



USD Funding Markets

NMPD – An Update

EUR Repo Markets

ECB MMCG – June 21, 2023
Juergen Sklarczyk

USD Funding

An update on USD funding markets since March 2023



Background:

- Early March 2023, SVB's announcement of a significant loss triggered a series of events and ripple effects, actions by regulators, central banks, and other authorities as well as significantly increased uncertainties not only across the U.S. regional banks (e.g. Signature Bank, First Republic) but also across the global banking industry (e.g. Credit Suisse)
- Some examples for actions by authorities and other events:
 - U.S. regulators take control of SVB and Signature Bank
 - FDIC, FED, and US Treasury announce all depositors at SVB and Signature Bank would be protected
 - Fed and Treasury announced they would use emergency lending authority to make funds available for bank withdrawals
 - Fed announces Bank Term Funding Program which allows eligible institutions to pledge collateral that they can borrow against at par value
 - CS is bought by UBS
 - Fed coordinates increase in frequency of 7-day maturity FX Swap Operations from weekly to daily
- In parallel, the U.S. debt ceiling issue was looming, evolving, and developing into a serious concern for the global financial markets

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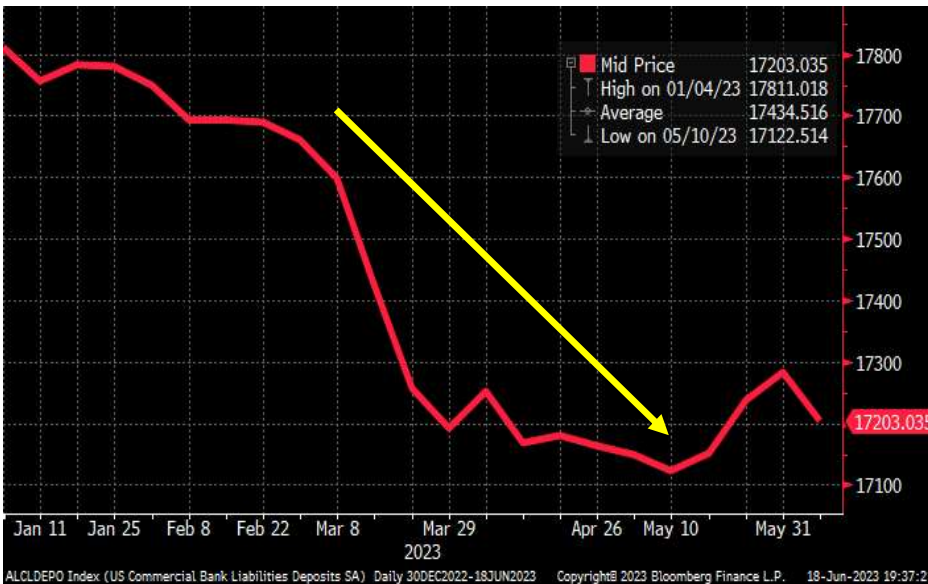
An Update on USD funding markets since March 2023



