Multi-Asset perspectives

Principal Global Asset Allocation (PGAA)

Monthly Market Perspectives: June 2020

Links to sections

I. Highlights

Macro

- The flattening of the COVID-19 curve was halted, at least temporarily with a rise in new cases in US and EMs.
- Economic recovery gathered pace. Global manufacturing PMIs jumped, financial conditions eased yet again, and economic surprises clocked a second successive positive month.
- Global inflation dropped, as anticipated by our leading indicator. Inflation should bottom out soon and start rising.
- Implied and realized cross-asset volatility were near their long-term averages, drawing risk-based capital into markets.

Bottom-up

- MSCI AC World's expected EPS growth for 2020 was -23%yoy in June relative to 10%yoy in Dec'19. We see scope for more cuts, though not a great deal more.
- The ratio of global credit rating upgrades to total rating changes remained at a very low 12%, with IG at 20% and HY at 8%. We expect the rating environment to remain rather weak.

Valuations

- US Treasuries remained super expensive; IG spreads approached fair value while HY spreads remained cheap.
- Earnings cuts and price recovery in April-June made it a V-shaped valuation move for equities, pushing them well into the expensive zone. Value cheapened further vs. Growth. Asia & EM valuations improved relative to US.

Markets

- Multi-Assets: Our global multi-asset index (details here) returned 2.5% as risk assets recovered further. YTD'2020 drawdown narrowed to -3.9%. Asset-class correlations remained high, limiting diversification benefits.
- Global equities continued to march higher in a V-shaped pattern. 35 out of 40 markets clocked gains, with a median local currency return of 2.8%, which shrank the median YTD'2020 drawdown to -13.4%. While US had a rare month of underperformance relative to Europe and EMs, Growth and Technology continued to outperform.
- Fixed income: PGAA's global policy rate indicator dropped -5bps to yet another all-time low of 0.98%. DM policy rate ended at -0.02% and EM policy rate at 2.62% (both at all-time lows). Global 10-yr yields were stable. Returns from spread products remained strong, in both absolute terms and relative to treasuries.
- Currencies: The US$ weakened for a third straight month on better orientation towards risk. Expensive valuations and declining yield advantage raise the hurdle for further sustained $ appreciation but political risks and COVID-19 related uncertainty could keep it supported.
- Commodities: The GS commodity index was helped to a gain of 6 (-25% YTD'20), powered by energy and copper.

Looking Ahead

- Markets have ridden the good news on monetary/fiscal support along with progress on COVID-19. The odd bad news hasn't really been taken as "bad" on the belief that if it gets worse, it will invite more supportive policy action. At some stage, good news on the economy must start raising prospects of reduced monetary/fiscal support, at which point markets are bound to pause to take stock.

Key risks

- Failure to contain the spread of COVID-19 leading a halt in return to work strategies.
- Monetary/fiscal policy support is withdrawn too soon.
- The US election cycle starts creating political noise (dysfunctional Congress and US-China relationship under strain as China becomes a focal point). Also, a democratic control of all 3 branches of the Govt. will almost certainly cause corporate taxes to rise. Historically, a clean sweep has yielded weaker results than a divided power set-up.
- From a longer-term perspective, Govt intervention in allocation of resources will come with strings attached. Laws could be tightened around buybacks, distributions, leverage etc.
- Social stress caused by COVID-19 could manifest itself in unanticipated ways including bouts of unrest, which could dampen the recovery. Also, prolonged unemployment payouts could disincentivize workers from returning to work, impacting potential labor supply.

II. Macro-economic summary

It was a month of further recovery for risk assets. Key factors at play were –

- The flattening of the COVID-19 curve was halted, at least temporarily with a rise in new cases in US and EMs. News on vaccine development was encouraging. Our COVID chart pack can be accessed here.
- Monetary and fiscal policy support remained strong, though fiscal support could ebb unless some expiring measures are renewed (details here).
- Growth recovered unmistakably (details here and here) but the critical question is how well the momentum sustains.
- Fixed income assets continued to hog flows from investors. The kitty with money market funds remained large (details here). Corporate issuance remained exceptionally strong, both in bonds and equities (details here).
- Geo-political risks were alive but weren't enough to derail markets (details here).

Table 1: Summarizing our fundamental, valuation and technical indicators

	Model Link	Indicator	Jun'20	May'20	Dec'19	Dec'18	1 month
Fundamental	1	PGAA Global Manufacturing PMI Index	49.3	42.4	48.5	52.0	↑
	2	PGAA Leading Industrial Production Indicator[2]	39.8	41.5	47.0	50.0	↓
	3	PGAA Global Inflation Index[1]	1.7%	2.2%	2.1%	2.3%	↓
	4	PGAA Global Financial Conditions Index	0.48	0.39	0.44	0.00	↑
	5	PGAA Global Economic Surprise Index[3]	0.35	0.02	0.29	-0.10	↑
	6	PGAA Global 3-month Earnings Revision Ratio	0.25	0.18	0.41	0.38	↑
		PGAA Global 3-month EPS change (in US$)	-17%	-22%	-1%	-3%	↑
		Global 2020 EPS growth expectation	-23%	-21%	10%	10%	↓
	7	Global Credit Rating Upgrade/Downgrade Ratio	12%	11%	43%	52%	=
Valuation	8	PGAA Equity Valuation Composite (MSCI AC World)	-1.4	-0.90	-0.9	0.5	↓
	9	PGAA High Yield Spread[4]	1.2	1.2	-1.2	-0.1	=
		PGAA Investment Grade Spread[4]	0.3	1.0	-1.4	-0.1	↓
		PGAA 10-yr Treasury Valuation[4]	-2.8	-2.9	-0.8	0.4	=
Technical	10	PGAA Cross Asset Volatility Index	80	79	52	81	=
	11	PGAA Cyclical Risk Environment Index	-1.52	-1.63	-0.75	-0.86	↑
	12	PGAA Cyclical Risk Positioning Indicator	0.0	-0.3	-0.2	-0.6	↑

Note: ↑ indicates positive for markets, ↓ indicates negative, = indicates stable momentum, red indicates -ve level; green +ve; direction of arrow shows if change is for better or worse; 1= 3-month average as of prior month, 2= 3m average, 3 = 3m time-weighted average, 4 = rolling 10-yr Z score

- *Our* global multi-asset index (45% equities, 5% commodities, 20% global govt. bonds, 15% Global IG, 10% global HY and 5% EM$ bonds) returned 2.5% in Jun'2020 to reduce **YTD'2020** drawdown to -3.9%, a far cry from the end 1Q'2020 number of -14.7%. All risk assets contributed positively, with commodities taking the lead, followed by equities and spread assets. Asset class correlations remained high, limiting the diversification benefit from multi-asset investing to 15% versus its long-term average of 25%.

