

## Short-Term Market Outlook And Strategy

### Fed updates eligibility requirements for RRP counterparties

- The New York Fed updated its eligibility criteria requiring counterparties of the Reverse Repo program to clarify and ensure that usage of the facility is aligned with the “natural extension of an existing business model”
- Changes to the Fed’s eligibility criteria does not appear to impact most of the existing RRP counterparties, though this does open the door for further changes that could limit MMFs usage of the facility
- MMFs’ exposure to ON RRP continues to grow, with money funds increasing their balances at the RRP facility by 6% (as a percentage of their total holdings) from a year ago
- Deposit flight to MMFs has picked up this week, with AUMs higher by \$40bn week-to-date, likely sparked by renewed concerns over regional banks
- Money funds have been increasingly positioning their portfolios in short-dated T-bills since the beginning of this year, explained by changes in monetary policy expectations, the US banking crisis in early March, and looming debt ceiling concerns
- Like 2011 and 2013, it’s possible that we may see an outcome where outflows in MMFs occur weeks before the drop-dead date, though this is by no means obvious given the current backdrop of deposit outflows from the banking system and into MMFs, albeit at a slowed pace
- MMFs are generally conservative and will likely continue building more liquid portfolios heading into the drop-dead date, forcing MMF WAMs slightly lower
- **Near-term catalysts:** May FOMC meeting (5/2-5/3), April employment (5/5), April CPI (5/10), April retail sales (5/16), April leading indicators (5/18), Fed’s Powell and Williams speak (5/19)

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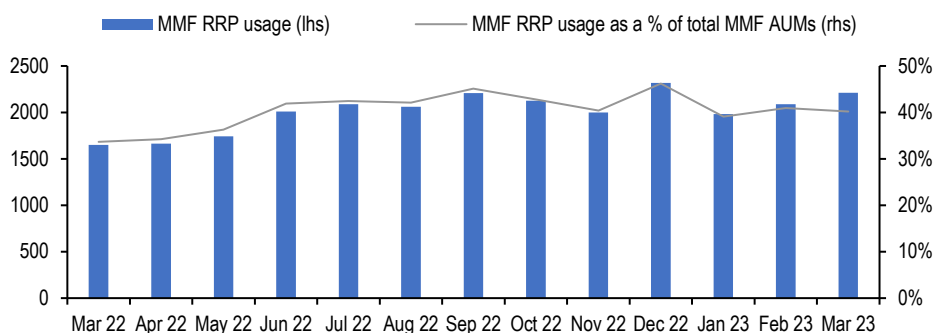
### Market commentary

This week started off to weaker-than-expected economic data: first, the Conference Board’s measure of consumer confidence for April declined from 104.0 to 101.3, with the decline entirely attributable to consumers’ expectations. Further, the Philadelphia non-manufacturing and Richmond services surveys both declined 10 points in April led by worsening new orders, indicating weaker business confidence (see [Tuesday morning data wrap-up](#), M. Feroli, 4/25/23). Later in the week, we saw firmer-than-expected labor market and inflation data. Initial claims fell 16k to 230k for the week ending April 22, the lowest reading since the beginning of April. Separately, real GDP expansion came in below expectations at a subdued 1.1% pace in 1Q, but much of this disappointment came from slower inventory investment and business spending. Moreover, core PCE ticked up from a 4.4% to a 4.9% sequential annualized pace in 1Q, the strongest since 2Q22 (see [Growth down, inflation up](#), M. Feroli, 4/27/23), and Friday’s 1Q ECI print surpassed expectations by a tick, increasing 1.2% sequentially. The strong print is yet another reason for the Fed to be inclined to hike at the May meeting, with the ECI often considered the single best gauge of overall wage inflation. Meanwhile, Powell’s preferred “super-core” measure, core services ex-housing, increased only 0.22% last month, the slowest increase since July (see [Friday morning data wrap-up](#), M. Feroli, 4/28/23). All in all, our economists still think next week’s hike is the last in this cycle but see about a one-third chance of another 25bp hike in June; their expectation is that, following the May meeting, the Committee will effectively signal a pause, but with a bias to tighten (see [FOMC preview](#), M. Feroli, 4/28/23).

Separately, the New York Fed updated its eligibility criteria this week, requiring counterparties of the Reverse Repo program to clarify and ensure that usage of the facility is aligned with the “natural extension of an existing business model” (see [here](#)). Ultimately, counterparties that are structured as a single beneficial owner, created for the purpose of accessing the RRP, or exhibit “similarities to a fund so organised,” will likely be ineligible to utilize the facility. Notably, MMFs’ exposure to ON RRP continues to grow, with money funds increasing their balances at the RRP facility by 6% (as a percentage of their total holdings) from a year ago. As of March-end, MMFs devoted 40% or \$2.2tn of their combined portfolios to the facility (Figure 1). While the eligibility criteria do not appear to impact most of the existing RRP MMF counterparties for now, this does open the door to possible changes in the future, posing the question: could the Fed require MMFs to reduce their usage should their portfolio exposure grow larger or perhaps reduce counterparty limits altogether?

**Figure 1: MMFs’ usage of the RRP facility continues to grow, with money funds increasing their balances at the RRP facility by 6% (as a percentage of their total holdings) from a year ago**

MMF RRP usage (\$bn,lhs) vs. MMF RRP usage as a % of total MMF AUMs (% ,rhs)

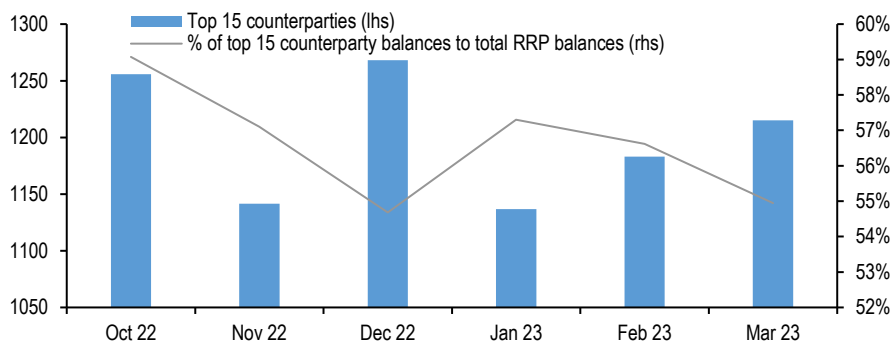


Source: Crane Data, J.P.Morgan

We estimate that 89 MMF counterparties partook in utilizing the RRP facility at March-end, and over the past 6 months, the number of MMF counterparties ranged from 85-89 participants. The top 15 counterparties held the majority exposure to the RRP facility, which we estimate to be 55% or \$1.2tn as of March-end (Figure 2). Notably, MMF counterparties have increased their usage of the facility as depositors migrated their cash to money funds following the banking turmoil in early March.

**Figure 2: The top 15 counterparties held the majority exposure to the RRP facility, which we estimate to be 55% or \$1.2tn as of March-end**

Top 15 MMF counterparties’ RRP usage (\$bn, lhs) vs. % of total RRP balances held by top 15 MMF counterparties (% ,rhs)



Source: Crane Data, J.P. Morgan

If the Fed does impose further changes to eligibility criteria specific to MMFs’ usage of the RRP facility, it’s likely not to occur in the near term, particularly with looming debt-ceiling concerns forefront and anemic front-end supply. However, we think there is a possibility that the Fed could impose changes to the facility following a debt-ceiling resolution and after additional T-bill supply comes to market, which our Treasury strategists forecast will occur towards the latter part of this year (see [Treasuries: Flip the script?](#), J. Barry, 3/3/23).

Deposit flight to MMFs has picked up this week, with AUMs higher by \$40bn week-to-date, likely sparked by concerns over First Republic Bank (Figure 3). Additionally, bank borrowings did increase at the discount window and BTFP, which in aggregate is higher by about \$11bn week over week. The increase in bank borrowings was also witnessed in the fed funds market, with volumes at \$115bn as of 4/27, higher than the 3-month average of \$103bn. Further, FHLB issuance increased by \$38bn this week. The recent borrowings are likely isolated to a particular bank and can be partly explained by seasonal outflows surrounding the U.S. individual tax deadline. Indeed, deposit migration has slowed from the onset of the banking turmoil, though depositors will likely continue to migrate their cash to MMFs over continued investor concerns surrounding regional banks.