Key Effects on USD Funding Markets

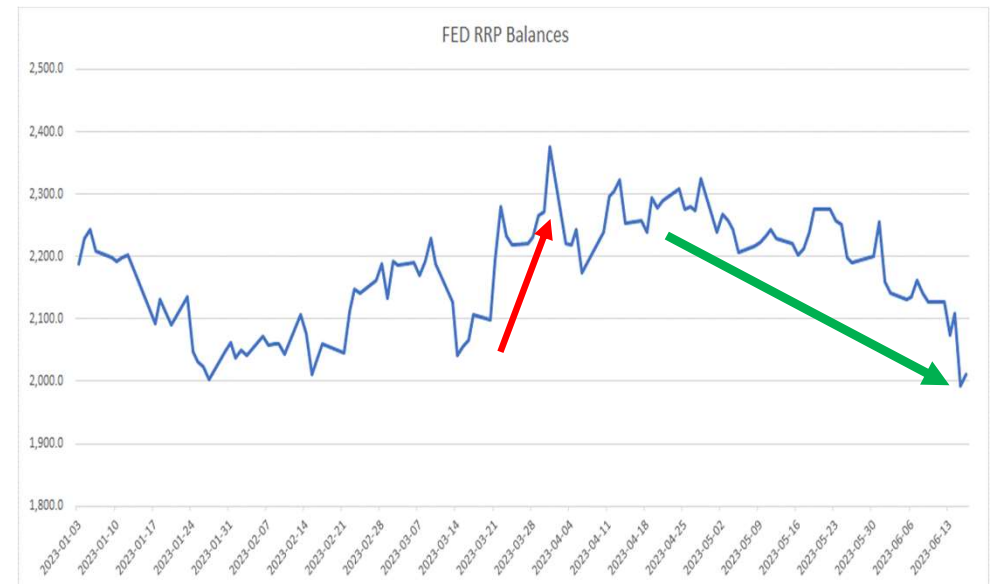
- **Liquidity** in the \$ unsecured WSF markets, especially in the term markets initially reduced significantly mostly due to
 - a 'flight to quality' (to the largest U.S. banks, MMFs, and FED)
 - higher cash balances / reserves kept at institutional investors and financial institutions to prudently and conservatively manage their funding and liquidity profile and especially unexpected cash outflows by clients
 - Federal Home Loan banks provided more liquidity and funding to their member banks, reducing the cash available to banks via the WSF markets

\$ CP liabilities available to US banks reduced since March 2023 and has not fully recovered yet



Source: Bloomberg L.P.

RRP balances at the FED increased during March 2023 as more investors placed their cash with the FED instead of lending it to banks and other market participants



Source: Federal Reserve Bank of New York

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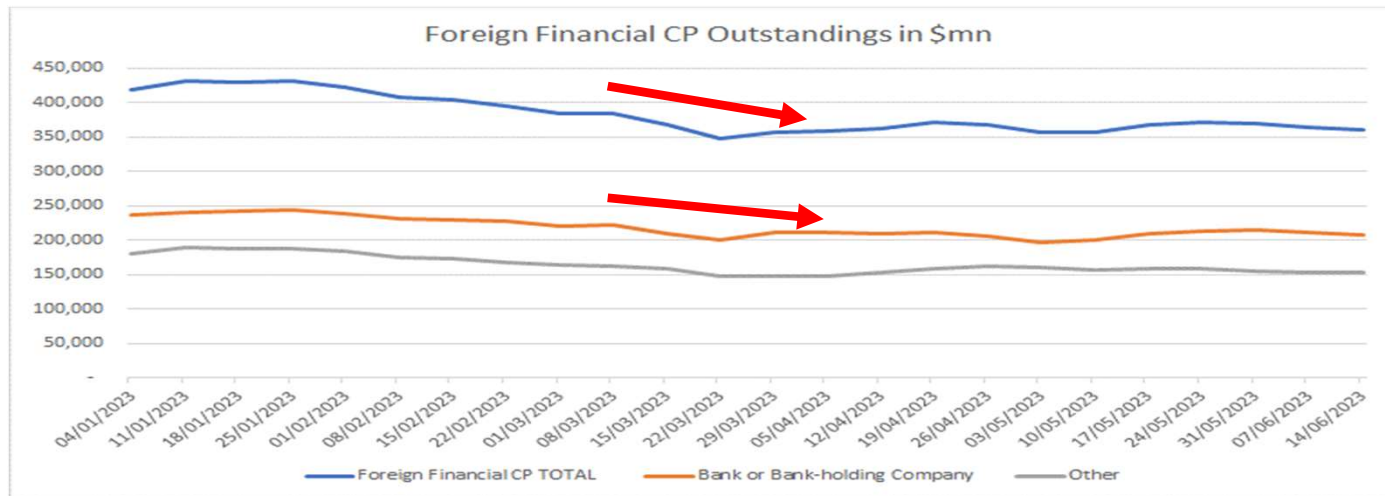
- Investors also **initially** reduced their holdings not only with U.S. banks but also with foreign banks in the U.S. as well as with European banks
- We have seen some recovery of the volumes outstanding but not to pre-crisis levels across all products and markets

