Prime money market fund holdings update

June 2015

- **Prime money market fund flows were mostly muted over the course of June, falling by $13bn or -1%. For government MMFs, AuMs increased by $24bn or 3%.** Year-to-date, prime MMF assets are down $64bn or -4% while government fund assets are down $26bn or -3%. Over the past few years, prime MMF flows have been very cyclical in nature, with outflows during the first half of the year, and inflows during the second half. So far, this trend has manifested itself once again this year (Exhibit 1). Should prime AuMs not rebound from current levels through 2H, it may be one of our first indications of reform-related flows occurring, as investors begin to find alternative avenues to park their cash.

- **Typical quarter-end dynamics played out over the end of June, as banks temporarily reduced their footprints in the short-term wholesale funding markets.** Prime fund holdings of bank paper decreased by $117bn month-over-month (Exhibit 2). The drop was due in large part to a $102bn decrease in time deposit holdings, primarily of European banks. As we have seen over the past several quarter-ends, French, Norwegian, Swedish, and UK banks made up the majority of TD reductions. Holdings of CP/CDs additionally decreased by $36bn mostly across European banks as well.

- **To compensate for the temporary shoring up of bank supply, funds tapped to the Federal Reserve's reverse repo facility.** Month-over-month, prime MMFs increased RRP usage by $132bn, almost a one to one offset to their bank holding reductions.

Exhibit 1: Prime fund assets have followed their cyclical trend so far this year

Prime MMF AuM ($bn)

Source: iMoneyNet

Short Duration Strategy

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Exhibit 2: Quarter-end balance sheet management caused an $117bn reduction in bank exposures at June month-end

J.P. Morgan estimate of prime MMF exposures to banks ($bn)

	Issuer # / Top 3	Jun-15 CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total
Total	**75 / 15%**	**161**	**487**	**76**	**49**	**15**	**44**	**8**	**90**	**53**	**983**
Eurozone	**16 / 50%**	**23**	**83**	**19**	**13**	**2**	**11**	**2**	**8**	**4**	**166**
Belgium	1 / 100%	-	2	0	-	-	-	-	-	-	2
France	5 / 83%	10	46	14	12	2	7	2	5	2	101
Germany	5 / 91%	3	12	2	0	-	1	-	1	-	18
Luxembourg	1 / 100%	1	-	-	-	-	-	-	-	-	1
Netherlands	3 / 100%	10	23	4	1	-	3	0	2	1	45
Other Europe	**13 / 50%**	**33**	**57**	**42**	**10**	**-**	**1**	**1**	**19**	**12**	**175**
Norway	1 / 100%	5	1	0	-	-	-	-	-	1	7
Sweden	4 / 84%	15	15	34	-	-	-	-	-	10	73
Switzerland	2 / 100%	3	28	-	3	-	0	0	19	0	52
UK	6 / 82%	11	13	7	7	-	1	1	1	2	43
Other Regions	**46 / 22%**	**105**	**347**	**14**	**26**	**13**	**32**	**4**	**62**	**38**	**642**
Australia	6 / 77%	59	18	6	-	-	-	-	-	4	88
Canada	7 / 69%	15	128	2	8	6	7	2	7	7	181
Chile	4 / 92%	1	2	-	-	-	-	-	-	0	3
China	3 / 100%	0	5	0	-	-	-	-	-	0	5
Japan	8 / 70%	7	139	4	8	-	3	-	5	1	167
Kuwait	1 / 100%	-	1	1	-	-	-	-	-	0	2
Singapore	3 / 100%	10	3	-	-	-	-	-	-	4	16
US	13 / 74%	12	53	1	9	7	22	3	50	22	179

