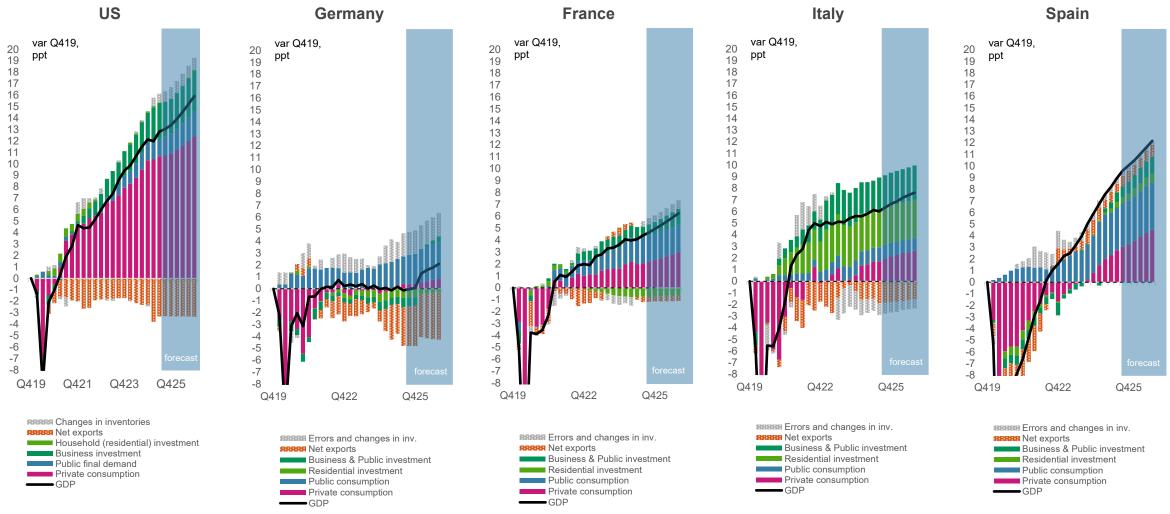


ECB stance

GDP growth: US downside, Europe upside



Source all charts: BEA, Eurostat, Refinitiv, Crédit Agricole CIB

NB: in the Eurozone, GDP and GDI (Gross Domestic Income) must be equal. Then, the contribution for "changes in inventories" includes the discrepancy between the two measures.

Global growth drag: quite large shock, especially for the US

- US liberation day delivered a massive blow to the rest of the world. New global tariffs will pushing the average US tariffs rate from c.2% to the 15-20% range, this is roughly 8 to 10 times what happened during the first term of Trump. If maintained, which will be the attention point in the coming weeks, new tariffs are the biggest change in US trade policy since the 1930s.
- From an economic point of view, again, if permanent, global real GDP growth should take a severe hit of c.100bps in cumulated terms in the coming years on average, without even mentioning non-linearities that could gain stream given the size of the shock.
- Fallouts could be even worse in the US (between 100 and 200bps probably), where a relatively symmetrical bounce of prices in term of size would likely occur in the short term.
- The Eurozone is not in a particularly bad place relative to many peers. Real growth drag over the medium term, even if countermeasures are enacted, should top 50bps at the very most.
- The German fiscal package will likely offset this total negative growth effect in less than 6 months of deployment at the German level and over less than 2 years at the Eurozone level (and this is a 12 years plan). We are consequently becoming increasingly positive on Eurozone growth, and now expect the last few years of the decades (2027-28 in particular) to better than average. This shock could however making more acute short term difficulties of the Eurozone before the recovery.

Estimated drag on real GDP level in 2030 resulting from a 25% tariffs with retaliations



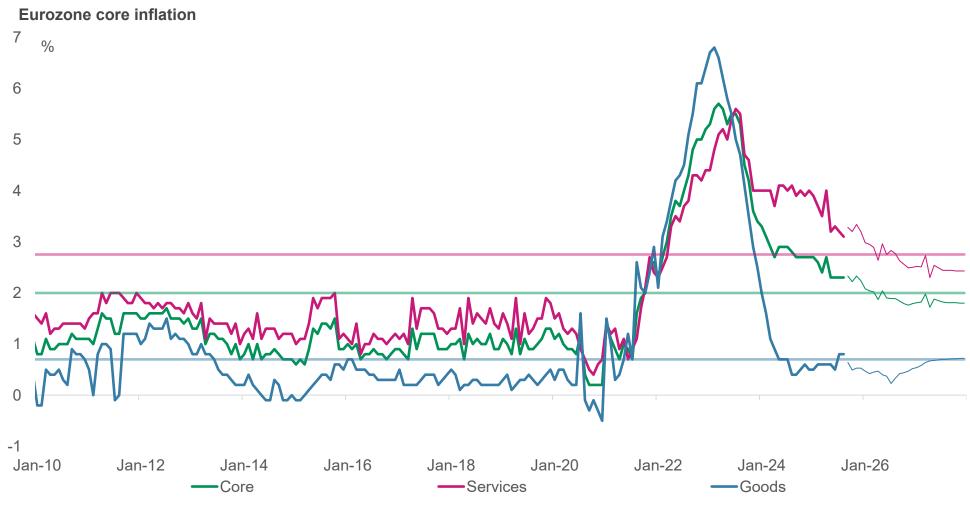
Source all charts: MIRAGE-Power Model from CEPII – Bouet et al. (2025), KITE Model from Kiel Institute – Schularick (2025), Crédit Agricole CIB

