5.6%
cross-currency	2.7%	1.6%	1.7%

The share of the euro was sustained in December 2020 but this may reflect the reduction in the share of the US dollar rather than strong demand for more euros. Sterling continued its growth in share.

The share of the euro in tri-party repo reported by the principal agents fell back sharply to 50.6% from 54.9% but the share of the pound sterling recovered to 8.1% from 6.3%. The share of the US dollar continued to recover, reaching 36.3% from 34.3%, some part of which may reflect a switch in funding (recently reported by the BIS) by non-US banks, including some in Europe, from largely unsecured deposits from money market funds to repos with other non-bank financial institutions as a source of dollars following the Covid-driven run on the funds.

Figure 2.12 - Currency analysis

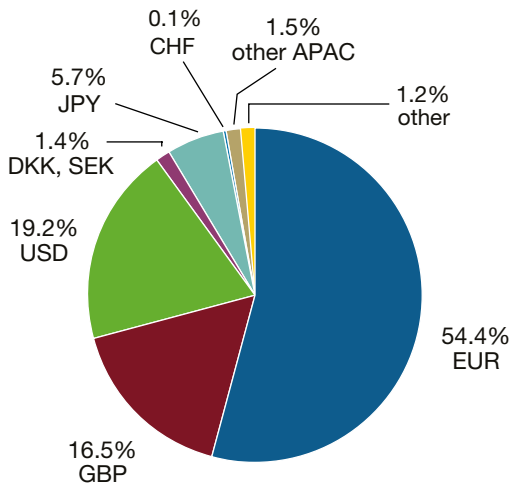


Table 2.7 – Currency comparison in December 2020

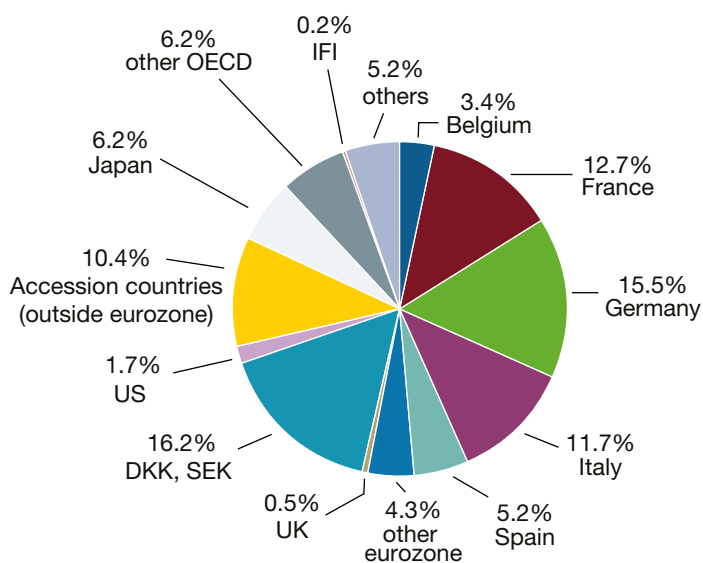
	main survey	ATS	tri-party
EUR	54.4%	92.6%	50.6%
GBP	16.5%	7.1%	8.1%
USD	19.2%	0.3%	36.3%
DKK, SEK	1.4%	0.0%	0.7%
JPY	5.7%	0.0%	1.5%
CHF	0.1%	0.0%	0.3%
other APAC	1.5%		0.2%
etc	1.2%	0.0%	2.3%
cross-currency	2.7%		

Collateral analysis (Q1.9)

Table 2.8 – Collateral analysis

	December 2020	June 2020	December 2019
Germany	15.5%	13.3%	13.5%
Italy	11.7%	12.7%	14.1%
France	12.7%	10.9%	12.9%
Belgium	3.4%	3.8%	3.1%
Spain	5.2%	5.3%	5.8%
other eurozone	4.3%	4.5%	4.5%
UK	16.2%	15.9%	14.5%
DKK, SEK	1.7%	2.0%	1.8%
former EU Accession	0.5%	0.5%	0.4%
EU institutions	0.5%	-	-
international financial institutions	0.2%	0.5%	0.5%
US Treasuries	8.1%	9.1%	8.8%
other US	2.4%	2.9%	2.4%
Japan government	5.2%	4.8%	5.1%
other Japan	1.1%	1.6%	1.4%
other OECD ex APAC	5.4%	6.0%	4.2%
other APAC OECD	0.8%	0.6%	1.4%
eurobonds	1.9%	1.7%	1.9%
other fixed income	3.0%	3.7%	3.3%
equity	0.3%	0.3%	0.3%

Figure 2.13 - Collateral analysis (main survey)



The share of European collateral in the form of government securities (EU-27 plus UK) advanced to a record 92.1% from 90.0% in June, reflecting a strong recovery in the shares of German and, to a lesser extent, French and UK government securities.

German government securities jumped to 14.8% from 12.1% in June. UK government securities increased share further to a new record 14.8% from 14.5%, so German and UK government securities now account for the largest shares of European government securities used as collateral in the European repo market.

The increases in the shares of French and German government bonds and the decrease in the share of Italian government bonds may reflect more rapid issuance in France and Germany compared to Italy. Thus, the outstanding total of French and German government bonds grew from EUR 1,989 billion and EUR 1,584 billion, respectively, at end-2019 to EUR 2,311 billion and EUR 1,840 billion, respectively, at end-2020. The stock of Italian government bonds only grew from EUR 626 billion to EUR 645 billion over the same period. In addition, the supply of Italian (and other peripheral eurozone) government bonds to the repo market seems to have been hit by the reduction in the need of Italian banks to finance themselves in the repo market as a result of the ECB's latest Targeted Long Term Refinancing Operation (TLTRO III). The smaller share of Italian government securities may also reflect the reported liquidation of long positions by hedge funds during the Covid-related market stress and therefore a reduction in market funding requirements.

Securities issued in the APAC region excluding Japan accounted for 1.8% of the survey compared with 1.6% in June. Outstanding repos with APAC counterparties (including Japan) accounted for an unchanged 5.3%.

The survey sample was a significant net lender through repo of Belgian and German government securities but net borrowers through reverse repo of French, Italian and especially UK government securities. The sample was also a net lender of US Treasuries, other OECD securities, European eurobonds and equity, and a net borrower of JGBs and other Asian securities, and non-OECD and non-European eurobonds.

The December survey asked participants to report bonds issued by EU institutions, eg SURE bonds. The share of these securities was 0.5% (with the survey sample being a net lender) but, as with all new questions, it may take time for all participants to fully report this number. Collateral data reported directly by the tri-party agents was disrupted by the new question about securities issued by EU institutions. These were reported as accounting for 26.8%. Government securities used as collateral in tri-party repo jumped to 49.1% from 41.0% at the expense of corporate and covered bonds, RMBS and especially equity.

The shares of all rated securities in tri-party repo collateral fell, particularly those rated AAA and BBB, due to a rise in the share of unrated securities, which typically means equity.

