US Rates Watch

CP market is frozen: Fed to liquefy

Fed on fire: it is unclogging UST market, CP is next

The Fed has been on fire: they executed purchases today of $37bn out of their $80bn/m in UST firepower across the curve, as we anticipated. The Fed needed to do this to preserve UST market functioning and to facilitate a relatively orderly unwind of highly leveraged UST positions that have likely reached loss risk limits with recent market volatility. The dealer community could not facilitate the unwind of such trades since their balance sheets were full of duration + limited ability to expand them under current regulations.

Despite the unprecedented large Fed UST purchases the Fed isn't done. It seems that not all highly leveraged UST trades have been unwound which is reflected by the fact that (1) 30Y USTs vs OIS have only richened marginally over recent days (2) 30Y swap spreads have only widened back to levels last seen prior to the Fed's shift in UST purchase strategy yesterday (3) implied funding costs on long-dated futures contracts has not materially eased (Chart 1, Chart 2). The Fed said that "the composition of the remaining purchases will be announced on Monday, March 16, 2020, around 9:00 AM."

Commercial paper likely to be next target for Fed

The commercial paper market will likely be the Fed's next target to unfreeze. CP rates and 3m LIBOR-OIS spreads have exploded in recent days to levels last seen in the financial crisis (Chart 3). The CP market froze due to similar dealer balance sheet constraints as the UST market but with a different genesis. Dealer CP balance sheets are clogged because of elevated macro risks caused (1) increased or anticipated corporate CP issuance to secure cash (2) MMF to sell CP as a means to raise cash in anticipation of large institutional outflows. We discuss each below:

CP issuance: corporates rely on the CP market as a reliable source of short-term cash for unanticipated funding needs. COVID-19 has provided a sharp downward shock to revenues and many issuers either sought to increase financing or the market anticipated the need for this. The expected CP supply shock + growing credit concerns then pushed spreads wider and reduced overall investor demand. This then made it harder for non-financial corporates to issue and for dealers to move any new issuance off their balance sheet (Table 1).

MMF liquidity buffers: at the same time corporates have been seeking to tap CP markets, money market mutual funds (MMF) have been trying to raise cash in the secondary CP market. MMF are raising cash to build liquidity buffers ahead of an expected increase in investor outflows. We have already started to see outflows from prime institutional funds and this may spill over into government MMF depending on the severity of quarantines around the county & concerns over access to cash (Chart 4). With a backdrop of extremely volatile markets, MMFs may be concerned that outflows will continue as we have seen around market closures in the past (Chart 5).

13 March 2020

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Timestamp: 13 March 2020 07:09PM EDT

In anticipation of outflows, prime MMFs have already started to increase their liquid assets and reduce CP holdings, but this will only become more difficult as dealers struggle to find buyers and move risk off their clogged balance sheets (Chart 6, Chart 7, Table 2).

Clogged CP risks bank funding pressure & MMF run

The clogged CP market poses risks to higher bank funding costs and could result in an MMF run akin to that in the aftermath of the Reserve Fund breaking the buck in '08. We expect the Fed to act quickly to avoid both stressed outcomes.

Bank funding pressure: to the extent corporates are not able to access CP markets they will turn to bank lines of credit. There have numerous headlines over recent days about large corporates drawing on these lines of credit and a non-functioning CP market risks further draws in the days ahead. Recent headlines suggest US banks had a total of $2.5tn unused corporate credit commitments at the end of 2019.

To the extent these lines are drawn it could raise funding needs for banks. Some corporates that draw on these lines would likely deposit funds at the sponsoring bank which would limit the bank funding need; however, other corporates that draw on the credit lines would use the cash to pay for business operations or shoring up their balance sheets which would increase bank funding needs.

The Fed likely does not want to see bank funding needs increase materially in the time of COVID-19 when it is hoped that some banks will be providing loan relief to borrowers hardest hit. It is also expected that banks would have provisioned adequate liquidity for these credit line draws but we would be surprised if the bank liquidity stress tests properly accounted for seeing the majority of outstanding lines drawn simultaneously. We suspect a global pandemic scenario was not accounted for in such liquidity planning.

