

BMCG: Repo Market & Securities Lending

Garry Naughton

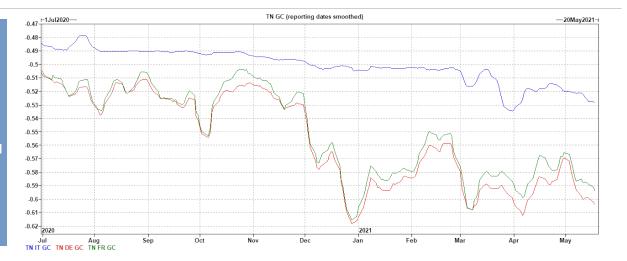
Prepared by a Goldman Sachs sales and trading desk, which may have a position in the products mentioned that is inconsistent with the views expressed in this material. In evaluating this material, you should know that it could have been previously provided to other clients and/or internal Goldman Sachs personnel, who could have already acted on it. The views or ideas expressed here are those of the desk and/or author only and are not an "official view" of Goldman Sachs; others at Goldman Sachs may have opinions or may express views that are contrary to those herein. This material is not independent advice and is not a product of Global Investment Research. This material is a solicitation of derivatives business generally, only for the purposes of, and to the extent it would otherwise be subject to, CFTC Regulations 1.71 and 23.605.



Repo Markets GC Curves Richening

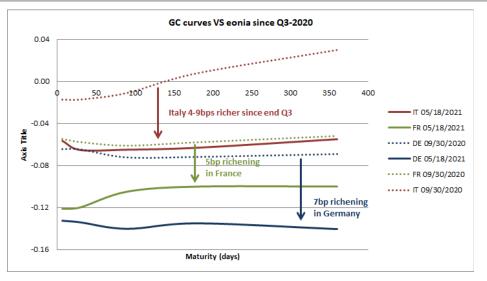
T/N repo has richened 5/7bps in France and Germany respectively from the end of Sep 2020

Italy has richened 4bps leaving the core-peripheral spread ~3bps wider



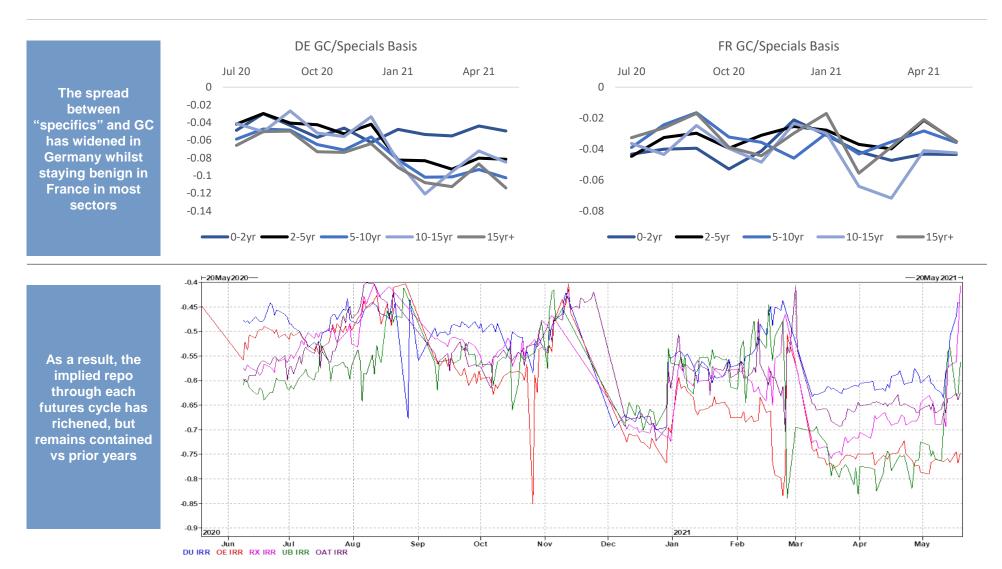
The Italian GC curve has flattened with the 1y point richening 9bps