Chart S1: Return snapshot (returns in US$)

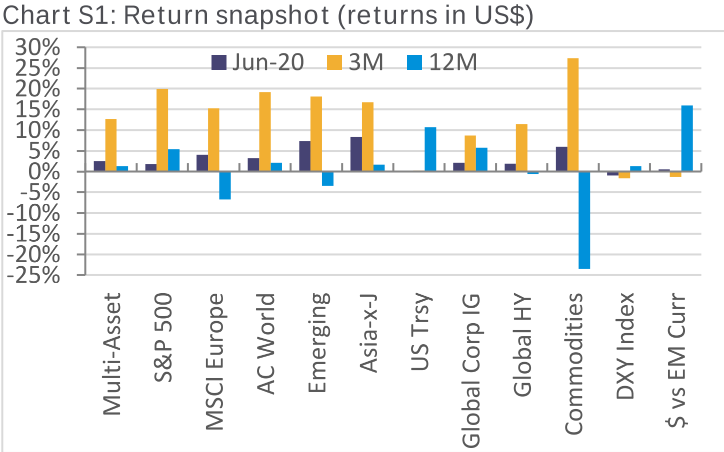
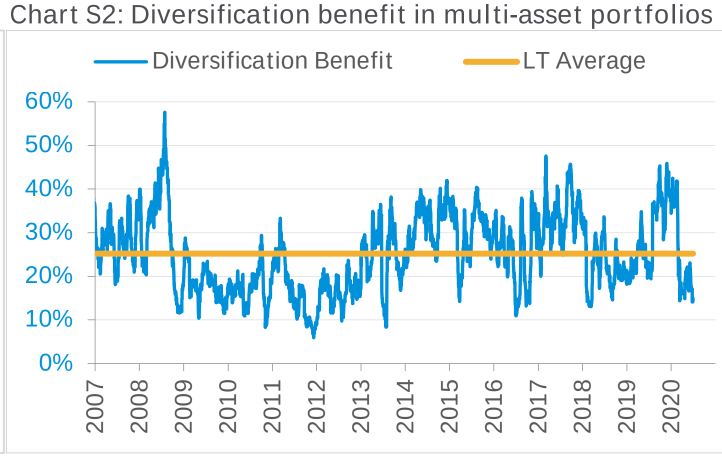


Chart S2: Diversification benefit in multi-asset portfolios



Source: Bloomberg/Factset/Principal Global Asset Allocation; Equity indices, other than S&P500 are from MSCI; bond indices are from ICE BofAML; Commodities represent GS Comm Index; +ve readings = $ gains in currencies; Diversification benefit is based on PGAA's internal models; As of 6/30/2020

III. Monetary policy, flows & other important developments

- Key Central Banks in action: Stimulative policy continued. Seven more central banks out of the 31 we track cut rates in June which took the *cut-hike scorecard to 61:2 for 2020 and 103*:4 for the last 12 months. Highlights of monetary policy actions in June were-
    - US Fed: Unchanged interest rates but a very dovish Fed. ***Powell's statement at the press conference summed** it all: they are not even thinking about thinking about raising rates*. Fed will keep rates at current levels (0-0.25%) unless they sustainably meet or even overshoot their 2% inflation target. Negative rates are unlikely, with forward guidance and balance sheet as key tools to get the desired monetary effects. There was no conclusion on the possibility of implementing yield curve control though it was discussed at the meeting. Asset purchases will be carried out @$80bn of treasuries and @40bn of MBS securities each month.
    - ECB: It was also more dovish than market expectations. The Pandemic Emergency Purchase Program (PEPP) top-up was €100 billion more than the €500 billion consensus expectation, taking the overall size to €1.35 trillion. The program was extended by six months to at least mid-2021. Full reinvestment of maturing principal will continue until end-2022, while the roll-off will be managed to avoid interference with the monetary policy goal of getting to sustained inflation of 2%. With the GCC hurdle seemingly out of the way (details here), a further extension is quite possible. On the sides, ECB's June TLTRO auction at -100bps yielded a record €1.3 trillion, showing it is in a 'whatever it takes' mode. Net of repayments, it implied a €550bn increase in net bank funding.
    - BoJ: No change in interest rates or asset purchase program but BoJ stands ready to do more.
    - BoE: It hiked its asset purchase program target by £100bn to €745bn but slowed the pace of purchases from £13.5bn a week to £4.5bn for the rest of 2020. Asset purchases will be curtailed before raising interest rates was a key message from its Governor Bailey. Negative rates are still under review.
    - EM Central banks: All 7 cuts took place in the EM world. Prominent were Philippines (-50bps to 2.25%, but their central bank indicated a prolonged pause hereon), Indonesia (-25bps to 4.25% with more cuts to follow; separately Bank Indonesia will monetize 2.7% of Govt debt by subscribing to zero interest govt. bonds to fund the budget deficit which will expand to at least 6% of GDP in 2020 from 2%), Mexico (-50bps to 5.5% with -100bps of cuts priced into markets over the next 12 months), Brazil (-75bps to 2.25%, markets are pricing an increase of 125bps in the next 12 months) and Russia (-50bps to 4.5%, with markets pricing one more -50bp cut). **India's RBI** did not cut rates but announced an operation twist to keep term premiums suppressed.

- Global Fiscal taps remained open. In the US, the Paycheck Protection Program (PPP) of forgivable loans to small enterprises was extended by both houses. $130bn remains unused out of the $670bn allocated to it. However, talks about a new stimulus program ended inconclusively. Emergency unemployment payments of $600 per month are expiring at the end of July but no decision was reached on it. In Europe, discussions on the €750bn recovery fund backed by €500bn of commonly issued debt began, with Germany calling for a deal before the summer break. Additionally, Germany will lower VAT till end 2020 and spend €130bn (3% GDP) in fiscal measures. In Asia, Korea (1.3% GDP) and Malaysia (2% GDP) expanded their fiscal programs further.