MMF run: the clogged CP market also poses increased risks for a MMF run. The source of the MMF run would be fundamentally different than during '08. Recall, in '08 the Reserve Fund experienced losses on its CP holdings sufficient to cause its NAV to fall below $1 thus resulting in investors receiving an amount of cash lower than what they originally deposited (i.e. "breaking the buck"). These fears sparked a run on MMF and forced the Fed to intervene in CP markets and the MMF industry.

The source of the current potential MMF run is not around "breaking the buck" but is about investors not being able to access their MMF cash on demand. Concerns around "breaking the buck" have largely been solved through post crisis MMF reforms that allows for institutional prime funds with credit sensitivity to have a floating NAV that can fall below zero. However, all prime funds have a weekly liquid asset minimum of 30% NAV (Table 3). If "weekly liquid assets" falls below 30% of NAV the MMF board can impose a liquidity fee of up to 2% for all redemptions; if the liquid assets fell below 10% the prime fund would be required to impose a liquidity fee of 1%. To ensure that MMF are not required to impose a liquidity fee most MMF maintain liquidity well above the 30% threshold.

The current concern is that if the CP market is frozen, prime MMF could see their weekly liquid assets fall below 30% as they experience outflows. If weekly assets fall below 30% this would need to be reported to the SEC, would be in the public domain, and could result in a liquidity fee. Such a drop in liquidity would like result in a run on the MMF which experienced a drop in their liquidity and could result in a run on the prime MMF industry more broadly. This type of run would then result in more forced liquidations which would worsen CP liquidity, increase front-end credit spreads, and weigh on market sentiment. We strongly suspect the Fed wants to avoid this.

How can the Fed unclog CP? CPFF & dealer CP facility

To address the current frozen CP market we expect the Fed to announce two CP facilities, likely this coming Sunday night. These facilities include: (1) a reintroduction of the 2008 “Commercial Paper Funding Facility” or CPFF (2) a facility that would specifically target purchases of CP on dealer balance sheets which we will call a “Commercial Paper Dealer Purchase Facility” or CPDPF. We discuss each below.

CPFF: the CPFF would likely be structured similarly to the facility in the financial crisis. In 2008 3m LOIS widened to around 350bps amid mounting credit concerns. The Fed announced the CPFF to purchase CP directly from issuers and allow corporates to continue funding themselves despite market stress. After this facility was announced, LOIS and Fin CP to OIS spreads started to tighten, though NonFin to OIS spreads continued to widen until the purchases were implemented (Chart 8, Chart 9, Chart 10).

CP was purchased at a discount rate of 3m OIS + 100bp plus either an additional 100bp surcharge or a collateral arrangement with the issuer (Table 4). The Fed would provide 3m loans to a specially created LLC, which would use those funds to purchase CP directly from issuers. This LLC held the CP to maturity and used the proceeds to repay its loan from the Fed. US issuers of CP were eligible to use this facility and they were required to register with the CPFF.

We expect the Fed will likely launch a CPFF similar to the ’08 facility. This CPFF would be targeted at to re-open CP issuance markets and to alleviate the potential bank funding strain from having numerous credit lines drawn over a short period of time.

CPDPF: our suggested “Commercial Paper Dealer Purchase Facility” would essentially entail creating a special Fed vehicle aimed at purchasing CP directly off of primary dealer balance sheets, similar to the current UST purchases discussed above. The purchase program would likely need to be relatively small and short lived in its existence. The facility would only be used to clear existing inventory off dealer balance sheets and provide an outlet for additional prime MMF sales until they had built sufficient liquidity buffers. There is roughly $9.5bn of CP on dealer balance sheets according to primary dealer data as of March 4. We might imagine prime MMF might only need to sell $20-$40 bn more to build their liquidity buffers by another 5%. Therefore, it seems likely that the size of the Fed’s CP dealer facility might only need to total $30-$50 bn.