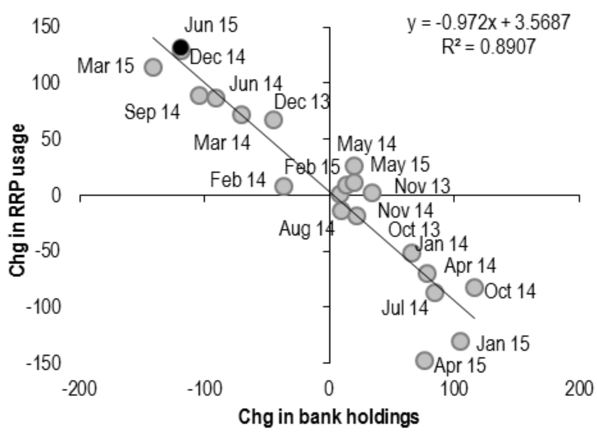
	m/m change CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total
Total	**(9)**	**(27)**	**(102)**	**5**	**(1)**	**4**	**(5)**	**4**	**13**	**(117)**
Eurozone	**(2)**	**(18)**	**(35)**	**1**	**0**	**(0)**	**(4)**	**(1)**	**2**	**(58)**
Belgium	-	(3)	(5)	-	-	-	-	-	-	(8)
France	(3)	(12)	(28)	1	0	(3)	(3)	(1)	2	(47)
Germany	1	1	(0)	(1)	-	1	(1)	0	-	1
Luxembourg	(0)	-	-	-	-	-	-	-	-	(0)
Netherlands	1	(4)	(1)	0	-	1	(0)	(0)	(0)	(4)
Other Europe	**(12)**	**(19)**	**(63)**	**3**	**(1)**	**(2)**	**(2)**	**0**	**5**	**(91)**
Norway	(1)	(6)	(23)	-	-	-	-	-	0	(29)
Sweden	(1)	(5)	(28)	-	-	-	-	-	5	(29)
Switzerland	(0)	3	-	0	-	(1)	(0)	1	(1)	2
UK	(11)	(12)	(12)	2	(1)	(1)	(1)	(0)	1	(35)
Other Regions	**5**	**10**	**(5)**	**1**	**1**	**7**	**1**	**5**	**6**	**31**
Australia	0	(2)	2	-	-	-	-	-	(0)	0
Canada	1	1	(1)	1	0	3	1	0	1	7
Chile	(0)	(0)	-	-	-	-	-	-	0	(0)
China	(0)	2	(0)	-	-	-	-	-	0	2
Japan	0	6	1	0	-	0	-	0	(0)	8
Kuwait	-	(1)	(0)	-	-	-	-	-	0	(0)
Singapore	3	1	(2)	-	-	-	-	-	2	4
US	1	3	(4)	0	0	4	(1)	5	2	10

	Change since Dec-14 CP	CD	TD	ABCP	CCP	Agy RP	Tsy RP	Oth RP	Other	Total
Total	**(3)**	**(35)**	**(9)**	**(5)**	**1**	**5**	**(5)**	**(3)**	**8**	**(47)**
Eurozone	**(2)**	**(8)**	**3**	**(4)**	**0**	**(3)**	**(4)**	**(4)**	**2**	**(21)**
Belgium	-	1	0	-	-	-	-	-	-	1
France	(4)	(3)	1	(1)	0	(4)	(3)	(3)	2	(15)
Germany	(0)	3	(1)	(2)	-	(0)	(1)	(1)	(0)	(3)
Luxembourg	1	-	-	-	-	-	-	-	-	1
Netherlands	2	(9)	3	(0)	-	1	(0)	(1)	(0)	(5)
Other Europe	**(5)**	**(12)**	**(1)**	**1**	**(0)**	**1**	**(1)**	**(1)**	**4**	**(15)**
Norway	(5)	(1)	(3)	-	-	-	-	-	1	(8)
Sweden	(5)	(14)	11	-	-	-	-	-	4	(4)
Switzerland	1	6	-	(1)	-	0	(0)	1	(1)	5
UK	3	(4)	(9)	3	(0)	1	(1)	(1)	1	(8)
Other Regions	**4**	**(14)**	**(10)**	**(2)**	**2**	**7**	**(0)**	**1**	**2**	**(11)**
Australia	2	(4)	(2)	(0)	-	-	-	-	(2)	(6)
Canada	7	(3)	(3)	(0)	2	2	1	(1)	0	4
Chile	(0)	0	-	-	-	-	-	-	0	0
China	(0)	(0)	(0)	-	-	-	-	-	(0)	(1)
Japan	(1)	2	(0)	(0)	-	1	-	(0)	0	2
Kuwait	-	0	0	-	-	-	-	-	0	1
Singapore	(3)	(1)	(3)	-	-	-	-	-	2	(5)
US	(1)	(8)	(2)	(2)	(0)	4	(1)	3	1	(6)