- US-China relationship: We remain concerned about the relationship between US-China-HKSAR. China's legislature passed the National Security Law for HKSAR which prohibits treason, secession, sedition, subversion and the theft of state secrets. Its passage is being interpreted by some as a breach of the "one country two systems" rule, a core element of the treaty that re-united HKSAR back with China from British rule. The main worry is it could undermine the independence of HKSAR's legal system. In response, US withdrew the special status granted to HKSAR. Both the Senate and the House are working on bills that could result in sanctions. Simultaneously, sanctions are being readied for human rights violations in the Xinjiang province. Our base case is-
    - The nature of sanctions will be mild, but the space will remain 'active" as US elections get close
    - China will continue to open up its markets and also honor its Phase 1 trade deal with US
    - It will continue to link up HKSAR even more closely with the Mainland economically and financially (it announced a program to connect wealth-management in the two regions, using the successful stock-connect and bond-connect programs in operation for a few years)

- India-China relationship: Close on the heels of the US-China tensions, India and China had a skirmish along one of their borders. It resulted in a loss of a few lives but thankfully, both sides have taken a step back. However, not all is good on the economic front, with India getting more selective in its embrace of foreign direct investment by Chinese enterprises. It also banned the use of certain Chinese applications on mobile devices in India, fearing security breaches. We hope both sides find a way of amicably resolving their differences soon.

- Constitutional worries ended in the Euro Area: The German Parliament approved ECB's bond purchase program, making them constitutional and paving the way for the German Constitutional Court (GCC) to clear them. In May, GCC had raised objections against the use of the program, asking ECB to present a study assessing and appraising it. We think it reduces the economic risks considerably but still keeps the legal risk by giving Euro-area country courts an ability to challenge ECJ in their own countries.

- Fund/ETF Flows: Bond funds continued to win big. Inflow of $92bn took YTD'2020 flow to $51bn (at the worst point in March, outflows totaled -$257bn). US and corporate bonds remained clear favorites. Inflation protection bonds had rare inflows, suggesting investors are warming up to the idea of higher inflation. Equities netted inflows in DMs but outflows continued in EMs. China onshore markets gained $7bn through the stock connect route while their onshore investors added $3bn to HK-listed stocks. Commodity fund flows favored precious metals. At $57bn for the year, flows were just north of 20% of AUMs. Investors withdrew $45 from the vast chest of Money market funds but their kitty was still huge at $1.2 trillion. We expect more to flow into risk assets (bonds & equities).

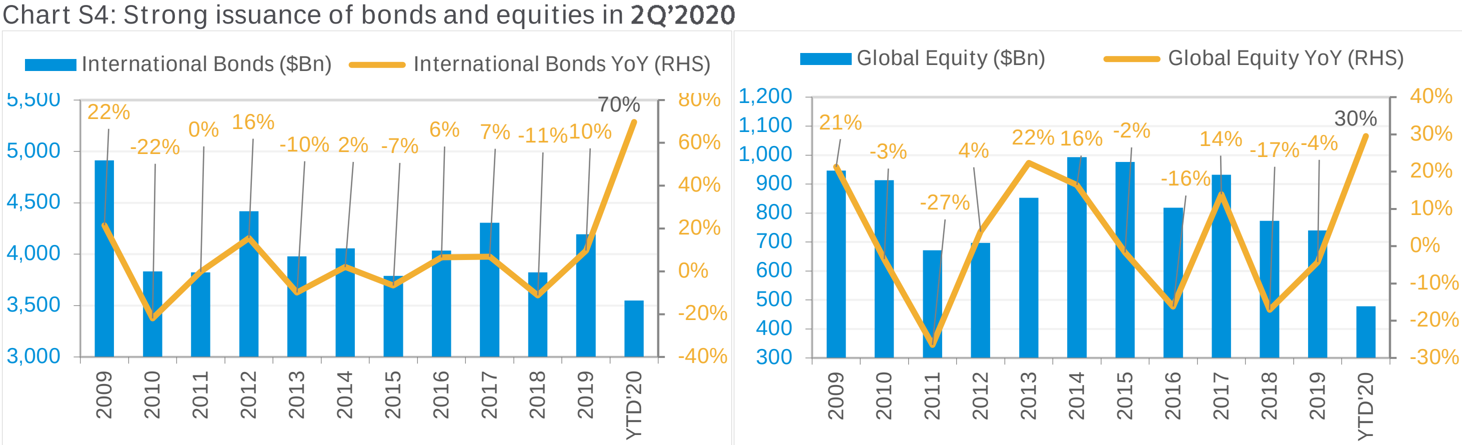
Chart S3: Fund Flows

Fund Flows (US$ Bn)	Flow in Jun-20	YTD Flow 2020	Flow in 2019	Fund Flows (US$ Bn)	Flow in Jun-20	YTD Flow 2020	Flow in 2019
Bonds	92	51	485	Equities	6	(35)	(150)
DM	88	89	445	DM	20	9	(134)
EM	4	(38)	40	EM	(13)	(44)	(16)
US	61	92	311	US	21	9	(39)
Other DM	27	(3)	134	Europe	(1)	(26)	(96)
IG Corp	29	65	62	Japan	(3)	(14)	(5)
HY Corp	21	35	44	Asia Pac	(11)	(101)	4
Sovereign IG	(6)	19	58		-		
Inflation Protected	3	(5)	(6)	Commodities	4	57	14
Bank Loans	(1)	(19)	(30)	Energy	(2)	18	(1)
				Precious Metals	6	30	15
Money Markets	45	1,177	491	Others	(1)	9	-

Source: Jeffries Equity Research, As of 6/30/2020

- Corporate issuance activity remained extremely strong with central bank promises to purchase corporate bonds catapulting international bond issuance to an annualized growth of 70%yoy with $3.6 trillion raised so far this year. Recovering equity prices caused new equity issuance to grow 30%yoy with $478bn raised in 1H'2020. We expect more issuance in coming months as companies recapitalize themselves. M&A activity, however, remained subdued, dropping to an annualized rate of $3.6 trillion versus $5.5 trillion in 2019.

