

A pilot survey of the Asia-Pacific repo market

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Asia Securities Industry and Financial Markets (ASIFMA)

ASIFMA is an independent, regional trade association with over 100-member firms comprising a diverse range of leading financial institutions from both the buy and sell side, including banks, asset managers, law firms and market infrastructure service providers. Together, we harness the shared interests of the financial industry to promote the development of liquid, deep and broad capital markets in Asia. ASIFMA advocates stable, innovative and competitive Asian capital markets that are necessary to support the region's economic growth. We drive consensus, advocate solutions and effect change around key issues through the collective strength and clarity of one industry voice. Our many initiatives include consultations with regulators and exchanges, development of uniform industry standards, advocacy for enhanced markets through policy papers, and lowering the cost of doing business in the region. Through the [GFMA](#) alliance with [SIFMA](#) in the United States and [AFME](#) in Europe, ASIFMA also provides insights on global best practices and standards to benefit the region.

More information about ASIFMA can be found at: www.asifma.org.

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International Capital Market Association (ICMA)

ICMA represents financial institutions active in the international capital market worldwide and has around 520 members located in over 60 countries. ICMA's market conventions and standards have been the pillars of the international debt market for almost 50 years, providing the framework of rules governing market practice which facilitate the orderly functioning of the market. Since the early 1990's, ICMA has played a significant role in promoting the interests and activities of the international repo market, and of the product itself. The European Repo and Collateral Council (ERCC), a special interest group established under the auspices of ICMA, represents the major firms active in Europe's cross-border repo markets.

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ICMA's European Repo and Collateral Council (ERCC) and ASIFMA's Secured Funding Markets Committee have been co-operating to extend the ICMA's semi-annual survey of the European repo market to the Asian market.

Phase One of the joint ICMA/ASIFMA initiative was to increase the granularity of the ICMA's existing European survey to measure Asia-Pacific repo executed on repo desks located in Europe. To this end, from June 2016, a number of additional questions have been included in the [European survey](#).

Phase Two of the initiative was to launch a pilot survey of the repo desks located in Asia-Pacific of a sample of mainly global banks using a questionnaire based on that for the existing European survey. The aim was to uncover any unexpected problems before widening the survey to other banks. The Asia-Pacific questionnaire was sent out to ASIFMA and ICMA members active in the cross-border repo market on 7 December 2016, at the same time as the ICMA survey in Europe. These preliminary results are based on responses from eight banks (compared to 65 in Europe). Although this was a narrow sample, the respondents are major market participants and the results seem to be representative of the Asian market, though this is not certain at this stage. Building on the lessons of the pilot survey, it is planned to start an annual survey of the cross-border Asian repo market from December 2017 in parallel with alternate semi-annual European surveys.

Methodology of the survey

The Asian survey follows the methodology of the [European survey](#) except for a more relaxed definition of repo (see below):

- Asian repo has been defined, for the purposes of the survey, as repos (1) involving at least one party dealing from a location in Asia in any currency or against any collateral or (2) between parties located anywhere but in an Asian currency and/or against collateral issued in Asia.
- Respondents were asked to identify the location of repo desks executing transactions rather than the location where the transactions were booked. This has been challenging for many banks.
- Repo has been defined to include instruments that do not conform to the standard definition of repo as an instrument that transfers title to collateral, eg Chinese 'pledged repo' and Japanese 'gentan'.
- The European and Asian surveys measure the value of repos and reverse repos outstanding at close of business on the survey date rather than turnover over a period. This 'snapshot' of the market at one point in time understates the volume of short-term transactions, given that many of these run off between survey dates, but provides a meaningful picture of exposures. Turnover over the six months up to the survey date was 17 times the outstanding amount on 7 December 2016.
- The results have not been adjusted for double-counting where the same transaction has been reported by two survey respondents.
- The results do not include repos by central banks which were part of their open market operations.

New data about Asian repo in the European survey (December 2016)

- Asian repo accounts for a small, although not insignificant share of the European market.
- The Japanese yen is the main Asian currency traded in the European repo market.
- The European market is a net cross-border taker of collateral from Asia.
- The most common Asian collateral traded in the European repo market is Japanese, of which two-thirds are JGBs.