Facilities require 13-3 and Treasury approval

Both of these facilities that we expect cannot be unilaterally authorized by the Fed due to law changes since the financial crisis. The existence of these facilities would only occur through the authority of section 13-3 of the Federal Reserve Act. The Federal Reserve used the "unusual and exigent circumstances" clause (i.e. "section 13(3)") of the Federal Reserve Act to extend credit to financial firms during the Global Financial Crisis in 2008. Using this broad authority, the Fed created and implemented five funding facilities to provide liquidity to primary dealers and act as a backstop to the commercial paper and asset-back securities markets.

Congressional action has reined in some of the Fed's emergency lending powers. The new guidelines do not eliminate the Fed's lending authority but raise the procedural bar. The new law still allows the Fed act as the "lender of last resort" and create broad funding facilities to help market functioning. However, there are more hoops to jump. The Fed is also restricted from providing "tailored" help to individual firms.

Specifically, the Dodd Frank Act of 2010 changed the Fed's 13(3) authority and requires programs established under this authority to have:

- Approval from the US Treasury Secretary
- "Broad based eligibility" is meant to include a program or facility that is not designed for the purpose of aiding any number of failing firms and in which at least five entities would be eligible to participate. It also suggests programs should not be for the purpose of aiding specific companies to avoid bankruptcy or resolution.

- Limited risk of insolvency: the definition of insolvency to cover borrowers who fail to pay undisputed debts as they become due during the 90 days prior to borrowing or who are determined by the Board or lending Reserve Bank to be insolvent.

We expect that all three thresholds would be easily met in the current environment.

Timing and market implications

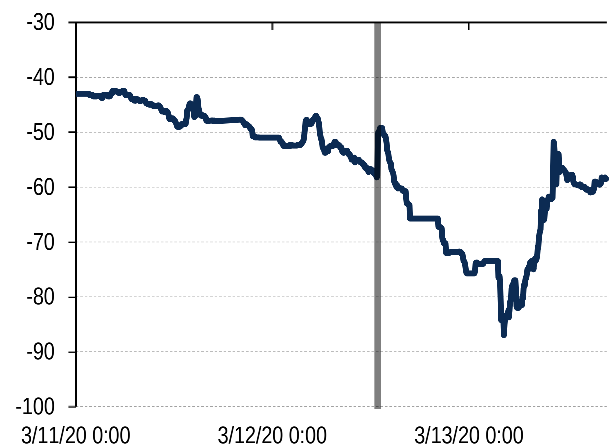
We again believe that time is of the essence on these facilities and expect the Fed will announce them this coming Sunday night. We believe it imperative the Fed roll out these facilities on Sunday night given the looming expected prime MMF outflows and necessity of their ability to sell CP in order to raise cash. If the Fed waits too long the MMF outflow pressure could mount and the risk of a large scale MMF run could increase.

What happens if the Fed acts? We expect that 3m LIBOR-OIS and FRA-OIS spreads would tighten sharply if the Fed rolled out these facilities on Sunday. It is also expected that swap spreads and credit spreads further out the curve would tighten. Finally, we would also expect to see significantly less USD demand in the currently very strained cross currency basis market. Recall, offshore banks and other entities frequently use the cross currency basis market as a source for USD when the commercial paper market is less readily accessible (such as around year-end).

Chart 1: 30Y UST-OIS (bps)