French & German curves have richened in fairly parallel fashion





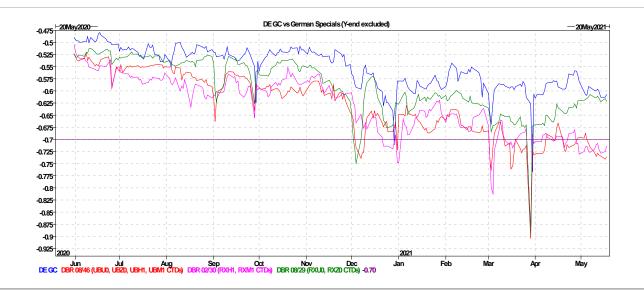
GC/Specials Basis Widened



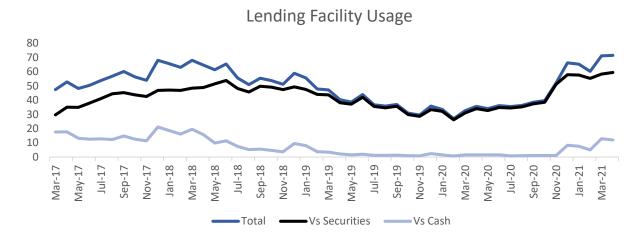


Lending Facility Usage has Increased

German specials have richened to consistently trade through -0.70

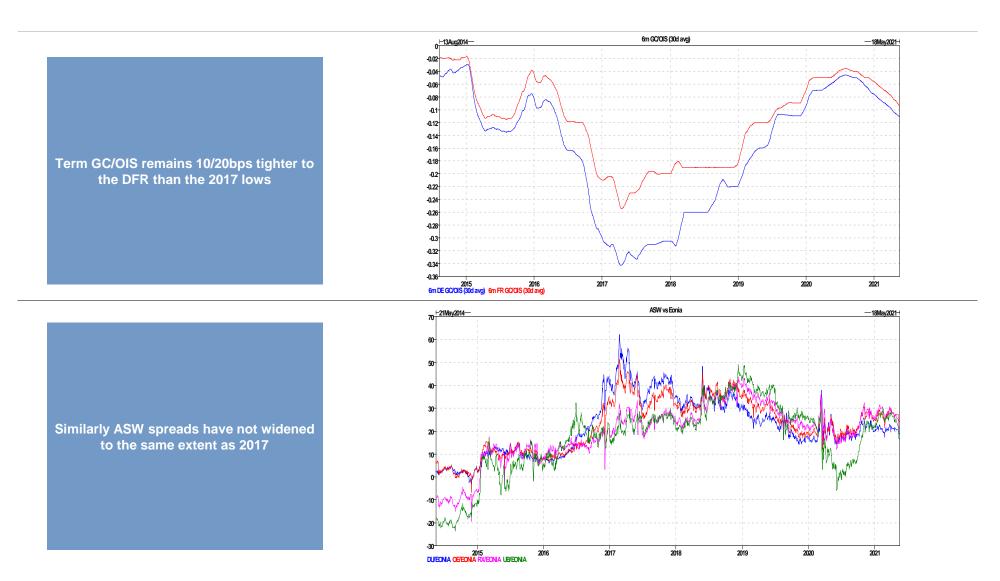


As a result borrowing vs cash at the ECB lending facilities has increased





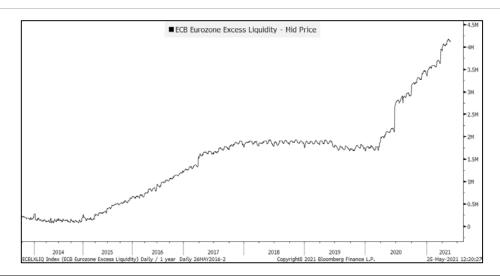
Impact in repo benign vs 2017 and spill over to cash markets has been limited



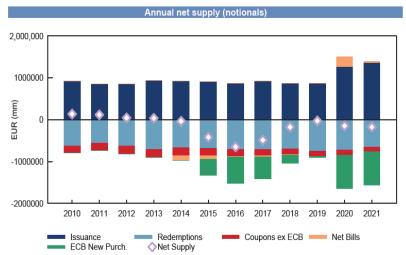


The ultimate crux = Demand versus (market) supply

ECB reserves in the system – and hence demand for EGB collateral – keep growing at a rapid pace...



...when the free float available However remains unchanged





Points for Discussion

- Do BMCG members expect the market input of ongoing asset purchases to remain relatively benign?
- What other tools/incentives are available to smooth out any spillover from repo markets if it occurs in future?
- Any lessons from other developed bond markets?