APAC counterparties accounted for 3.9% of total outstanding repos and reverse repos reported by European dealers (2.3% of repos and 5.6% of reverse repos), showing a net flow of collateral from Asia to Europe.

Asian currencies accounted for 5.3% of total outstanding repos and reverse repos traded in Europe. Japanese yen accounted for 4.8%. Two-thirds of yen transactions were reverse repos, while two-thirds of other Asian currency transactions were repos. In other words, European dealers were net lenders of yen and net borrowers of other Asian currencies.

The overall share of Asian collateral repo-ed out or reversed in by European dealers was 5.5%, of which, Japanese collateral accounted for 4.3% and JGBs for 2.8%. Of the total collateral, 0.5% was collateral issued in other OECD APAC countries; 0.4% was non-OECD APAC collateral; and 0.3% was APAC eurobonds.

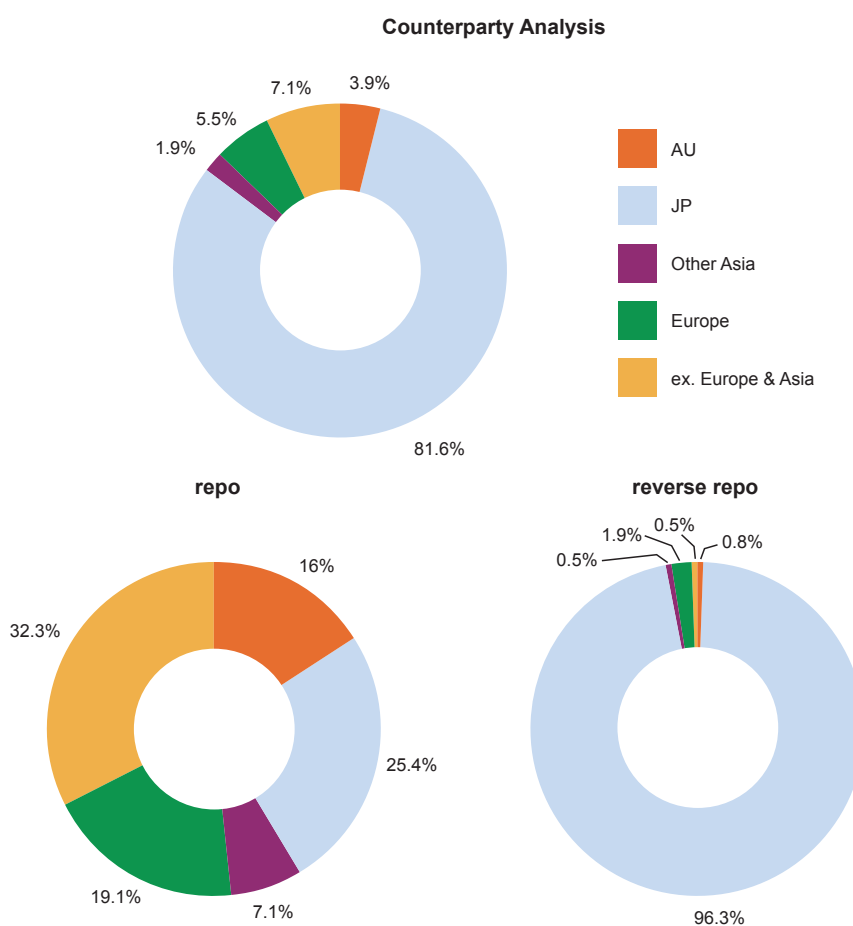
Pilot survey results of the Asia-Pacific survey

Summary

- The vast bulk of collateral was reversed in by repo desks located in Japan from counterparties in the domestic market and mainly repo-ed out cross-border to counterparties outside Asia.
- Collateral in the form of sovereign securities formed a larger share of the Asian market than the European market (at least as measured in the surveys). The largest share of collateral was Japanese, but there was also a significant amount of US collateral.
- The main currency traded in the Asia-Pacific repo market was Japanese yen, of which the reporting banks were net lenders. There was some cross-currency repo between US dollars and Japanese collateral.
- Most transactions were executed directly on the telephone and electronic messaging systems. Voice-brokers were heavily involved in reverse repos from domestic counterparties. There was very little electronic trading.
- The proportion of repos that was centrally cleared in Asia-Pacific was larger than in Europe but, in contrast, most Asian repos seem to have been executed directly, then registered post trade.
- Tri-party repo was very small.
- While most repos were short-dated, there was significant business with a remaining term of between one and three months, suggesting the trading of HQLA for regulatory purposes.
- Most Asia-Pacific repos took the form of repurchase transactions (classic repo) and were fixed-rate. There was very little floating-rate repo.