Table 2.9 – Tri-party repo collateral analysed by credit rating

	December 2020	June 2020	December 2019
AAA	23.3%	24.8%	25.7%
AA	26.8%	26.9%	32.6%
A	13.1%	13.8%	14.0%
BBB	14.9%	16.3%	17.4%
below BBB-	6.3%	6.3%	5.8%
A1/P1	2.8%	3.4%	3.1%
A2/P2	0.1%	0.2%	0.2%
Non-Prime	0.2%	0.1%	0.0%
unrated	12.6%	10.3%	1.2%

Figure 2.14 - Collateral analysis (tri-party agents) by credit rating

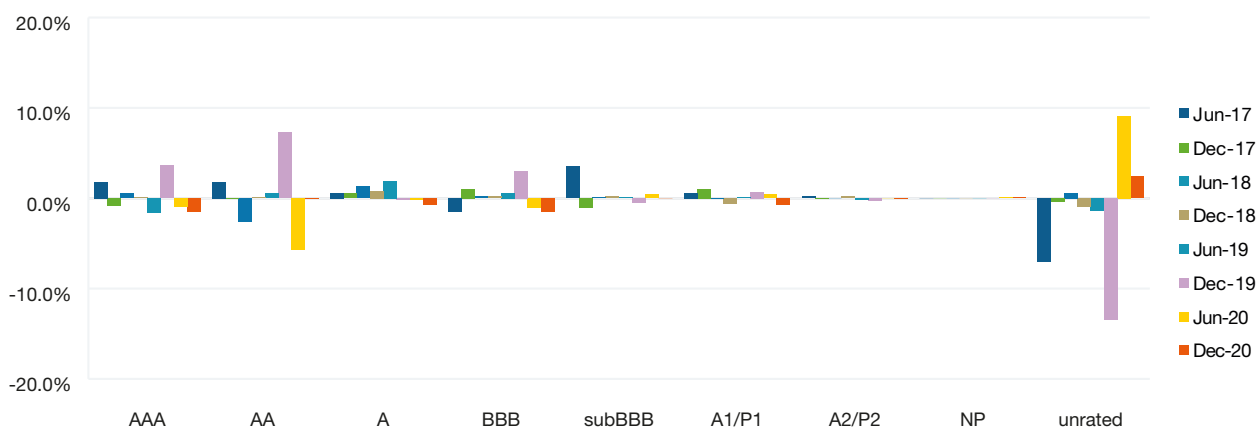


Table 2.10 – Tri-party repo collateral analysed by type of asset

	December 2020	June 2020	December 2019
government securities	49.1%	41.0%	47.5%
public agencies / sub-national governments	5.2%	4.5%	6.0%
supranational agencies	3.9%	3.1%	3.7%
corporate bonds	16.5%	17.9%	17.3%
covered bonds	3.7%	8.1%	8.6%
residential mortgage-backed	1.2%	1.6%	1.7%
commercial mortgage-backed	0.4%	0.3%	0.3%
other asset-backed	1.7%	1.2%	1.7%
CDO, CLN, CLO, etc	1.7%	1.8%	1.7%
convertible bonds	1.3%	1.0%	0.3%
equity	12.9%	20.1%	10.0%
other	2.2%	1.2%	1.1%

Figure 2.15 – Historic collateral analysis (tri-party agents) by credit rating

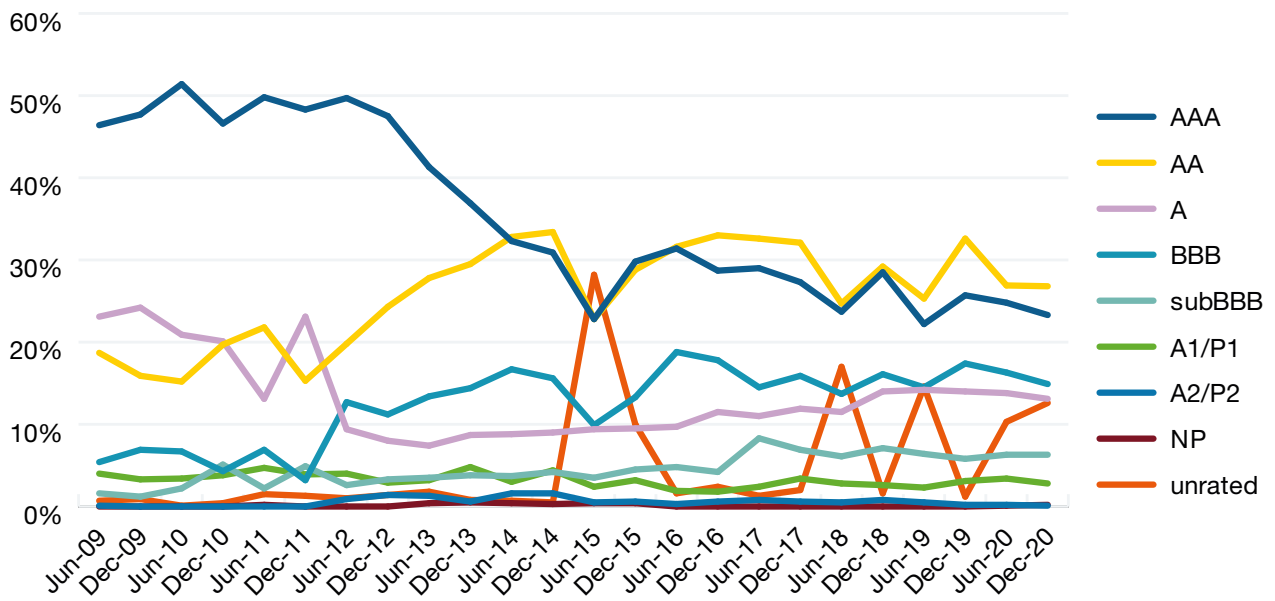


Figure 2.16 - Collateral analysis (tri-party agents) by type of asset

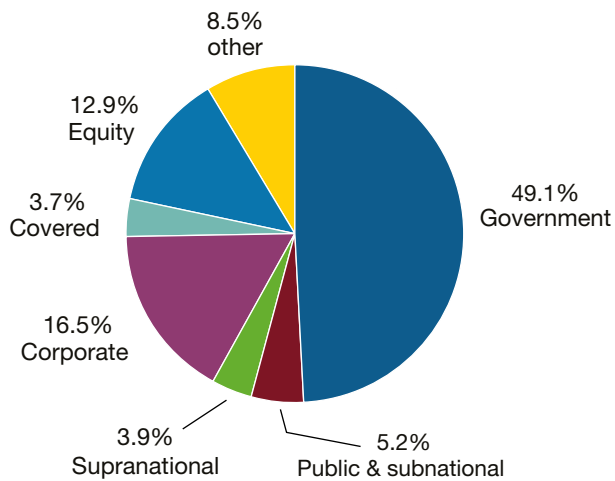
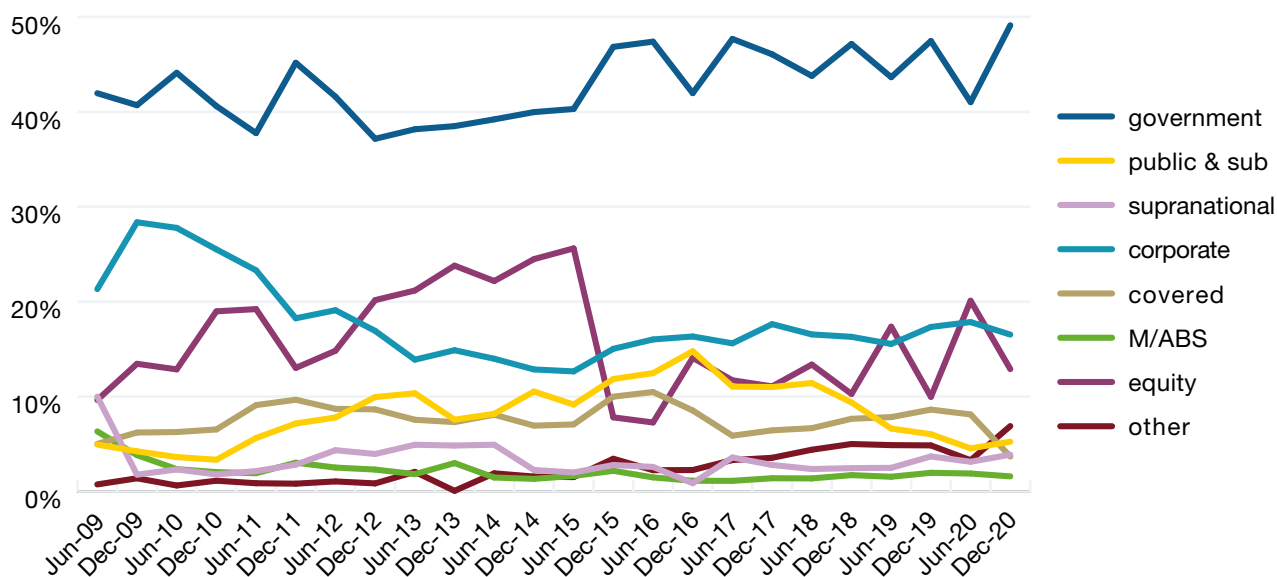