German fiscal package: a Eurozone growth rebound is likely

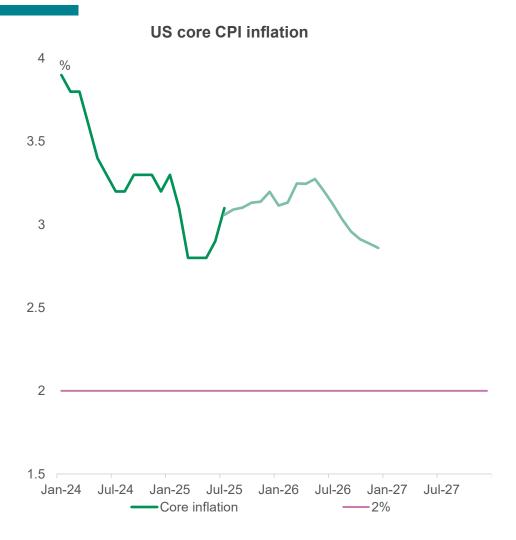


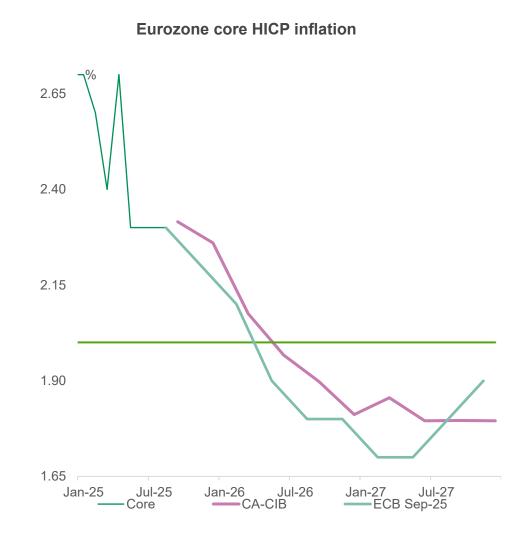
Source all charts: Crédit Agricole CIB

Eurozone core inflation: goods and services



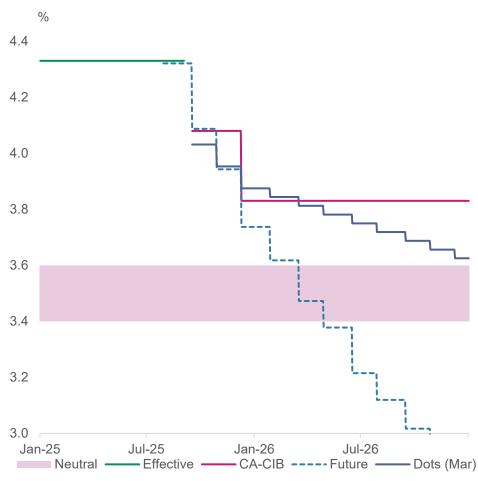
Inflation: closer in Eurozone, not there yet in the US





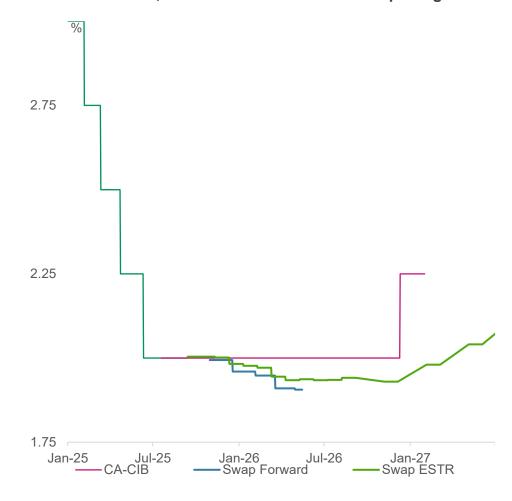
Central bank pricing and forecasts





Source: FOMC, ECB, Bloomberg, Crédit Agricole CIB

ECB, our forecasts and the market pricing



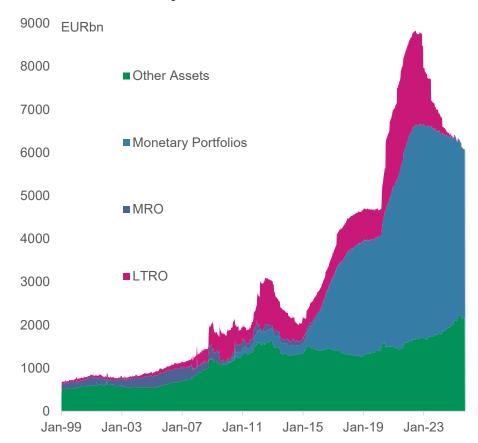
ECB Framework

Past changes in the ECB's monetary framework

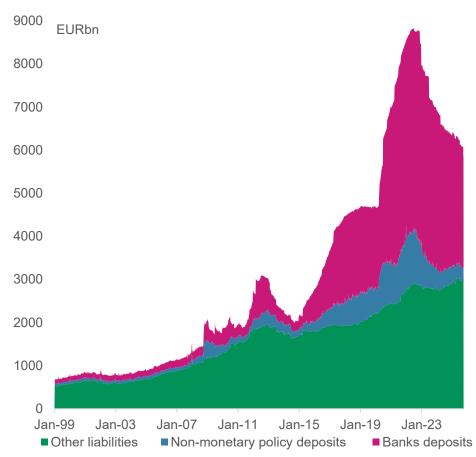
- The Great Financial Crisis and the 'lowflation' following the sovereign debt crisis forced the ECB to implement non-standard monetary policy tools the sovereign debt crisis contributed too, but to a lesser extent.
- These monetary policy tools (non-standard refinancing operations and purchase programmes) increased the ECB's balance sheet (on the asset side), triggering an increase in bank deposits (on the liabilities side).
- The increase of liquidity changed the ECB's framework, from a corridor system to a floor system: since 2012, the main guide to short-term rates is no longer the refi rate, but the deposit rate.
- In March 2024, the ECB decided to change its monetary framework.
 - It will continue the reduction of holdings in monetary portfolios
 - It will not implement new TLTROs
 - Once the Eurosystem balance sheet begins to grow durably again, it will implement new structural tools (structural refinancing operations and structural portfolios)
- We estimate that this will happen in the second half of 2027.
- In this presentation, we show the different charts related to the new monetary framework and the expected impact on short-term rates.