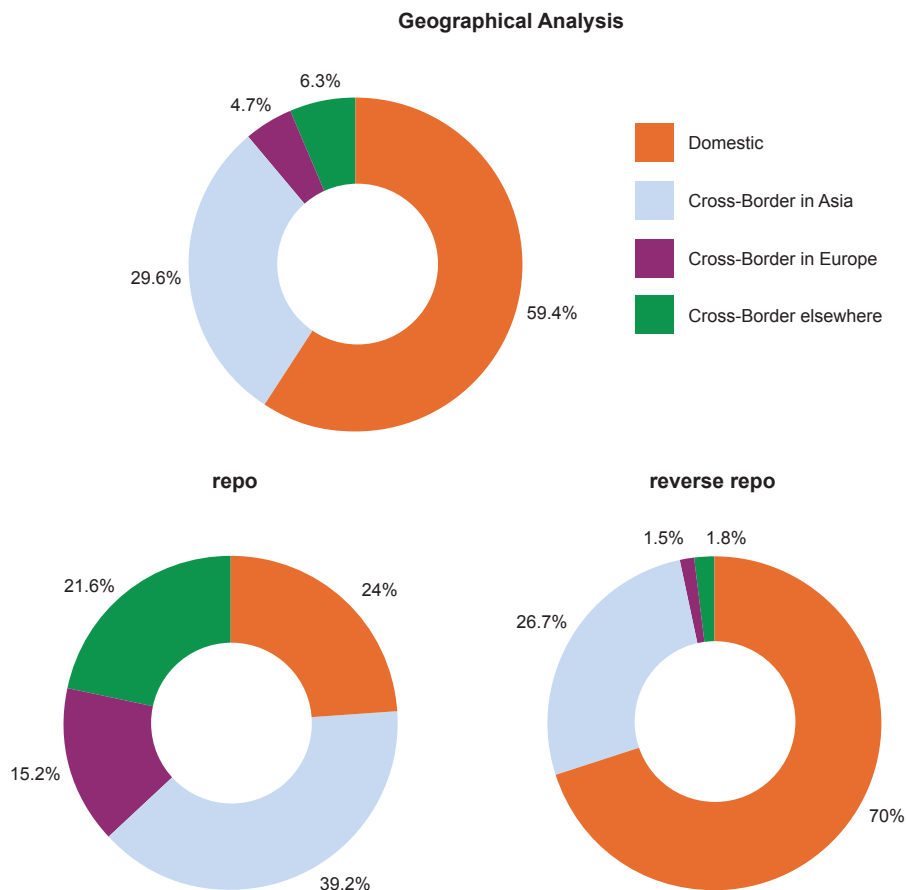
Counterparty analysis

- Most of the reporting banks in the survey were based in Japan. On the other hand, counterparties based in Japan accounted for over 25% of total repos transacted by reporting banks and more than 96% of total reported reverse repos. The imbalance is magnified by the fact that total reverse repos reported in the survey accounted for about 77% of combined repos plus reverse repos, a major difference from with the European survey, in which reported repos and reverse repos are broadly equal in size. The main net takers of collateral from the reporting banks were counterparties outside both Asia and Europe (including US-based counterparties), accounting for some 32% of the total repos reported by the Asian banks but less than 1% of their total reverse repos. Europe-based banks were less significant net takers of collateral, which is broadly consistent with the view from the European survey (which showed 2.3% of repos by Europe-based desks were with Asian counterparties but 5.6% of reverse repos). Australia-based counterparties were also net collateral-takers. Other Asia-based counterparties (likely to be mainly in Hong Kong and Singapore) were small net collateral-takers.