Figure 2.17 – Historic collateral analysis (tri-party agents) by type of asset



Weighted average haircuts on government and other public issues in tri-party repo collateral narrowed, as did haircuts on financial and covered bonds, and equity. Many are at or close to record lows. Other haircuts widened, particularly on convertible bonds.

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

(weighted average haircuts)	December 2020	June 2020	December 2019*
government securities	2.0%	2.6%	
public agencies / sub-national governments	2.6%	3.1%	
supranational agencies	2.0%	1.9%	
corporate bonds (financial)	3.3%	3.4%	
corporate bonds (non-financial)	3.6%	2.9%	
covered bonds	0.8%	2.4%	
residential mortgage-backed	2.4%	1.6%	
commercial mortgage-backed	1.8%	1.4%	
other asset-backed	4.1%	3.2%	
CDO, CLN, CLO, etc	2.7%	2.8%	
convertible bonds	3.7%	2.2%	
equity	1.2%	1.7%	
other	1.8%	1.4%	

*Figures not published for December 2019 as insufficient data was received in the survey

In the collateral data reported directly by the ATS, there was a sharp fall in the share of Italian government securities to 32.4% from 43.0% and sharp rise in German government securities to 21.6% from a record low of 15.9%, as well as increases in the shares of other European securities including UK government securities (7.8% from 7.2%).

Contract analysis (Q1.5)

Figure 2.18 - Contract analysis

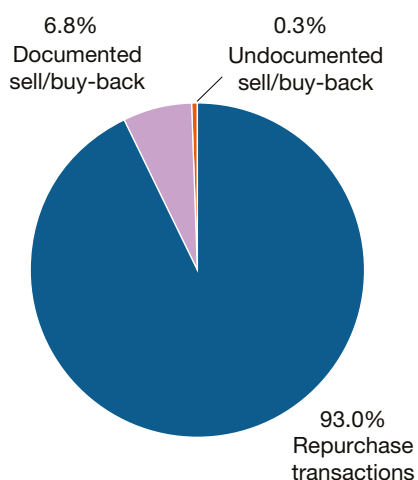


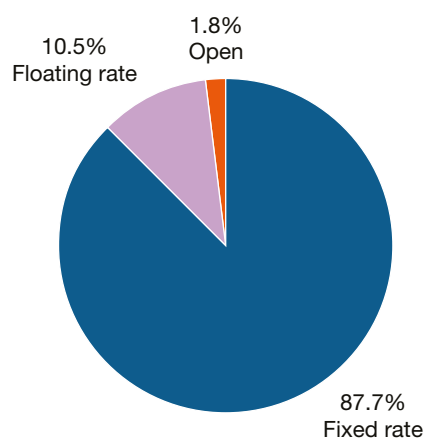
Table 2.12 – Contract comparison in December 2020 (June 2020)

	main survey	ATS	tri-party
repurchase transactions	93.0% (92.7%)	90.6% (91.6%)	100.0% (100.0%)
documented sell/buy-backs	6.8% (7.0%)	9.4% (8.4%)	100.0% (100.0%)
undocumented sell/buy-backs	0.3% (0.3%)		

Of the master agreements used by survey participants, 73.4% were reported to be the ICMA Global Master Repurchase Agreement (GMRA).

Repo rate analysis (Q1.6)

Figure 2.19 - Repo rate analysis



The figure for open repo in Table 2.13 should be zero, as this category has been dropped from the repo rate analysis on that basis that open repos should be assumed to be fixed-rate unless they are expressly linked to a floating-rate index. It would appear that some participants have yet to adjust to this change in reporting.

Table 2.13 – Repo rate comparison in December 2020 (June 2020)

	main survey	ATS	tri-party
fixed rate	87.7% (82.1%)	98.5% (97.1%)	22.3% (19.1%)
floating rate	10.5% (9.3%)	1.5% (2.9%)	5.5% (10.9%)
open	1.8% (8.7%)		72.2% (70.0%)

Maturity analysis (Q1.7)

Table 2.14 – Maturity analysis

	December 2020	June 2020	December 2019
1 day	6.2%	8.5%	9.6%
2 days to 1 week	18.0%	19.0%	16.9%
1 week to 1 month	19.3%	19.2%	17.3%
>1 month to 3 months	13.7%	16.9%	16.8%
>3 months to 6 months	15.6%	10.4%	13.3%
>6 months to 12 months	8.2%	7.4%	4.7%
>12 months	3.5%	3.1%	5.1%
forward-start	2.4%	2.8%	3.4%
forward-start	13.2%	12.6%	12.9%

Figure 2.20 – Maturity analysis (main survey)

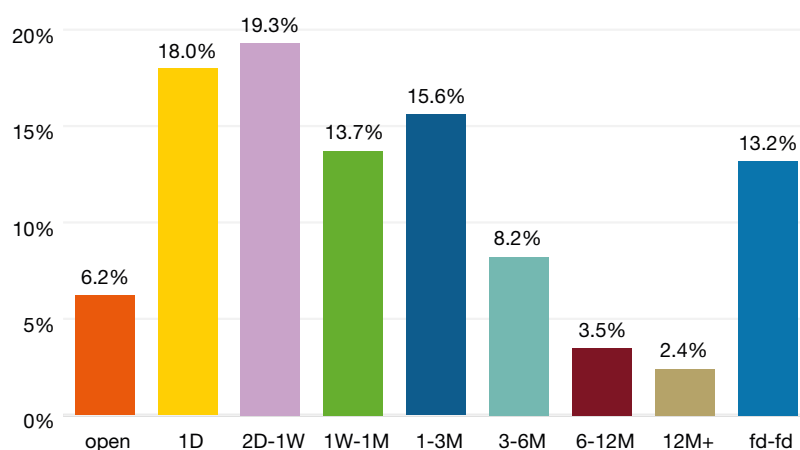


Figure 2.21 – Maturity analysis: short dates, longer terms & forwards (main survey)