The ECB's balance sheet

Asset side of the Eurosystem balance sheet

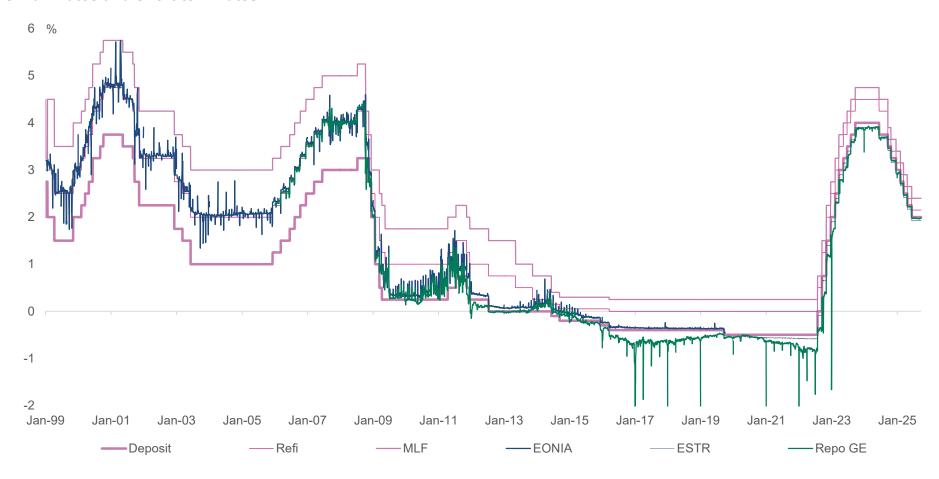






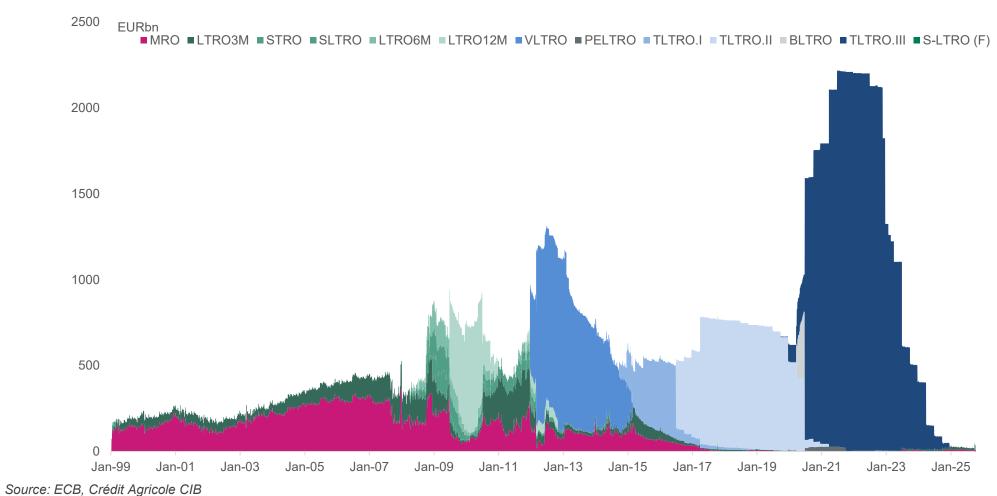
ECB's rates and short-term rates

ECB's main rates and short-term rates



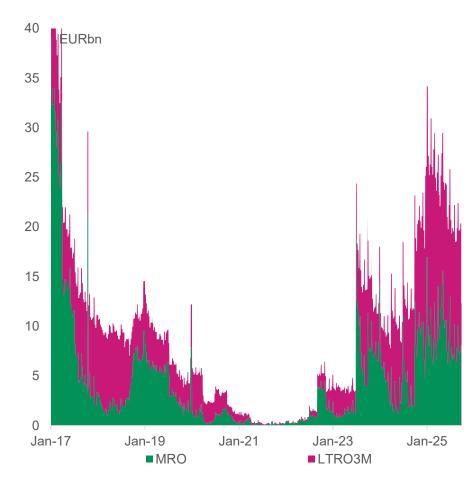
The end of non-standard refinancing operations

History of refinancing operations



Standard refinancing operations – the only new source of liquidity

MRO and LTRO outstanding amounts

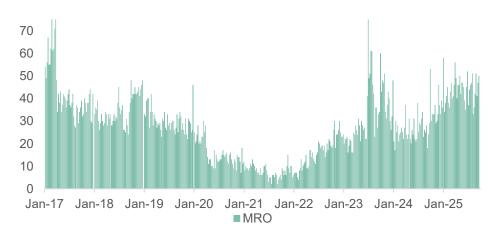


Source: ECB, Crédit Agricole CIB

Number of bidders: LTRO

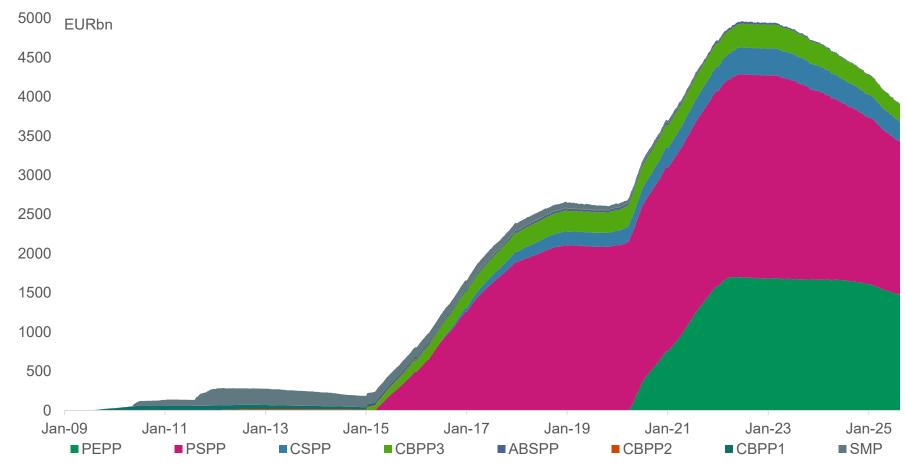
50
45
40
35
30
25
20
15
10
5
0
Jan-17 Jan-18 Jan-19 Jan-20 Jan-21 Jan-22 Jan-23 Jan-24 Jan-25