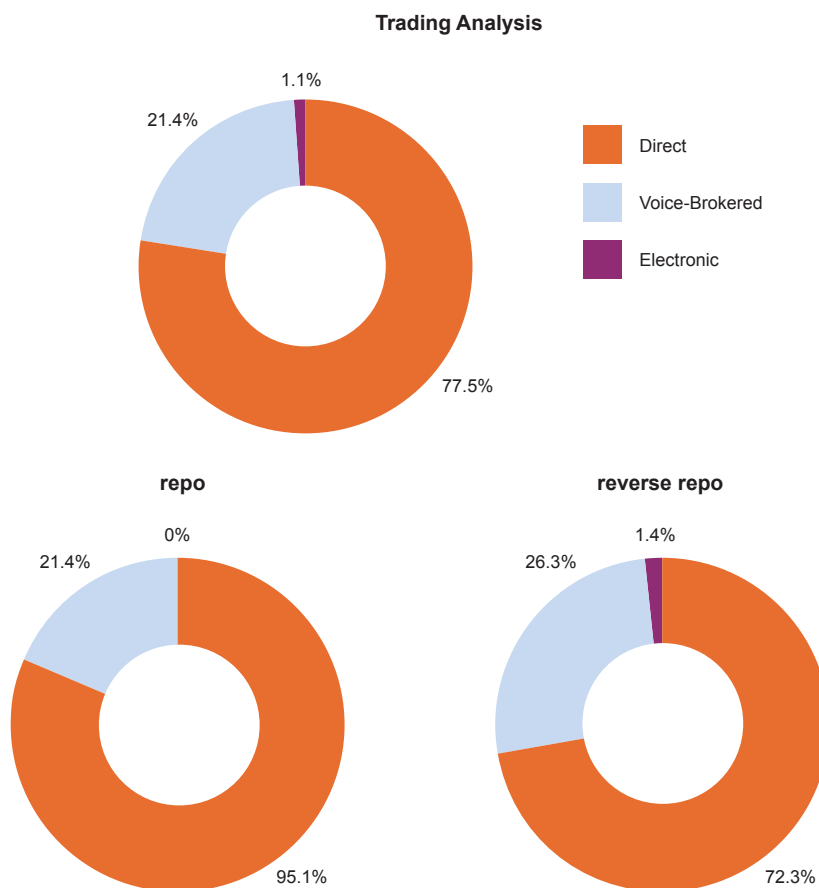
Geographical analysis

- The geographical and counterparty analyses are similar, except that the geographical analysis asks not for the location of the counterparty but the geographical relationship between seller and buyer, specifically, whether they are in the same country or region. Unfortunately, as fewer banks responded to this section of the questionnaire, the two analyses do not match exactly, although they are consistent. The reporting banks were net collateral-takers from domestic and, to a much lesser extent, other Asian counterparties (suggesting that net collateral-taking from Japan-based counterparties shown in the counterparty analysis was largely by other Japan-based banks). Thus, some 70% of total reverse repos by the reporting Asian banks were with domestic counterparties but only about 24% of total repos. Net collateral-giving was to Europe and other regions. Gross collateral-giving was much more evenly distributed than gross collateral-taking. In the European survey, domestic transactions were relatively less important, accounting for about 21% of total reported repos and 25% of reverse repos. European repo desks were significant net collateral-givers to non-eurozone counterparties (probably London-based investment banks) but net collateral-takers from eurozone counterparties.