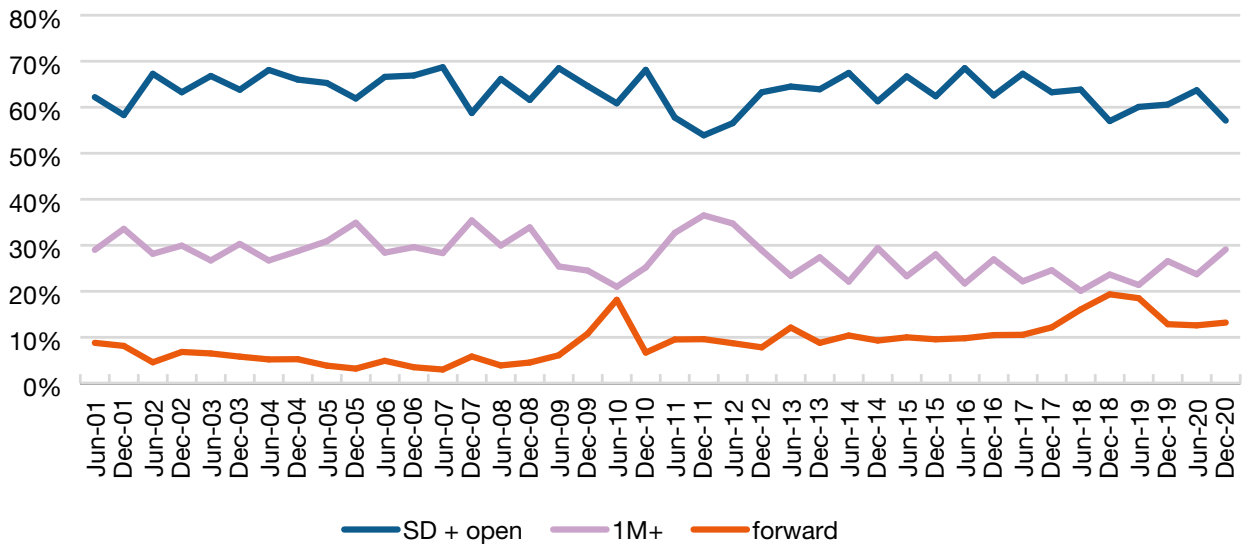


Figure 2.22 – Maturity analysis: non-forward terms (main survey)

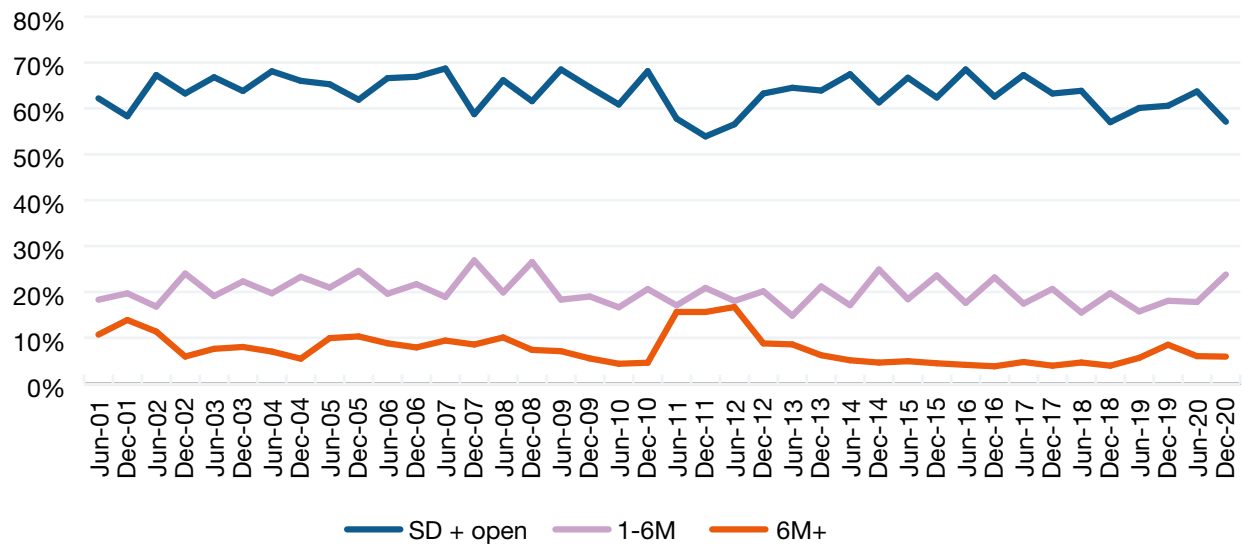
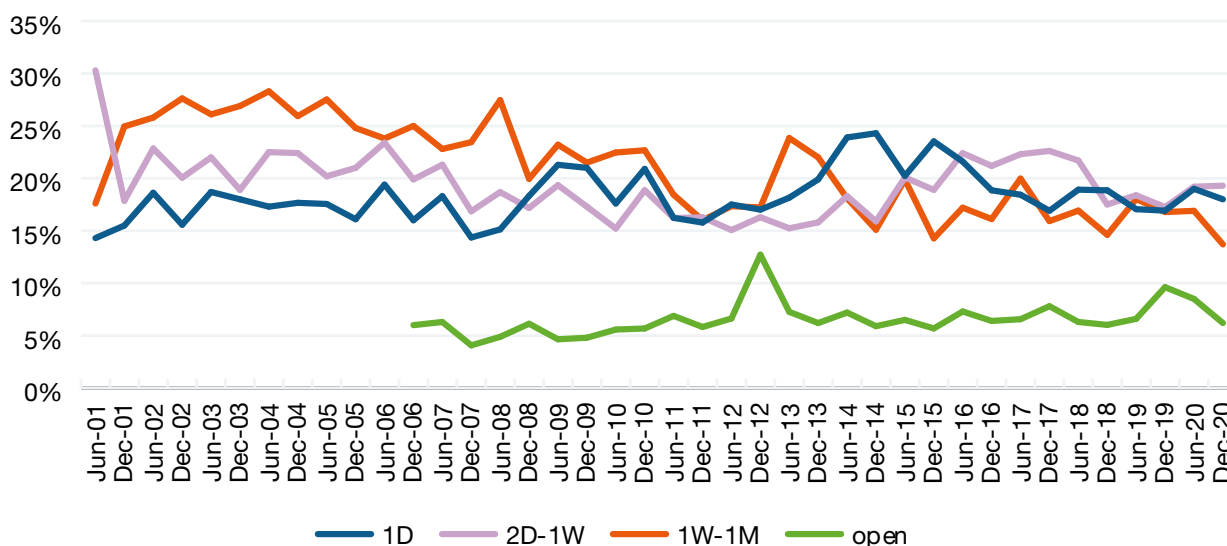


Figure 2.23 – Maturity analysis: breakdown of short dates plus open (main survey)



As is typical at year-end, the share in the survey of short-dated repos (one month or less remaining to maturity) fell back, particularly in remaining maturities between one week and one month, to reach 50.9% from 55.1%. Short dates plus open repo accounted for 57.1% compared with 63.7% in June, their lowest level since June 2012. Term repo (beyond one month) jumped to 29.1% from 23.7%. The increase was particularly strong between one and three months, which suggests the usual year-end collateral transformation into HQLA. Forwards also recovered share.

The result of all these changes was that the weighted average term to maturity of outstanding repos was modestly higher at 33-76 days from 32-72 days in June (the lower end of the range assumes that all transactions have the minimum term in each maturity band: the upper end assumes the maximum term and a term of 31 days for open repo). Weighted average maturities may be resuming the lengthening trend followed since 2016 which was interrupted by the ‘dash for cash’ during the Covid panic.

Short dates continue to be very seasonal, contracting in the December survey and recovering in June, while repos between one and six months continue to demonstrate the inverse seasonality, driven by tactical collateral transformation.