Source: J.P. Morgan estimates, fund holdings reports, iMoneyNet. * Top 3 issuer concentrations by country. Note: Other category includes money market eligible notes/bonds. Table does not include exposures to VRDN credit/liquidity providers.

Exhibit 3: Historically, there has been almost a one to one relationship between decreases in bank holdings and increases in RRP usage

Monthly change in prime MMF bank holdings vs change in RRP usage ($bn)



Source: Fund holdings reports

Since the program's inception, Fed RRP has served as a reliable source of backstop supply for money funds, and prime fund RRP usage has been negatively correlated to bank holdings (Exhibit 3). Aside from the Fed RRP and banks, most other sector allocations went relatively unchanged during June (Exhibit 4).

- **Money market funds accounted for $361bn or 92% of total RRP usage at quarter-end.** MMFs represented $196bn or 98% of term RRP usage and $166bn or 86% of usage of the overnight facility on 6/30 (Exhibit 5). Government funds were the primary

Exhibit 4: Aside from bank and RRP exposures, most sector allocations went relatively unchanged month-over-month

Prime MMF exposures by sector ($bn)

Issuer Type	Jun-15	% of total	m/m chg	chg since Dec-14	m/m % chg	% chg since Dec-14
Banks (US)	163	11%	10	(4)	6%	-3%
Banks (Eurozone)	151	11%	(58)	(17)	-28%	-10%
Banks (Other Yankee)	605	42%	(73)	(22)	-11%	-3%
ABCP/CCP (Banks)	64	5%	2	(4)	4%	-5%
ABCP (Non-banks)	16	1%	(0)	(0)	-2%	0%
ABS issuers	1	0%	0	0	64%	8%
Corporates (Financial)	13	1%	1	(1)	7%	-7%
Corporates (Non-financial)	43	3%	(3)	8	-7%	21%
US Treasuries	55	4%	(5)	(23)	-9%	-29%
US Agencies	91	6%	4	(6)	4%	-6%
US S&L Govt/Munis	11	1%	(2)	(1)	-18%	-12%
Foreign SSA	44	3%	1	9	3%	28%
Central Banks (Fed RRP)	168	12%	132	(12)	368%	-7%
Other	2	0%	1	(2)	108%	-50%
Total	**1,426**	**100%**	9	(75)	**1%**	**-5%**

*Includes bank sponsored, non-bank sponsored, and government/agency sponsored conduits.
Source: J.P. Morgan estimates, fund holdings reports, iMoneyNet
Note: J.P. Morgan estimates of exposures in prime money market funds are based on a sample of large funds including funds managed by Fidelity, BlackRock, JPMorgan, Vanguard, Federated, Dreyfus, Wells Fargo, Goldman Sachs, Morgan Stanley, UBS, Schwab, SSgA, American Funds, BofA, First American, Northern, RBC, Western Asset Management. Sample represents 85% of US prime MMF in terms of AUMs. Allocation %s are calculated from the sample and then applied to the period's total prime fund AUMs. Banks include unsecured CP, ABCP, CD, time deposits, repo, and other notes. Corporates include CP and other notes. US Treasuries include T-bills and coupons. US Agencies include discount notes and fixed/floating notes. US S&L Govt/Muni include muni CP, notes, and VRDNs. Foreign SSA includes CP, CDs, ad other notes. Central banks include repo. Other includes investments in funds including other MMFs and tax-exempt preferreds.
**Actual total amount used for "Central Banks (Fed RRP)", causing difference between iMoneyNet total AUM of $1,395bn for 5/31 vs. total AUM of $1,426bn in table.