Disclaimers

This message has been prepared by personnel in the Global Markets Division of one or more affiliates of The Goldman Sachs Group, Inc. ("Goldman Sachs") and is not the product of Global Investment Research. It is not a research report and is not intended as such.

Non-Reliance and Risk Disclosure: This material is for the general information of our clients and is a solicitation of derivatives business generally, only for the purposes of, and to the extent it would otherwise be subject to, CFTC Regulations 1.71 and 23.605. This material should not be construed as an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. We are not soliciting any specific action based on this material. For the purposes of U.S. rules and regulations, it does not constitute a recommendation or take into account the particular investment objectives, financial conditions, or needs of individual clients. Before acting on this material, you should consider whether it is suitable for your particular circumstances and, if necessary, seek professional advice. The price and value of the investments referred to in this material and the income from them may go down as well as up, and investors may realize losses on any investments. Past performance is not a guide to future performance. Future returns are not guaranteed, and a loss of original capital may occur. We do not provide tax, accounting, or legal advice to our clients, and all investors are advised to consult with their tax, accounting, or legal advisers regarding any potential investment. The material is based on information that we consider reliable, but we do not represent that it is accurate, complete and/or up to date, and it should not be relied on as such. Opinions expressed are our current opinions as of the date appearing on this material only and only represent the views of the author and not those of Goldman Sachs, unless otherwise expressly noted. Conflict of Interest Disclosure: We are a full-service, integrated investment banking, investment management, and brokerage firm. The professionals who prepared this material are paid in part based on the profitability of The Goldman Sachs Group, Inc., which includes earnings from the firm's trading, capital markets, investment banking and other business. They, along with other salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed herein or the opinions expressed in research reports issued by our Research Departments, and our market making, investing and lending businesses may make investment decisions that are inconsistent with the views expressed herein. In addition, the professionals who prepared this material may also produce material for, and from time to time, may advise or otherwise be part of our trading desks that trade as principal in the securities mentioned in this material. This material is therefore not independent from our interests, which may conflict with your interests. We and our affiliates, officers, directors, and employees, including persons involved in the preparation or issuance of this material, may from time to time have "long" or "short" positions in, act as principal in, and buy or sell the securities or derivatives (including options) thereof in, and act as market maker or specialist in, and serve as a director of, companies mentioned in this material. In addition, we may have served as manager or co manager of a public offering of securities by any such company within the past three years.

Not a Fiduciary: To the extent this material is provided to an employee benefit plan or account subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA") or Section 4975 of the Internal Revenue Code of 1986, as amended (the "Code") (each, a "Benefit Plan Investor"), by accepting this material such Benefit Plan Investor will be deemed to have represented, warranted and acknowledged that (1) the Benefit Plan Investor is represented by a fiduciary that is independent of Goldman Sachs and its affiliates (the "Independent Fiduciary"), (2) the Independent Fiduciary is a bank (as defined in section 202 of the Investment Advisers Act of 1940 (the "Advisers Act")) or a similar institution that is regulated and supervised and subject to periodic examination by a State or Federal agency; an insurance carrier which is qualified under the laws of more than one State to perform the services of managing, acquiring or disposing of assets of a plan; an investment adviser registered under the Advisers Act or, if not registered as an investment adviser as an investment adviser under the laws of the State in which it maintains its principal office and place of business; a broker-dealer registered under the Securities Exchange Act of 1934; or an Independent Fiduciary that holds or has under management or control total assets of at least \$50 Million; (3) the Independent Fiduciary is capable of evaluating investment risks independently, both in general and with regard to the information contained in this material; (4) the Independent Fiduciary is a fiduciary under ERISA and/or the Code with respect to, and is responsible for exercising independent judgment in evaluating, the information contained in this material; (5) neither Goldman Sachs nor its affiliates are undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the information contained in this material or with respect to any Benefit Plan Investor's subsequent investment decisions; and (6) any

Not a Municipal Advisor: Except in circumstances where Goldman Sachs expressly agrees otherwise in writing, Goldman Sachs is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice, including within the meaning of Section 15B of the Securities Exchange Act of 1934.



Disclaimers

Phone recording: Telephone conversations with Goldman Sachs personnel may be recorded and retained.