Chart S4: Strong issuance of bonds and equities in **2Q'2020**

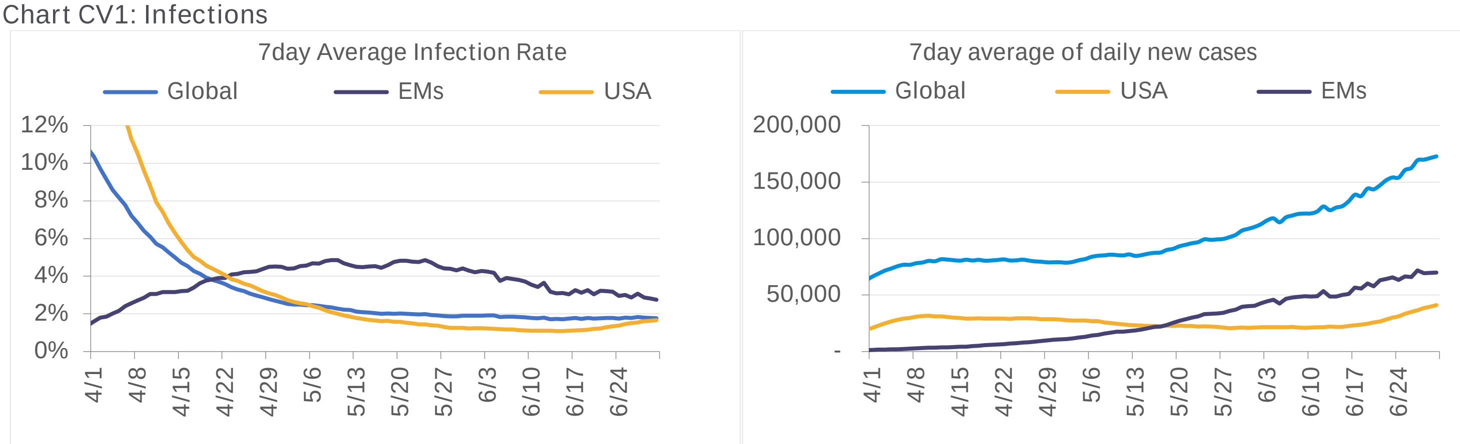


Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020; YoY growth for YTD'20 is annualized

COVID-19 Chartbook

- Global infections rose 70% to 10.5million at the end of June. Europe and HK curves remained flat but US and Emerging Markets (EMs) showed a spike. The 7-day average of daily new cases jumped to 173k from 110k last month. US cases jumped to 41k and EMs to 70k. Part of the reason for the rise in cases was increased testing and part of it was higher incidence (positive rate) as return to work strategies were implemented. The 7-day infection rate as % of total infections was at 1.8% (unchanged from the month prior).
- Global Fatalities rose 37% to 510k from 372k. However, the fatality rate eased to 4.9% from to 6% of infections. Among populous countries, India's (3%) was among the lowest. Mexico (12%) was the highest which could be due to under-reporting of cases. US was at 4.8%.
- Global Recoveries rose at a much faster pace than new cases, rising 102% to 5.3 million. As percentage of infections, they rose to 51% from 43%.
- Our Global Stringency Index, using Oxford data was at 66 from 70 versus a peak of 75 (100=highest stringency). Almost all regions showed a drop: US from 73 to 69, EMs from 81 to 78. There is little doubt that economic activity needs to be brought back to normalcy else governments will soon run out of resources to cap the downside, plunging the world into a deep economic chaos.
- Medical progress to find a solution to defeat the coronavirus continued. While Gilead started marketing its drug Remdisivir, vaccines being developed by Pfizer and Oxford are showing encouraging results. A vaccine by the end of the year looks a distinct possibility.

Chart CV1: Infections



Source: Bloomberg/Factset/Principal Global Asset Allocation; EMs=India, Brazil, Mexico, Chile, China, HKSAR, Malaysia, Singapore; As of 6/30/2020;

Chart CV2: Fatalities

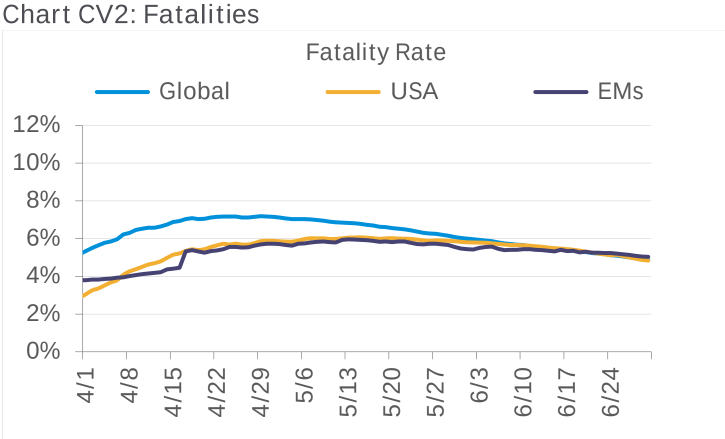
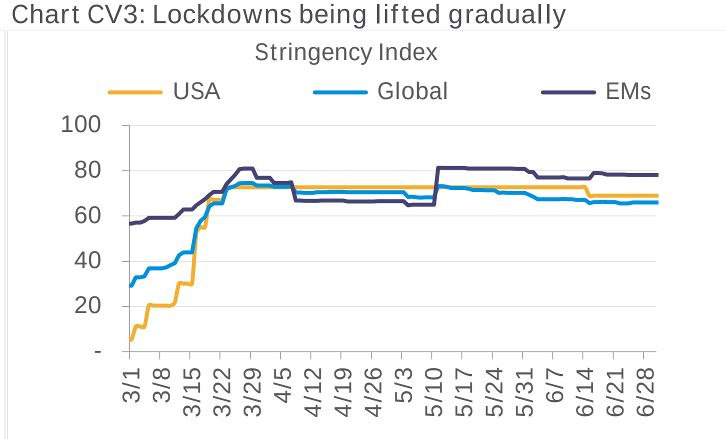


Chart CV3: Lockdowns being lifted gradually



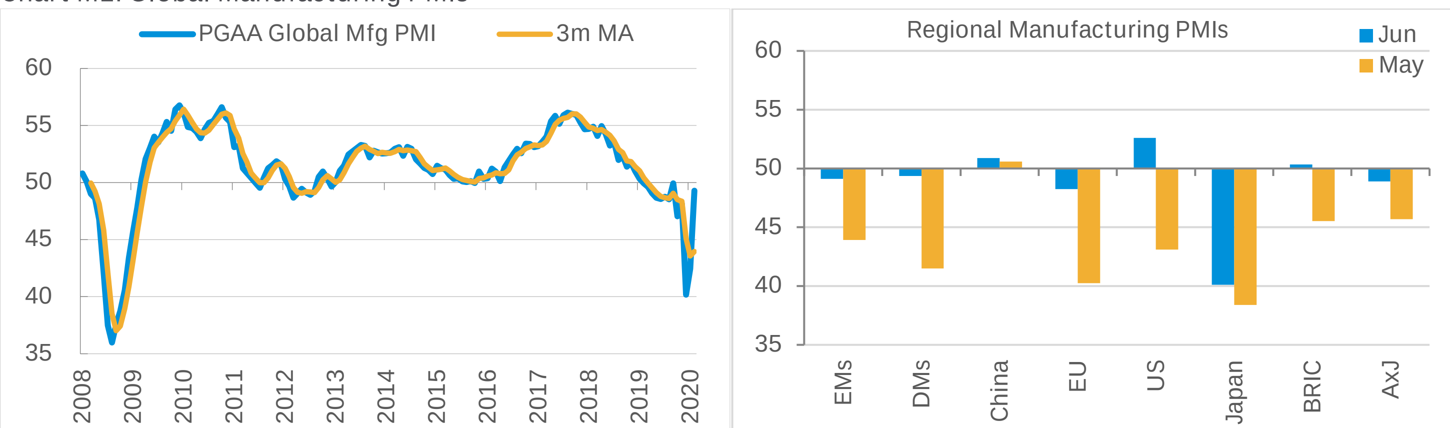
Source: Bloomberg/Factset/Principal Global Asset Allocation; Data from Oxford for stringency index, Global GDP Index is current GDP-weighted; As of 6/30/2020