Dates	Commercial Paper Outstanding	of which	Foreign Financial CP TOTAL	Bank or Bank-holding Company	Other
04/01/2023	1,232,387		418,366	237,350	181,017
11/01/2023	1,260,755		430,957	241,315	189,642
18/01/2023	1,269,673		429,657	241,485	188,171
25/01/2023	1,288,350		431,585	243,765	187,820
01/02/2023	1,250,355		421,693	238,039	183,654
08/02/2023	1,238,812		407,453	231,726	175,727
15/02/2023	1,233,699		403,585	229,756	173,829
22/02/2023	1,230,062		394,943	227,531	167,412
01/03/2023	1,206,299		384,572	220,754	163,818
08/03/2023	1,196,061		384,355	221,725	162,630
15/03/2023	1,178,343		368,356	210,449	157,907
22/03/2023	1,149,891		347,841	200,898	146,943
29/03/2023	1,144,022		357,429	210,596	146,833
05/04/2023	1,156,304		359,180	212,139	147,042
12/04/2023	1,169,277		362,529	211,075	152,454
19/04/2023	1,197,916		370,718	211,406	159,312
26/04/2023	1,196,978		367,398	205,696	161,702
03/05/2023	1,174,184		356,145	196,181	159,964
10/05/2023	1,182,255		356,600	199,904	156,697
17/05/2023	1,205,570		368,104	209,725	158,378
24/05/2023	1,209,610		371,817	213,530	158,287
31/05/2023	1,178,058		370,156	214,406	155,750
07/06/2023	1,183,616		363,962	211,405	152,557
14/06/2023	1,188,455		361,531	207,519	154,012

Source: Federal Reserve Bank

Month-End Outstandings	Financial					
	Domestic				Foreign	
	U.S. owned	Foreign parent	Foreign parent	Other	Bank	Other
Nov-22	62.9	137.2	25.7	-	253.0	169.7
Dec-22	56.6	109.4	27.3	-	233.7	172.8
Jan-23	58.7	148.8	26.8	-	238.5	189.5
Feb-23	69.5	141.0	28.4	0.1	226.5	163.9
Mar-23	66.1	117.1	24.7	0.3	211.9	146.9
Apr-23	65.0	134.9	29.0	0.8	202.2	163.2
May-23	62.3	135.6	28.6	1.0	214.4	155.7