**Figure 3: Deposit flight to MMFs has picked up this week, with AUMs higher by \$40bn WTD**

MMF AUMs cumulative weekly change (\$bn)

Weekly AUM change	Government	Prime	Total
Week ending 3/10	13	9	22
Week ending 3/17	171	-35	136
Week ending 3/24	114	-9	105
Week ending 3/31	83	-1	82
Week ending 4/6	-31	16	-15
Week ending 4/14	18	13	31
Week ending 4/21	9	16	25
Current Week as of 4/27	38	3	40
<b>Cumulative change</b>	<b>414</b>	<b>12</b>	<b>426</b>

Source: Crane Data, J.P. Morgan

## Debt ceiling impacts on MMFs

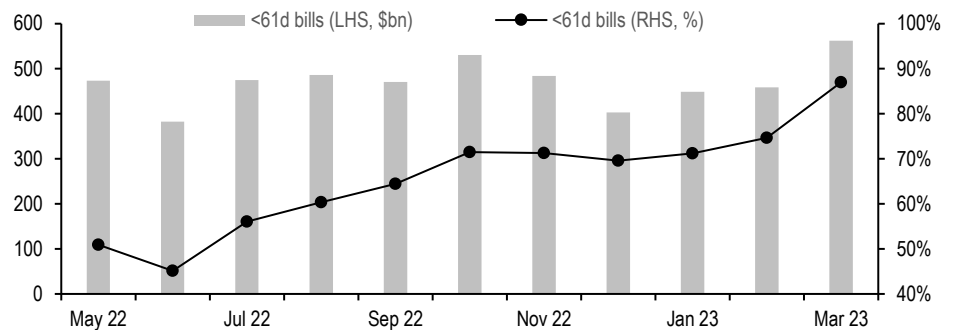
Over the past few weeks, market participants turned their focus back to the debt ceiling—particularly last week, when information regarding tax receipts came in surrounding the U.S. individual filing deadline. Individual income tax revenue was tracking weak relative to last year, but a late-stage rebound appears to have helped bring receipts back on track and we continue to look for an x-date in early August. Although we expect Congress will ultimately devise a solution to either increase or suspend the debt limit before the x-date, it seems as though the resolution is likely to resemble 2011 or 2013, when the debt ceiling debates extended close to the x-date, given the parallel dynamic of a Democrat in the White House and a Republican-majority in the House of Representatives (see [Debt ceiling deadline coming into view](#), J. Barry, 4/21/23).

MMFs are significant owners of short-term Treasury debt—we estimate government MMFs’ holdings of T-bills, coupons, and Treasury FRNs to be \$1.0tn as of March-end. Money funds have been positioning their portfolios in short-dated T-bills since the beginning of this year, explained by changes in monetary policy expectations, the US banking crisis in early March, and looming debt ceiling concerns. In fact, the percentage of government

MMF T-bill holdings that mature within 2 months increased by 17% since year-end 2022 (Figure 4). We do not believe MMFs would be forced to liquidate Treasury securities, as neither Rule 2a-7 nor any of the criteria governing rated funds’ investments explicitly requires immediate liquidation upon default. However, the bigger risk for MMFs is default-driven shareholder liquidations, given headline risks. During the debt ceiling episodes in August 2011 and October 2013, MMFs saw material outflows from government funds, accumulating to roughly \$70bn and \$50bn, respectively, in the weeks leading up to the drop-dead date (Figure 5).

**Figure 4: The percentage of government MMF T-bill holdings that mature within 2 months increased by 17% since YE22**

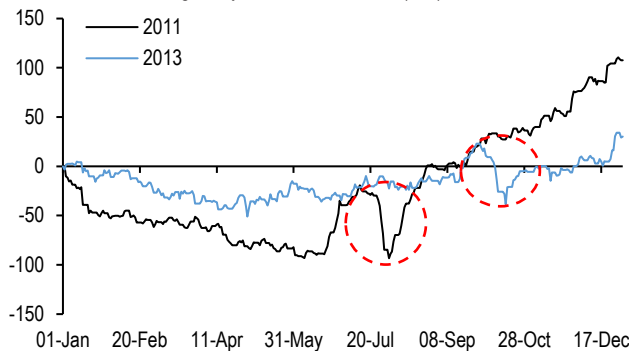
Government MMF T-bill holdings maturing within 2 months, absolute (LHS, \$bn) and as a % of total T-bill holdings (RHS, %)



Source: Crane Data, J.P. Morgan

**Figure 5: During the debt ceiling episodes in August 2011 and October 2013, MMFs saw material outflows from government funds, accumulating to roughly \$70bn and \$50bn, respectively, in the weeks leading up to the drop-dead date**

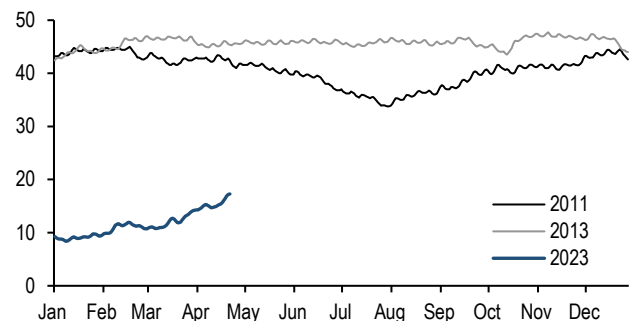
Annual cumulative change for years 2011 and 2013 (\$bn)



Source: iMoneyNet, Crane Data, J.P. Morgan

**Figure 6: Since the Fed began its aggressive tightening agenda, MMFs focused more towards short-dated maturities, pushing WAMs much lower than previous debt-ceiling episodes**

MMF WAMs, weighted by assets, for years 2011, 2013, and 2023 (days)



Source: Crane Data, J.P. Morgan

It’s possible that we may see an outcome where outflows in MMFs occur weeks before the drop-dead date. But this is by no means obvious, given the current backdrop of deposit outflows from the banking system and into MMFs which are still happening, albeit at a slower pace. But should it occur, given the sizable growth in MMF AUMs since the beginning of the pandemic, the scale of such outflows could be slightly larger this time around compared to previous debt ceiling episodes. In fact, total taxable MMF AUMs are at \$5.5tn as of March-end 2023, versus \$3.7tn at October-end 2013 and \$2.3tn at August-end 2011. Thus, if outflows do occur, they could be larger than in previous such episodes and could result in growth in bank deposits (likely at the large banks). That said, any such shift will likely be temporary and cash will likely return to MMFs following a debt ceiling resolution.

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**North America Fixed Income  
Strategy**

28 April 2023

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Interestingly, this time around, MMF holdings are much different compared to the debt-ceiling episodes in 2011 and 2013, particularly since investors have been pouring cash into MMFs since the onset of the pandemic, causing imbalances in front-end supply, in turn pushing MMFs to utilize the ON RRP. Furthermore, since the Fed began aggressively tightening last year, MMFs became more defensive, avoiding duration and focusing more towards short-dated money market securities. Given this dynamic, MMF WAMs have also trended much lower than previous debt-ceiling episodes (Figure 6). Since MMFs are generally conservative, many will likely continue building more liquid portfolios heading into the drop-dead date, forcing MMF WAMs slightly lower. To that end, we could see MMFs park more cash at the RRP in the near term, pushing RRP balances above current levels and retesting the facility's all-time high of \$2.55tn.