Number of bidders: MRO

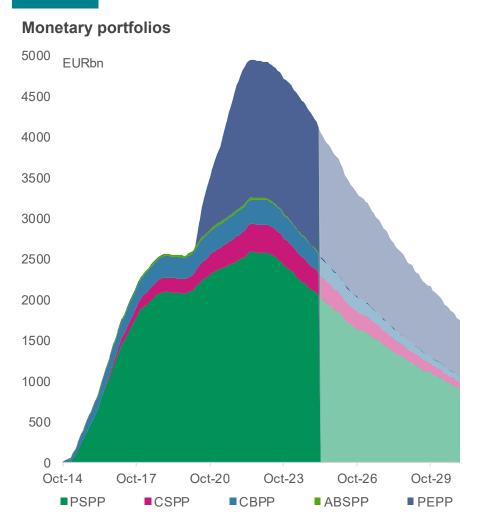


The end of purchase programmes

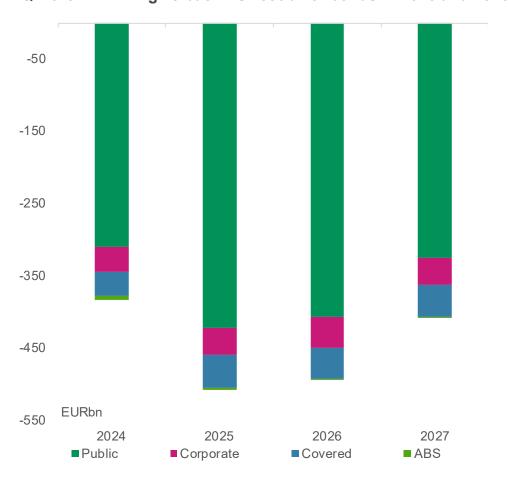
Monetary portfolios



ECB's balance sheet: beware of QT

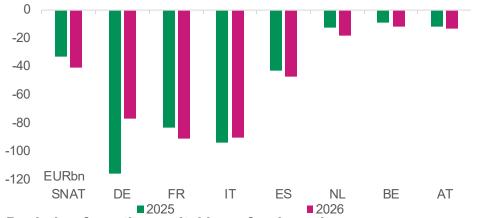


QT: the ECB will give back EUR500bn of bonds in 2025 and 2026



QT: a country view

Reduction of ECB holdings by country





Deviation from the capital key of redemptions

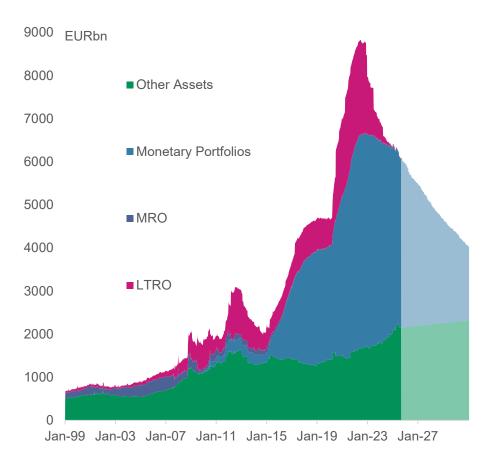


Downward pressure on asset-swap spreads



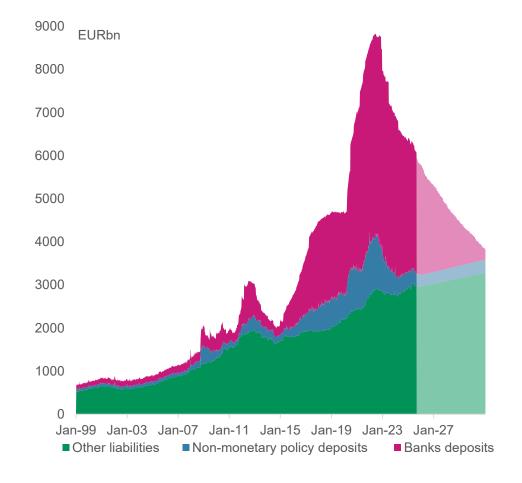
Reduction of the ECB's balance sheet via the QT

QT will have a strong impact on the ECB's assets...



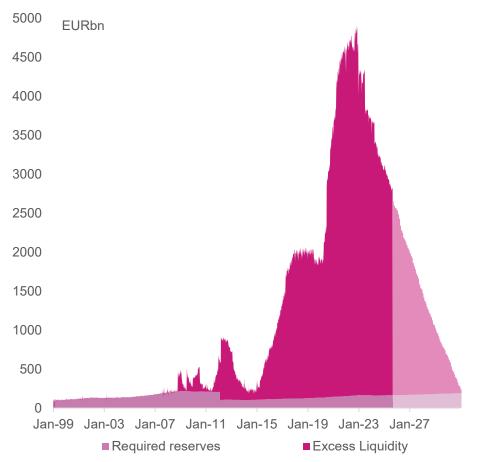
Source: ECB, Crédit Agricole CIB

...which will extend the reduction of liquidity



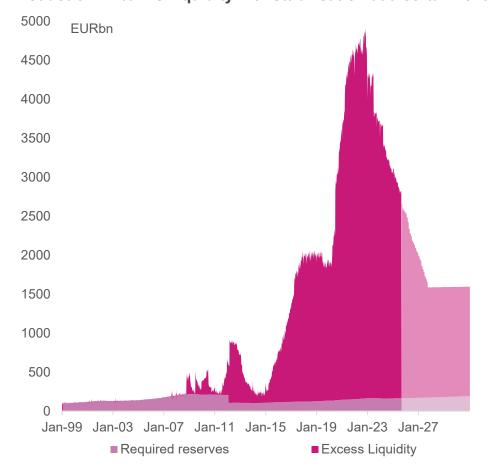
From lower excess liquidity to borrowing at MRO and LTRO