Source: Federal Reserve Bank



Source: Federal Reserve Bank

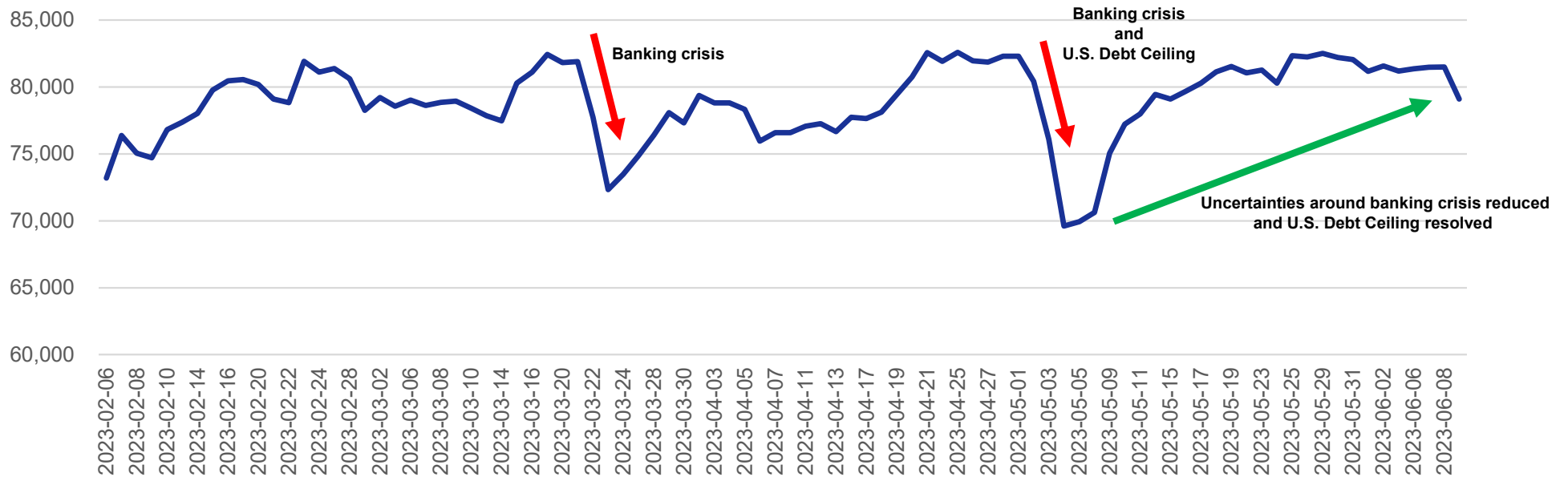
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- \$ STEP CP volumes outstanding initially dropped in March 2023 due to the increased uncertainties around the banking industry
- Since then, we have seen some volatility in the \$ CP amounts but recovered almost back to pre-crisis levels which needs to be monitored whether the higher levels could be sustained

STEP CP Market: USD outstandings



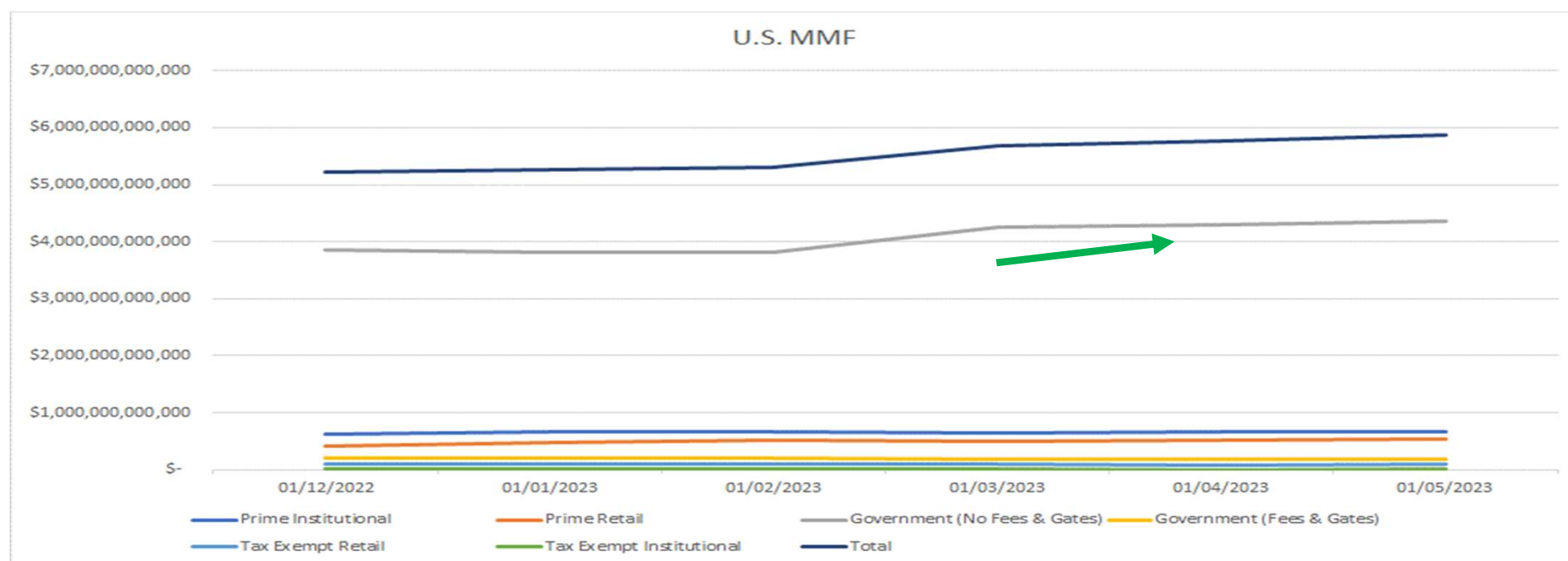
Source: ECB --- Short-Term European Paper (STEP)