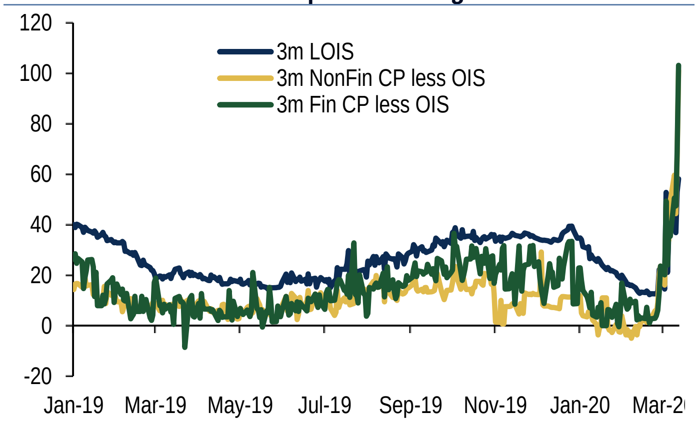
Source: Bloomberg

Chart 2: 30y swap spread intraday move & Fed announcement



Source: Bloomberg

Chart 3: LIBOR-OIS and CP-OIS spreads widening



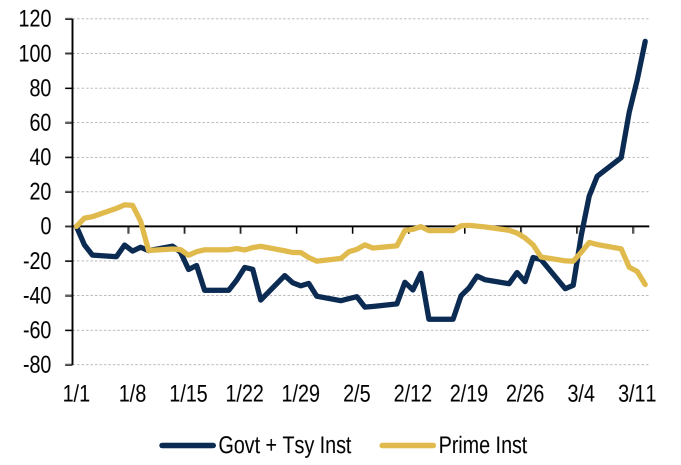
Source: Bloomberg

Table 1: Daily avg CP issuance volumes ($bn)

	AA NonFin	A2/P2 NonFin	AA Fin	AA AB
Oct	4.7	8.4	5.6	14.7
Nov	5.1	8.6	6.6	13.7
Dec	3.9	7.8	7.9	14.7
Jan	3.8	8.6	6.7	14.9
Feb	3.8	9.6	8.8	14.3
Avg Oct-Feb	4.3	8.6	7.1	14.4
Avg March 10-12	2.5	8.2	7.4	18.9

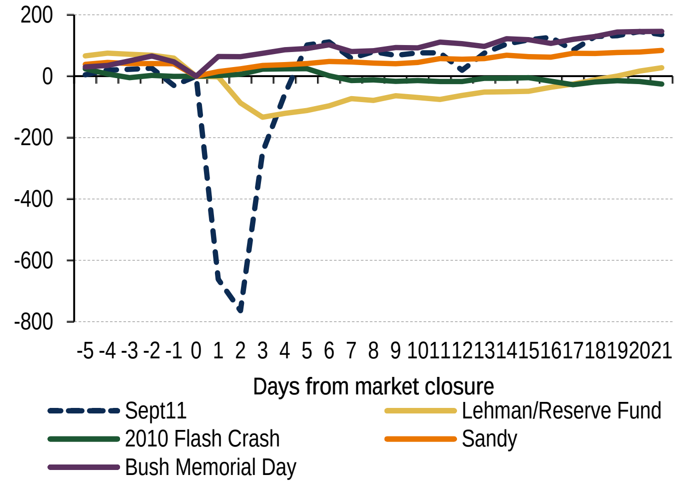
Source: Federal Reserve; Note: statistics reflect all sales of commercial paper to investors by dealers or direct issuers, excluding secondary issues and repurchase agreement and financing issues

Chart 4: Cumulative MMF flows ($bn)



