ICMA Guide to Asian Repo Markets

Japan

As part of ICMA's objective to promote the development of repo markets around the world, it is publishing a series of reports by Richard Comotto on individual Asia-Pacific domestic repo markets—covering market infrastructure, types of repo and collateral, market participants, post trade operations, and legal and regulatory framework. The first in this series is Japan.

Japan has the oldest and most developed repo market in Asia. It is at the core of a highly sophisticated financial market and supports the second largest domestic government bond market. But it was not always thus. The Japanese financial markets have undergone a long transition from emerging to developed market that began in earnest in the 1970s. Reforms introduced over four decades have moved repo in Japan from an idiosyncratic niche to a central pillar of the domestic financial market that is now aligned with international practice and integrated into the international market.

The development of the Japanese repo market

Repo trading in Japan began spontaneously in the late 1940s, following the re-opening of the primary market in government bonds, almost certainly in imitation of the repo market established in the United States. Given the lack of a secondary bond market, repo was an important source of funding for securities dealers. Critically for its future development, the market was so low profile that it was allowed to develop without interference in an otherwise restrictive regulatory environment and provided the only competitive money market in yen. These early repos were called gensaki, later distinguished as old gensaki.

Repo came to prominence in Japan in the 1970s, following the rapid growth of the fiscal deficit to finance economic reflation in the wake of the recession induced by the oil price shocks triggered by war in the Middle East. Such large financing requirements prompted efforts in Japan, as elsewhere, to develop the government securities market through a concerted programme of financial market liberalization, including the promotion of repo to support securities dealers.

Various reforms were introduced over subsequent years, for example, by removing credit ceilings on repo usage by banks. The establishment of a Japanese Government Bond (JGB) futures market in 1989 created an important new source of demand for repo. The abolition of the short-selling ban in the same year released the full potential of repo.

The Japanese repo market also benefited from the various reforms which were prompted or accelerated by episodes of market stress. Thus, the turmoil that engulfed the Japanese markets in 1997 as a result of the Asian Financial Crisis not only encouraged greater use of repo by financial institutions but led to the abandonment of fixed settlement periods and the introduction of rolling settlement (for T+3). It was recognized that rolling settlement would increase the risk of fails and create a need for repo to cover unexpected shorts.

In 2008, a fails crisis materialized as the global financial meltdown triggered by the collapse of Lehman Brothers led to surge in settlement problems, a phenomenon virtually unknown in Japan before that time. Widespread delivery failures drove shocked investors from both the JGB cash and repo markets. A new round of reforms included a move to T+2 rolling settlement in 2012, further increasing the demand for repo.

Efforts to promote the repo market in Japan have required the removal of several major institutional obstacles. The biggest challenge was perhaps Japan's securities transaction tax, which impacted gensaki repo because it was seen as a form of bond trading. As a consequence, the gensaki market was largely restricted to tax-exempt treasury bills. Another fiscal problem was withholding tax (WHT) on repo interest received by non-

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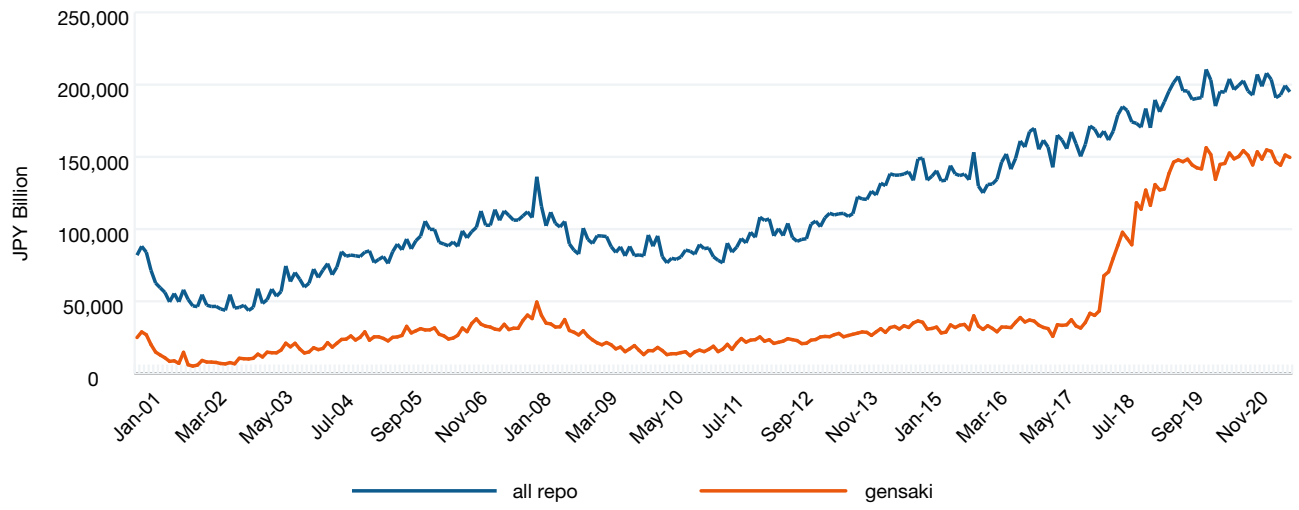
residents, which effectively excluded foreign banks from the Japanese repo market.

Given the political difficulties involved in removing the securities transaction tax, the market adapted by inventing an alternative securities financing structure --- called gentan --- which is packaged as securities borrowing and lending against cash collateral rather than buying and selling and so avoided the tax. However, gentan repo is unique to Japan and uses local documentation, deterring foreign participation. By the time the securities transaction tax was abolished in 1999 and the need for gentan repo was removed, it had come to dominate Japanese repo.

An updated version of gensaki repo, in the form of new gensaki, was introduced to the market in 2001. This brought Japanese repo closer (although not fully) into line with international practice. However, while new gensaki successfully superseded old gensaki, it struggled to make inroads into the established market share of gentan repo.

The final chapter in the development of the repo market in Japan was opened by the third shortening of the JGB settlement cycle in May 2018 (from T+2 to T+1 for cash transactions and special collateral repos, and from T+1 to T+0 for GC repo). At the same time, a GMRA-style of new gensaki repo was introduced. The standard contract for the updated new gensaki (the Japanese Master Agreement on Transaction with Repurchase Agreement of the Bonds) and new rules on risk management were launched in July 2016 in preparation for the introduction of the shorter settlement cycle. In addition, the GC segment of the gensaki market was supported by the launch of a tri-party collateral management facility (see the Post Trade section). As a result of these various initiatives, the share of gentan fell from about 91% of all repo in 2018 to 34% in 2019 (see Chart 1).