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- There have been more inflows into U.S. MMFs, especially Government ones as investors seemed to prefer 'flight to safety' instead of investing with more 'risky' counterparties due to the increased uncertainties especially around U.S. regional banks
- MMFs still showed higher balances until end of May 2023, potentially due to the still pending resolution of the U.S. debt ceiling issue at that time



Date	Prime Institutional	Prime Retail	Government (No Fees & Gates)	Government (Fees & Gates)	Tax Exempt Retail	Tax Exempt Institutional	Total
31/12/2022	\$ 625,825,185,864	\$ 417,632,147,662	\$ 3,849,003,293,586	\$ 201,066,034,486	\$ 103,667,318,593	\$ 14,951,526,494	\$ 5,212,145,506,684
31/01/2023	\$ 661,247,824,060	\$ 463,851,364,164	\$ 3,807,891,133,473	\$ 206,740,773,093	\$ 103,614,734,518	\$ 14,953,704,129	\$ 5,258,299,533,438
28/02/2023	\$ 656,621,546,730	\$ 505,830,139,690	\$ 3,815,377,141,751	\$ 196,939,850,988	\$ 104,306,639,671	\$ 15,232,081,355	\$ 5,294,307,400,186
31/03/2023	\$ 637,791,772,191	\$ 499,264,193,829	\$ 4,257,831,370,120	\$ 180,721,660,864	\$ 102,428,191,662	\$ 14,558,429,441	\$ 5,692,595,618,106
30/04/2023	\$ 666,329,467,923	\$ 507,968,864,316	\$ 4,294,481,673,732	\$ 178,274,117,337	\$ 99,484,318,402	\$ 13,383,232,069	\$ 5,759,921,673,780
31/05/2023	\$ 653,130,915,297	\$ 535,889,177,297	\$ 4,369,750,963,465	\$ 189,345,683,553	\$ 103,897,113,005	\$ 14,700,300,967	\$ 5,866,714,153,583

Source: U.S. Money Market Fund Monitor | Office of Financial Research

USD Funding

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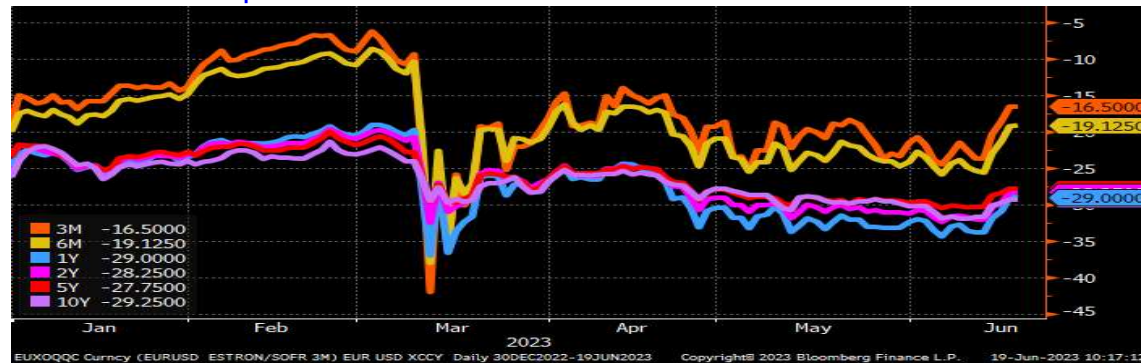