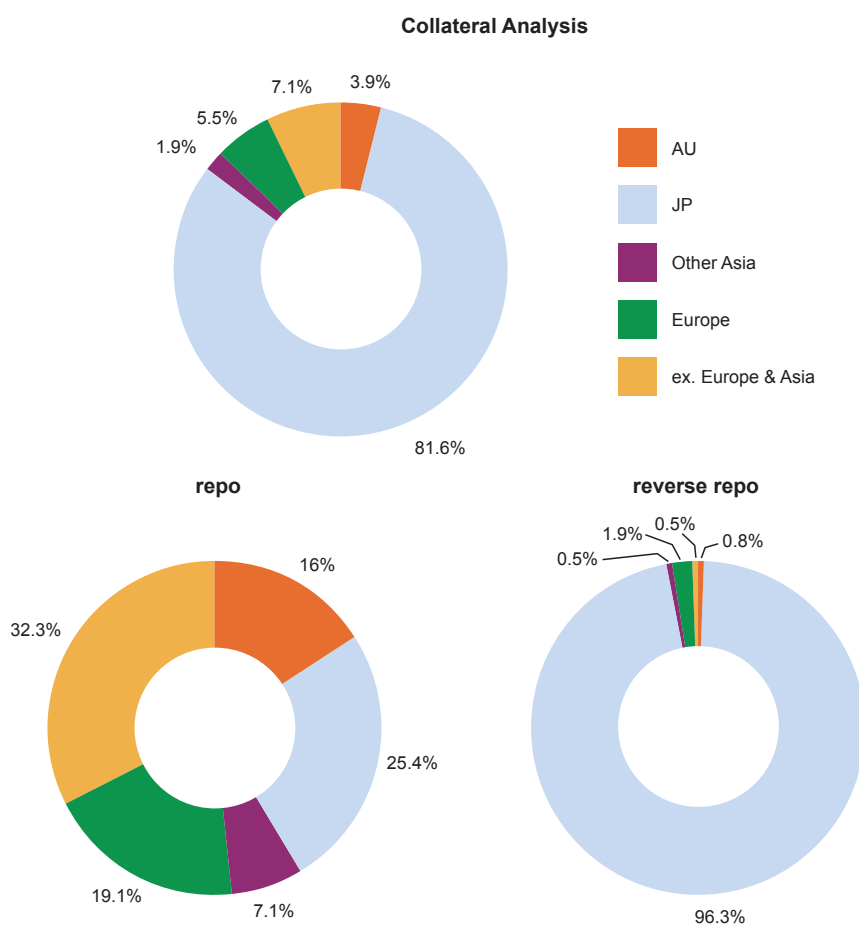
Trading analysis

- Transactions were largely executed directly by phone or electronic messaging (about 78% of total transactions) but a significant share of reverse repos were executed through voice-brokers (over 26%). Most of the voice-brokered reverse repos were with domestic counterparties (assumed to be Japan-based). Electronic trading was very small and entirely CCP-cleared reverse repo. In the European survey, electronic trading was much more important (almost 29%), which means that direct and voice-brokered transactions were less so (almost 61% and less than 11%, respectively).