IV. PGAA's macro & technical models

Growth & inflation

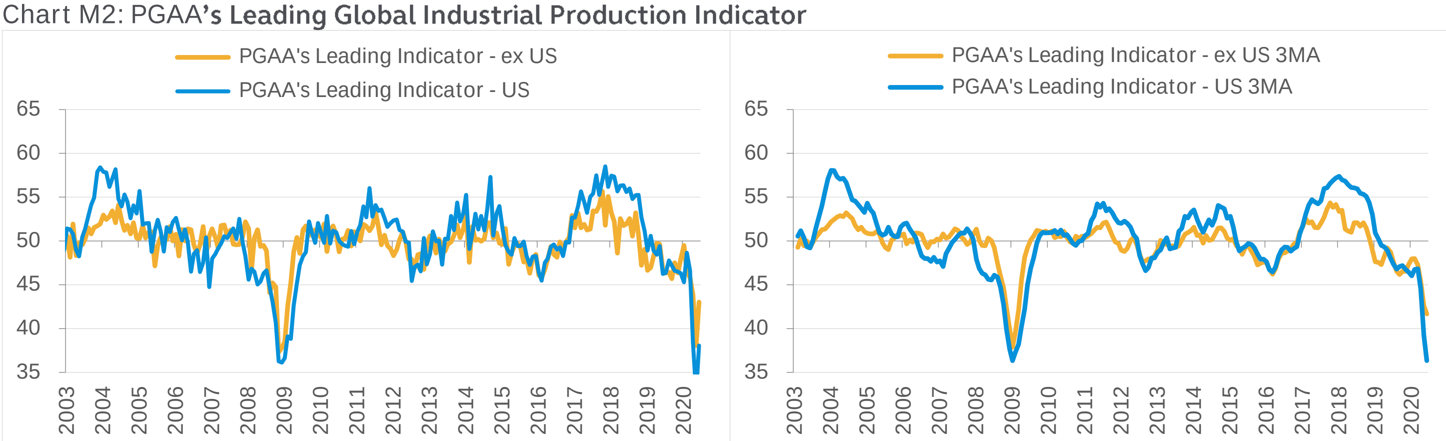
- Our provisional global manufacturing PMI index recovered 7 points (its highest monthly change) to 49.3 from 42.4. 80% of the countries saw improvement and 7 were in "above-50" club including US, China, South Africa and Brazil.
- Our Leading Global IP Indicator recovered to 41 from 36 but the 3m average eased to 40 from 41, staying in sub-trend growth zone (trend=50). Global Industrial production shrank at a pace of -16% yoy in Apr'2020.
- Inflation: Global inflation dropped to 1.3% yoy (-0.3%) in May'2020. The EM-DM gap eased to 2.2% (DMs 0.4%, EMs 2.6%). Our leading indicator suggests inflation is close to bottoming out.

Chart M1: Global Manufacturing PMIs



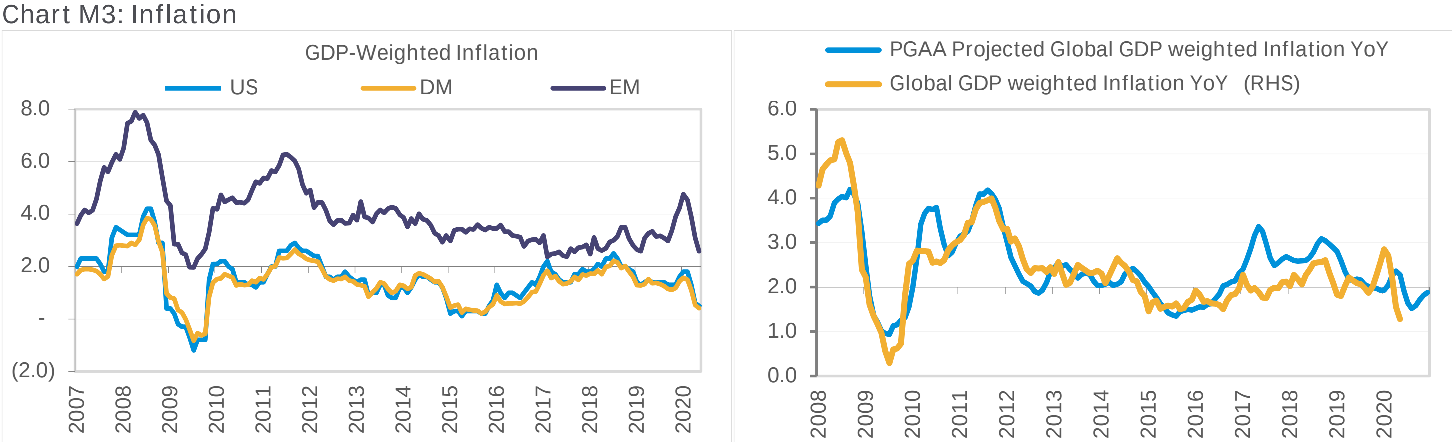
Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020; EM=Emerging Markets, DM=Developed Markets, US PMI based on survey

Chart M2: PGAA's Leading Global Industrial Production Indicator



Source: Bloomberg/Factset/Principal Global Asset Allocation; 3MA = 3 month moving average; As of 6/30/2020

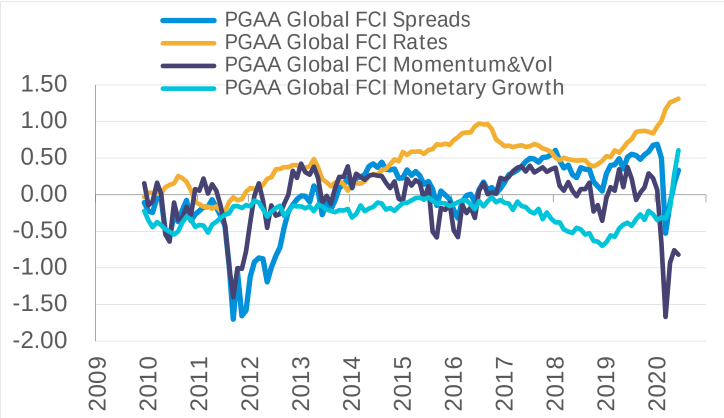
Chart M3: Inflation



Source: Bloomberg/Factset/Principal Global Asset Allocation; projected inflation uses constant input prices; As of 6/30/2020