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## Forecasts & Analytics

### Interest rate forecast

	Actual 28-Apr-23	2Q23 30-Jun-23	3Q23 30-Sep-23	4Q23 31-Dec-23	1Q24 31-Mar-24
<b>Rates</b>					
EFFR	4.83	5.10	5.10	5.10	5.10
SOFR*	4.81	5.05	5.05	5.05	5.05
3-month Libor	5.30	5.25			
2-year T-note	4.06	4.30	4.10	3.80	3.75
3-year T-note	3.78	3.95	3.75	3.50	3.45
5-year T-note	3.54	3.90	3.70	3.50	3.50
7-year T-note	3.50	3.85	3.65	3.45	3.45
10-year T-note	3.45	3.70	3.55	3.40	3.40
20-year Treasury	3.81	4.00	3.90	3.85	3.85
30-year T-bond	3.68	3.90	3.85	3.80	3.80
<b>Curves</b>					
2s/5s	-53	-40	-40	-30	-25
2s/10s	-61	-60	-55	-40	-35
2s/30s	-39	-40	-25	0	5
5s/10s	-9	-20	-15	-10	-10
5s/30s	14	0	15	30	30
10s/30s	22	20	30	40	40

Source: J.P. Morgan

\* SOFR forecasts reflect 1-month trailing average as of the indicated date

### Economic forecast

%ch q/q, saar, unless otherwise noted

	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	2022*	2023*	2024*
<b>Gross Domestic Product</b>										
Real GDP	-0.6	3.2	2.6	1.1	1.0	0.5	-0.5	0.9	0.5	1.0
Final Sales	1.3	4.5	1.1	3.4	1.0	0.6	0.7	1.3	1.4	0.8
Domestic Final Sales	0.2	1.5	0.7	3.2	1.9	1.1	0.1	0.9	1.6	1.5
Business Investment	0.1	6.2	4.0	0.7	2.3	1.4	-2.4	4.5	0.5	2.5
Net Trade (% contribution to GDP)	1.2	2.9	0.4	0.1	-1.1	-0.6	0.6	0.4	-0.2	-0.6
Inventories (% contribution to GDP)	-1.9	-1.2	1.5	-2.3	0.0	-0.1	-1.2	-0.4	-0.9	0.1
<b>Prices and Labor Cost</b>										
Consumer Price Index	9.7	5.5	4.2	3.8	2.9	3.4	2.7	7.1	3.2	2.4
Core	6.0	6.2	5.1	5.0	4.1	3.2	2.5	6.0	3.7	2.5
Employment Cost Index	5.4	4.8	4.5	4.7	4.0	3.8	3.6	5.1	4.0	3.3
Unemployment Rate (% sa)	3.6	3.6	3.6	3.5	3.6	3.8	4.2	-	-	-

\* Q4/Q4 change

Source: J.P. Morgan

## Fed Watch

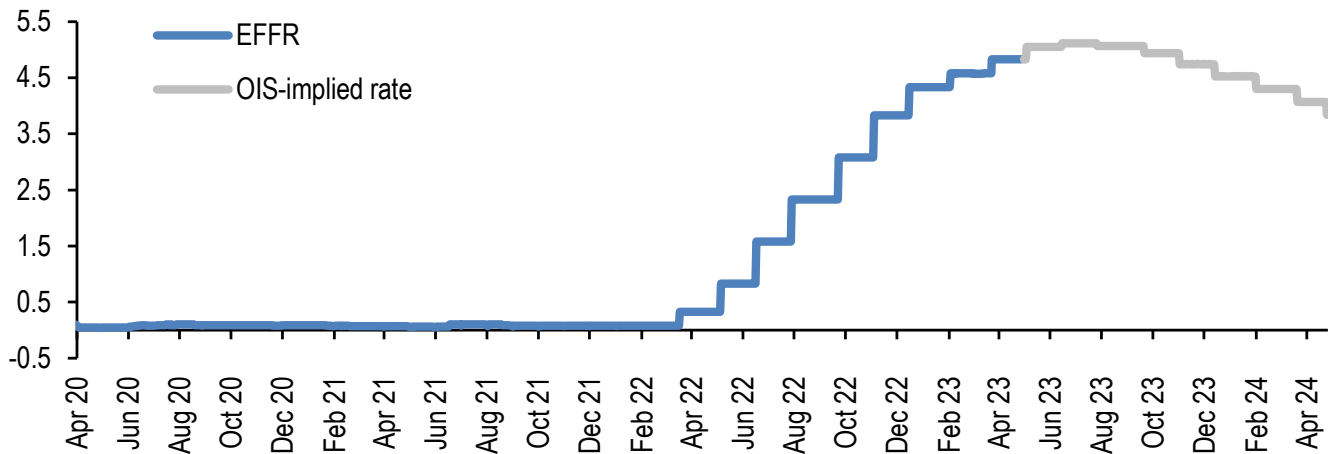
### Members of the Federal Open Market Committee (FOMC) with voting status\*

		DOVISH ←					→ HAWKISH				
2023	Chair						Powell (2028)				
	Governors	Barr (2032) Cook (2024)		Brainard (2026)		Jefferson (2036)			Bowman (2034) Waller (2030)		
	Presidents			Harker (Phil., '23) Logan (Dal., '23) Collins (Bos., '25) Daly (SF, '24)		Williams (NY, '23) Goolsbee (Chi., '23) Bostic (Atl., '24) George (KC, '25)		Kashkari (Minn., '23) Barkin (Rich., '24)		Bullard (St. L., '25) Mester (Clev., '24)	

Source: J.P. Morgan

\* Blue shading denotes current voting members. For Federal Reserve Board members who are permanent voting members, the year in which their term ends is noted.