The latest survey showed a continuation of the switch seen in June in the aggregate maturity transformation profile of the survey sample to a negative gap (borrowing short-term and lending longer-term), although with less very short-term net cash borrowing, a significant fall in net cash lending between one and three months and increases in net cash lending between three and six months and in forwards.

Figure 2.24 – Maturity analysis: maturity transformation profile --- net reverse repo (main survey)

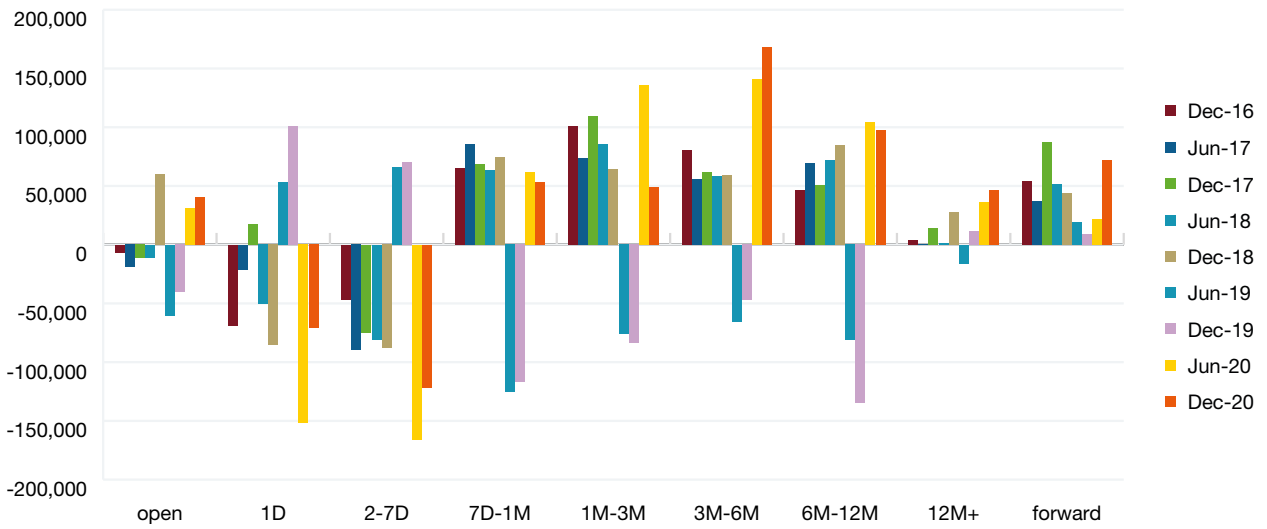


Figure 2.25 – Maturity analysis (ATS)

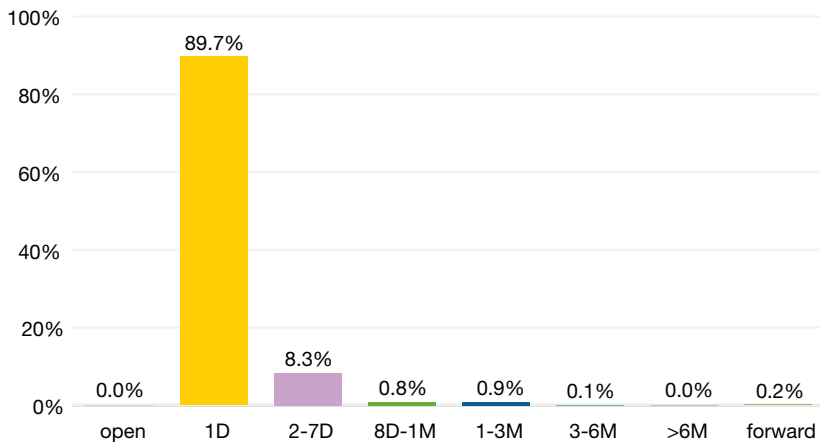


Figure 2.26 – Maturity analysis (tri-party agents)

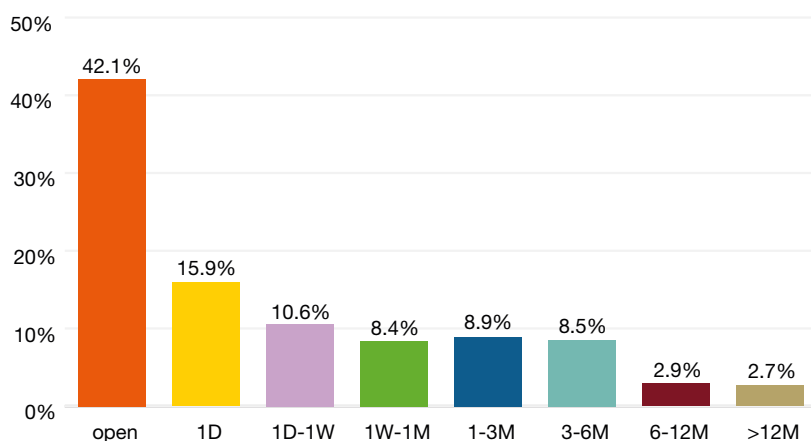


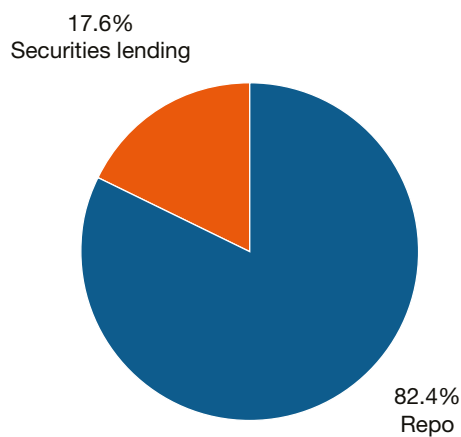
Table 12.15 – Maturity comparison in December 2020 (June 2020)

	main survey	ATS	tri-party
open	6.2% (8.5%)	-	42.1% (47.4%)
1 day	18.0% (19.0%)	88.9% (87.9%)	15.9% (14.0%)
2 days to 1 week	19.3% (19.2%)	8.7% (9.0%)	10.6% (10.3%)
1 week to 1 month	13.7% (16.9%)	0.9% (1.8%)	8.4% (7.8%)
>1 month to 3 months	15.6% (10.4%)	0.8% (0.7%)	8.9% (7.9%)
>3 months to 6 months	8.2% (7.4%)	0.4% (0.2%)	8.5% (6.9%)
>6 months to 12 months	3.5% (3.1%)	0.2% (0.2%)	2.9% (3.6%)
>12 months	2.4% (2.8%)	0.2% (0.2%)	2.7% (2.2%)
forward-start	13.2% (12.6%)	0.0% (0.0%)	

Product analysis (Q2)

The share of securities lending conducted on repo desks continued to grow, reaching 17.6% from 15.6%.