Legal Entities Disseminating this Material: This material is disseminated in Australia by Goldman Sachs Australia Ptv Ltd (ABN 21 006 797 897); in Canada by either Goldman Sachs Canada Inc. or Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C. or by Goldman Sachs Asia Bank Limited, a restricted licence bank; in Japan by Goldman Sachs Japan Co.,Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch: in New Zealand by Goldman Sachs New Zealand Limited; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W), by Goldman Sachs Futures Pte, Ltd (Company Number: 199004153Z) or by J.Aron & Company (Singapore) Pte (Company Number: 198902119H); in India by Goldman Sachs (India) Securities Private Limited, Mumbai Branch; in the United Kingdom, Belgium, Cyprus, Denmark, Ireland, Italy, Liechtenstein, Luxembourg, Norway and Portugal by Goldman Sachs International ("GSI"); in France by Goldman Sachs Paris Inc. et Cie or GSI Paris branch; in Spain by GSI Madrid branch; in Sweden by GSI Stockholm branch; in all other European Economic Area jurisdictions by Goldman Sachs Bank Europe SE, including through its authorised branches ("GSBE"); in Switzerland by GSI; in the Cayman Islands by Goldman Sachs (Cayman) Trust, Limited; in Brazil by Goldman Sachs do Brasil Banco Múltiplo S.A.; and in the United States of America by Goldman Sachs & Co. LLC (which is a member of FINRA, NYSE and SIPC) and by Goldman Sachs Bank USA. You may obtain information about SIPC, including the SIPC brochure, by contacting SIPC (website: http://www.sipc.org/;phone: 202-371-8300), GSI, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA, has approved this material in connection with its distribution in the United Kingdom, GSI, whose registered office is at Plumtree Court, 25 Shoe Lane, London EC4A 4AU, appears in the FCA's Register (Registration No.: 142888), GSI is registered as a Private Unlimited Company in England and Wales (Company Number: 2263951) and its VAT registration number is GB 447 2649 28. GSI is subject to the FCA and PRA rules and guidance, details of which can be found on the websites of the FCA and PRA at www.fca.org.uk and www.bankofengland.co.uk/pra.The FCA is located at 12 Endeavour Square, London E20 1JN, and the PRA is located at Bank of England, 20 Moorgate, London EC2R 6DA. GSBE is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism established between those Member States of the European Union whose official currency is the Euro, subject to direct prudential supervision by the European Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufischt, BaFin) and Deutsche Bundesbank. Unless governing law permits otherwise, you must contact a Goldman Sachs entity in your home jurisdiction if you want to use our services in effecting a transaction in the securities mentioned in this material. This material is not for distribution to retail clients, as that term is defined under The European Union Markets in Financial Instruments Directive (2014/65/EU) (including as implemented in the United Kingdom), and any investments, including derivatives, mentioned in this material will not be made available by us to any such retail client.

Reproduction and Re-Distribution: Without our prior written consent, no part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed. Notwithstanding anything herein to the contrary, and except as required to enable compliance with applicable securities law, you (and each of your employees, representatives and other agents) may disclose to any and all persons the U.S. federal income and state tax treatment and tax structure of the transaction and all materials of any kind (including tax opinions and other tax analyses) that are provided to you relating to such tax treatment and tax structure, without Goldman Sachs imposing any limitation of any kind.

Information Not for Further Dissemination: To the extent this communication contains Goldman Sachs' pricing information, such pricing information is proprietary and/or confidential and is provided solely for the internal use of the intended recipient(s). You are notified that any unauthorized use, dissemination, distribution or copying of this communication or its contents, including pricing information, in whole or in part, is strictly prohibited. Further, unless prohibited by local law, any use, review or acceptance of this information is subject to and manifests your agreement with Goldman Sachs to use such information only in accordance with the terms set forth above. Goldman Sachs has caused its proprietary information to be delivered to you in reliance upon such agreement.

Not a Valuation: Values herein are not customer valuations and should not be used in lieu of a customer valuation statement or account statement. These values may not reflect the value of the positions carried on the books and records of Goldman Sachs or its affiliates and should not be relied upon for the maintenance of your books and records or for any tax, accounting, legal or other purposes. The information provided herein does not supersede any customer statements, confirmations or other similar notifications.

Receipt of Orders: An order sent to Goldman Sachs by email or instant message is not deemed to be received by Goldman Sachs until a Goldman Sachs representative verifies the order details with a phone call to the client or acknowledges receipt of the order via email or instant message to the client. Goldman Sachs does not accept client orders sent via fax or voicemail systems.