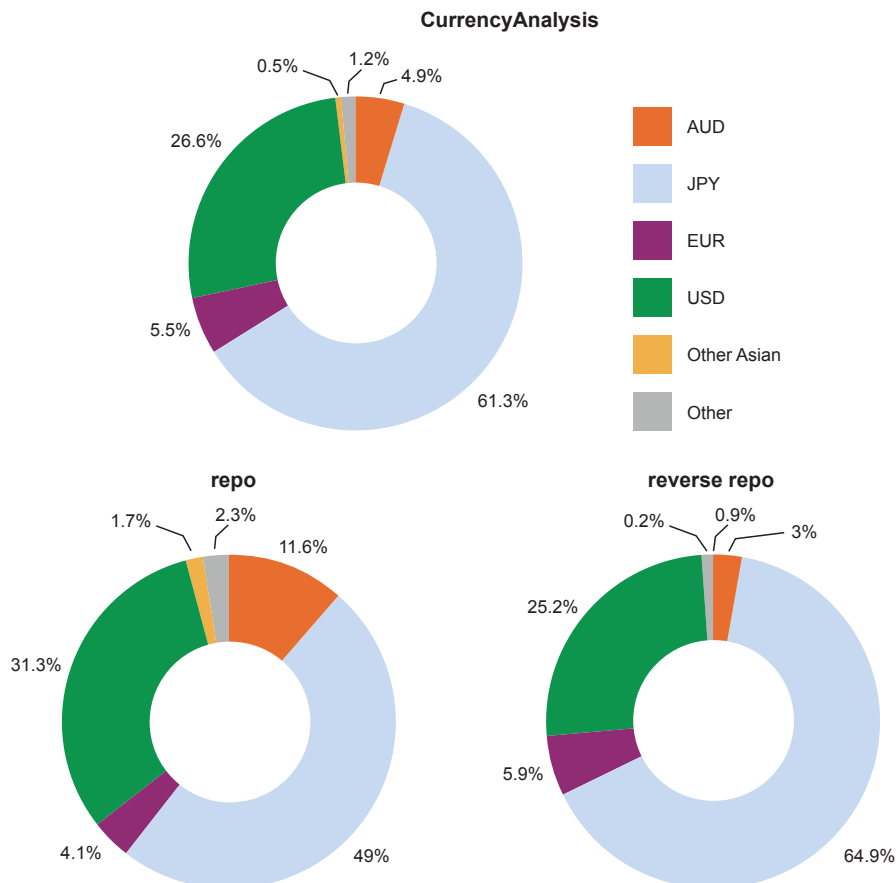
Collateral analysis

- Almost 95% of total reported repos and some 89% of total reported reverse repos were either central government or central bank securities (compared to 80% and 83%, respectively, of EU collateral in the European survey). Japanese collateral accounted for 50% of total reported repos and 74% of total reported reverse repos, which means that the reporting Asian banks were net takers of Japanese collateral. They were also net takers of most other collateral but to a lesser extent. US collateral accounted for 21% of repos and 17% of reverse repos (compared to about 11% in the European survey); Eurozone collateral 6% and 5%, respectively; Australian collateral 12% and 2%; and other Asian collateral 3% and 1%.



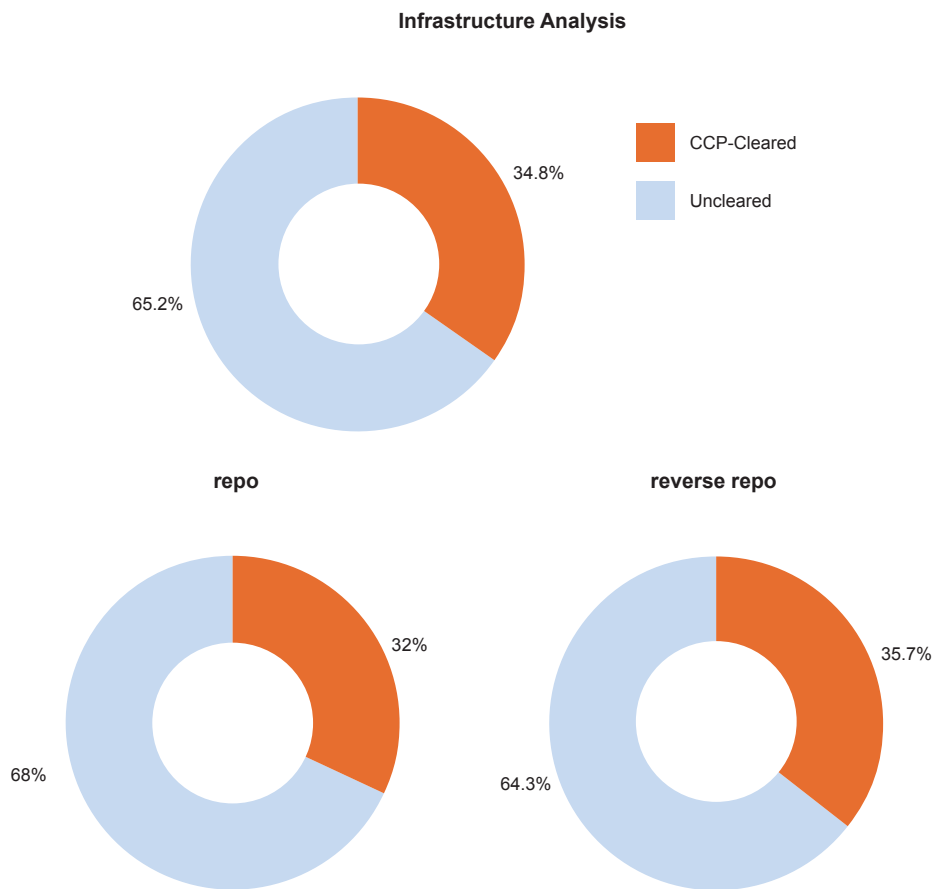
Currency analysis

- Japanese yen accounted for 49% of total reported repos and 65% of total reported reverse repos. US dollars accounted for 31% and 25%, and Australian dollars for 12% and 3%. Taken together with the collateral analysis (e.g. 74% of repos in Japanese collateral), this implies cross-currency reverse repo involving US dollar cash against Japanese collateral may be about 10%, which is above the directly-reported cross-currency figure of about 5% (but this is consistent with the European survey where experience suggests that the directly-reported item is understated).