Global Financial Conditions reached their easiest ever. Almost all sub-components eased. Credit spreads were lower, volatility and momentum stable (equity price recovery), monetary growth stronger and rates lower. This month's move put financial conditions at a new high. *It will be hard for conditions to ease significantly more, given that rates are already so low, volatility is back to its long-term average and spreads have tightened considerably.*

Chart M4: Global Financial Conditions



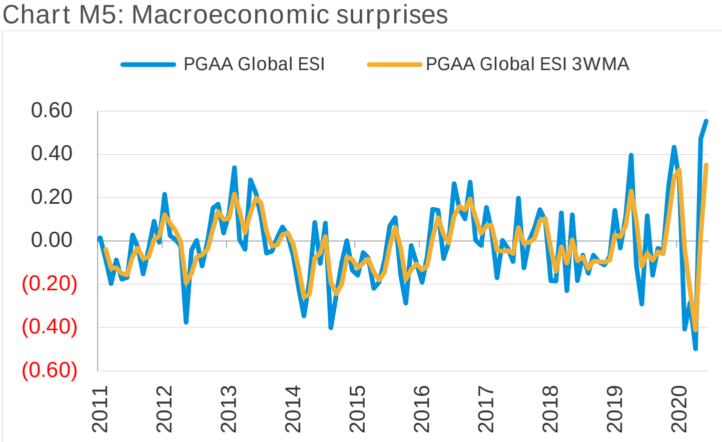
PGAA FCI	Jun-20	1M Chg	3M Chg	12M Chg
Global	0.48	0.11	0.54	0.13
U.S.	0.63	0.16	0.93	0.40
China	0.07	0.01	0.32	(0.04)
Euro Core	0.58	0.12	0.35	0.01
Euro Periphery	0.57	0.13	0.28	(0.03)
UK	0.52	0.08	0.50	0.03
Japan	0.41	0.09	0.30	(0.10)
India	0.31	0.14	0.65	0.19
Korea	0.28	(0.05)	0.26	(0.04)
Brazil	1.04	0.11	0.40	0.32
Mexico	0.16	0.15	0.75	0.28
DM	0.57	0.13	0.59	0.16
EM	0.27	0.05	0.42	0.08

Source: Bloomberg/Factset/Principal Global Asset Allocation; PGAA FCI=PGAA's Financial Conditions Index; DM=Developed Economies, EM=Emerging Economies; Higher=easier financial conditions; As of 6/30/2020

PGAA**'s** Global Macro Economic Surprise Index (PGAA Global ESI) stayed in positive territory, driven by a particularly sizeable beat in US releases where employment surprised massively along with consumption (retail sales). Housing was in line, while industrial and trade related releases disappointed. **China's** releases were broadly in line. Europe surprised positively too, with both Euro Area and UK beating by similar magnitudes. In the Euro Area, consumption recorded its 19th successive beat (a large one) while industrial and monetary releases were marginally ahead. In UK, while consumption, monetary and employment releases were very strong, industrial releases lagged substantially. Japan**'s** overall releases were broadly in line, with weaker employment and industrial releases offsetting beats in trade and consumption.

Global inflation surprises remained negative, but the magnitude of misses dropped. We will not be surprised to see them go back into positive territory soon, with inflation expectations having dropped considerably.

Chart M5: Macroeconomic surprises

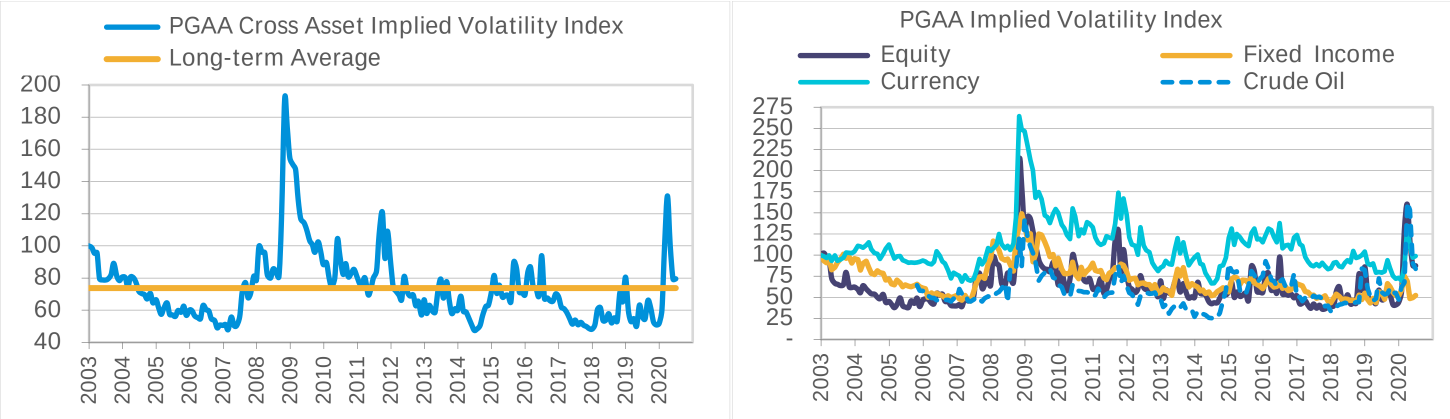


PGAA Economic Surprise Index (ESI)	Jun-20	May-20	Apr-20	Mar-20	3M Wgt MA
Global	0.55	0.47	(0.50)	(0.28)	0.35
U.S.	1.17	0.66	(1.27)	(0.27)	0.59
China	0.03	0.63	1.11	(0.83)	0.41
Europe	0.46	0.13	(1.34)	0.25	0.05
Japan	0.01	0.36	(0.05)	0.76	0.12
PGAA Inflation Surprise Index	**Jun-20**	**May-20**	**Apr-20**	**Mar-20**	**3M Wgt MA**
Global	(0.35)	(0.85)	(0.59)	(0.12)	(0.56)
U.S.	0.23	(0.19)	(0.26)	0.26	0.01
China	(1.36)	(2.06)	(2.27)	(0.29)	(1.74)
Europe	0.07	(0.29)	0.77	(0.33)	0.07
Japan	(1.00)	(2.18)	(0.50)	(0.85)	(1.31)

Source: Bloomberg/Factset/Principal Global Asset Allocation; ESI=PGAA's Macro Economic Surprise Index; 3WMA=3m weighted average; As of 6/30/2020

