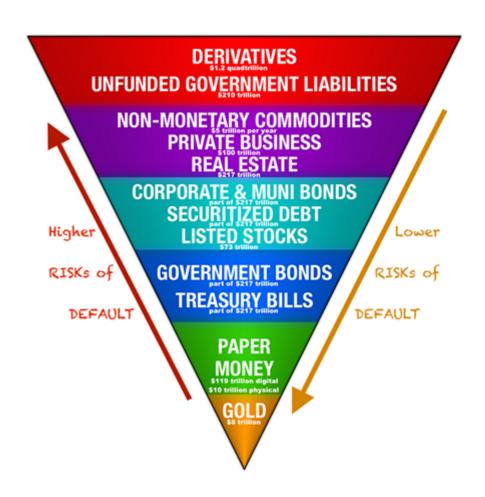


March 2020 witnessed a knee jerk reaction to the global trade and financial system coming to a sudden halt as countries all over the world imposed lockdown's in response to the spread of COVID-19. We had suggested in our Global Macro last month how COVID-19 has acted as a pin for one of the biggest credit bubble in history, exposing already existing imbalances to manifest. We have witnessed how margin calls and the market's "sell everything" phase led to demand for US\$ to increase across the world, leading to a decline in value of most assets.

We believe market participants are doing nothing other than re-balancing themselves towards the safest asset on Exter's Pyramid, as the probability of default risk at the apex rose. The manner in which the Eurodollar system is structured concomitant with high leverage in the system, an unwinding of positions, within a short span of time, can lead to a "shortage" of US\$.





Source: SDBullion

The Fed has reacted to this squeeze by announcing another round of "alphabetic" schemes (POMO, TOMO, CPFF, etc.) collectively can be termed as Quantitative Easing Round 4 (or QE4), to provide liquidity in the financial market. In the process, the Fed has expanded its balance sheet again.



Within a span of the last

few weeks, US Fed has infused more half the US\$ that it infused over 6 years of QE1, QE2 and QE3 combined (2008 – 2014).

The schemes announced by Fed during the volatility we experienced in Mar-2020 are given below.



| Schemes announced thus far | USD bn | Details |
|---|--------|---|
| Permanent Open Market Operations | 700 | \$500 bn treasuries and \$200 bn Agency MBS |
| Temporary Open Market Operations | 1,000 | Overnight repo for banks and primary dealers on 16-Mar. Have now offered 1- and 3-months liquidity as well. |
| Commercial Paper Funding Facility | - | Announced - Purchase High Quality commercial paper directly from US Corporations and Municipals. Via a SPV seeded by \$10 bn equity infusion directly from US Treasury. In 2008, Fed had ended up buying \$350 bn worth of these loans. |
| Primary Dealer Credit Facility | - | Announced - loans to primary dealers - large financial institutions who buy government securities directly from the Treasury and who make markets in those securities |
| Money Market Liquidity Fund | 54 | To provide non-recourse loans to banks to purchase eligible securities from Money Market Mutual Funds. Like the CPFF, the Fed takes credit risk secured by a \$10 billion backstop from the U.S. Treasury. \$54 bn worth of credit offered thus far. |
| Forex Swap Lines | 0.36 | Additional 9 central banks added to the list of 5, to which US Fed will offer swaps. Basically, lend US\$ against those countries' local currency. Peaked at \$583 mn in 2008. Thus far, Fed has contracted for swaps worth \$0.36 bn as at 9-Apr-20. |
| Primary Market Corporate Credit Facility | - | Serve as a funding backstop for investment grade corporate issuers. Spreads and interest rate of investment grade bonds would be worth monitoring for this. |
| Secondary Market Corporate Credit Facility | - | The Fed also announced that it would buy corporate bonds and corporate bond ETFs directly in the secondary market. Bonds would be IG-rated and have maturities up to 5 years. |

Is this enough?

Fed's recent balance sheet expansion of \sim \$2 trillion has helped global markets stabilize for the time being. However, large portion of this liquidity were targeted towards US financial



markets.