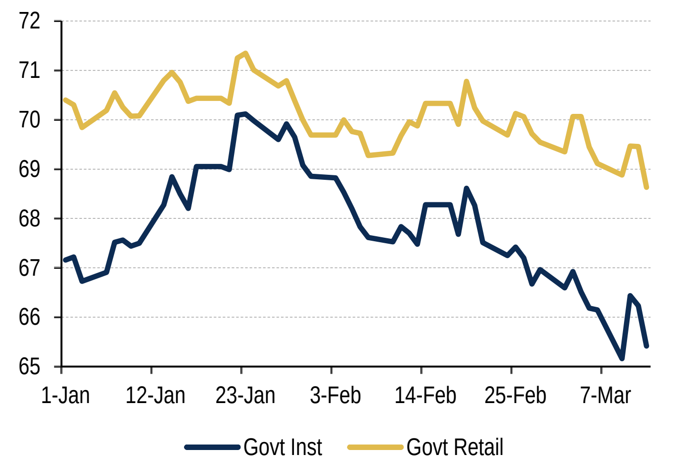
Source: Crane Data

Chart 5: Total MMF flows around prior market closures ($bn)



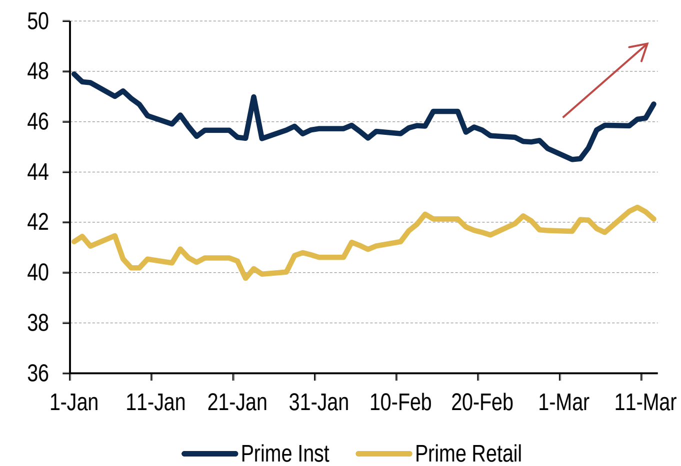
Source: iMoneyNet

Chart 6: Govt MMF weekly liquid assets (%)



Source: Crane Data; Note: Includes securities maturing in 7 days, plus Treasury securities and Government agency discount securities.

Chart 7: Prime MMF weekly liquid assets (%)



Source: Crane Data; Note: Includes securities maturing in 7 days, plus Treasury securities and Government agency discount securities.

Table 2: Domestic MMF holdings, prime funds ($bn)

	Prime			Prime Institutional			Prime Retail		
	Feb-20	MoM	YoY	Feb-20	MoM	YoY	Feb-20	MoM	YoY
Cash	1.3	0	0	1.3	0	0	0.1	(0)	0
Treasury Debt	44.0	8	(2)	6.3	1	2	37.6	7	(3)
Treasury Repo	54.1	(1)	14	26.7	2	7	27.4	(3)	7
Govt Agency Debt	4.4	(8)	(5)	0.8	0	(2)	3.6	(8)	(3)
Govt Agency Repo	64.4	9	19	17.3	(2)	(6)	47.1	11	25
Other Repo	59.8	(1)	25	36.6	1	13	23.2	(2)	12
CD	261.8	(2)	61	100.0	(4)	14	161.8	2	47
Financial Co CP	155.7	(9)	17	63.6	(1)	3	92.1	(8)	14
ABCP	62.3	4	5	31.8	2	4	30.5	2	0
Other CP	25.7	6	1	7.4	1	(0)	18.3	6	1
Non-Negotiable TD	52.4	(5)	3	31.8	(6)	3	20.5	0	0
VRDN	4.8	(0)	(1)	2.0	(0)	(0)	2.8	(0)	(1)
Other	15.4	(1)	6	7.9	(0)	4	7.5	(1)	2
Total	807	1	145	334	(6)	43	474	6	102