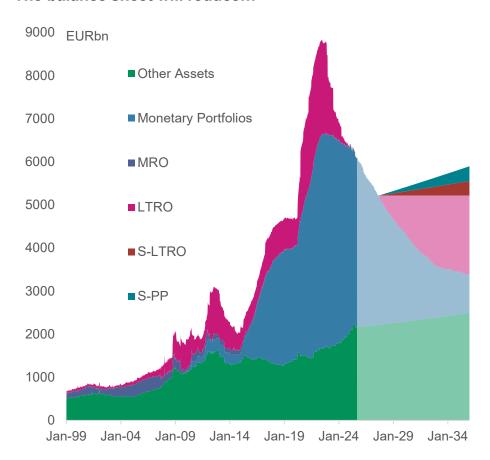
Source: ECB, Crédit Agricole CIB

Reduction in banks' liquidity – or stabilisation at a certain level

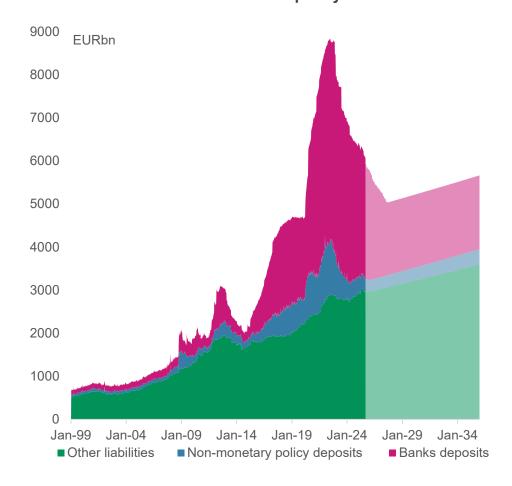


The new monetary framework: LTRO and new tools

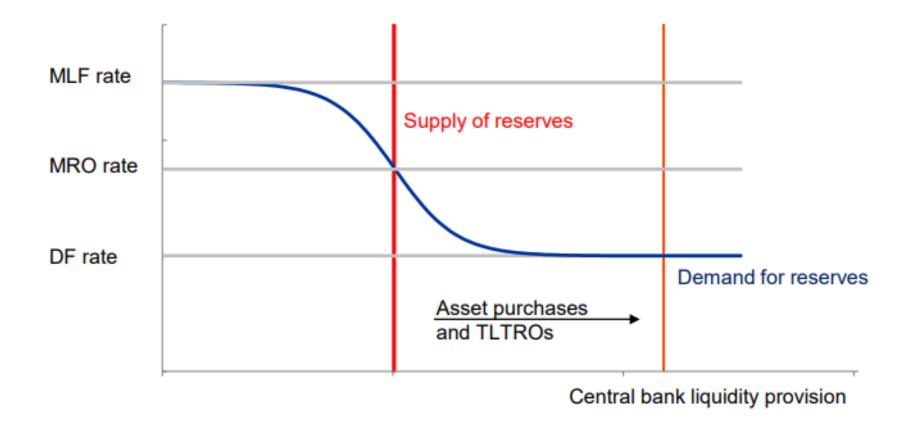
The balance sheet will reduce...



...until banks will be 'short' of liquidity

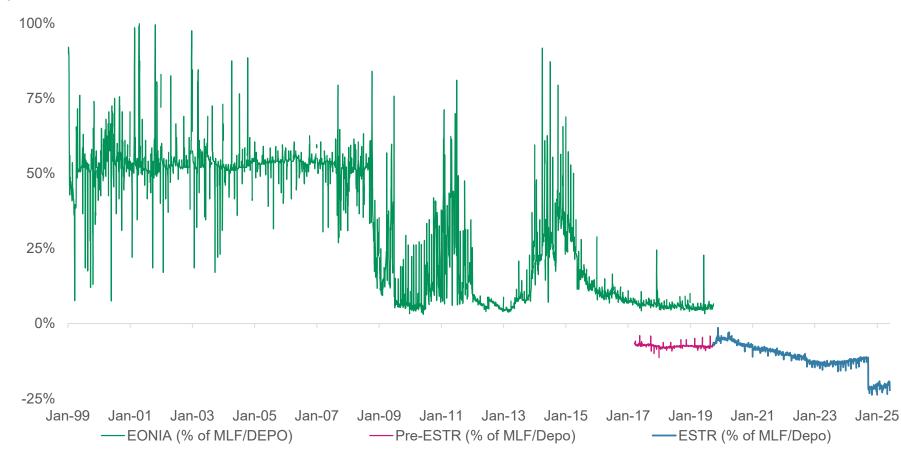


Central bank reserves and short-term rates



Eonia, ESTR and Pre-ESTR

Eonia, pre-ESTR, ESTR in % of the corridor



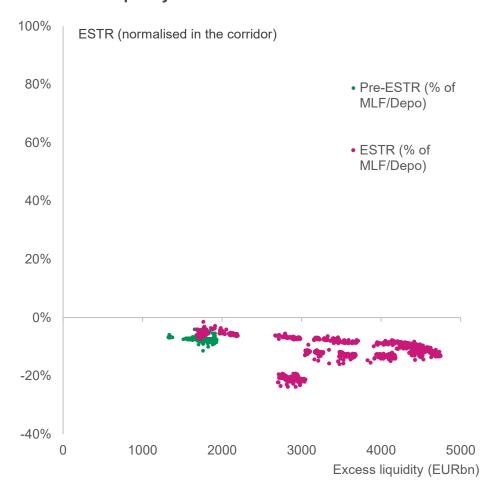
Excess liquidity and interbank rates

Excess liquidity (EURbn)

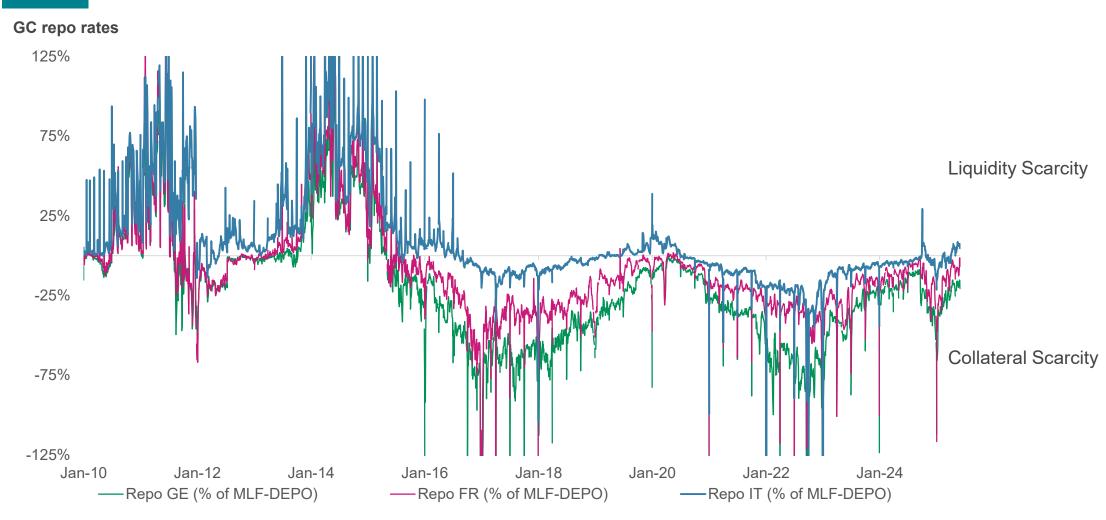
Excess liquidity and the Eonia EONIA (normalised in 100% the corridor) • EONIA (1999-Oct-08) • EONIA (Oct-08-2014) • EONIA (2015-2019) -250 250 750 1250 1750