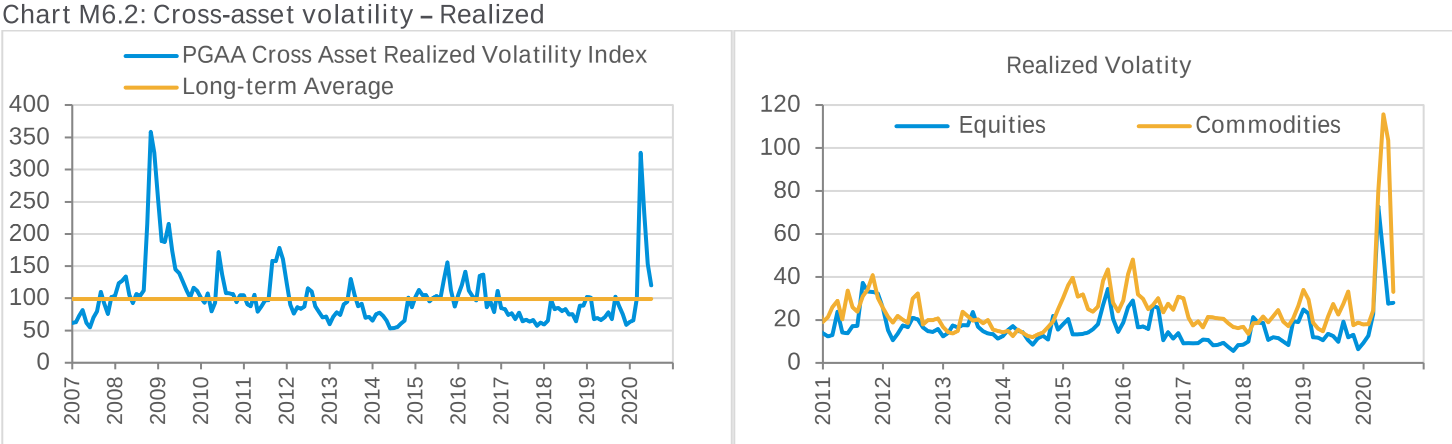
Global volatility: PGAA's Cross-Asset *Implied Volatility* index was broadly unchanged and near its long-term average. Commodity vols (↓-7%) declined, offsetting the 5% rise in fixed income vols. Equity and currency vols closed without much change. Realized Volatility saw a larger drop, finishing 20% above its long-term average from 55% the month prior. Commodity volatility, which was at 4x its historical average, collapsed to within 25% of it.

Chart M6.1: Cross-asset volatility - Implied



Source: Bloomberg/Factset/Principal Global Asset Allocation; Implied Volatility is re-based to 100 as of end-Dec'02; As of 6/30/2020

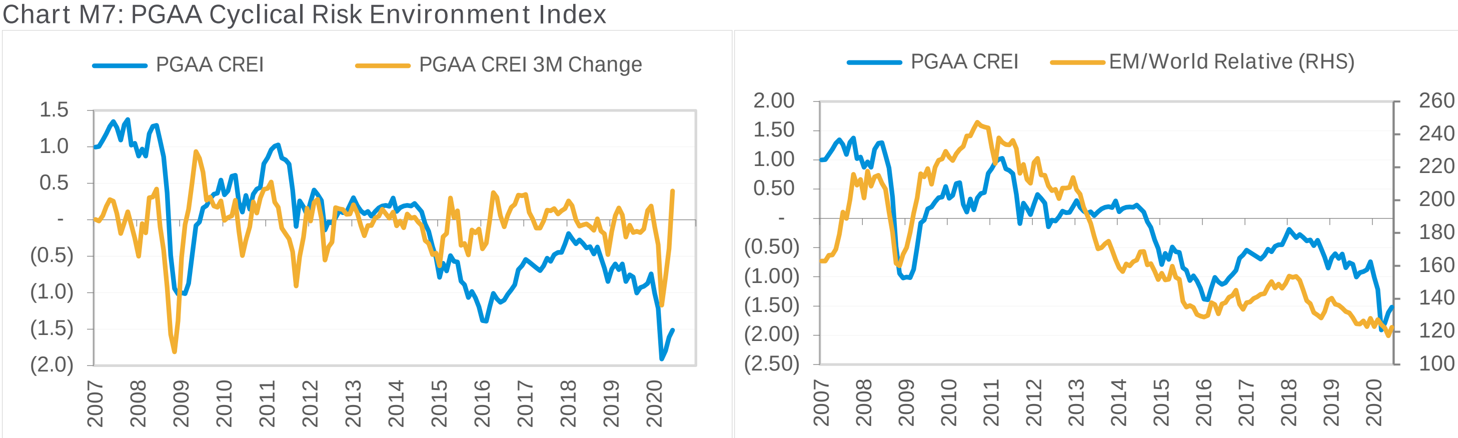
Chart M6.2: Cross-asset volatility – Realized



Source: Bloomberg/Factset/Principal Global Asset Allocation; Implied Volatility is re-based to 100 as of end-Dec'02; As of 6/30/2020

PGAA**'s Cyclical Risk Environment Index (CREI)** recovered further with strong breadth (83% of our factors were "risk-on" versus 92% the month prior). Commodities (higher oil and industrial raw material prices) saw the largest positive change, followed by credit (tighter spreads), equities (defensives lagged cyclicals) and currencies (cyclical currencies like AUD and CAD rallied to offset losses in BRL and RUB). Fixed income was unchanged (stable yields). EM equities outperformed DM equities.

Chart M7: PGAA Cyclical Risk Environment Index



Source: Bloomberg/Factset/Principal Global Asset Allocation; CREI=PGAA's Cyclical Risk Environment Index; As of 6/30/2020

Tactical positioning indicators

Systematic investors: PGAA's proprietary systematic indicators showed mixed signals as detailed below-

- Volatility targeting multi-asset portfolios: Lower volatility probably caused deployments to rise 10% ($50bn) in June, assuming AUMs of $500bn. We estimate risk exposures rose to 80% of normal from a low of 35% in March.
- Risk Parity portfolios: There wasn't much change in the level of EQ volatility relative to FI during the month, which kept risk-parity based allocations between EQ and Bonds broadly unchanged.
- Multi-asset rebalancing flows: On estimated AUMs of $4 trillion, June's price action is likely to have generated outflow of -$18bn from equities, inflow of $16bn into sovereign bonds and $1bn into corporate bonds. For the last quarter, cumulative flows were -$118bn from equities, $96bn into sovereigns and $22bn into corporate bonds.
- Momentum strategies: Both ST & MT momentum indicators improved for equities, creating positive flows from momentum-targeting strategies.