### OIS-implied fed funds rate forecast

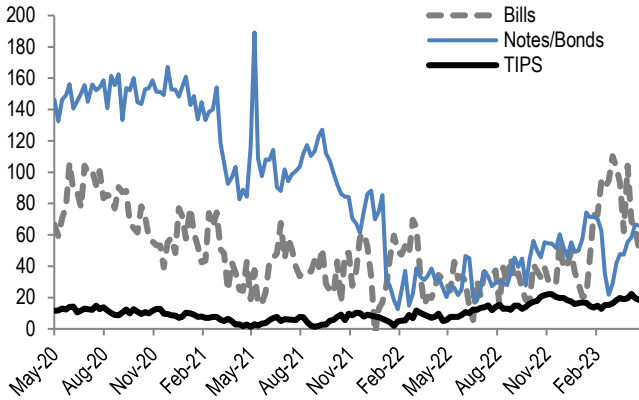


Source: J.P. Morgan. 1d OIS implied forecast as of 4/27/23

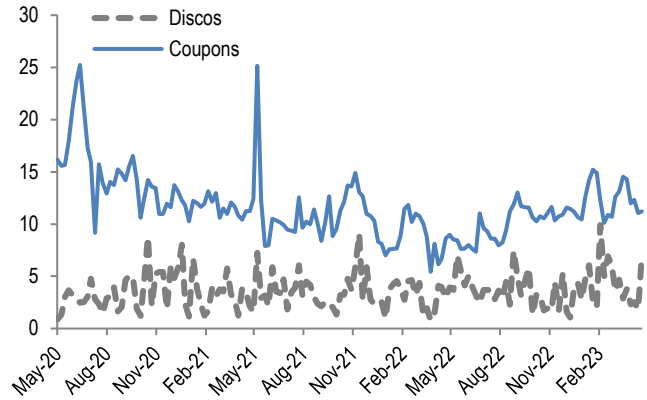


# Dealer Net Positions

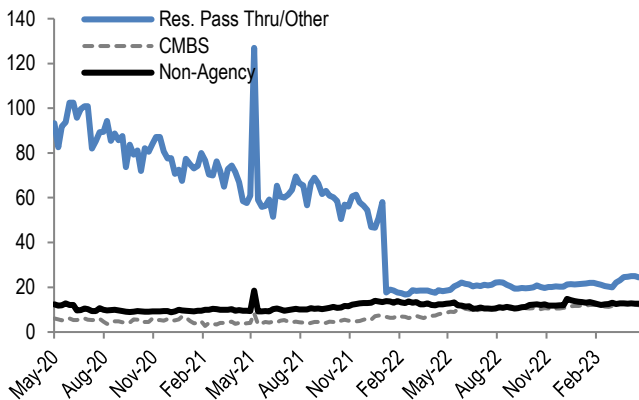
**Government (\$bn)**



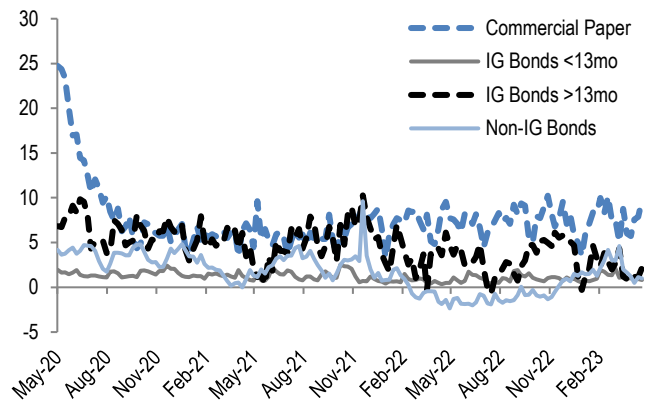
**Agency (\$bn)**



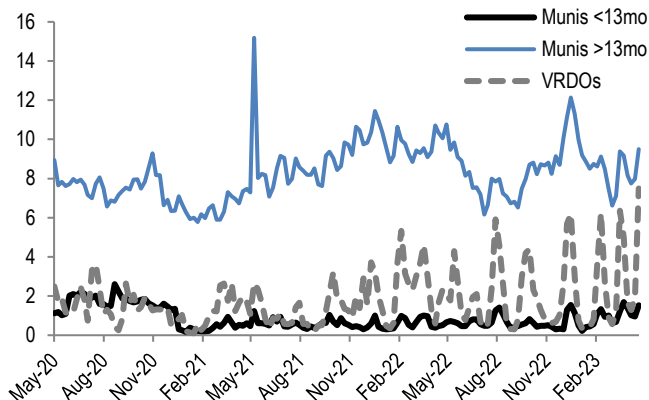
**MBS (\$bn)**



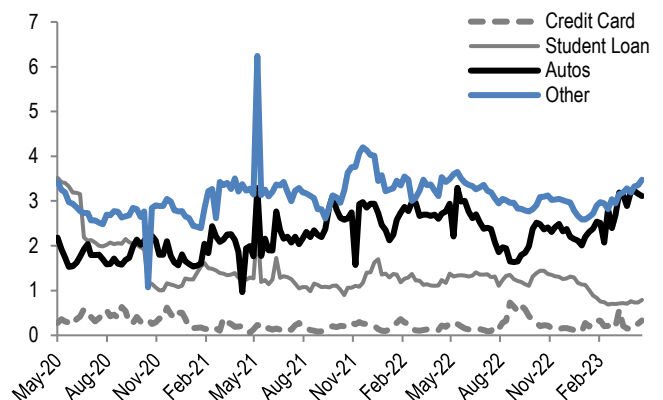
**Corporates (\$bn)**



**Municipals (\$bn)**



**ABS (\$bn)**

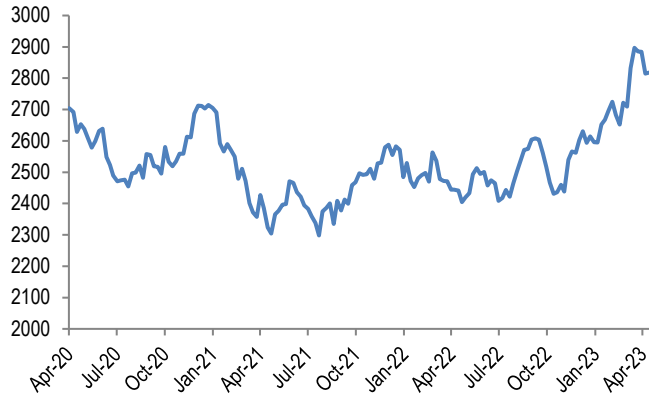


Source for all charts on this page: New York Fed



# Repo

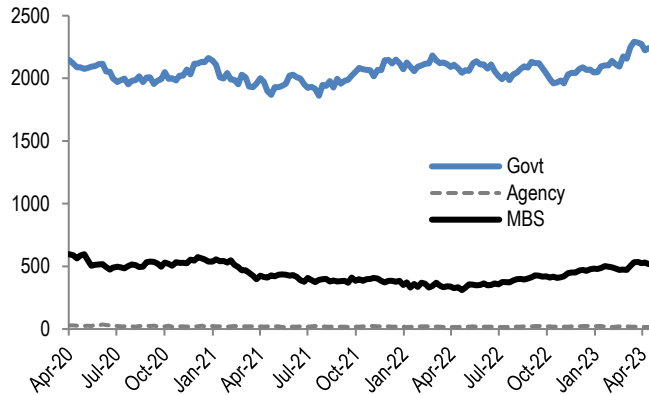
**Total repo outstanding (\$bn)**



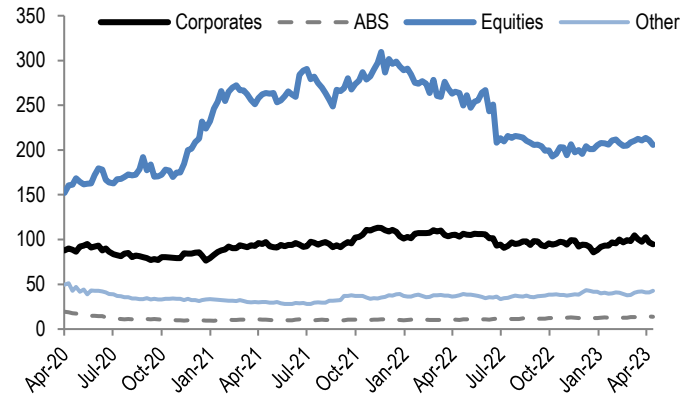
**Total securities lending outstanding (\$bn)**



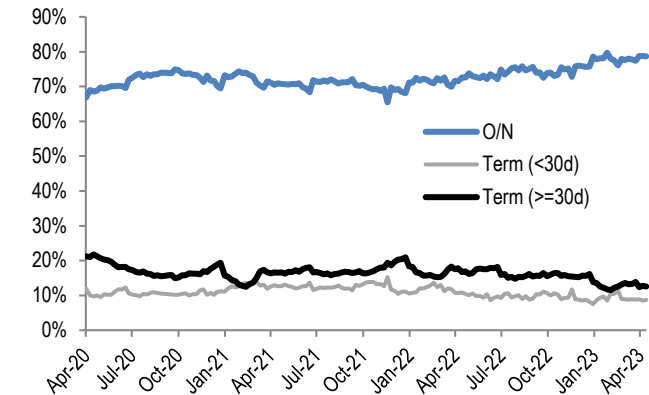
**Traditional collateral repo (\$bn)**



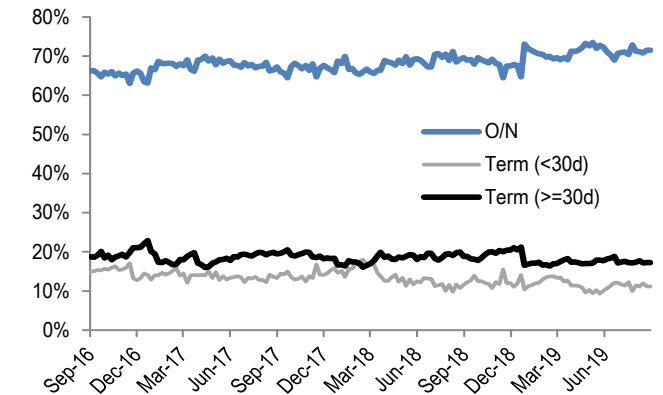
**Non-traditional collateral repo (\$bn)**



**Repo terms (%)**



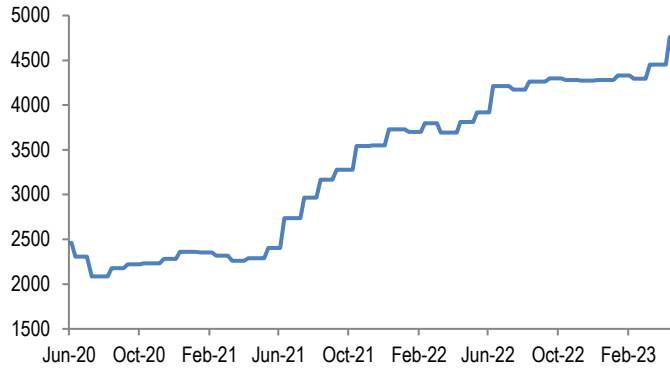
**Securities lending terms (%)**



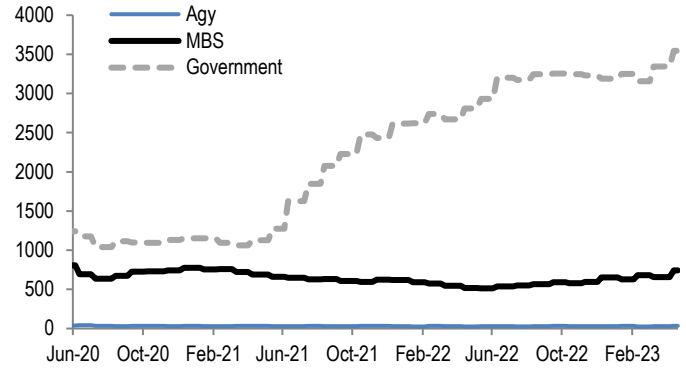
Source for all charts on this page: New York Fed