Chart 1: total outstanding value of gentan & gensaki repo in Japan 2001-2021



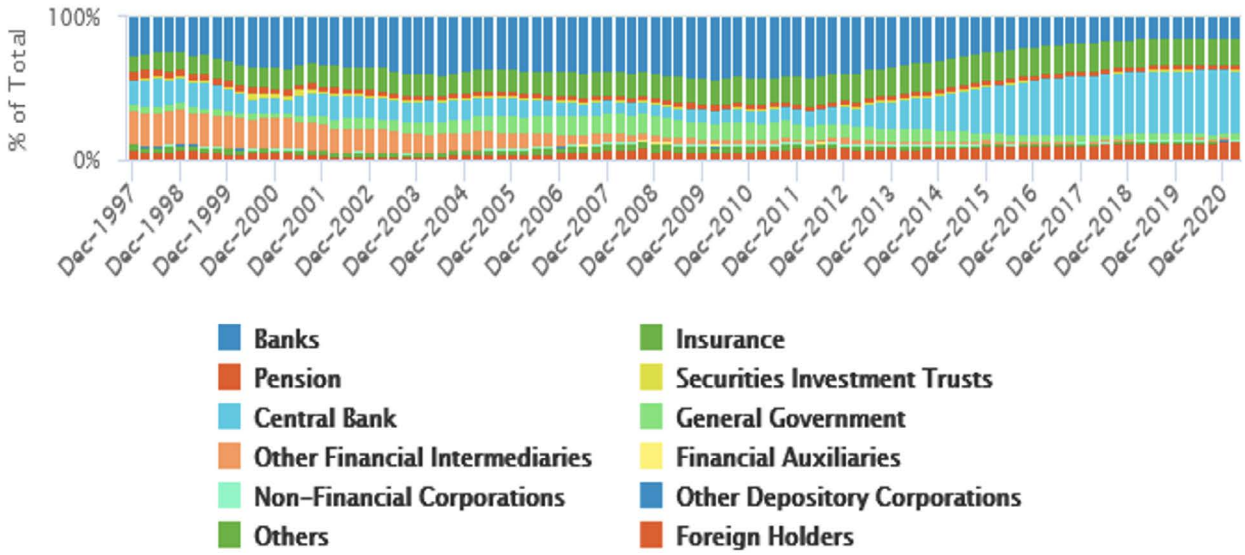
Source: JSDA.

Recent developments

Pre-Covid

The Japanese market was hit in March 2001, somewhat earlier than other developed repo markets, by the introduction of central bank quantitative easing (QE). QE was accelerated in 2013 (with the advent of "Abenomics"), peaked in 2015-16 and was "tapered" from 2017. Bank of Japan purchases have reduced the volume of JGBs available in the market, despite continued large issuance (see Chart 2).

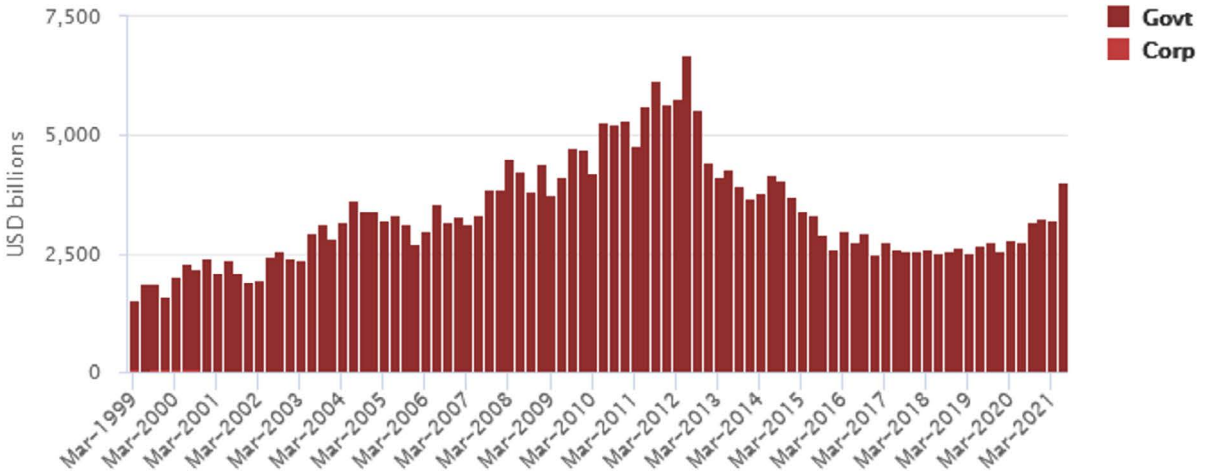
Chart 2: investor profile for JGBs



Source: Bank of Japan, AsiaBondsOnline

The shortage of JGBs caused by QE severely reduced turnover in the JGB market in the period leading up to the Covid pandemic (Chart 3).

Chart 3: OTC turnover of Japanese yen bonds[1]



Source: JSDA, AsiaBondsOnline

1 Government bonds include short & long-term public issues, municipal bonds, government-guaranteed bonds, FILP-Agency bonds, and Transportation and NHK bonds. Corporate bonds include bank debentures, corporate straight and convertible bonds, specified ABS and yen-denominated foreign bonds. Only the value of bonds traded in the over-the-counter market is included. The data is single-counted.

The dramatic reduction in turnover in the cash market in JGBs between 2013 and 2020 should have had an adverse impact on the repo market. In fact, it continued to grow. And because of a collapse in the collateralized call money market following the introduction of negative interest rates in 2016, repo has come to account for over half of the Japanese money market. Several factors may be at play.

While QE tends to crowd out GC repo with cash, it creates collateral shortages, which boost specials trading. In Japan, some of this activity was driven by increased volatility in the JGB market due to the shortage of supply, typically ahead of monetary policy decisions by the Bank of Japan. The increase in specials trading largely depended on Trust banks lending specials from their portfolios to the Tanshi[2] brokers and securities dealers, something they became more willing to do as they became comfortable with the shortened settlement cycle and which they were encouraged to do by the increase in the size of their managed securities trusts. But increased lending by Trust banks was offset by reduced lending by Tanshi brokers and securities dealers as the shortage of JGBs made them more dependent on the supply from natural holders like the Trust banks.