Source: ECB, Bloomberg, Crédit Agricole CIB

Excess liquidity and the ESTR



Limited repricing on the repo market, so far



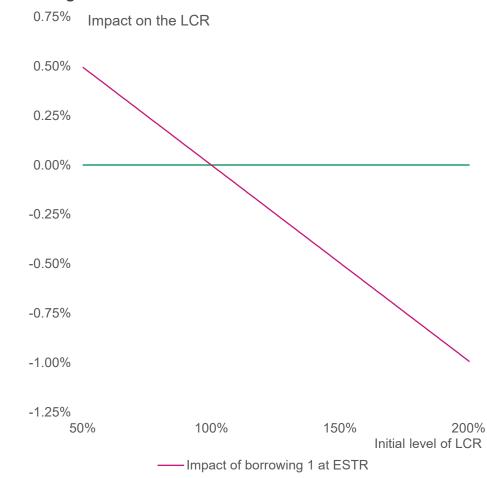
Excess liquidity and repo rates

Excess liquidity and repo rates: liquidity vs collateral scarcity

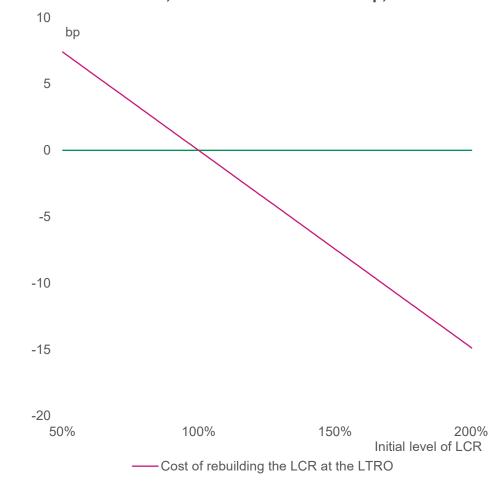


LCR and the ESTR

Borrowing at the ESTR reduces the LCR

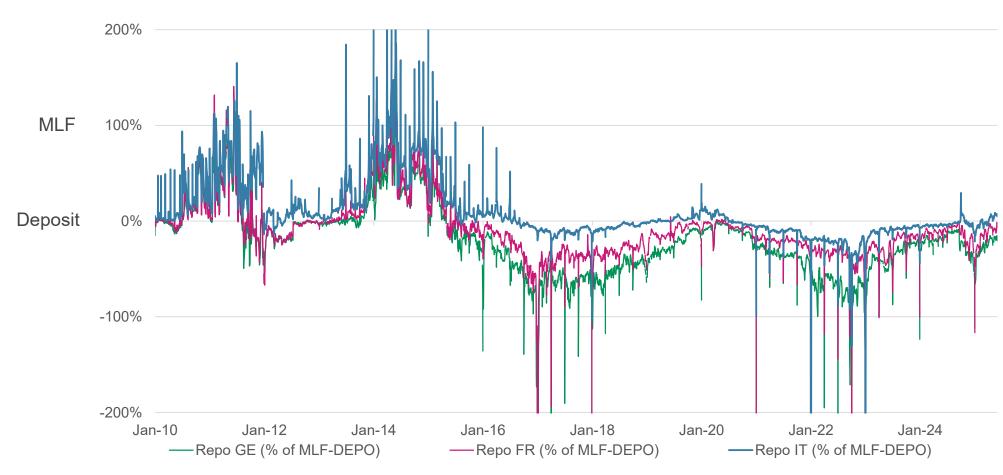


If the LCR is at 140%, the cost of the ESTR is 6bp, at 130% it is 4.5bp



Quarter-end spikes in the repo

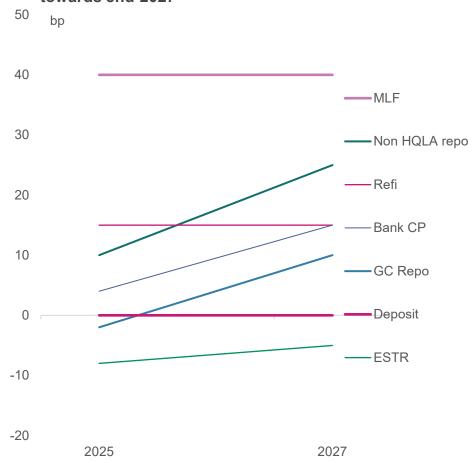
Leaky floor (and ceiling)



Conclusion

- The reduction of excess liquidity will trigger upward pressure on short-term rates
- The ESTR will remain below the deposit rate (probably around 5bp below the DFR)
- 3M rates will converge towards the refi rate (as 3M LTRO will be the LCR provider of last resort)
- GC repo would remain between the deposit rate and the refirate
- Non-HQLA repo will likely exceed the refi rate (for operational and stigma purposes)
- At quarter-end, GC repo could exceed the refi rate (and the MLF rate) because of balance sheet constraints. To avoid these spikes, we would encourage the ECB to implement its refinancing operations (or at least the MLF) in clearing houses.