\$ funding levels across the different product markets, especially the \$ term rates have consistently increased, in parts quite significantly

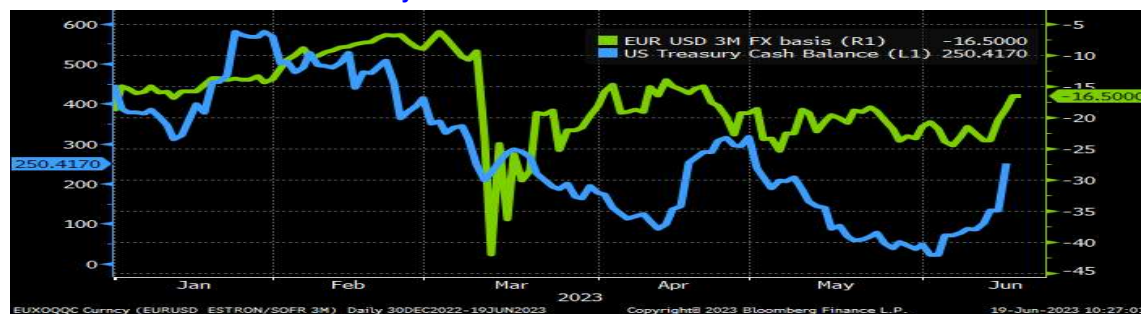
Some key indicators to consider

- The number of days where there are 'no data' for AA financial CP interest rates during March 2023 and April 2023 published by the FED were higher than previously, indicating that there were not much if any volumes going through and / or potentially market participants offering 'firm prices'
- **USD 3M Libor, USD 3M SOFR swaps, and USD 3M/SOFR basis spreads**
 - Quite a sharp increase in the \$ 3M/SOFR basis spreads indicating increased \$ funding cost
- **€/ \$ FX / XCCY basis spreads** across the curve increased / widened quite a bit as well whereby the short end, e.g. 3M have traded in a fairly narrow range despite the uncertainties, U.S. debt ceiling issue and subsequent resolution as well as a fairly active issuance calendar via the capital markets (whereby liquidity in CCY issued being swapped into USD via XCCY swaps)
- **Increased USD T bill issuance** might also put additional pressure on the \$ funding levels as these volumes are in competition with the \$ liquidity made available to banks → **where should all the \$ liquidity for the increased US Treasury issuance activities come from?**