The QE-driven shortage of JGBs has been periodically exacerbated by USD/JPY cross-currency arbitrage opportunities arising from the structural demand for dollars by Japanese non-bank financial institutions. Holders of US dollars or institutions who have access to cheap dollars can take advantage of any negative cross-currency basis to swap them into cheap yen, which is then invested in reverse repo against JGBs. The dollars tend to come from non-resident investors, largely in the US and Europe, who buy repo through foreign securities companies operating in Japan.

The easing by the Bank of Japan of access to its Securities Lending Facility appeared to have been ineffective in relieving the shortage of JGBs, an experience not unknown in Europe. But, contrary to the experience of QE in Europe, the GC market in Japan was not crowded out by central bank liquidity. To some extent, the GC market was helped by specials trading. Because of increased securities lending through special repos, Trust banks were reported to have increased the use of GC repos to reinvest cash received against bond lending.

GC repo was also given some respite from QE by the opportunity given to banks to maintain profitability by arbitraging between the repo market and their three-tier current accounts at the Bank of Japan (borrowing from the repo market at negative rates and placing the cash at zero or positive rates in reserve accounts at the Bank of Japan). And, because the GC repo rate sometimes exceeded the Bank of Japan's policy rate of 0.1%, banks were at times able to borrow from the central bank to invest in the GC repo market at a profit.

It has also been suggested that the introduction in February 2016 of negative interest rates may have fueled more active use of money markets by investors searching for returns. In addition, investment trusts have turned to the GC repo market to employ surplus funds received from equity repo.

Finally, the GC market was helped by the growth of Subsequent Collateral Allocation repos, which is a GC financing facility established in 2018 (see the Post Trade section below).

During the pandemic

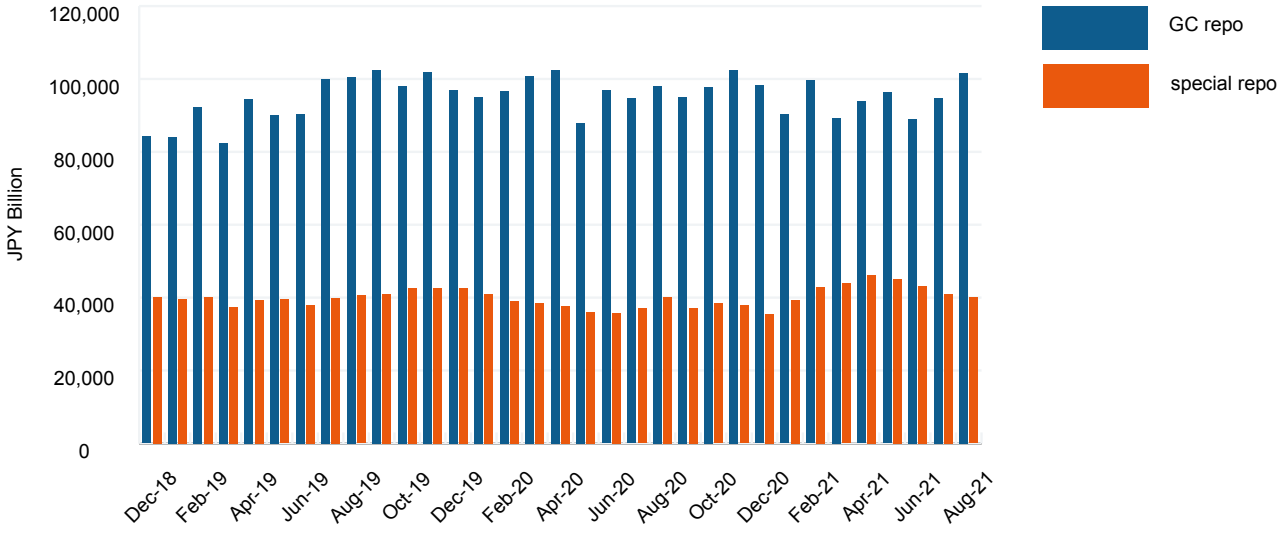
The Covid pandemic hit the financial markets with full force in March 2020. The initial impact and the state of emergency declared in response included a "dash for cash" by investors and corporates, the liquidation of trading positions and the emergence of operational frictions, largely among the back offices of smaller domestic institutions, as staff were forced to work from home.

In response to the economic and financial impact of the Covid-19 pandemic, the Bank of Japan launched an emergency facility called the Special Funds-Supplying Operations to Facilitate Financing in Response to the Novel Coronavirus (COVID-19). This is a collateralized lending facility available to banks.

2 A type of wholesale money market broker, explained further in the "Marketplace" section below.

The Special Funds facility flooded the money market with cash, which temporarily reduced the need for GC borrowing, and absorbed collateral, which subdued special trading. The repo market recovered some ground during the second half of 2020. Specials trading was buoyant during the first half of 2021 but has since retreated, while GC repo revived during the third-quarter (see Chart 4).

Chart 4: turnover in GC versus special repo markets 2018-2020



Source: Bank of Japan

The GC repo market has continued to be supported by arbitrage against the three-tier system of current accounts at the Bank of Japan. The GC market is also likely to have benefited from the accelerated issuance of JGBs to finance the fiscal response to the Covid crisis. And there was occasional cross-currency arbitrage by non-residents through foreign securities companies in Japan, although this activity was affected by some foreign investors reducing risk positions and then by a contraction in the cross-currency basis when the US Federal Reserve provided support for dollar-swap auctions at foreign central banks, including the Bank of Japan. These offered dollars much more cheaply that the FX market. The dollar auctions negatively impacted the specials market by encouraging Japanese banks to hoard these bonds to use in the auctions. This reduced bond lending in the specials market.

Marketplace

The Japanese repo market is predominantly an over-the-counter (OTC) market, in other words, parties transact directly with each other or with the assistance of money market brokers.

There are no voice-brokers in the Japanese repo market. Instead, there is a type of wholesale money market broker called a Tanshi or “securities finance company”. Tanshi brokers were originally set up to broke call money between financial institutions (much like the old discount houses in the UK). With financial market liberalization, they have expanded into the matched-principal broking of other short-term money market instruments, including repos. In this respect, they are now more akin to the inter-dealer brokers (IDBs) in the North American repo markets.