Rough estimate of change in short-term rates heading towards end-2027





Disclaimer

Disclosures and certification

The views expressed in this report accurately reflect the personal views of the undersigned analyst(s). In addition, the undersigned analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report.

Louis Harreau

Global Markets Research contact details

	Jean-François Paren Head of Global Markets Research +33 1 41 89 33 95				
	Asia (Hong Kong, Singapo	re & Tokyo)	Europe (London & Paris)		Americas (New York)
Macro Strategy	Takuji Aida Chief Economist Japan +81 3 4580 5360	Ken Matsumoto Macro Strategist Japan +81 3 4580 5337	Louis Harreau Head of Developed Marketa Macro & Strategy +33 1 41 89 98 95	Valentin Giust Global Macro Strategist +33 1 41 89 30 01	Nicholas Van Ness ** US Economist +1 212 261 7601
			Bert Lourenco Head of Rates Research +44 (0) 20 7214 6474	Jean-François Perrin Senior Inflation Strategist +33 1 41 89 73 49	Alex Li ** Head of US Rates Strategy +1 212 261 3950
Rates			Guillaume Martin Interest Rates Strategist +33 1 41 89 37 66	Matthias Loise Inflation Strategist +33 1 41 89 20 06	
Interest Rates			Riccardo Lamia Interest Rates Strategist +33 1 41 89 63 83		
Emerging Markets	Xiaojia Zhi Chief China Economist Head of Research, Asia ex-Japan +852 2826 5725	Jeffrey Zhang Emerging Market Strategist +852 2826 5749	Sebastien Barbe Head of Emerging Market Research & Strategy +33 1 41 89 15 97		Olga Yangol ** Head of Emerging Market Research & Strategy, Americas +1 212 261 3953
	Eddie Cheung CFA Senior Emerging Market Strategist +852 2828 1553	Yeon Jin Kim Emerging Market Analyst +852 2826 5756			
Foreign Exchange	David Forrester Senior FX Strategist +65 6439 9826		Valentin Marinov Head of G10 FX Research & Strategy +44 20 7214 5289	Alexandre Dolci FX Strategist +44 20 7214 5064	
Quant Research			Alexandre Borel Data Scientist +33 1 57 87 34 27		

^{**} employee(s) of Crédit Agricole Securities (USA), Inc.

Important: Please note that in the United States, this fixed income research report is considered to be fixed income commentary and not fixed income research. Notwithstanding this, the Crédit Agricole CIB Research Disclaimer that can be found at the end of this report applies to this report in the United States as if references to research report were to fixed income commentary. Products and services are provided in the United States through Crédit Agricole Securities (USA), Inc.

Foreign exchange disclosure statement to clients of CACIB

https://www.ca-cib.com/sites/default/files/2017-02/2016-05-04-cacib-fx-disclosure-april-2016 0.pdf

Additional recommendation obligations – available from analyst(s) upon request:

- · A list of all the recommendation changes on any financial instrument or issuer disseminated within the last 12 months.
- · Where Crédit Agricole CIB is a market-maker or liquidity provider in the financial instruments of the issuer.

Valuation and methodology

Based on their expertise, each analyst defines the information that is relevant to produce their recommendations. This information may change over time. All recommendations focus on FX and fixed income instruments, either spot, cash or derivate markets. Crédit Agricole CIB is currently disclosing investment recommendations either at the issuer level, at the financial instrument level or at the country level. Credit Agricole CIB investment recommendations are based on a risk and reward analysis:

- Risk analysis may be conducted at the financial instruments level. Among
 the information normally used to define the risks, are (1) publications
 produced by other research teams within Crédit Agricole CIB (Economics,
 FX, Credit Research, Interest rate), (2) country analysis, (3) regulatory
 filings; (4) regular discussions with relevant stakeholders such as experts or
 regulatory bodies or (5) any other publicly available sources.
- Reward analysis is usually based on valuation models. Valuation may be based on proprietary models or external models provided by sources considered as reliable (eg, Bloomberg). Among other factors, valuation models may be based on relative value models, quantitative models, crossasset models.
- Investment recommendations may also be based on other technical aspects, including positioning flows and observing the market and underlying movements in particular instruments or issuers. This analysis will take into account key criteria such as market liquidity of the financial instrument at the time of production of the recommendation.

Any change in recommendation is disclosed via specific documents indicating both the new and the previous recommendation and the rationale backing the change.

Credit Agricole CIB expressly disclaims any responsibility for: (i) the accuracy of the models or estimates used in deriving the recommendations; (ii) any errors or omissions in computing or disseminating the valuations: and (iii) any uses to which the recommendations are put. Any valuation provided may be different from the valuation of the same product that Credit Agricole CIB may use for its own purposes, including those prepared in its own financial records.

Disclaimer

© 2025, CRÉDIT AGRICOLE CORPORATE AND INVESTMENT BANK All rights reserved.

This research report or summary has been prepared by Crédit Agricole Corporate and Investment Bank or one of its affiliates (collectively "Crédit Agricole CIB") from information believed to be reliable. Such information has not been independently verified and no guarantee, representation or warranty, express or implied, is made as to its accuracy, completeness or correctness.

This report is provided for information purposes only. Nothing in this report should be considered to constitute investment, legal, accounting or taxation advice and you are advised to contact independent advisors in order to evaluate this report. It is not intended, and should not be considered, as an offer, invitation, solicitation or personal recommendation to buy, subscribe for or sell any of the financial instruments described herein, nor is it intended to form the basis for any credit, advice, personal recommendation or other evaluation with respect to such financial instruments and is intended for use only by those professional investors to whom it is made available by Crédit Agricole CIB. Crédit Agricole CIB does not act in a fiduciary capacity to you in respect of this report.

Crédit Agricole CIB may at any time stop producing or updating this report. Not all strategies are appropriate at all times. Past performance is not necessarily a guide to future performance. The price, value of and income from any of the financial instruments mentioned in this report can fall as well as rise and you may make losses if you invest in them. Independent advice should be sought. In any case, investors are invited to make their own independent decision as to whether a financial instrument or whether investment in the financial instruments described herein is proper, suitable or appropriate based on their own judgement and upon the advice of any relevant advisors they have consulted. Crédit Agricole CIB has not taken any steps to ensure that any financial instruments referred to in this report are suitable for any investor. Crédit Agricole CIB will not treat recipients of this report as its customers by virtue of their receiving this report.