## Repo (continued)

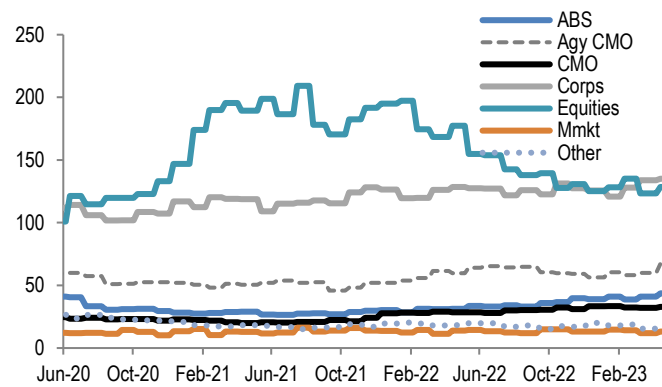
Total tri-party outstanding (\$bn)



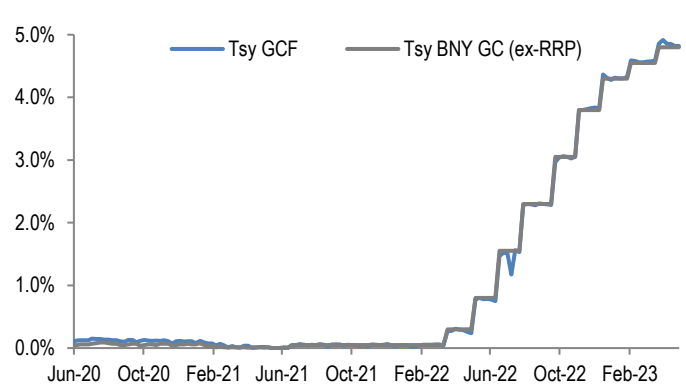
Tri-party traditional collateral (\$bn)



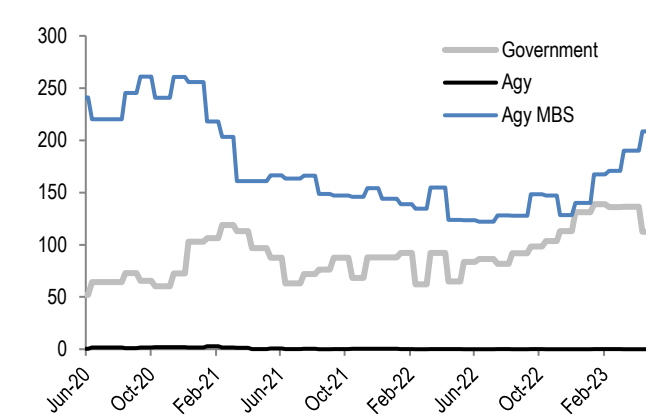
Tri-party non-traditional collateral (\$bn)



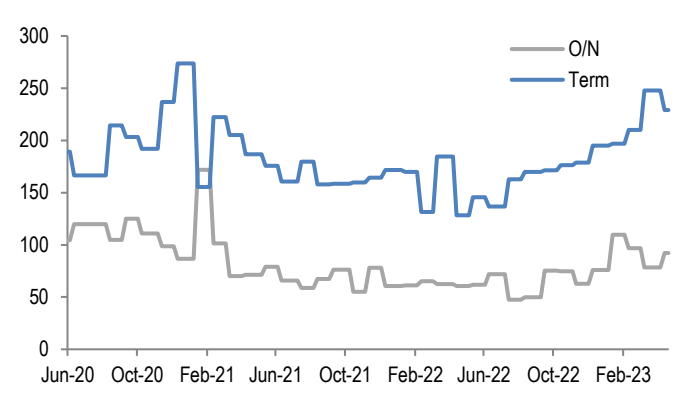
ON GC rates (%)



GCF collateral (\$bn)



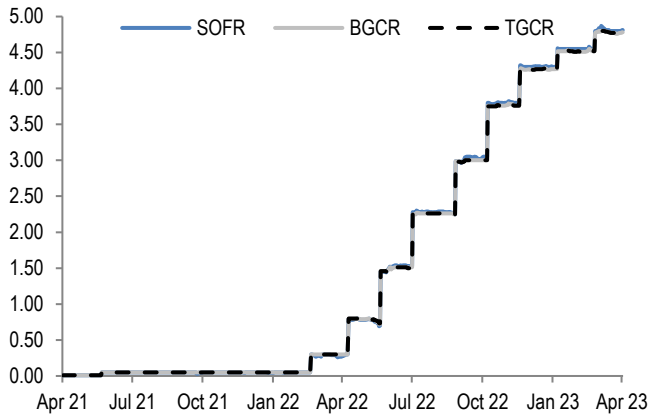
GCF term composition (\$bn)



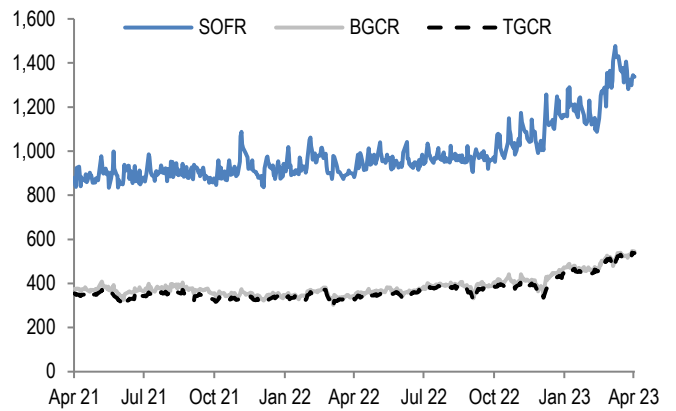
Source for all charts on this page: New York Fed

# Repo (continued)

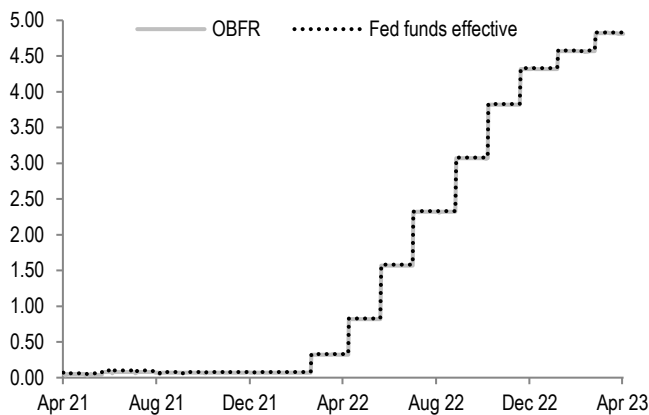
NY Fed repo rates (%)



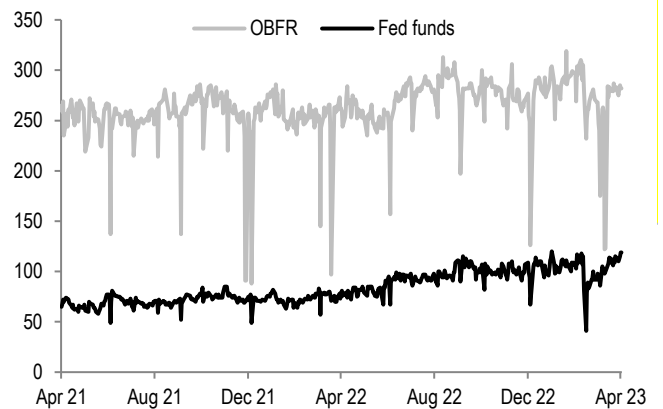
NY Fed repo rate volumes (\$bn)