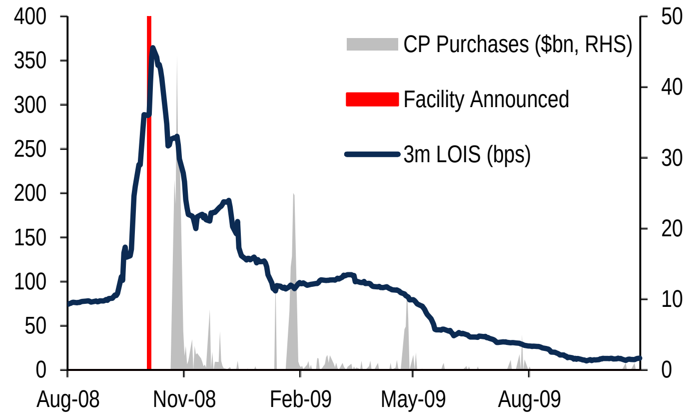
Source: iMoneyNet

Table 3: Money market reform measures

	Prime Inst	Prime Retail	Govt Inst	Govt Retail
Net Asset Value	Floating	Stable = $1	Stable = $1	Stable = $1
Redemption Fees	Up to 2%	Up to 2%	No	No
Redemption Gates	Up to 10 biz days	Up to 10 biz days	No	No
Weekly Liquid Assets	30%	30%	No	No

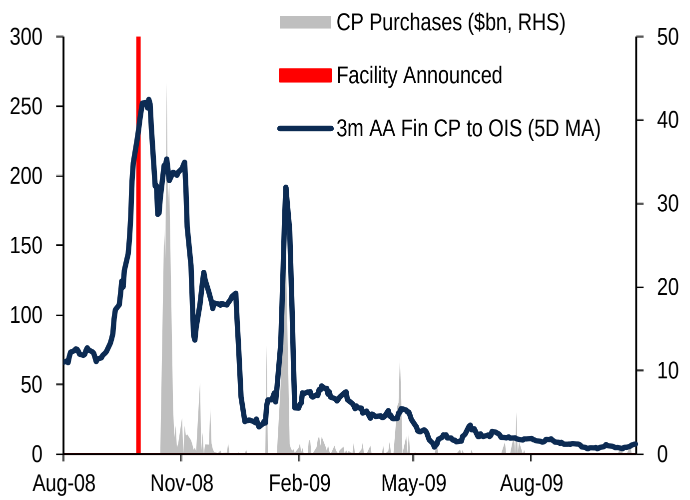
Source: BofA Global Research, SEC

Chart 8: 3m LIBOR-OIS and CPFF usage



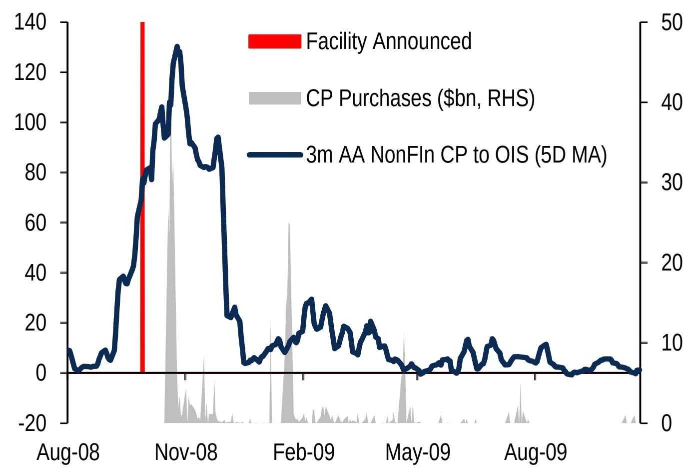
Source: Federal Reserve, Bloomberg

Chart 9: 3m AA Fin CP and CPFF usage



Source: Bloomberg, Federal Reserve

Chart 10: 3m AA NonFin CP and CPFF usage



Source: Bloomberg, Federal Reserve

Table 4: CPFF, CP purchase details

Eligible securities	3m CP rated at least A-1/P-1/F1, non interest bearing US issuers including those with a foreign parent.
Eligible Issuers	Excludes municipal issuers
Price	3m OIS + 100bp
Unsecured credit surcharge	100bp or collateral arrangement
Seller	CP issuers sells through primary dealer
Buyer	CPFF LLC using loans from NY Fed
Purchase Limit	Max outstanding CP an issuer had outstanding from Jan1-Aug31 2008

Source: Federal Reserve

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