Electronic trading platforms do exist in Japan but there is no central limit order book (CLOB) such as that offered by the automatic inter-dealer platforms operating in Europe. The leading electronic platform in Japan is JBond, who introduced its Repo Trading System in 2009. In effect, JBond is an automated IDB similar to those found in the US and is therefore really part of the OTC market. JBond connects customers to the Tokyo Tanshi Co Ltd, whose matched-principal

intermediation provides pre-trade anonymity. Tokyo Tanshi registers transactions post trade with the CCP, which provides post-trade anonymity.

Recently, the global automated (request-for-quote) electronic platform, Tradeweb, has entered the Japanese market to support bank-to-customer transactions.

Post-trade infrastructure

Most JGB transactions in Japan settle domestically but it is possible to settle offshore across Clearstream or Euroclear, subject to relevant tax documentation being signed by the counterparties.

The majority of repos in Japan are of Japanese government securities, primarily JGBs. Accordingly, the bulk of repo settlement takes place at Bank of Japan, which is the central securities depository (CSD) for government securities. Settlement of JGBs is by book-entry transfer in the BOJ-NET JGB Services system, which is linked to the BOJ-NET Funds Transfer System, allowing settlement against central bank money.

Another CSD, the Japan Securities Depository Center (JASDEC), is responsible for the settlement of all other securities, including equities, corporate bonds, commercial paper (CP), municipal bonds, convertible bonds, investment trusts, ETFs and REITs. JASDEC also operates the Pre-settlement Matching System, which matches settlement instructions in all securities, including government securities to be settled at the Bank of Japan.

As noted earlier, since May 2018, the Japanese government bond (JGB) settlement cycle has been T+2 for cash transactions and special collateral repos. T+0 settlement is possible for GC repo but most remains at T+1 (only about 10% is T+0).

Tri-party collateral management

Tri-party collateral management for repos was introduced in 2018, not as a standalone tri-party facility, but as part of a GC financing facility. This is a combination of a CCP for the purpose of guaranteeing and netting trades and a tri-party collateral manager for the purpose of collateral allocation against the net exposure of trades and life-cycle management.[3] The facility is operated by the Japanese CCP, which is the Japan Securities Clearing Corporation (JSCC). Repos managed under the Japanese GC financing facility are called Subsequent Collateral Allocation Repos (SCAR).

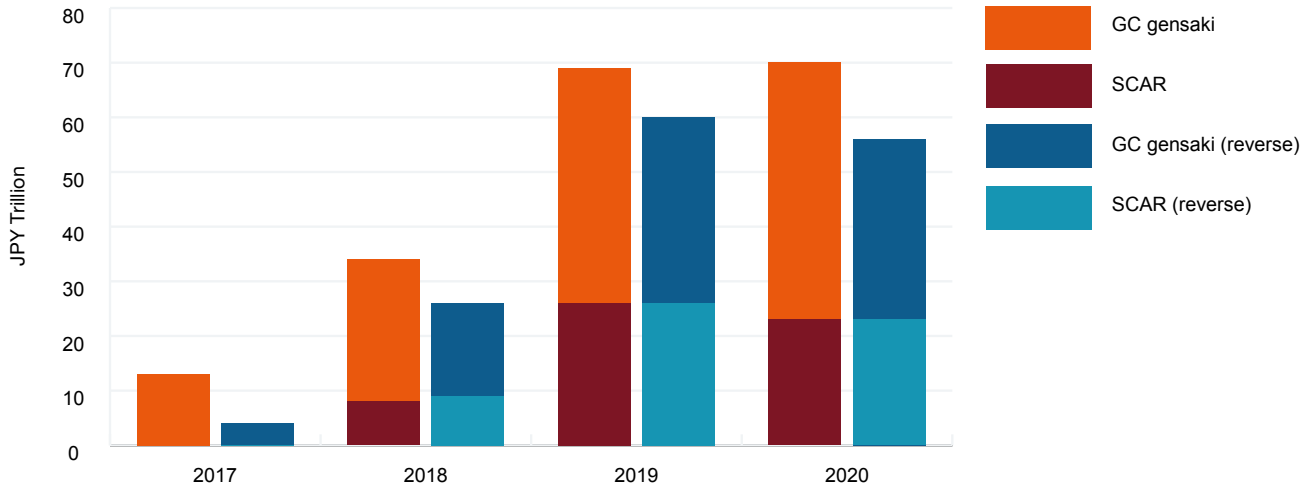
The SCAR facility was introduced to support the shortening of the JGB settlement cycle to T+1 in 2018, which was seen as requiring the ability to transact GC repo for same-day (T+0) settlement. This was in turn seen as requiring automation in order to cope with the compressed period available for matching, collateral allocation and settlement.

In a SCAR transaction, the parties agree from which of six standard baskets of eligible JGBs collateral will be allocated. The seller allocates securities at a general level by reference to the selected basket and informs JSCC via JASDEC. The JSCC then selects specific securities.

SCAR has come to account for a significant percentage of gensaki repo. In the first three quarters of 2021, it accounted for 44-55% of CCP-cleared repo, 33-41% of GC repo and 23-27% of all yen repo against JGBs. This is far higher than the shares of GC financing facilities in Europe or the US.

3 Examples outside Japan include GCF facilities operated in the US by the FICC, Eurex's EGCP in the EU and LCH's £GC in the UK.

Chart 5: Subsequent Collateral Allocation Repo (SCAR)