Infrastructure analysis

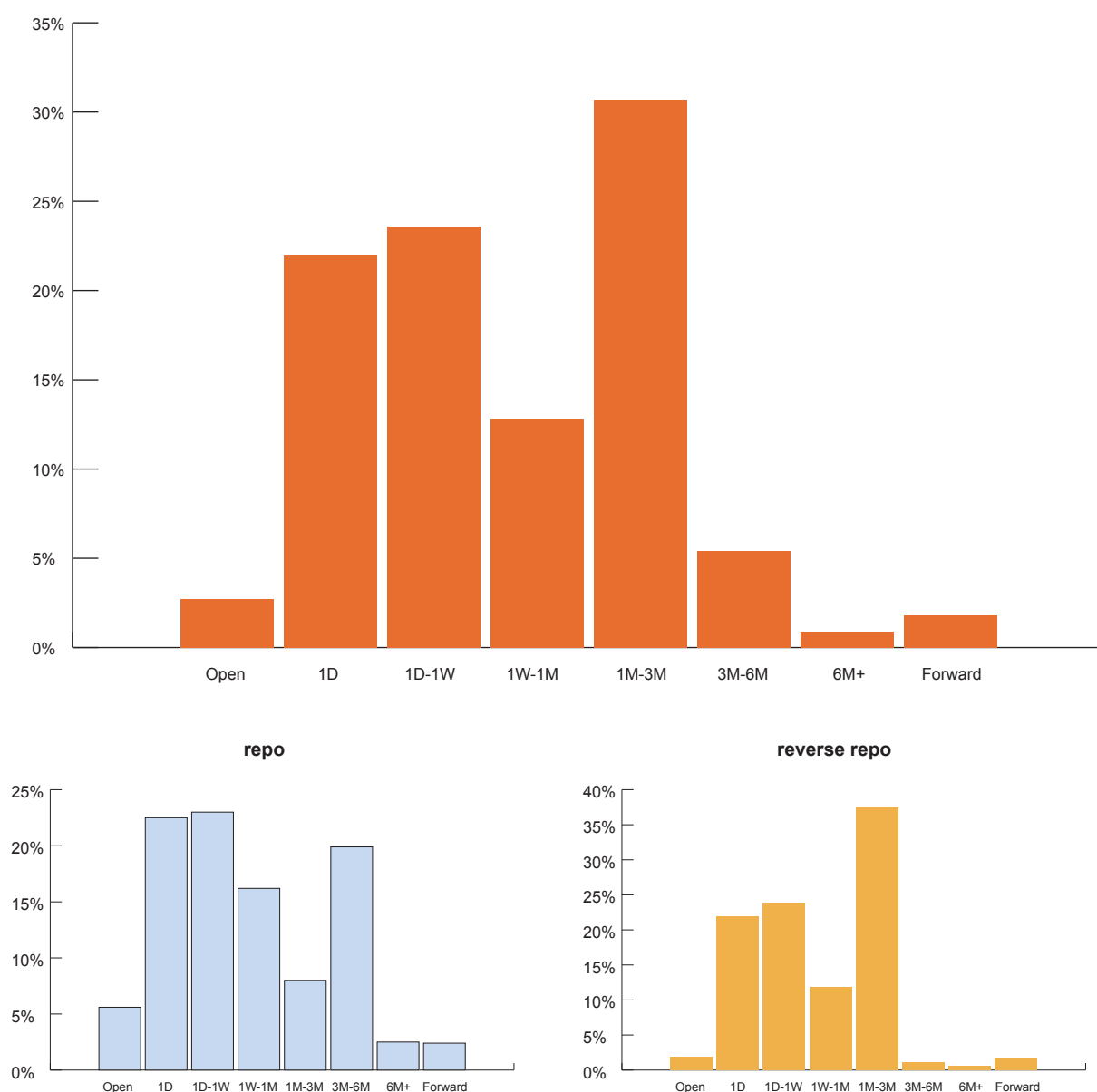
- Some 35% of reported Asian repo business was cleared across a CCP (which is assumed to be the JSCC in Japan). This compares with 29% in Europe. Given that under 2% of reported business was executed with a CCP through electronic trading, most of the reported transactions with a CCP must have been executed directly or via voice-brokers and registered post trade. In the European survey, some 7% of direct and voice-brokered transactions were registered with a CCP post trade. Less than 2% of Asian repo business was managed by a tri-party agent (compared with 12% in Europe) and this was heavily skewed towards repo (as it is in the European survey, although to a lesser extent).