Disclaimers

Indicative Terms/Pricing Levels: This material may contain indicative terms only, including but not limited to pricing levels. There is no representation that any transaction can or could have been effected at such terms or prices. Proposed terms and conditions are for discussion purposes only. Finalized terms and conditions are subject to further discussion and negotiation.

OTC Derivatives Risk Disclosures:

Terms of the Transaction: To understand clearly the terms and conditions of any OTC derivative transaction you may enter into, you should carefully review the Master Agreement, including any related schedules, credit support documents, addenda and exhibits. You should not enter into OTC derivative transactions unless you understand the terms of the transaction you are entering into as well as the nature and extent of your risk exposure. You should also be satisfied that the OTC derivative transaction is appropriate for you in light of your circumstances and financial condition. You may be requested to post margin or collateral to support written OTC derivatives at levels consistent with the internal policies of Goldman Sachs.

Liquidity Risk: There is no public market for OTC derivative transactions and, therefore, it may be difficult or impossible to liquidate an existing position on favorable terms. Transfer Restrictions: OTC derivative transactions entered into with one or more affiliates of The Goldman Sachs Group, Inc. (Goldman Sachs) cannot be assigned or otherwise transferred without its prior written consent and, therefore, it may be impossible for you to transfer any OTC derivative transaction to a third party.

Conflict of Interests: Goldman Sachs may from time to time be an active participant on both sides of the market for the underlying securities, commodities, futures, options or any other derivative or instrument identical or related to those mentioned herein (together, "the Product"). Goldman Sachs at any time may have long or short positions in, or buy and sell Products (on a principal basis or otherwise) identical or related to those mentioned herein. Goldman Sachs hedging and trading activities may affect the value of the Products.

Counterparty Credit Risk: Because Goldman Sachs, may be obligated to make substantial payments to you as a condition of an OTC derivative transaction, you must evaluate the credit risk of doing business with Goldman Sachs or its affiliates.

Pricing and Valuation: The price of each OTC derivative transaction is individually negotiated between Goldman Sachs and each counterparty and Goldman Sachs does not represent or warrant that the prices for which it offers OTC derivative transactions are the best prices available, possibly making it difficult for you to establish what is a fair price for a particular OTC derivative transaction; The value or quoted price of the Product at any time, however, will reflect many factors and cannot be predicted. If Goldman Sachs makes a market in the offered Product, the price quoted by Goldman Sachs would reflect any changes in market conditions and other relevant factors, and the quoted price (and the value of the Product that Goldman Sachs will use for account statements or otherwise) could be higher or lower than the original price, and may be higher or lower than the value of the Product as determined by reference to pricing models used by Goldman Sachs. If at any time a third party dealer quotes a price to purchase the Product or otherwise values the Product, that price may be significantly different (higher or lower) than any price quoted by Goldman Sachs. Furthermore, if you sell the Product, you will likely be charged a commission for secondary market transactions, or the price will likely reflect a dealer discount. Goldman Sachs may conduct market making activities in the Product. To the extent Goldman Sachs makes a market, any price quoted for the OTC derivative transactions, Goldman Sachs may differ significantly from (i) their value determined by reference to Goldman Sachs pricing models and (ii) any price quoted by a third party. The market price of the OTC derivative transaction may be influenced by many unpredictable factors, including economic conditions, the creditworthiness of Goldman Sachs, the value of any underlyers, and certain actions taken by Goldman Sachs.

Market Making, Investing and Lending: Goldman Sachs engages in market making, investing and lending businesses for its own account and the accounts of its affiliates in the same or similar instruments underlying OTC derivative transactions (including such trading as Goldman Sachs deems appropriate in its sole discretion to hedge its market risk in any OTC derivative transaction whether between Goldman Sachs and you or with third parties) and such trading may affect the value of an OTC derivative transaction.

Early Termination Payments: The provisions of an OTC Derivative Transaction may allow for early termination and, in such cases, either you or Goldman Sachs may be required to make a potentially significant termination payment depending upon whether the OTC Derivative Transaction is in-the-money to Goldman Sachs or you at the time of termination. Indexes: Goldman Sachs does not warrant, and takes no responsibility for, the structure, method of computation or publication of any currency exchange rates, interest rates, indexes of such rates, or credit, equity or other indexes, unless Goldman Sachs specifically advises you otherwise.

© 2021 Goldman Sachs. All rights reserved.