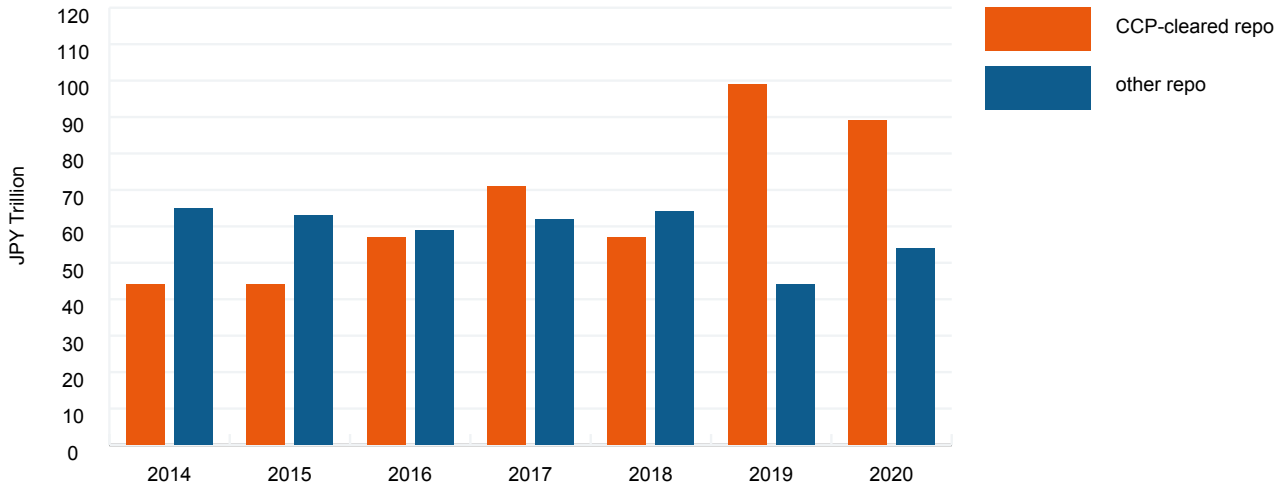
Source: Bank of Japan (data for end-July)

CCP clearing

CCP-clearing is a prominent feature of the Japanese repo market. The CCP is the JSCC, a subsidiary of the Japan Exchange group (JPX), which was formed by the merger of the Tokyo and Osaka Stock Exchanges in 2013. The JSCC clears both current types of Japanese repo and, as noted, it also operates the SCAR GC financing facility.

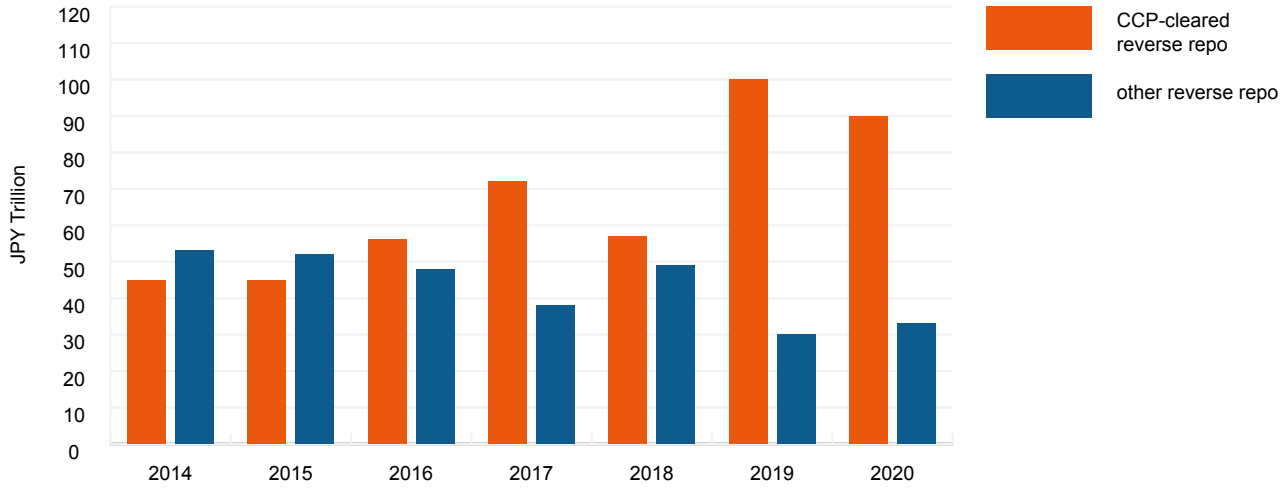
Since 2016, the bulk of the Japanese repo market has been CCP-cleared. CCP-clearing has been boosted by use of the SCAR facility. From 2018 to September 2021, CCP-cleared repo accounted for 74-84% of all yen repo against JGBs. But only about 59% of equity repos were CCP-cleared (August 2020).

Chart 6: CCP-cleared repo



Source: Bank of Japan (data for end-July)

Chart 7: CCP-cleared reverse repo



Source: Bank of Japan (data for end-July)

Types of repo

Japanese repo has evolved through three forms of transaction: old gensaki, new gensaki and gentan repo.

Old gensaki --- The original form of Japanese repo. It seems to have been an undocumented buy/sell-back until July 1992, when the Ministry of Finance published the Master Agreement on the Transaction with Repurchase Agreement of Bonds. However, this agreement did not provide for close-out netting upon the default of the counterparty, variation margining or the substitution of collateral.

Gentan --- Invented to circumvent Japan's securities transaction tax by being packaged as a securities loan, this is really a repo but is documented under a securities lending agreement, typically the Japanese Master Agreement on Lending Transaction of Bonds (JPBL). Since the introduction of a reformed new gensaki in 2016, use of gentan repo has dropped sharply but continues to be traded domestically and by smaller Japanese institutions lending US Treasuries to Japanese banks in Europe.

New gensaki --- Introduced in April 2001 to address the shortcomings of old gensaki repo by moving the Japanese repo market closer to international best practice. It is a buy/sell-back documented under the Japanese Master Agreement on Transaction with Repurchase Agreement of the Bonds (JPBR) which provides for close-out in response to a default as well as variation margining, collateral haircuts and substitution of collateral.

Reformed new gensaki --- In 2016, the Japanese repo market was finally brought fully into line with international practice by the introduction by Japan Securities Dealers Association (JSDA) of a new GMRA-style repo master agreement and updated trading and management guidelines. In January 2021, the JSDA introduced revised rules to allow the use of GMRA and GMSLA in domestic transactions in addition to the JSDA master agreements.

Collateral

The Japanese repo market is typically divided into Special Collateral transactions --- repos transacted against specific bond issues at repo rates that are therefore largely securities-driven --- and General Collateral transactions --- repos transacted, not against specific bond issues, but where the sellers can choose to deliver one of a number of pre-agreed bonds once the other transaction terms have been agreed at repo rates which are therefore cash-driven.

JGBs have taken centre stage as collateral since late 1990s, largely because of the massive issuance of government bonds. By 2013, 99.7% of collateral in the Japanese repo market was reported to be JGBs (JSDA). Since the onset of the pandemic, greater use of Treasury bills has been reported.

Because of the predominance of JGBs as collateral, haircuts have not traditionally been common in the Japanese repo market.

About 10% of the average end-month balance has been against equity, corporate bonds, commercial paper (CP) and other securities but equity is the vast bulk of this category. The outstanding amount of repo and reverse repo against equity and convertible bonds in Japan at end-August 2021 was almost JPY 30 trillion.