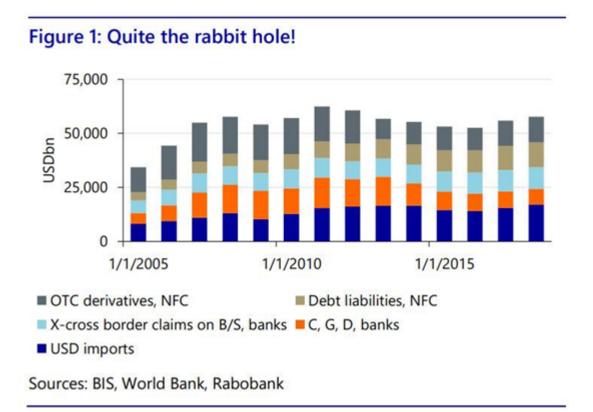
There is a large non-American, non-bank US\$ financial system called the Eurodollar market as well. This is where the US\$'s reserve currency status is really reinforced. As per BIS, this stood at \sim \$12 trillion as at Sep-19. Of this, emerging market liabilities stood at \$3.8 trillion.

| | Amou | Amount outstanding (USDbn) | | | Annual change (%) | | |
|--------------------------------------|--------|----------------------------|--------|-------|-------------------|-------|--|
| | Q1 19 | Q2 19 | Q3 19 | Q1 19 | Q2 19 | Q3 19 | |
| Borrowers outside the United States | 11,772 | 11,909 | 12,075 | 3.7 | 4.2 | 5.7 | |
| Of which: emerging market economies | 3,694 | 3,727 | 3,790 | 1.4 | 2.0 | 3.6 | |
| Africa and Middle East | 887 | 901 | 952 | 14.2 | 10.5 | 12.9 | |
| Saudi Arabia | 144 | 157 | 156 | 28.8 | 25.6 | 21.5 | |
| South Africa | 44 | 42 | 48 | 19.4 | 5.0 | 9.5 | |
| Emerging Asia and Pacific | 1,390 | 1,398 | 1,404 | -1.0 | -0.6 | 1.1 | |
| China | 500 | 504 | 499 | -8.4 | -5.5 | -1.9 | |
| Chinese Taipei | 56 | 55 | 56 | -10.3 | -8.2 | -9.7 | |
| India | 109 | 112 | 118 | 5.3 | 12.0 | 15.6 | |
| Indonesia | 172 | 172 | 177 | 6.6 | 4.0 | 6.2 | |
| Korea | 120 | 127 | 127 | 1.3 | 2.9 | 1.2 | |
| Malaysia | 41 | 42 | 38 | -0.1 | 2.5 | -4.9 | |
| Emerging Europe | 422 | 411 | 410 | -9.6 | -8.0 | -6.4 | |
| Russia | 151 | 148 | 148 | -14.1 | -11.1 | -7.5 | |
| Turkey | 186 | 181 | 181 | 4.4 | 3.0 | 4.5 | |
| Latin America | 995 | 1,018 | 1,024 | 0.0 | 3.1 | 3.7 | |
| Argentina | 124 | 120 | 118 | -1.9 | -4.6 | -6.9 | |
| Brazil | 174 | 180 | 179 | -6.3 | -1.4 | -0.8 | |
| Chile | 105 | 110 | 112 | 6.5 | 8.5 | 10.8 | |
| Mexico | 277 | 288 | 296 | 4.6 | 8.5 | 10.8 | |
| By instrument | | | | | | | |
| Borrowers outside the United States | 11,772 | 11,909 | 12,075 | 3.7 | 4.2 | 5.7 | |
| Bank loans | 5,746 | 5,797 | 5,839 | 3.6 | 4.7 | 6.0 | |
| Debt securities issues | 6,027 | 6,112 | 6,237 | 3.8 | 3.7 | 5.4 | |
| Of which: non-financial borrowers | 3,089 | 3,127 | 3,184 | 2.7 | 2.4 | 4.9 | |
| Of which: emerging market economies | 3,694 | 3,727 | 3,790 | 1.4 | 2.0 | 3.6 | |
| Bank loans | 2,009 | 2,023 | 2,023 | -3.6 | -1.4 | -1.8 | |
| Debt securities issues | 1,685 | 1,704 | 1,766 | 8.2 | 6.3 | 10.5 | |
| Of which: non-financial borrowers | 1,448 | 1,467 | 1,522 | 8.0 | 6.3 | 10.6 | |
| Memo: Borrowers in the United States | | | | | | | |
| Non-financial borrowers | 51,934 | 52,322 | 53,172 | 5.0 | 4.1 | 4.6 | |
| Of which: government | 21,364 | 21,440 | 21,923 | 5.3 | 4.4 | 5.5 | |

Over and above this, there are other exposure or obligations that non-US\$ countries have. If we add other exposures, we get total liabilities to the tune of \$55-60 trillion as at 2018,

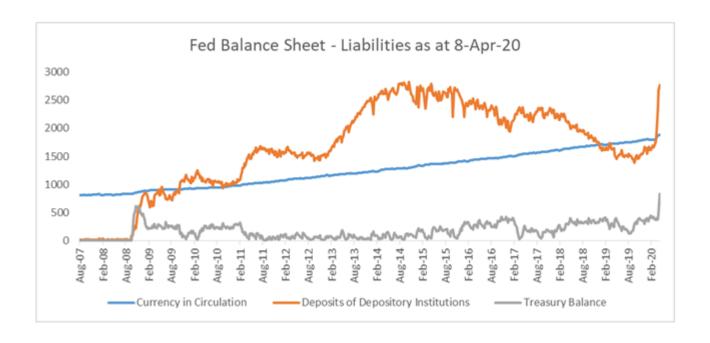


based on data compiled by Rabobank as below.