Figure 2.27 - Product analysis



Concentration analysis

Table 2.16 – Concentration analysis

	December 2020	June 2020	December 2019
top 10	65.6%	66.8%	63.2%
top 20	84.1%	84.2%	82.1%
top 30	93.6%	93.7%	92.7%
other	6.4%	6.3%	7.3%

Figure 2.28 - Concentration analysis

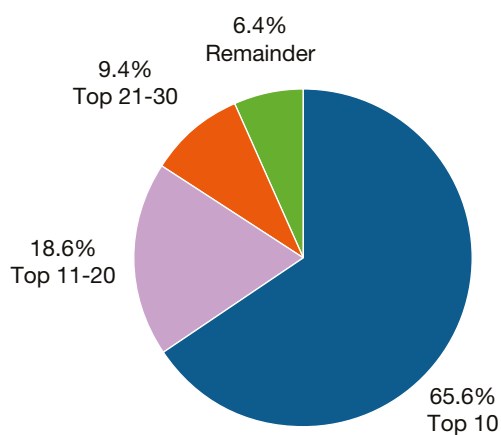
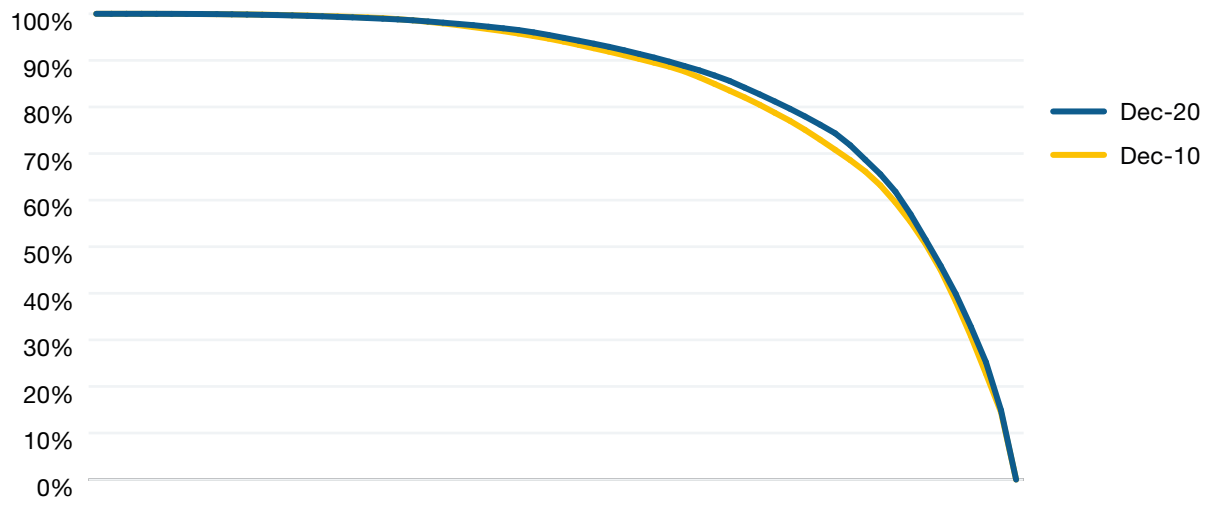


Table 2.17 – Herfindahl Index¹

	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

¹ 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 2.29 – Cumulative distribution of market share



Chapter 3: Conclusion

The December survey was largely characterized by a reaction to the frantic Covid-driven activity that framed the June survey and the usual end-of-year window-dressing, which may have been reinforced by uncertainty over the impact of the end of the Brexit Transition Period.

Automatic electronic repo trading fell back sharply in the second-half of 2020 from the record levels reached between March and June.

Tri-party repo and its GC financing segment, which had been boosted by the ‘dash for cash’ seen in the first-half of 2020, relapsed in the second-half under the weight of central bank funding provided in response to the Covid crisis.

Some effects of the initial Covid-driven market stress persisted into the second-half of the year. For example, the share of voice-brokers remained firm and has not resumed the secular downward trend seen over the last 20 years. But this may only be a temporary respite reflecting the ability of voice-brokers to add more value for clients during difficult markets.

The Covid panic seemed to have incentivized more non-dealers to adopt automated (RFQ) repo trading systems but turnover on such platforms did not peak until October, perhaps because of the time it takes to onboard new clients.

CCP-clearing was also boosted by Covid but, like automated trading, the biggest impact was in the second-half of 2020. However, the share of CCP-cleared repo in the survey continued to be outpaced by trading directly between institutions, particularly cross-border trading into the eurozone but, in absolute terms, the use of clearing by the survey sample continues its strong upward trend.

The composition of collateral has swung further towards government securities, in part, because of increased issuance in France and particularly in Germany. In contrast, the use of Italian government bonds as collateral has been hit by lower issuance and the switch of Italian banks from repo to ECB funding.

New tri-party data has revealed a very significant role for bonds issued by EU institutions, but it was not possible to measure the importance of ESG bonds.

About the Author

This report was compiled by Richard Comotto, who is Senior Consultant to the ICMA's European Repo and Collateral Council on repo. 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 Course and of the ICMA-ISLA GMRA-GMSLA Workshop and author of the ICMA SFTR Task Force's Reporting Recommendations.

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 December 9, 2020.

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, December 9, 2020, 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 June 10, 2020).

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, December 9, 2020*. 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 11, 2020. You should include all *open repos and reverse repos* that have been rolled over from Wednesday, December 9, 2020, to a later date and all *forward-forward repos and reverse repos* that are still outstanding as forward contracts at close on Wednesday, December 9, 2020.
- 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, December 9, 2020, 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.
- l) In the case of equity repo, for synthetic structures, please give the value of the cash payment.
- 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 tpREPO) 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 RRRRA 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. CC&G, LCH, MEFF 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 tpREPO, 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 RRRRA 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.
- 1.6 “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 (1.8.3). Open repos could be regarded as floating-rate, given that rates may be updated, but this tends to be irregular, so open repos are being treated separately from floating-rate repo (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, December 9, 2020, with a repurchase date on Thursday, December 10, 2020;
 - overnight, tom/next, spot/next and corporate/next contracts transacted on Wednesday, December 9, 2020.
- (1.7.1.2) 2–7 days – this means:
- all contracts transacted prior to Wednesday, December 9, 2020, with a repurchase date on Friday, December 11, 2020, or any day thereafter up to and including Wednesday, December 16, 2020;
 - contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on Friday, December 11, 2020, or any day thereafter up to and including Wednesday, December 16, 2020 (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, December 9, 2020, with a repurchase date on Thursday, December 17, 2020, or any day thereafter up to and including Monday, January 11, 2021;
 - contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on Thursday, December 17, 2020, or any day thereafter up to and including Monday, January 11, 2021 (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, December 9, 2020, with a repurchase date on Tuesday, January 12, 2021, or any day thereafter up to and including Tuesday, March 9, 2021;
 - contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on Tuesday, January 9, 2021, or any day thereafter up to and including Tuesday, March 9, 2021 (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, December 9, 2020, with a repurchase date on Wednesday, March 10, 2021, or any day thereafter up to and including Wednesday, June 9, 2021;
- contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on Wednesday, March 10, 2021, or any day thereafter up to and including Wednesday, June 9, 2021 (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, December 9, 2020, with a repurchase date on Thursday, June 10, 2021, or any day thereafter up to and including Thursday, December 9, 2021;
- contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on Thursday, June 10, 2021, or any day thereafter up to and including Thursday, December 9, 2021 (irrespective of the purchase date, which will vary).

(1.7.1.7) More than 12 months – this means;

- all contracts transacted prior to Wednesday, December 9, 2020, with a repurchase date on Friday, December 10, 2021, or any day thereafter;
- contracts transacted on Wednesday, December 9, 2020, with an original repurchase date on or after Friday, December 10, 2021 (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, December 14, 2020, 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, December 10, 2020). 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 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 bonds.

2.1 This question asks for the total gross value of transactions with a transaction date on or after June 11, 2020 (the day after the previous survey date), to and including December 9, 2020 (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 June 11, 2020 (the day after the previous survey date), to and including December 9, 2020 (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 reposurvey@icmagroup.org.