Cash currencies

The bulk of the Japanese repo market is for yen but foreign currency repo has been increasing. Almost 18% of outstanding Japanese repo and securities lending was against foreign currency cash at end-August 2021 (about JPY 6 trillion). The bulk of these transactions were for US dollars (about 71%) and euros (26%). Almost 63% were conducted with foreign counterparties, mainly in Europe and the US. Some 69% were repos (cash borrowing and securities lending) by non-residents.

Most foreign currency repos were against securities denominated in currencies other than the yen.

Counterparties

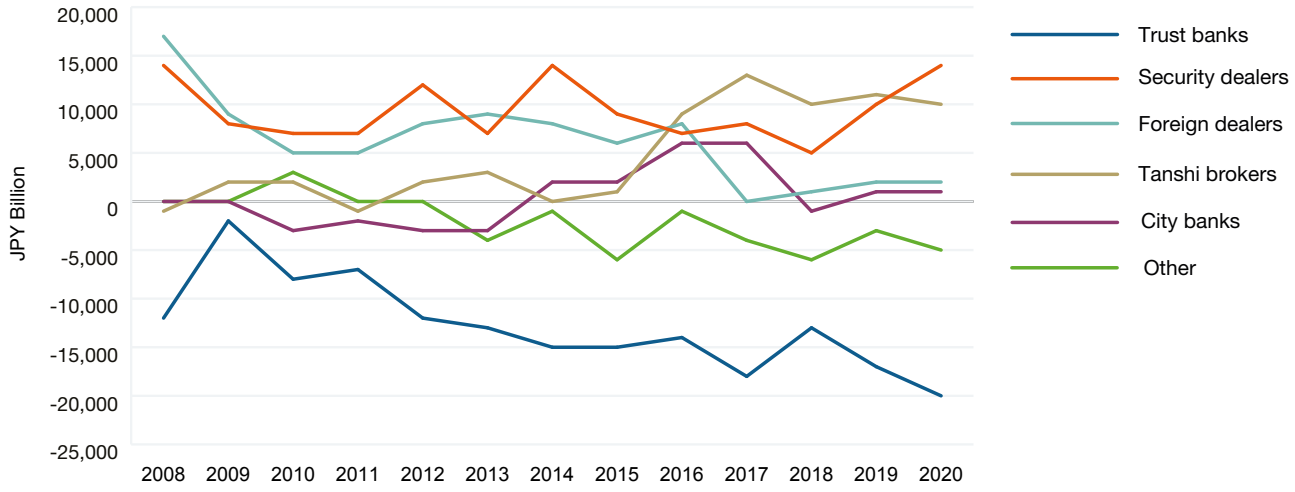
Repo appeared in Japan as a means for securities dealers to borrow cash from small-medium financial institutions in order to finance inventory. As the market developed, a specials segment emerged to cover short positions, although GC repo has remained the largest segment (see Chart 4 above). Major market flows are now between securities dealers (domestic and foreign), Tanshi brokers and Trust banks.

GC repo

Bank of Japan data show that domestic and foreign securities dealers have traditionally run sizable net GC repo positions (cash borrowing), largely with cash-rich Trust banks and non-residents, which they use to finance the inventory needed for GC market-making and support trading in the specials market (see Chart 9).

The net position run by domestic dealers, which increased after 2018, has mainly reflected a large gross GC repo position. In contrast, foreign dealers have run large gross GC reverse repo positions (cash lending) but, from 2018, they have broadly balanced their gross positions, which is suggestive of more matched-book trading.

Chart 8: outstanding net GC repo 2008-2020



Source: Bank of Japan (data for end-July)

Since 2016, the most significant type of intermediary in the Japanese repo market has been the Tanshi broker. They have become by far the largest gross cash lenders in the GC market and, even more so, the largest gross cash borrowers, having expanded rapidly on both sides of the balance sheet since 2014. Until 2016, the Tanshi brokers ran balanced GC positions, generally standing between cash-rich Trust banks and investment trusts on the one hand and cash-hungry domestic securities dealers and City banks on the other, although much of the GC repo trading between Tanshi brokers and securities dealers has been two-way interdealer broking. Since 2016, the Tanshi brokers have had an aggregate net GC repo position. This is the counterpart to their securities borrowing position in the specials market.

Trust banks operate both cash and securities trusts on behalf of their customers, including "securities operations trusts", which target returns in the repo market. They have become major cash lenders in the GC market since the GFC on both a gross and net basis.

In 2019, City banks were reported to have reduced their borrowing in the GC repo market because of a widening of their loan-to-deposit ratios (which constrains their lending and therefore their need for non-deposit funding). They have made significant use of the arbitrage opportunity against the three-tier system of current accounts at the Bank of Japan.

Investment trusts have increased lending through GC repos in order to employ the extra cash received as collateral for lending equity and bonds through cash-collateralized call transactions.

As noted already, non-residents have been an important gross and net source of GC funding for securities dealers. Non-resident institutional investors may participate in the repo market in Japan but only through a resident intermediary.

Specials repo

In the specials market, Tanshi brokers ran matched books after the GFC and until 2016, when they became major net borrowers of specials, mainly by expanding their gross borrowing. Initially, the expansion of the Tanshi was at the expense of gross borrowing by securities dealers. The Tanshi now act as intermediaries largely between securities dealers (borrowing securities) on the one hand and the Trust banks (lending securities) on the other.