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users of the term facility, with prime funds relying more on the overnight facility. This was also the case during the previous two quarter-ends when the term RRP was offered, as prime funds likely sought higher rates in credit until closer to the end of the month.

- **Prime MMFs are focusing on maintaining short maturity profiles.** Fed rate hike expectations and money market reform continue to pressure prime funds to keep their respective WAMs and WALs short. Indeed, during the course of June, prime MMFs WAMs averaged just 37 days – close to a multiyear low. Furthermore, holdings data shows that prime funds have focused on building more liquidity. Year-over-year, funds now hold more paper in the 0-30d maturity bucket, and less paper with maturities greater than 30d across several of the largest issuers (Exhibit 6 &7).

- **It is notable that banks have so far been willing to meet the shift in demand from prime MMF with shorter dated supply.** We think differences in regulatory implementation across different countries plays a role in this. The Basel III LCR and NSFR are designed to discourage banks' use of short term borrowing, yet these have not proven a uniform hindrance to new issuance in recent months. Two aspects of the regulatory environment may be at work. First, on a global basis the Basel LCR and NSFR are not scheduled to be in full effect until 2019 and 2018, respectively. However, individual countries are phasing in the rules at varying paces, and these implementation variations are the second aspect that may explain why supply in 30d and less remains robust. With international banks playing by different sets of rules, many Yankee banks continue to be able to issue sizable amounts of debt maturing inside of 30 days. However, there are limits to this, as the cliff-like drop off in time deposits at quarter-ends demonstrates. The time deposit cliff is itself a function of differences in regulatory implementation.

- **We expect this maturity shortening trend to persist, and for prime WAMs to drift lower.** Managing around a Fed lift off will be a major factor driving WAMs - using the last tightening cycle as a reference, in the 3 months leading up to the first rate hike, prime fund WAMs fell by 10 days from 52 to 42 days. MMF reform related outflows should also play a role in the months to come as cash begins to move out of the prime complex.

- **As another means to hedge against a Fed move, prime funds have increasingly favored floating rate product.** Floaters have seen a large uptick in issuance

Exhibit 5: Money market funds accounted for $361bn or 92% of Fed RRP usage at quarter-end

Breakout of Fed RRP usage at quarter-end ($bn)

Counterparty type	Term RRP usage ($bn)	ON RRP usage ($bn)	Total
Prime MMF	64	103	**168**
Government MMF	131	62	**194**
Non MMF	4	27	**31**
Total	**200**	**193**	**393**

Source: Fund holdings reports, Federal Reserve

Exhibit 6: Prime fund managers have built more liquidity over the past year…

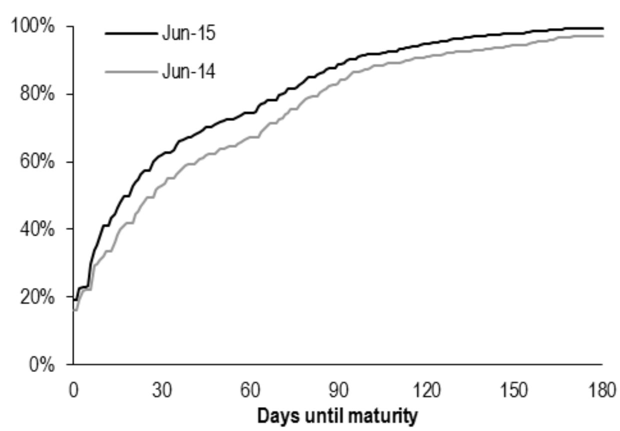
Year-over-Year change in prime MMF holdings, by maturity bucket, for the 25 largest bank issuers ($bn)