Appendix B: Survey Participants

List of respondents	Jun-11	Dec-11	Jun-12	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
ABN Amro Bank		x	x	x	x	x	x	x	x	x										
Allied Irish Banks			x	x	x	x	x	x	x	x	x	x	x	x						
AXA Bank Europe		x	x	x	x	x	x	x	x	x	x	x	x							
Banc Sabadell			x	x	x	x	x	x	x	x	x	x	x		x					
Banca d'Intermediazione Mobiliare (IMI)						x	x	x	x	x	x	x	x	x						
Banca Monte dei Paschi di Siena	x	x	x	x	x	x	x	x	x	x	x				x	x	x	x	x	x
Banco BPI						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Banco Santander	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
UniCredit Bank Austria (Bank Austria)						x		x	x	x	x	x	x	x	x	x	x	x	x	x
Bank fuer Arbeit und Wirtschaft und Oesterreichische Postsparkasse (Bawag)	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Bank of Ireland	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Bank Przemyslowo-Handlowy SA	x	x	x	x	x															
Landesbank Berlin	x	x	x	x	x															
Banque de Luxembourg	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Banque et Caisse d'Epargne de l'Etat	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Barclays Capital	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Bayerische Landesbank	x	x	x	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	x	x	x
BHF-Bank	x		x	x	x	x														
BHF-Bank International	x	x	x	x																
BNP Paribas	x	x	x	x	x	x	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	x	x	x	x	x	x	x	x	x
Caixa Bank		x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x
Caixa d'Estalvis de Catalunya	x	x	x	x	x	x	x		x	x										
Bankia SA (formerly Caja de Ahorros y Monte de Piedad de Madrid (Caja Madrid))	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
CA-CIB (formerly Calyon)	x	x	x	x	x	x	x	x	x	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	x	x	x	x	x
Commerzbank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Canadian Imperial Bank of Commerce and Credit (CIBC)		x	x	x	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	x	x	x	x	x	x
Credit Suisse Securities (Europe) Ltd	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Danske Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Daiwa Securities SMBC Europe	x	x	x	x	x	x	x	x	x											

List of respondents	Jun-11	Dec-11	Jun-12	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
Dekabank Deutsche Girozentrale				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Deutsche Bank	x	x	x	x	x	x	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	x						
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 BIL)												x	x		x				x	
Dexia Kommunal Bank Deutschland	x		x	x																
DNB Bank ASA										x	x	x	x	x	x	x	x	x	x	x
DZ Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
EFG Eurobank Ergasias	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Erste Bank der Oesterreichischen Sparkassen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Euroclear Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x
Hypothekbank Frankfurt International (formerly Eurohypo Europäische Hypothekbank)	x	x	x	x	x	x	x													
Fortis Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Goldman Sachs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x
HSBC																				
HSBC Athens	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
HSBC France																				
HSH Nordbank										x										
Unicredit Bank Germany (Bayerische Hypo-und-Vereinsbank)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ICBC Standard Bank										x	x	x								
ING Bank	x	x	x	x	x	x	x	x	x	x	x	x								
Intesa SanPaolo	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Jefferies International Ltd		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
JP Morgan	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
KBC			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
KfW	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Kingdom of Belgium Federal Public Service Debt Agency	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				x	
Landesbank Baden-Württemberg, Stuttgart	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
Landesbank Hessen-Thüringen -Girozentrale (Helaba)	x	x	x	x	x	x	x	x	x	x	x			x						
Lloyds Bank Commercial Banking																x	x	x	x	x
Lloyds Bank Plc													x	x	x	x	x	x	x	x
Macquarie Bank	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x
Bank of America Merrill Lynch	x	x	x	x	x	x	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		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	x	x	x	x
Morgan Stanley	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
National Australia Bank										x										

List of respondents	Jun-11	Dec-11	Jun-12	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
National Bank of Greece											x	x								
Newedge		x		x	x															
Nomura International	x	x	x	x	x	x	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	x
Nordea Markets	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Norinchukin Bank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Nova Ljubljanska Banka d.d.	x	x	x	x	x	x		x		x	x	x	x	x		x	x	x	x	x
Nykredit Bank A/S																		x	x	x
Piraeus Bank										x	x	x		x						
Rabobank	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Royal Bank of Canada		x		x			x	x	x	x	x	x	x	x	x	x	x	x	x	x
NatWest Markets (formerly Royal Bank of Scotland)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
RBI		x		x										x						
Société Générale	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Standard Chartered																		x	x	x
Toronto Dominion Bank					x	x		x	x	x	x	x	x	x	x	x		x	x	x
UBS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
UniCredit Bank AG Milano Branch	x	x	x	x	x	x			x	x	x	x	x		x				x	x
Unicredit Bank Spa														x		x	x	x	x	x
Westdeutsche Landesbank Girozentrale		x																		
	58	62	60	69	63	66	64	64	64	70	66	65	64	64	62	59	56	60	61	60

Appendix C: Summary Of Survey Results

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
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)	5,656	7,250	7,739	8,310	7,885	t
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	13.7%	16.2%	16.5%	16.3%	18.7%	16.5%
• cross-border in (other) eurozone countries	11.6%	11.6%	10.3%	10.2%	12.9%	13.1%
• cross-border in non-eurozone countries	35.4%	35.4%	32.9%	34.7%	32.1%	33.8%
through voice-brokers						
• in the same country as you	5.5%	5.7%	4.7%	5.1%	4.0%	4.9%
• cross-border in (other) eurozone countries	3.0%	3.1%	3.3%	3.0%	2.6%	3.2%
• cross-border in non-eurozone countries	2.0%	3.4%	2.8%	1.8%	2.2%	1.3%
on ATs with counterparties						
• in the same country as you	4.1%	4.0%	5.4%	4.9%	4.8%	4.8%
• cross-border in (other) eurozone countries	2.8%	1.7%	1.9%	1.2%	1.3%	2.2%
• cross border-border in non-eurozone countries	1.3%	1.7%	2.0%	1.7%	2.0%	2.2%
• anonymously across a GC financing system	1.8%	0.9%	1.1%	0.9%	0.9%	0.5%
• anonymously across a central clearing counterparty but not GC financing	18.9%	16.2%	19.3%	20.2%	18.5%	17.5%
• total through a central clearing counterparty	27.4%	26.4%	27.2%	29.9%	27.2%	32.1%
• transacted across any electronic system						70.7%
1.2 How much of the cash is denominated in:						
• EUR	61.8%	60.9%	60.5%	53.6%	54.1%	54.4%
• GBP	11.3%	12.3%	12.4%	13.6%	15.8%	16.5%
• USD	18.8%	14.7%	19.4%	18.9%	20.6%	19.2%