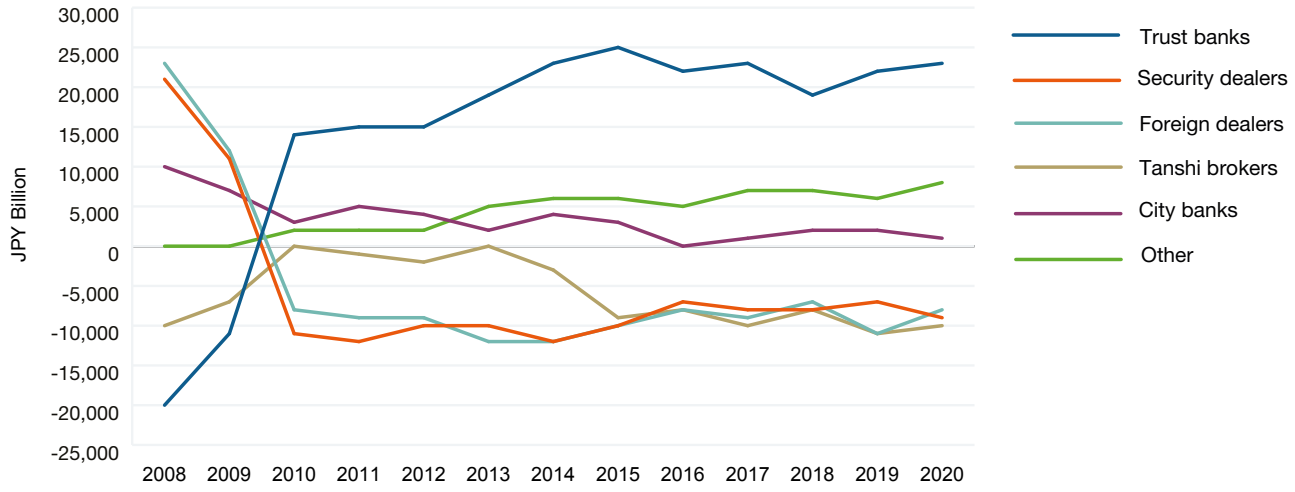
Most of the growth in the gross borrowing of specials by Tanshi brokers has been sourced from Trust banks. Trust banks are by far and away the main gross and net source of specials, drawing on their securities investment portfolios to borrow

cheap cash to lend at a profit in the GC repo market (spread trading), which means they are cash borrowers in specials and cash lenders in GC.

Foreign and, to a lesser extent, domestic securities dealers have been the principal gross and net borrowers of specials, although this activity has fallen back from 2016 peaks. Much of the activity of foreign securities dealers has been driven by cross-currency arbitrage by non-resident investors.

City banks have been a declining source of gross and net specials lending.

Chart 9: outstanding net special repo 2008-2020



Source: Bank of Japan (data for end-July)

Cross-border repo

Non-residents have been an important source of demand for specials. Much of this business is transacted by the branches in Japan of European banks feeding JGBs to their parents. European counterparties accounted for 22% of JPY repo (worth JPY 36 trillion) at end-August 2020 and 39% of foreign currency repo (worth JPY 13 trillion). US counterparties accounted for 2% and 34%, respectively.

Market concentration

Bank of Japan data show that the top 20 of the largest 328 banks in their annual repo market survey account for about of 90% of repo business in the interbank segment. This is much less concentrated than the collateralized call money market but only slightly more concentrated than the European repo market (where about 25 participants account for 90% of the business).

Market concentration is higher in specials than GC repo and in repo compared to reverse repo.

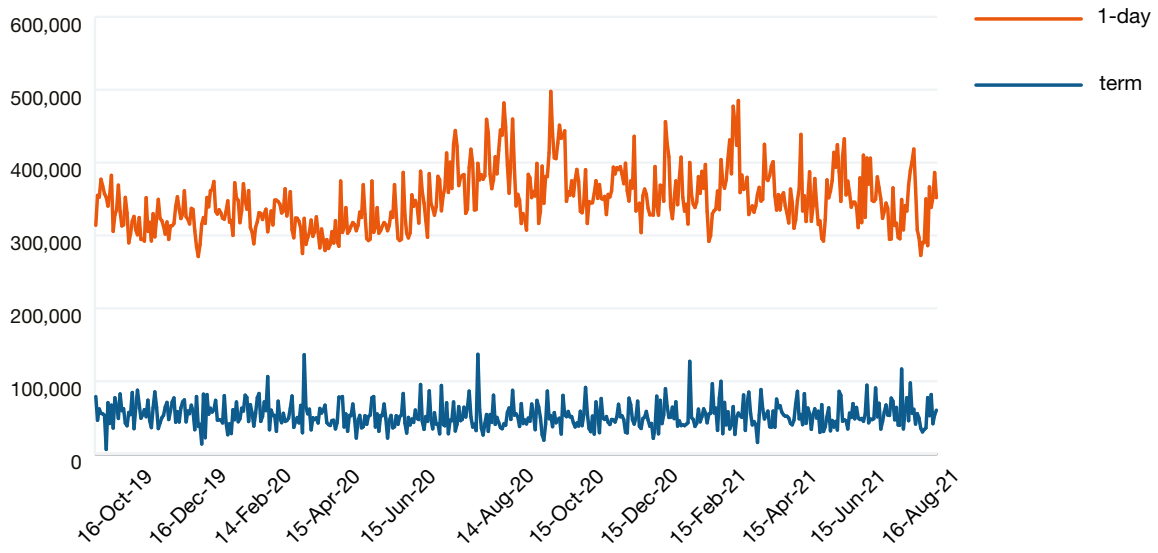
Tenors

Gensaki repos are not traded beyond one year and gentan repos do not extend beyond six months. But most repo in Japan are tomorrow-next (TN) trades, that is, starting on the next business day (T+1) and ending on the following business day (T+2). This is particularly the case in GC repos (89%) but less so in specials (53%), where there is significant settlement at T+2 (reflecting the cash market).

A reflection of the market's concentration in TN repo is the fact that the major repo rate index in Japan is the JBond Repo Interest Rate (RIR), which measures the cost of funds on the JBond platform of yen repos against JGBs that are cleared on the JSCC.

As shown in Chart 10, one-day business was revived by the "dash for cash" triggered by the Covid crisis but has since subsided.