EUR/USD XCCY Basis spreads



EUR/USD 3M XCCY basis vs US Treasury Cash Balance



USD 3M/SOFR basis, USD 3M Libor, USD 3M SOFR swap



USD 3M/SOFR basis vs US Treasury Cash Balance



EUR/USD 3M XCCY basis vs USD 3M/SOFR basis



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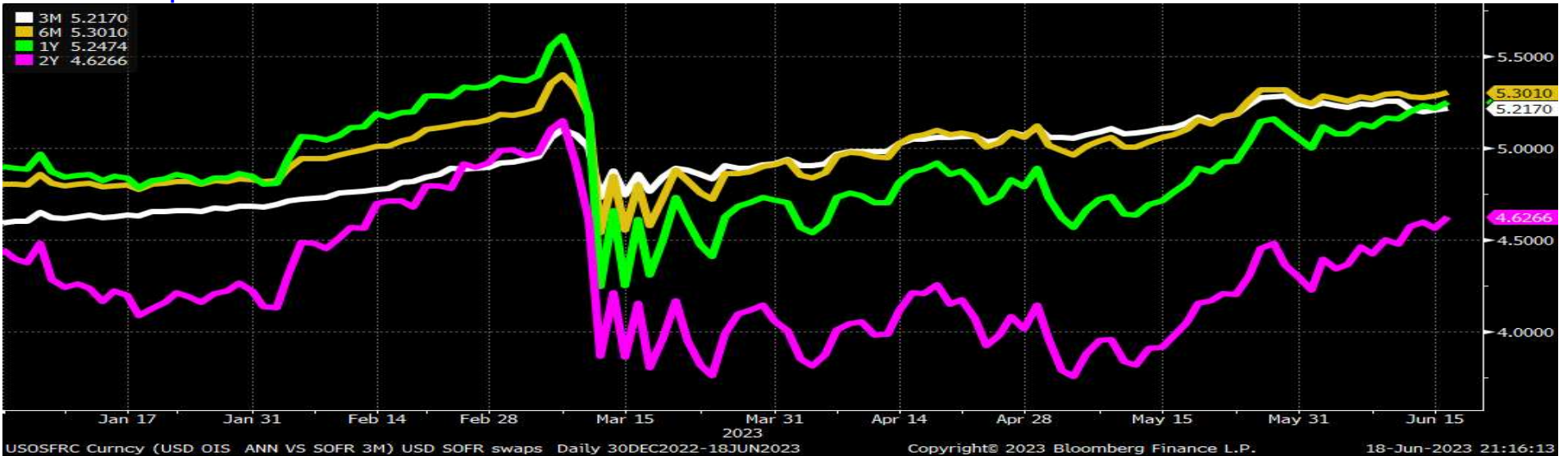
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USD Overnight Indices



USD SOFR Swaps



NMPD @ €STR – 20bps

An Update since the May 1, 2023 implementation

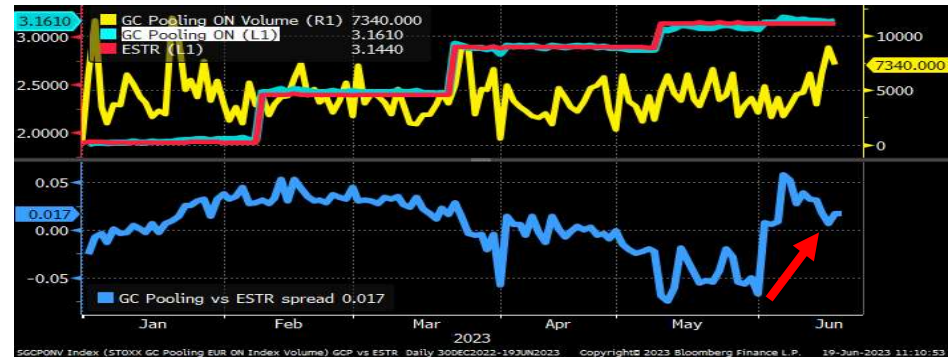


- ECB monthly balance sheet data shows a reduction back to €233bn at the end of May 2023, down from €381bn at the end of April 2023, i.e. almost back to where the Government deposits were at the start of the Covid pandemic
 - weekly data in June 2023 do indicate fairly stable balances, latest at about €227bn
- The question is where will the new equilibrium level be, e.g. €200bn or €100bn?
- With respect to where the Governments invested their cash away from the ECB, they do have different alternatives, e.g. unsecured with banks & other financial institutions, bills, and repo
- However: it looks like that there is limited data about their investments available so far
- It could look like that Governments seem to favour investing into secured funding alternatives to avoid leaving their liquidity at the ECB @ €STR – 20bps as the short-dated EUR repo rates have increased, e.g. GC Pooling's ON repo rate vs €STR spread has moved into positive territory since the end of May 2023

Government deposits, EUR bn



Source: ECB



Source: Bloomberg L.P.