Maturity analysis

The Asian survey showed a higher proportion of short-dated repo among the reporting banks than in the European survey (about 62% compared with 56%) and a much smaller share of forwards (under 2% compared with 10%). Less than 1% of reported Asian business was beyond six months (compared to almost 4% in Europe). There was net cash borrowing through short dates (short-dated repos were 68% and reverse repos 59%). However, there was significant net cash lending from one to three months (8% of total reported reverse repos compared to over 37% of total reported repos; and some 20% and 1%, respectively from three to six months). This probably reflects the need to borrow high-quality liquid assets (HQLA) to meet regulatory liquidity ratios.

Maturity Analysis



Instrument analysis

- The bulk of reported transactions were repurchase transactions or classic repos (almost 97%) and were also fixed rate (97%). There were very few floating-rate transactions (mainly repos). This may in part reflect the relative lack of suitable benchmarks. Open repos were about 3% of total reported transactions (mainly repos). In the European survey, about 15% of transactions were sell/buy-backs, some 82% were fixed rate and over 6% were open.

What is a repo?

A repo is a sale of assets and a commitment by the seller to repurchase the same or similar assets in the future at a different price. The most common type of repo involves a sale of government securities and a commitment to repurchase the same issue of securities. The repurchase price is equal to the sale price plus what is called 'repo interest'. Should the seller fail to repurchase the assets at maturity, the buyer is free to recover his cash by selling them, which means that they act as collateral and reduce his credit risk. The buyer also has the right to sell the assets at any time during the repo (although he will need to buy back the assets from the market to return to the seller at the maturity of the repo). The right to sell collateral at any time means that repo also reduces the buyer's liquidity risk.

The seller's commitment to repurchase collateral means that he has only temporary use of the buyer's cash, while the buyer has only temporary use of the seller's assets. Therefore, despite its legal structure, a repo behaves like a secured loan/deposit. However, unlike a traditional secured loan/deposit, in which collateral is pledged, the transfer of legal title in a repo gives the buyer (cash lender) stronger control over the collateral should the seller become insolvent. This reduces his credit risk further.

In China, there is a market in 'pledged repo'. This is different to a standard repo, which is based on title transfer. If the seller in a pledged repo were to become insolvent, it is uncertain whether the buyer could immediately liquidate his collateral without interference from the insolvency process. And the buyer has no right to temporarily sell the collateral during the repo.

The repo market is essential to the functioning of a liquid secondary market in securities, as it is a cheap and resilient source of funding for market-makers and other dealers. It can also be used to borrow securities to settle short positions, including those acting as hedges, and to avoid settlement failures where an outgoing delivery depends on an incoming delivery that does not arrive on time. As a key source of funding for long positions and securities borrowing for short positions, repo is vital to the hedging and pricing of derivatives. The ability to go long of relatively cheap bonds and short of relatively expensive bonds also helps to ensure an accurate yield curve for pricing and valuing securities, including corporate bonds. A liquid repo market also provides a safe short-term asset for risk-averse non-bank investors. And it is the preferred venue for open market operations by central banks.

Most repo in the international market is traded under the Global Master Repurchase Agreement (GMRA) published by ICMA and SIFMA.

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