Chart 10: maturity distribution of repo turnover 2019-2021

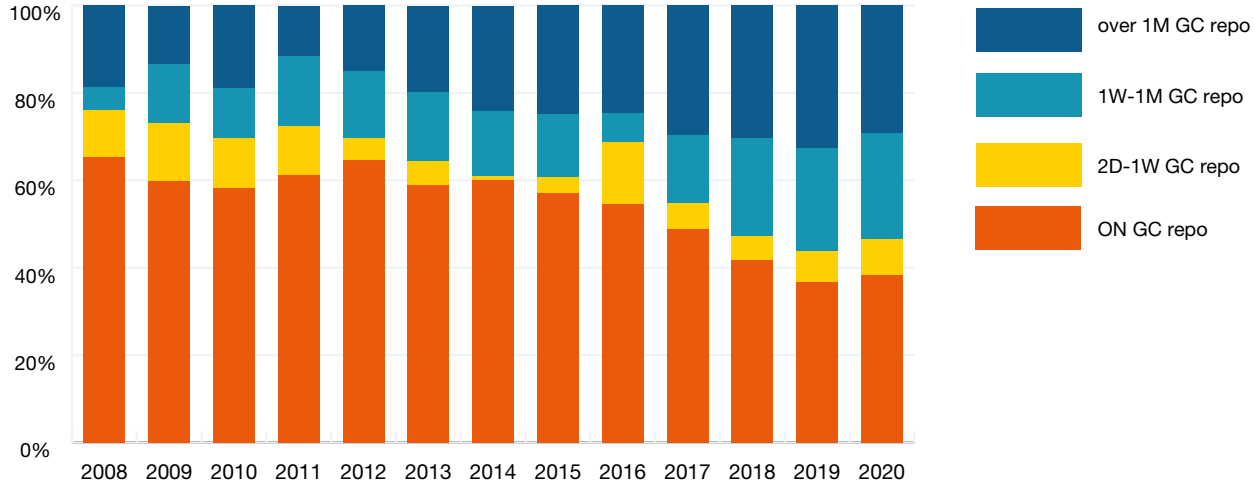


Source: Bank of Japan

Term repo business in the Japanese repo market is more significant when measured in terms of outstanding value given that term repo persists for longer than one-day repo. Moreover, the share of outstanding value taken by one-day repo, both GC and specials, has declined from a peak in 2013. As Chart 12 shows, longer-term repos have grown rapidly since 2014 and one-day repo has dropped from about 60% of outstanding balances in the GC market up to 2016 to around 38% in 2020.

This lengthening of the average term to maturity is likely to have been encouraged by regulatory pressures to reduce reliance on wholesale short-term funding and facilitated by the introduction of the SCAR GC financing facility in 2018. The SCAR facility removes an obstacle to term repo and part of the motive for TN repo, which was to avoid the cumbersome operational procedures required to be able to substitute collateral in term repo by instead rolling the transaction over each day.

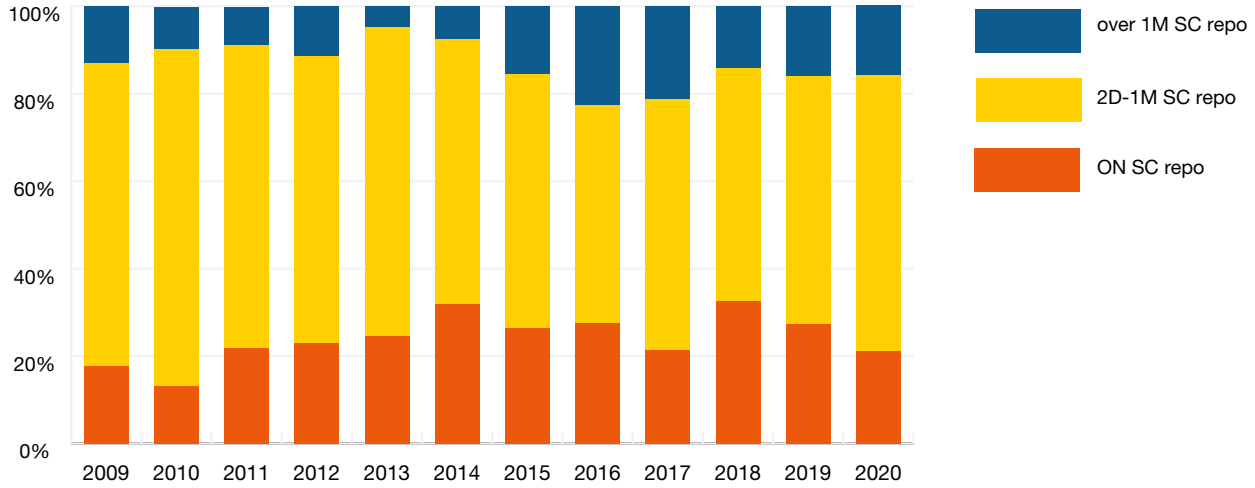
Chart 11: maturity distribution of outstanding GC repo 2010-2020



Source: Bank of Japan (data for end-July)

In the specials market, as in GC repo, the outstanding value of long-dated term trades (over one month) has increased in significance, although so has one-day business, while short-dates over one week have declined since 2014.

Chart 12: maturity distribution of outstanding special repo 2010-2020



Source: Bank of Japan (data for end-July)

JSDA data for gentan repo show evidence of a switch of much TN business, particularly bond borrowing, into gensaki in 2018. The remaining TN and term business are now comparable in terms of turnover. In contrast to other securities lending and borrowing markets, there is insignificant open business in Japan.

Regulation

Currently in Japan, since the reorganization of government ministries in 2001, the Financial Services Agency has oversight of the repo market in its capacity as the securities market regulator. The Bank of Japan has also been closely involved with the repo market because of the importance of this market for its monetary policy operations.

Also playing an important role is the Japan Securities Dealers Association (JSDA), a self-regulatory organization (SRO) for the securities market, including the repo market, under the general ambit of the Financial Instruments and Exchange Act (FIEA). JSDA provides the basic trading framework, rules and other market practices for the secondary securities market in Japan. This includes the 1992 rules for buying, selling, short-selling, the borrowing and lending of bonds, the scope of eligible bonds and trading methods with regards to repo. JSDA also publishes the Japanese Master Agreement on Transaction with Repurchase Agreement of the Bonds for gensaki repo and the Master Agreement of Borrowing and Lending Transactions of Bonds, which is used for gentan repo. JSDA is regulated by the FSA but routine inspection of the JSDA is conducted by the Securities and Exchange Surveillance Commission.

About the International Capital Market Association (ICMA)

ICMA promotes well-functioning cross-border capital markets, which are essential to fund sustainable economic growth. It is a not-for-profit membership association with offices in Zurich, London, Paris, Brussels and Hong Kong, serving more than 620 member firms in over 60 countries. Among its members are private and official sector issuers, banks, broker-dealers, asset managers, pension funds, insurance companies, market infrastructure providers, central banks and law firms. It provides industry-driven standards and recommendations, prioritising four core fixed income market areas: primary, secondary, repo and collateral and sustainable finance. ICMA works with regulatory and governmental authorities, helping to ensure that financial regulation supports stable and efficient capital markets.

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. This includes the development of the Global Master Repurchase Agreement (GMRA), which has become the principal master agreement for cross-border repos globally, as well as for many domestic repo markets.

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

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