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
• SEK, DKK	2.1%	5.9%	1.6%	1.9%	1.7%	1.4%
• JPY	4.8%	4.5%	4.5%	5.4%	5.7%	5.7%
• CHF	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
• other Asian and Pacific currencies	0.5%	0.4%	0.6%	0.9%	1.0%	1.5%
• other currencies	0.7%	1.2%	1.0%	5.6%	1.1%	1.2%
1.3 How much is cross-currency?	1.8%	1.4%	2.5%	1.7%	1.6%	2.7%
1.4 How much is:						
• classic repo	85.2%	86.0%	93.1%	91.7%	92.7%	93.0%
• documented sell/buy-backs	14.6%	13.8%	6.7%	8.1%	7.0%	6.8%
• undocumented sell/buy-backs	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%
1.5 How much is:						
• fixed rate	81.4%	80.6%	80.7%	85.0%	82.1%	87.7%
• floating rate	12.1%	13.2%	13.1%	9.0%	9.3%	10.5%
• open	6.4%	6.2%	6.1%	6.0%	8.7%	1.8%
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%	16.9%	18.9%	16.9%	19.0%	18.0%
• 2 - 7days	21.2%	22.6%	17.5%	17.3%	19.2%	19.3%
• more than 7 days but no more than 1 month	16.1%	15.9%	14.6%	16.8%	16.9%	13.7%
• more than 1 month but no more than 3 months	18.9%	16.3%	16.1%	13.3%	10.4%	15.6%
• more than 3 months but no more than 6 months	4.3%	4.4%	3.6%	4.7%	7.4%	8.2%
• more than 6 months	2.5%	2.5%	2.5%	5.1%	3.1%	3.5%
• more than 12 months	1.3%	1.5%	1.4%	3.4%	2.8%	2.4%
• forward-forward repos	10.5%	12.2%	19.3%	12.9%	12.6%	13.2%
• open	6.4%	7.8%	6.0%	9.6%	8.5%	6.2%
1.7 How much is tri-party repo:	12.0%	8.6%	8.0%	8.7%	9.2%	8.8%
• for fixed terms to maturity	76.5%	87.9%	79.6%	78.1%	76.2%	83.7%
• on an open basis	6.9%	3.7%	6.9%	6.3%	13.2%	10.8%
GCF	16.7%	8.4%	12.4%	15.6%	10.5%	5.5%
1.8 How much is against collateral issued in:						
Austria						
• by the central government	0.8%	0.7%	0.9%	0.8%	0.9%	0.9%
• by other issuers	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
Belgium						
• by the central government	2.3%	2.0%	3.0%	2.8%	3.3%	3.1%
• by other issuers	0.7%	1.0%	0.7%	0.3%	0.5%	0.3%
Denmark						
• by the central government	0.3%	0.4%	0.2%	0.4%	0.2%	0.3%
• by other issuers	0.5%	1.0%	0.4%	0.5%	0.7%	0.6%
Finland						
• by the central government	0.3%	0.4%	0.5%	0.3%	0.5%	0.4%
• by other issuers	0.0%	0.0%	0.1%	0.3%	0.0%	0.0%
France						
• by the central government	11.1%	12.2%	12.6%	12.0%	10.3%	12.2%
• by other issuers	1.0%	1.0%	1.0%	1.0%	0.6%	0.5%
Germany						
• by the central government	18.8%	17.9%	15.2%	12.3%	12.1%	14.8%
pfandbrief	0.7%	0.7%	0.9%	0.3%	0.2%	0.1%
• by other issuers	1.4%	1.0%	1.0%	0.9%	1.0%	0.6%
Greece						
• by the central government	0.1%	0.1%	0.2%	0.3%	0.1%	0.1%
• by other issuers	0.1%	0.1%	0.2%	0.1%	0.1%	0.0%
Ireland						
• by the central government	0.2%	0.1%	0.2%	0.3%	0.4%	0.3%
• by other issuers	0.1%	0.1%	0.2%	0.3%	0.2%	0.2%
Italy						
• by the central government	10.4%	11.2%	12.2%	13.7%	12.4%	11.4%
• by other issuers	0.4%	0.6%	0.8%	0.4%	0.4%	0.3%
Luxembourg						
• by the central government	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
• by other issuers	0.3%	0.2%	0.3%	0.2%	0.1%	0.4%
Netherlands						
• by the central government	2.1%	1.5%	1.8%	1.0%	1.3%	1.2%
• by other issuers	0.4%	0.2%	0.3%	0.2%	0.2%	0.2%
Portugal						
• by the central government	0.4%	0.4%	0.6%	0.5%	0.5%	0.5%
• by other issuers	0.1%	0.1%	0.1%	0.2%	0.1%	0.0%
Spain						
• by the central government	4.1%	4.0%	4.0%	5.0%	4.7%	4.8%
• by other issuers	1.1%	1.4%	1.0%	0.8%	0.6%	0.4%

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
Sweden						
• by the central government	0.9%	2.9%	0.6%	0.4%	0.5%	0.5%
• by other issuers	0.9%	1.9%	0.7%	0.4%	0.6%	0.3%
UK						
• by the central government	10.0%	12.1%	11.0%	13.4%	14.5%	14.8%
• by other issuers	1.8%	1.6%	1.7%	1.2%	1.3%	1.4%
US Treasury	7.9%	4.6%	8.8%	8.8%	9.1%	8.1%
US other issuers	2.2%	1.2%	2.6%	2.4%	2.9%	2.4%
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	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
• by other issuers	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
Estonia						
• by the central government						
• by other issuers						
Hungary						
• by the central government	0.1%					
• by other issuers	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%				
• by other issuers	0.0%	0.0%				

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
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	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Other EU members by other issuers	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
• by official international financial institutions	1.9%	0.1%	0.7%	0.5%	0.5%	0.2%
Japan						
• Japanese government	2.8%	3.3%	3.4%	5.1%	4.8%	5.2%
• Other Japanese issuers	1.5%	1.1%	1.4%	1.4%	1.6%	1.1%
Other Asian & Pacific OECD countries in the form of fixed income securities, except eurobonds	0.5%	0.8%	0.4%	1.4%	0.6%	0.8%
Other OECD countries in the form of fixed income securities, except eurobonds	4.1%	3.7%	4.3%	4.2%	6.0%	5.4%
other OECD						
non-OECD EMEA	0.6%	0.5%	0.5%	0.6%	0.6%	0.7%
non-OECD Asian & Pacific	0.4%	0.3%	0.4%	0.6%	0.6%	0.6%
non-OECD Latin America	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%
eurobonds issued by European entities	1.1%	1%	0.8%	0.8%	0.7%	0.8%
eurobonds issued by US entities	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%
eurobonds issued by Asian & Pacific entities	0.3%	0.3%	0.3%	0.5%	0.4%	0.5%
eurobonds issued by other entities	0.3%	0.3%	0.3%	0.4%	0.4%	0.5%
equity	0.3%	0.2%	0.2%	0.3%	0.3%	0.3%
collateral of unknown origin or type	1.6%	1.2%	1.0%	0.2%	0.2%	0.2%
collateral in tri-party which cannot be attributed to a country or issuer	2.4%	2.3%	1.3%	1.6%	1.9%	1.2%
EU issues						0.5%
total gross values of repo & reverse repo with APAC	3.9%	2.7%	13.3%	13.6%	5.3%	5.3%

	Dec-16	Dec-17	Dec-18	Dec-19	Jun-20	Dec-20
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	24.7%	29.6%	22.3%	20.4%	23.1%	19.6%
• in equity	0.5%	0.3%	0.1%	0.2%	0.1%	0.1%
• cross-border in (other) eurozone countries						
• in fixed income	34.8%	29.7%	32.1%	24.8%	33.9%	35.2%
• in equity	1.5%	1.8%	1.3%	0.2%	0.4%	1.2%
• cross-border in non-eurozone countries						
• in fixed income	37.5%	37.2%	43.1%	53.4%	41.9%	42.6%
• in equity	1.1%	1.5%	1.1%	1.0%	0.7%	1.3%
for which the term to maturity is						
fixed	62.9%	66.9%	72.8%	70.8%	73.4%	77.7%
open	37.1%	33.1%	27.2%	29.2%	26.6%	22.3%

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 to commence, dedicated repo or collateral market activity, 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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