Sources: Bloomberg and Bundesbank calculations. 1 Average interest rate of overnight transactions in the Eurex GC Pooling ECB Basket. 2 RepoFunds Rate Germany (repo trades using German government bonds as collateral executed on the BrokerTec or MTS platforms). Deutsche Bundesbank

Source: Deutsche Bundesbank Monthly Report April 2023.

EUR Repo Markets

An Market Update

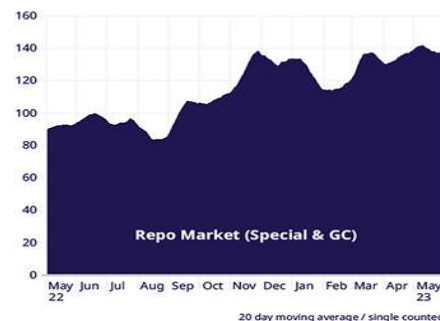


Some Key Aspects to consider:

- Eurex Repo outstanding volumes have increased since March 2023
 - Term adjusted volumes significantly increased year-over-year, indicating longer tenors being traded, away from O/N and T/N
 - There is also an increase in trading volumes across all markets and asset classes
 - Especially German, French, Spanish and Italian Government bonds volumes rose on the back of banks seeking netting opportunities
- GC-ESTR spread moved into positive territory
- Schatz vs Repo cheapened indicating lower roll pressure
- Due to the LTRO repayments where we expect to see an additional increase in unencumbered collateral, we need to closely monitor any effects on the EUR repo markets, e.g. on liquidity and rates

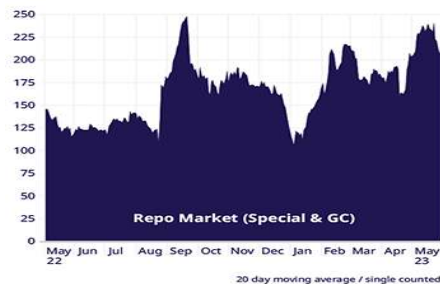
Volume

Outstanding volumes 2022/2023 (in bn EUR)



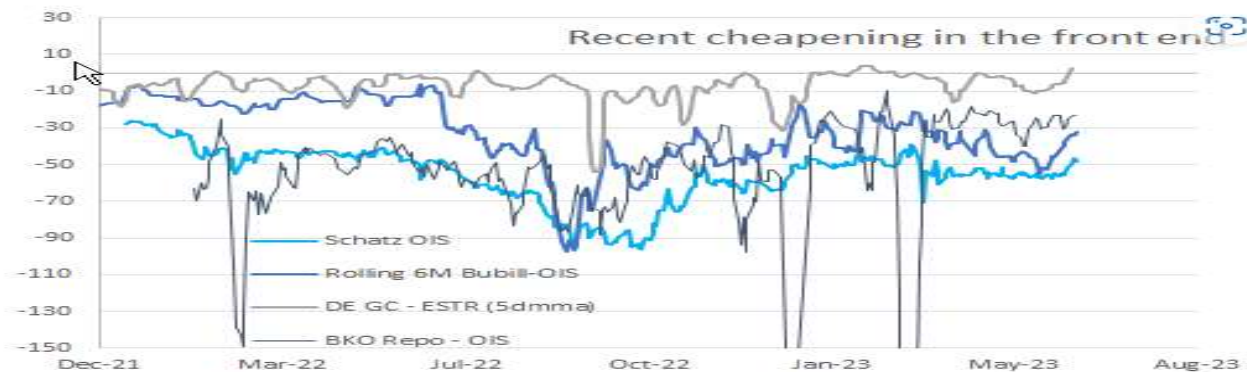
Source: Eurex Repo Monthly News May 2023

Term adjusted volumes 2022/2023 (in bn EUR)



Source: Eurex Repo Monthly News May 2023

Recent cheapening in the front end



Deutsche Bank, Bloomberg Finance LP, BrokerTec