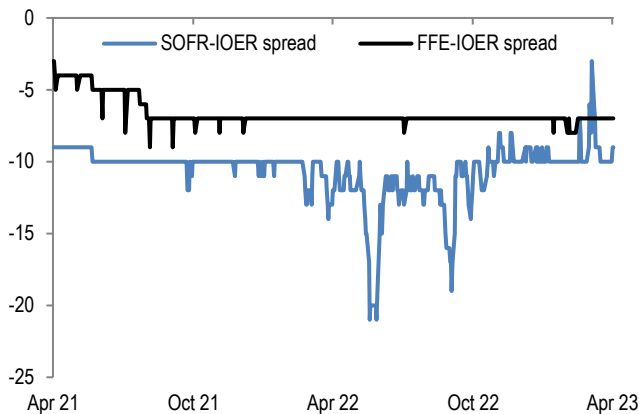
Fed funds effective and OBFR (%)



Fed funds and OBFR\* volumes (\$bn)



FFE and SOFR spread to IOER (bp)



Source for all charts on this page: New York Fed  
 \* OBFR volumes include "Selected Deposits" (onshore Eurodollar-like deposits) from 05/01/19 on

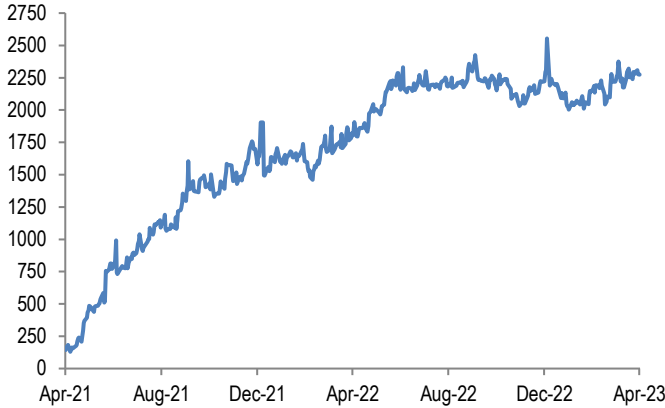
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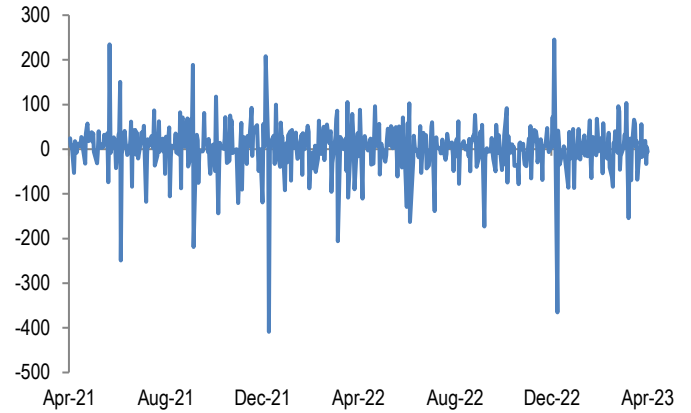
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 28 April 2023

# Fed Reverse Repo (RRP) Facility

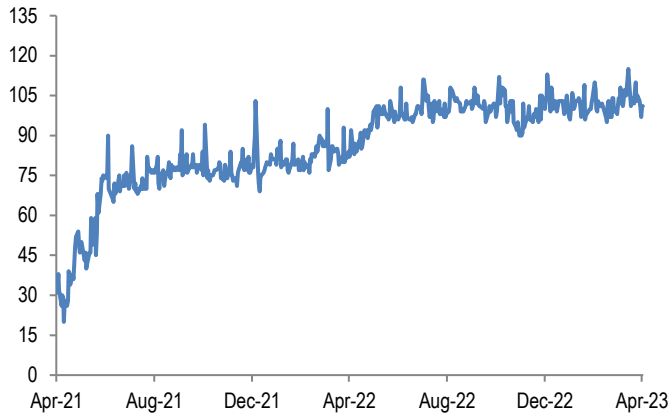
ON accepted amount (\$bn)



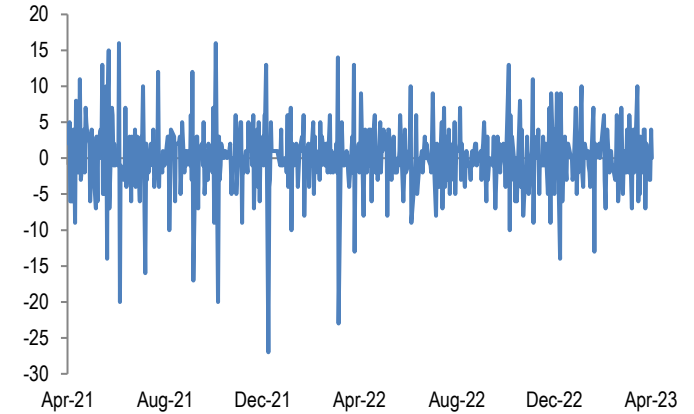
ON accepted amount: daily change (\$bn)



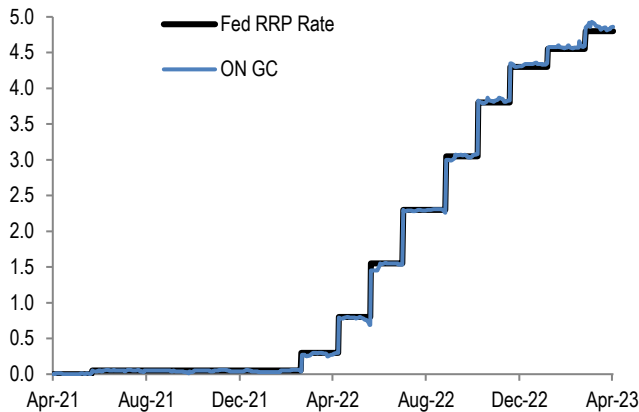
ON number of bidders



ON numbers of bidders: daily change



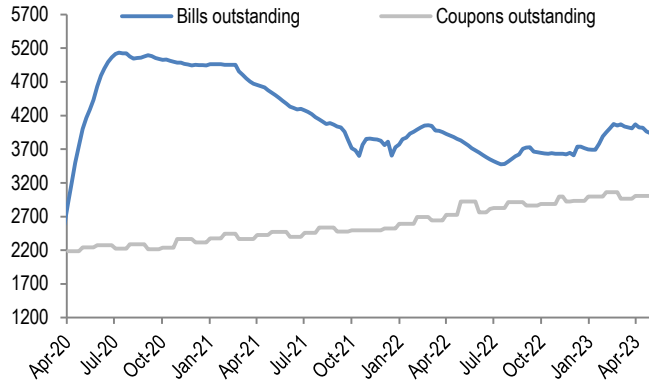
ONGC vs. RRP fixed rate (%)



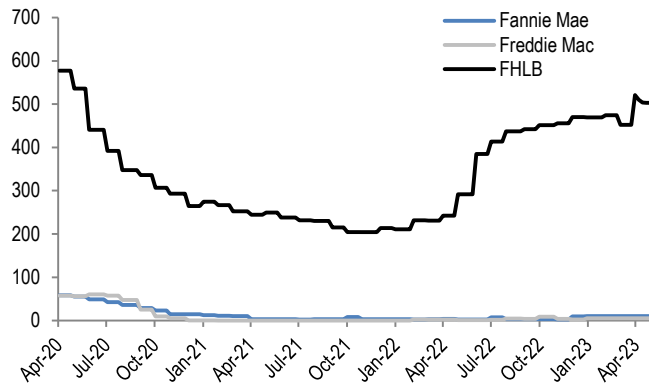
Source for all charts on this page: Federal Reserve

# Outstanding Debt

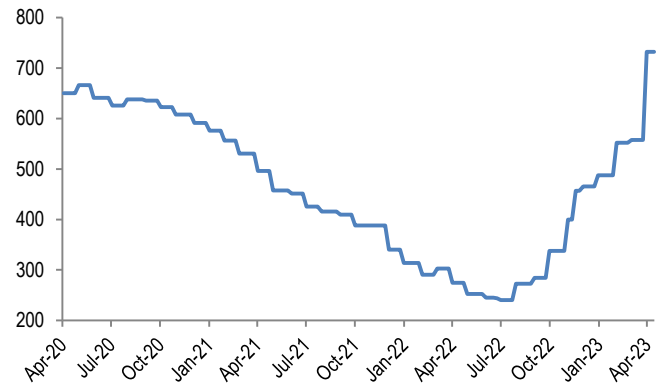
**Treasury coupons and bills outstanding (\$bn)**