		Year-over-year change across maturity buckets ($bn)					
Bank	**Total held by prime MMF @ 6/30/15 ($bn)**	**Total**	**0-7 days**	**8-30 days**	**31-60 days**	**61-90 days**	**91+ days**
JPM	49	1	9	(0)	(2)	3	(9)
Wells Fargo	48	7	4	5	2	(1)	(3)
BNS	46	2	1	(2)	2	2	(1)
SMBC	43	(6)	3	(1)	(2)	(0)	(5)
RBC	43	10	0	5	1	5	(1)
Credit Suisse	40	(1)	3	7	(5)	(9)	4
Mizuho	38	6	3	1	2	6	(6)
Toronto Dominion	37	3	3	3	0	(1)	(3)
BofA	37	10	7	1	2	(0)	1
BoTM	36	(5)	1	7	2	(5)	(10)
BNP Paribas	35	(3)	(8)	2	1	1	0
Svenska Handelsbanken	32	4	12	(0)	1	(5)	(4)
BMO	28	3	(3)	6	(1)	(2)	3
Credit Agricole	28	(5)	(3)	(1)	2	(2)	(0)
Westpac	24	0	1	(0)	1	(0)	(1)
NAB	24	(2)	2	(4)	(0)	0	(0)
Natixis	21	(12)	(12)	1	(2)	1	(0)
Rabobank	21	(7)	0	(1)	(1)	0	(5)
CIBC	21	7	3	1	(0)	(0)	4
Sumitomo Mitsui Trust	21	5	4	(1)	(1)	0	4
CBA	19	(1)	0	2	1	(3)	(1)
ANZ	19	4	3	(0)	0	(0)	1
SEB	15	(6)	2	(0)	(6)	(1)	(1)
HSBC	15	6	2	3	(1)	2	1
Citi	15	(21)	(1)	(0)	(8)	(4)	(8)
Top 25 Total Outs ($bn)		756	256	211	96	107	86
Top 25 Total Outs (%)		77%	74%	84%	73%	78%	72%
Top 25 Total Outs YoY Change ($bn)		(1)	35	33	(12)	(14)	(43)

Source: J.P. Morgan estimates, fund holdings reports, iMoneyNet
"Total" amount includes reported month-end reported balances for repo, time deposit, CD/CP, ABCP/CCP, and other debt

Exhibit 7: …with a greater percentage of holdings in shorter maturities

Cumulative % of top 25 bank holdings across tenor

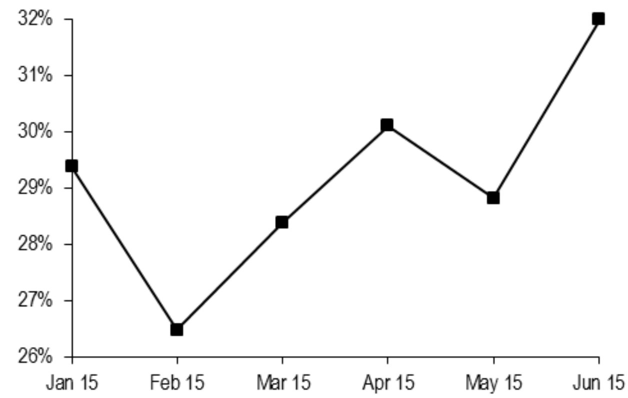


Source: Fund holdings reports
*99.4% of holdings within 180 days for June '15 vs 97% for June '14

over the past few months, particularly in the 6m-7m space. Meanwhile, fixed issuance has been concentrated in paper that matures before, or shortly after 9/17, the date of the September FOMC meeting. Furthermore, prime holdings have recently increased - 32% of bank CP and CD holdings held by prime MMFs are FRNs (Exhibit 8).

Exhibit 8: With a Fed rate hike on the horizon, floaters have been drawing increased interest from investors

Floating rate bank CD/CP as % of total bank CD/CP holdings



Source: Fund holdings reports

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