All these liabilities are floating around on the back of \sim \$2 trillion currency in circulation and \sim \$6 trillion of the Fed's total balance sheet. Hence, whenever there are sudden credit oriented panics in the market, we see DXY (Dollar Index) rising on US\$ shortages- real and perceived.





QE4 on the face of it appears to be inadequate compared to the total \$55-60 trillion of liabilities outside of US, though it is always a question of perception. So, if the markets perceive the problem has been taken care of and there is no rush down the Exter's pyramid, the situation stabilizes – until of course the next episode. Part of the initial rush for US\$'s seems to have also largely been met out of foreign exchange reserves held by several countries. Total US\$ held by world central banks as foreign exchange reserves stood at \$6.7 trillion as at 2019. A large part of these reserves is held as US Treasuries, selling of which to US Fed as part of QE can also become a source of US\$ outside of US. But liabilities are still ~10x of total reserves, indicating a large and permanent hole in the event of widespread loss of confidence in credit instruments.

Note that above is in addition to \$47.3 trillion of liabilities across sectors in US itself.

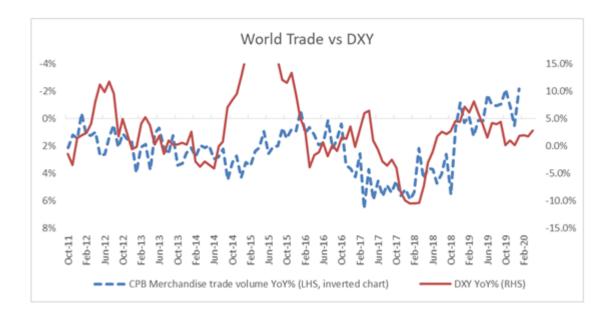
Are we near end of the crisis?

The flows of US\$ traditionally have come by way of US running trade deficits versus the rest of the world. For years now it has borrowed from the world (issued liabilities) and consumed at the margin by issuing liabilities. All this has been possible because of the US\$' reserve currency status.

Historically, weaker US\$ is associated with higher world trade and vice versa. Higher world



trade acts as source of US\$ flowing out of the US, filling this permanent hole to some extent. Thus, higher global trade acts as higher supply of US\$ for the world, resulting in weaker Dollar Index or DXY.



On another side, Fed's measures have also led to excess reserves with US financial institutions. Nordea's latest workings suggests that DXY weakness follows a rise in excess reserves. Hence, once lockdowns are over, as global trade resumes and US\$ start flowing outside of US, we can witness some DXY depreciation.





There are still questions as to when that happens and what happens in the interim. We are not even sure how much damage the whole crisis has done to world economies for global trade to pick up where we left of in 2019. We thus need to monitor how global trade picks up over the next few months and how economies rejig themselves post this crisis.

Systemic risk?

Eurodollar system works if loans and positions get "rolled over"; and not too many borrowers are forced to unwind their positions in a short span of time. With economies witnessing a major slowdown in activity, there are many instruments of questionable credit quality that market participants may not want to fund or roll over anymore.

The current crisis/panic has shown how vulnerable the architecture is. We saw above that there is a "permanent gap" in the total US\$ denominated liabilities which gets exacerbated whenever there is a crisis or a panic. Foreign reserves held by countries are just 1/10th of total liabilities and can only act as temporary buffer if everyone does not want to hit the exit



button at the same time.

The next chapter of the tug of war between a weak architecture of Global finance and a Fed that is determined to "do whatever it takes" and is unconcerned about unintended consequences to the concept of "money" is still be written, but we are sure its going to be an interesting one....

Annexure:

Our technical analysis on DXY currently suggests largely range bound movement between 94 and 104 for the time being. A break beyond these levels should give us a clear trend if we are entering into another round of \$ crisis or that the world has come out of it. DXY remains a primary indicator for US\$ liquidity in the global market.



Technical analysis by Mandar Chapekar.

Statutory Details: Multi-Act Equity Consultancy Private Limited (SEBI Registered Portfolio Manager – Registration No. INP000002965)



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Dollar Shortage and Eurodollars



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