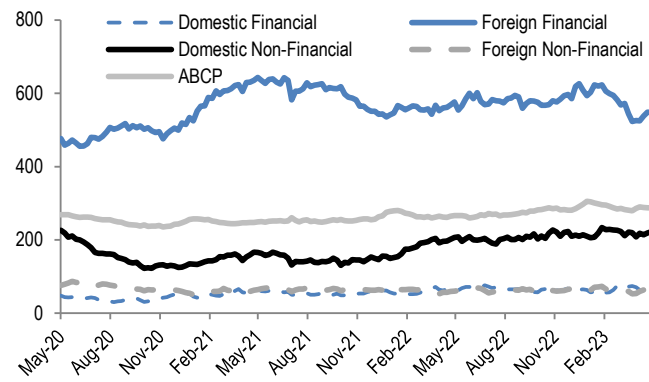
**Agency discount notes outstanding (\$bn)**



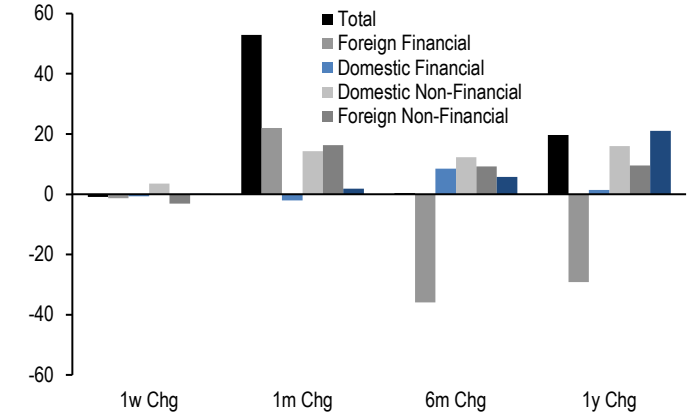
**Agency coupons outstanding (\$bn)**



**Commercial paper outstanding (\$bn)**



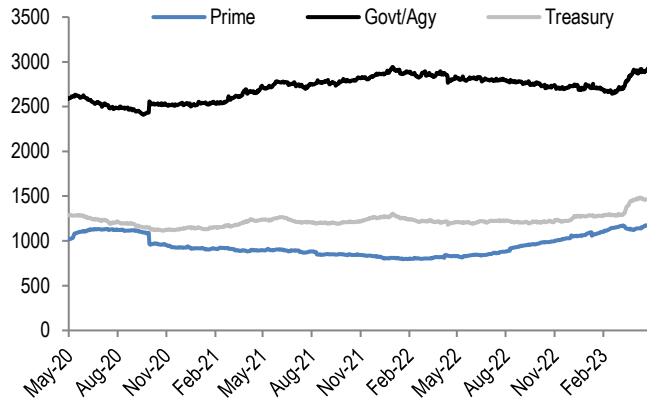
**Change in commercial paper outstanding (\$bn)**



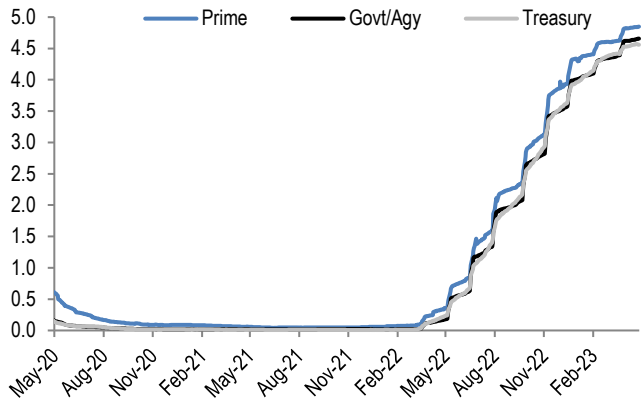
Sources: Federal Reserve, US Treasury, J.P. Morgan estimates

# Money Market Funds

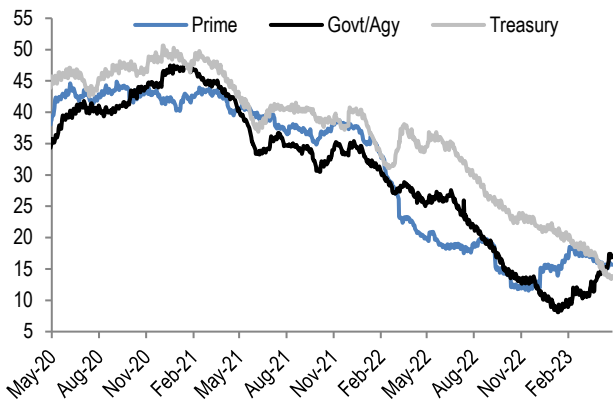
Assets under management (\$bn)



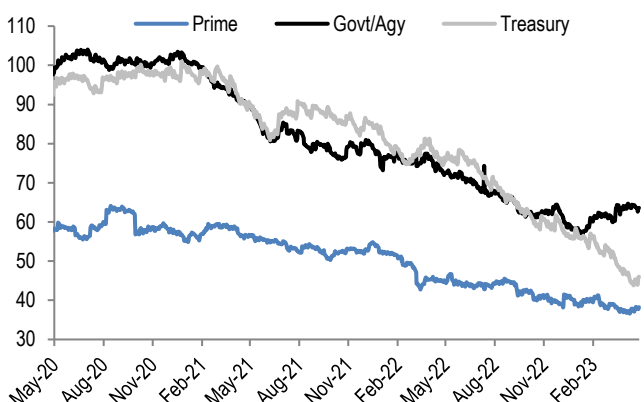
Net yield (%)



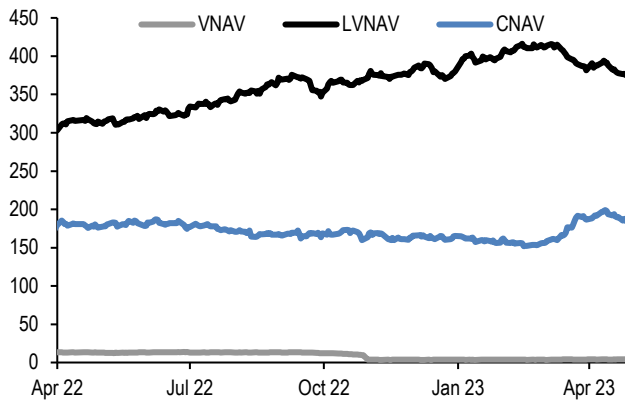
Weighted average maturity (days)



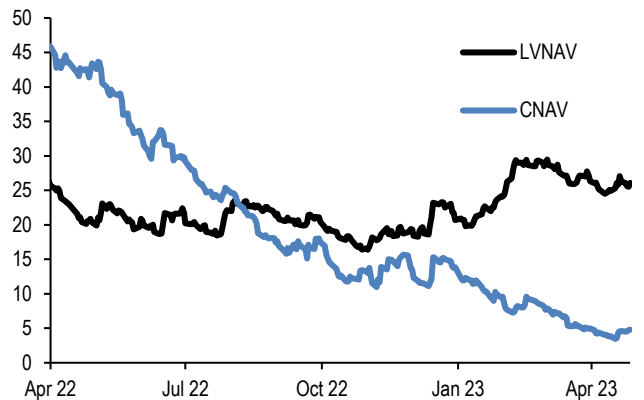
Weighted average life (days)



USD offshore fund AUM (\$bn)



USD offshore fund WAM (days)



Source for all charts on this page: Crane Data, J.P. Morgan

## Money Market Funds (continued)

### Prime MMF asset allocation (\$bn)

Sector	Mar-23	% of total	m/m		chg since Sep-22		% chg since Sep-22
			chg	m/m %	since Sep-22	m/m %	
Banks (US)	32	3%	(3)	7	-9%	26%	
Banks (Eurozone)	81	7%	(39)	1	-32%	2%	
Banks (Other Yankee)	269	24%	(44)	14	-14%	5%	
Repo	145	13%	19	64	16%	78%	
ABCP/CCP (Banks)	39	3%	(3)	6	-8%	19%	
ABCP (Non-banks)	6	1%	(1)	1	-12%	25%	
ABS	1	0%	0	0	196%	124%	
Corporates (Financial)	4	0%	1	0	33%	14%	
Corporates (Non-financial)	23	2%	(7)	(3)	-22%	-12%	
US Treasuries	26	2%	(12)	(14)	-32%	-35%	
US Agencies	55	5%	(2)	(6)	-4%	-9%	
US S&L Govt/Munis	9	1%	(1)	(2)	-14%	-17%	
Foreign SSA	23	2%	2	1	9%	6%	
Central Banks (Fed RRP)	399	36%	65	97	20%	32%	
Other	13	1%	(1)	1	-5%	10%	
<b>Total</b>	<b>1,123</b>	<b>100%</b>	<b>(25)</b>	<b>169</b>	<b>-2%</b>	<b>18%</b>	