Crédit Agricole CIB, its directors, officers and employees may effect transactions (whether long or short) in the financial instruments described herein for their own accounts or for the account of others, may have positions relating to other financial instruments of the issuer thereof, or any of its affiliates, or may perform or seek to perform securities, investment banking or other services for such issuer or its affiliates. Crédit Agricole CIB may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Crédit Agricole CIB is under no obligation to ensure that such other reports are brought to the attention of any recipient of this report. Crédit Agricole CIB has established a "Policy for Managing Conflicts of Interest in relation to Investment Research" which is available upon request. A summary of this Policy is published on the Crédit Agricole CIB website. This Policy applies to its investment research activity.

None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party without the prior express written permission of Crédit Agricole CIB. To the extent permitted by applicable securities laws and regulations, Crédit Agricole CIB accepts no liability whatsoever for any direct or consequential loss arising from the use of this document or its contents.

France: Crédit Agricole Corporate and Investment Bank is authorised by the Autorité de Contrôle Prudentiel et de Résolution ("ACPR") and supervised by the European Central Bank ("ECB"), the ACPR and the Autorité des Marchés Financiers ("AMF"), Crédit Agricole Corporate and Investment Bank is incorporated in France with limited liability. Registered office: 12, Place des Etats-Unis, CS 70052, 92 547 Montrouge Cedex (France). Companies Register: SIREN 304 187 701 with Registered du Commerce et des Sociétés de Nanterre. United Kingdom: Crédit Agricole CIB is authorised and regulated by the Autorité de Contrôle Prudentiel et de Résolution (the "ACPR") and supervised by the European Central Bank (the "ECB"), the ACPR and the Autorité des Marchés Financiers (the "AMF") in France. Crédit Agricole CIB London is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the FCA and the PRA are available from Crédit Agricole CIB London on reguest. Crédit Agricole Corporate and Investment Bank is a public limited company ("société anonyme") under French law, incorporated in France under SIREN number 304187701 at the Nanterre Trade and Companies Registry, with limited liability and its head office address at 12. Place des États-Unis, CS 70052, 92547 Montrouge Cedex, France, It is registered in England and Wales as an overseas company at Companies House under company number FC008194, with a UK establishment at Broadwalk House, 5 Appold Street, London, EC2A 2DA, United Kingdom (UK establishment number BR001975). United States of America: This research report is distributed solely to persons who qualify as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with Crédit Agricole Corporate and Investment Bank. This report does not carry all of the independence and disclosure standards of a retail debt research report. Recipients of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting Crédit Agricole Securities (USA), Inc. (a broker-dealer registered with the Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA")). The delivery of this research report to any person in the United States shall not be deemed a recommendation of Crédit Agricole Securities (USA). Inc. to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. This report shall not be re-distributed in the United States without the consent of Crédit Agricole Securities (USA), Inc. Italy: This research report can only be distributed to, and circulated among professional investors (operatori qualificati), as defined by the relevant Italian securities legislation. Spain: Distributed by Crédit Agricole Corporate and Investment Bank, Madrid branch and may only be distributed to institutional investors (as defined in article 7.1 of Royal Decree 291/1992 on Issues and Public Offers of Securities) and cannot be distributed to other investors that do not fall within the category of institutional investors. Hong Kong: Distributed by Crédit Agricole Corporate and Investment Bank, Hong Kong branch. This research report can only be distributed to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571) and any rule made there under. Japan: Distributed by Crédit Agricole Securities Asia B.V. which is registered for financial instruments business in Japan pursuant to the Financial Instruments and Exchange Act (Act No. 25 of 1948), and is not intended, and should not be considered, as an offer, invitation, solicitation or recommendation to buy or sell any of the financial instruments described herein. This report is not intended, and should not be considered, as advice on investments in securities which is subject to the Financial Instruments and Exchange Act (Act No. 25 of 1948). Luxembourg: Distributed by Crédit Agricole Corporate and Investment Bank, Luxembourg branch. It is only intended for circulation and/or distribution to institutional investors and investments mentioned in this report will not be available to the public but only to institutional investors. Singapore: Distributed by Crédit Agricole Corporate and Investment Bank, Singapore branch. It is not intended for distribution to any persons other than accredited investors, as defined in the Securities and Futures Act (Chapter 289 of Singapore), and persons whose business involves the acquisition or disposal of, or the holding of capital markets products (as defined in the Securities and Futures Act (Chapter 289 of Singapore)), Switzerland: Distributed by Crédit Agricole (Suisse) S.A. This report is not subject to the SBA Directive of January 24, 2003 as they are produced by a non-Swiss entity. Germany: Distributed by Crédit Agricole Corporate and Investment Bank, Frankfurt branch and may only be distributed to institutional investors. Australia: Distributed to wholesale investors only. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act.

Benchmarks are the subject of recent and on-going reform, which include changes in methodology, discontinuation and/or replacement. Where implemented, reforms may cause benchmarks to perform differently than in the past or have other consequences which may have a material adverse effect on products and services provided by Crédit Agricole CIB currently and/or in the future. You should therefore consult your own independent advisers and make your own assessment about the potential risks imposed by benchmark reforms, when making any investment decision with respect to a product or service linked to or referencing a benchmark. Reforms include (i) the expectation that LIBOR will cease after year-end 2021 and be replaced by Alternative Reference Rates on each currency (e.g. USD/GBP), impacting LIBOR and other benchmarks which are pegged to it and (ii) EONIA will stop being published on 3 January 2022 and be replaced by €STR.

THE DISTRIBUTION OF THIS DOCUMENT IN OTHER JURISDICTIONS MAY BE RESTRICTED BY LAW, AND PERSONS INTO WHOSE POSSESSION THIS DOCUMENT COMES SHOULD INFORM THEMSELVES ABOUT, AND OBSERVE, ANY SUCH RESTRICTIONS. BY ACCEPTING THIS REPORT YOU AGREE TO BE BOUND BY THE FOREGOING.

16/08/21