### Government MMF asset allocation (\$bn)

Sector	Mar-23	% of total	m/m		chg since Sep-22		% chg since Sep-22
			chg	m/m %	since Sep-22	m/m %	
<b>Treasuries</b>	<b>1,006</b>	<b>23%</b>	<b>43</b>	<b>(210)</b>	<b>5%</b>	<b>-17%</b>	
Bills	647	15%	32	(84)	5%	-12%	
Treasury coupons	28	1%	8	(66)	39%	-70%	
FRNs	331	8%	3	(59)	1%	-15%	
<b>Agencies</b>	<b>711</b>	<b>16%</b>	<b>195</b>	<b>310</b>	<b>38%</b>	<b>77%</b>	
Discos	173	4%	42	17	32%	11%	
Agency Coupons	59	1%	27	29	85%	100%	
Agency FRNs	479	11%	125	264	35%	122%	
<b>Repo</b>	<b>2,659</b>	<b>61%</b>	<b>180</b>	<b>326</b>	<b>7%</b>	<b>14%</b>	
Treasury repo	450	10%	85	259	23%	135%	
Agency repo	397	9%	38	169	11%	74%	
Other Repo	-	0%	0	(9)	0%	-100%	
RRP	1,812	41%	56	(93)	3%	-5%	
<b>Other</b>	<b>19</b>	<b>0%</b>	<b>(2)</b>	<b>(13)</b>	<b>-8%</b>	<b>-41%</b>	
<b>Total</b>	<b>4,395</b>	<b>100%</b>	<b>416</b>	<b>413</b>	<b>10%</b>	<b>10%</b>	

## J.P. Morgan estimates of prime MMF exposures to banks (\$bn)

	Mar-23										m/m change										Change since Mar-22									
	CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total	CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total	CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total
<b>Total</b>	<b>152</b>	<b>148</b>	<b>73</b>	<b>35</b>	<b>4</b>	<b>68</b>	<b>26</b>	<b>50</b>	<b>6</b>	<b>561</b>	<b>(26)</b>	<b>(16)</b>	<b>(45)</b>	<b>(3)</b>	<b>0</b>	<b>7</b>	<b>12</b>	<b>1</b>	<b>2</b>	<b>(69)</b>	<b>10</b>	<b>39</b>	<b>6</b>	<b>12</b>	<b>(1)</b>	<b>48</b>	<b>14</b>	<b>1</b>	<b>3</b>	<b>132</b>
<b>Eurozone</b>	<b>20</b>	<b>31</b>	<b>30</b>	<b>13</b>	<b>2</b>	<b>8</b>	<b>3</b>	<b>17</b>	<b>0</b>	<b>123</b>	<b>(16)</b>	<b>(10)</b>	<b>(13)</b>	<b>(0)</b>	<b>(0)</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>(0)</b>	<b>(36)</b>	<b>(7)</b>	<b>11</b>	<b>1</b>	<b>3</b>	<b>(0)</b>	<b>5</b>	<b>(1)</b>	<b>(2)</b>	<b>(0)</b>	<b>11</b>
France	8	18	5	12	2	5	2	15	0	68	(3)	(3)	(6)	(1)	(0)	0	1	0	-	(11)	(1)	11	1	3	(0)	4	(1)	(2)	-	14
Germany	4	7	2	0	-	0	0	-	0	13	(9)	(6)	(2)	0	-	(1)	0	-	-	(17)	(3)	(0)	(6)	0	-	(0)	0	-	0	(9)
Netherlands	5	5	20	1	-	2	0	2	0	34	(0)	0	(0)	0	-	1	0	(0)	(0)	0	(3)	1	5	0	-	1	0	1	(0)	5
Belgium	-	0	0	-	-	-	-	-	-	0	-	(1)	(1)	-	-	-	-	-	-	(2)	-	(0)	(0)	-	-	-	-	-	-	(0)
Spain	2	1	4	-	-	1	-	-	-	8	(0)	(0)	0	-	-	0	-	-	-	0	(0)	(0)	2	-	-	1	-	-	-	2
Luxembourg	0	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	0	(0)	-	-	-	-	-	-	-	-	(0)
Austria	0	-	-	-	-	-	-	-	-	0	(3)	-	(4)	-	-	-	-	-	-	(8)	0	-	-	-	-	-	-	-	-	0
<b>Other Europe</b>	<b>37</b>	<b>22</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>80</b>	<b>(0)</b>	<b>(1)</b>	<b>(20)</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>(0)</b>	<b>0</b>	<b>(19)</b>	<b>8</b>	<b>(0)</b>	<b>(5)</b>	<b>(1)</b>	<b>(0)</b>	<b>2</b>	<b>3</b>	<b>(0)</b>	<b>0</b>	<b>6</b>
United Kingdom	10	9	0	3	0	3	3	4	0	33	1	(1)	(4)	0	0	1	1	(0)	-	(2)	1	(1)	(5)	1	(0)	2	3	1	0	3
Sweden	18	13	4	1	-	-	-	-	0	36	(0)	0	(16)	0	-	-	-	-	0	(16)	9	3	(1)	0	-	-	-	-	0	11
Switzerland	5	1	-	-	-	-	-	0	0	6	0	0	-	-	-	-	-	-	0	0	(2)	(2)	-	(2)	-	(0)	-	(1)	(0)	(8)
Norway	4	0	1	-	-	-	-	-	-	5	(1)	0	0	-	-	-	-	-	-	(0)	1	(1)	1	-	-	-	-	-	-	0
Denmark	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other Regions</b>	<b>95</b>	<b>94</b>	<b>37</b>	<b>18</b>	<b>2</b>	<b>58</b>	<b>20</b>	<b>29</b>	<b>5</b>	<b>359</b>	<b>(10)</b>	<b>(5)</b>	<b>(13)</b>	<b>(3)</b>	<b>0</b>	<b>5</b>	<b>9</b>	<b>0</b>	<b>2</b>	<b>(15)</b>	<b>9</b>	<b>29</b>	<b>11</b>	<b>10</b>	<b>(1)</b>	<b>41</b>	<b>12</b>	<b>3</b>	<b>3</b>	<b>116</b>
United States	12	11	0	6	-	37	14	19	5	104	1	(0)	(5)	(1)	-	9	6	(1)	2	11	6	8	0	2	(0)	30	8	1	4	59
Canada	43	31	10	7	2	10	4	6	0	113	(0)	(0)	(1)	(1)	0	(4)	2	1	(0)	(3)	4	2	1	4	(1)	4	2	2	0	19
Japan	12	48	4	5	-	11	3	4	0	87	(3)	(4)	(11)	(1)	-	0	1	0	0	(17)	(2)	19	(1)	4	-	6	1	1	(1)	27
Australia	20	1	13	-	-	-	-	-	0	34	(5)	0	4	-	-	-	-	-	(0)	(2)	0	(1)	5	-	-	-	-	-	0	4
Singapore	7	3	1	-	-	-	-	-	-	10	(2)	0	(1)	-	-	-	-	-	(3)	1	1	1	-	-	-	-	-	-	-	3
China	0	-	2	-	-	-	-	-	-	2	(0)	(1)	(0)	-	-	-	-	-	-	(1)	(0)	(0)	(1)	-	-	-	-	-	-	(1)
Abu Dhabi	2	-	7	-	-	-	-	-	-	8	(0)	-	1	-	-	-	-	-	-	1	(0)	-	5	-	-	-	-	-	-	5
Kuwait	-	0	0	-	-	-	-	-	-	0	-	(0)	0	-	-	-	-	-	-	(0)	-	(0)	0	-	-	-	-	-	-	0
Chile	0	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	0

Source for all charts on this page: Crane Data, J.P. Morgan



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**North America Fixed Income  
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**Short-Term Market Outlook And  
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28 April 2023

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