Chart T1: Rebalancing flows

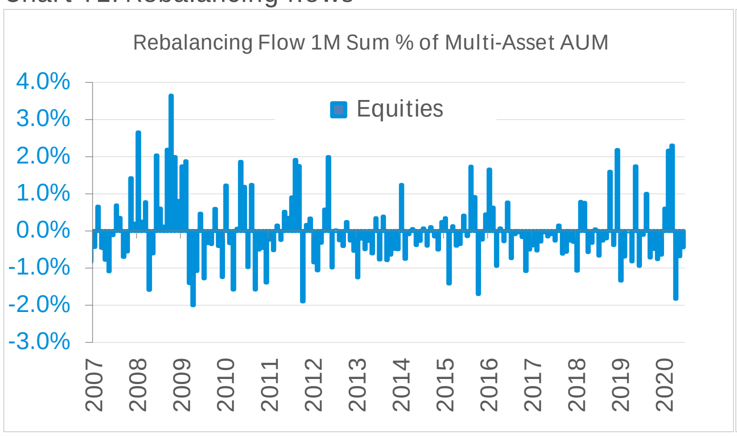
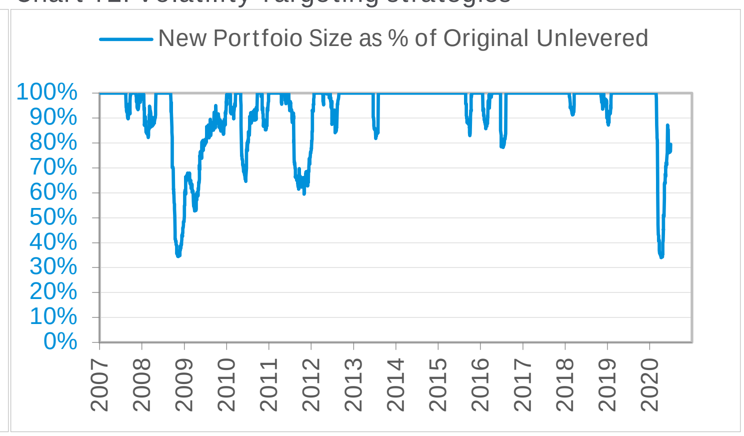


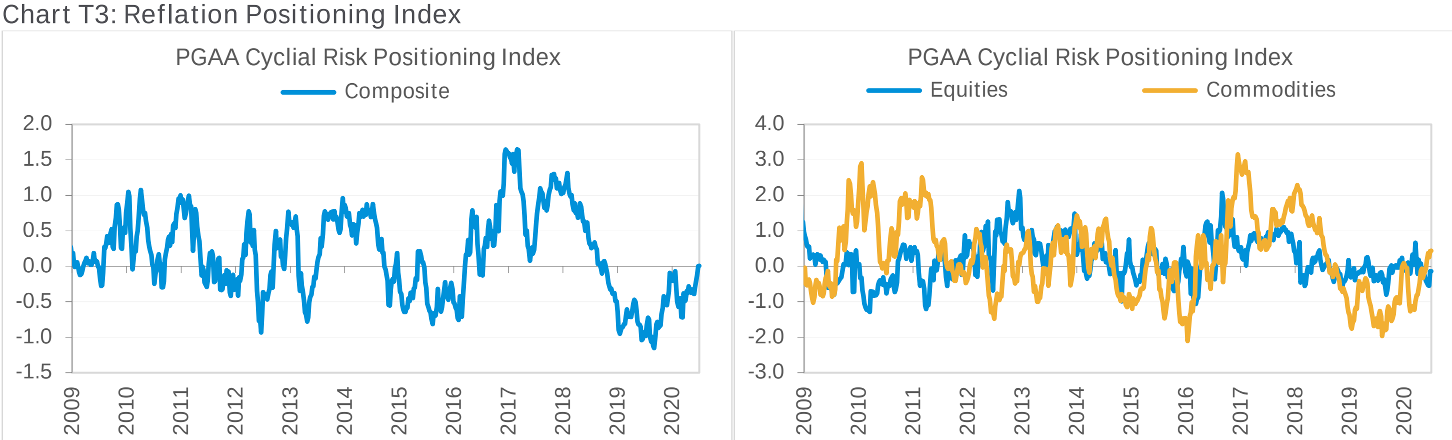
Chart T2: Volatility Targeting strategies



Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020. Both charts pertain to hypothetical systematic multi-asset portfolios

Cyclical risk positioning: Overall positioning into neutral with gains in equities, currencies and commodities.

Chart T3: Reflation Positioning Index



Source: Bloomberg/Factset/Principal Global Asset Allocation; Higher implies an increase in reflation positioning; As of 6/30/2020

RSI and Bollinger bands: US, Global, EM Corp IG and Copper show up in the overbought zone on one of the metrics.

Equity breadth remained strong. 35 out of 40 markets made gains (all 40 rose over the last quarter). 38 closed above their 50 DMA (day moving average), strengthening the tactical short-term overbought signal generated in May'20. Only 11 closed above their 200 DMA, indicating medium term momentum is not yet in the overbought zone. Only 26% (10-year median 56%) of NYSE stocks closed above their 200 DMA versus 25% the month prior.

Retail positioning: The AAII retail investor bull-bear ratio for equities eased dropped to -25 from -9 (10-year median 5).

Hedging was lowered further, the US equity Index put/call ratio dropping to 0.88 from 0.92 (10-year median 0.98).

V. PGAA's valuation indicators

(a) Equity valuations

Absolute: Earnings cuts and price recovery in 2Q'2020 have pushed equities well into the overvalued zone, particularly on earnings based measures. Several, however, remain cheap on P/B.

Relative: Despite a rare month of US underperformance, US remained almost as expensive as it has ever been vs. ex-US markets. US Value cheapened further relative to Growth. Small and Mid-caps remained cheap relative to Large caps. Asia/EMs remained cheap relative to US but less so.

Chart V1: Equity valuations

June-20	Composite	1M Chg	3M Chg	12M Chg	Times Cheaper	Price to NTM EPS	1M Chg	3M Chg	12M Chg	Times Cheaper	Price to Book	1M Chg	3M Chg	12M Chg	Times Cheaper
MSCI AC World	-1.4	(0.5)	(2.1)	(1.0)	98%	19.2	4%	43%	27%	100%	2.3	5%	21%	2%	72%
MSCI World Index	-1.5	(0.4)	(2.1)	(1.0)	100%	20.2	4%	45%	29%	100%	2.5	5%	22%	2%	79%
MSCI EAFE	-0.4	(0.3)	(1.6)	(0.6)	61%	17.1	7%	43%	27%	99%	1.5	5%	16%	-4%	26%
MSCI EM (Emerging Markets)	-0.8	(0.8)	(1.7)	(1.0)	83%	14.1	10%	34%	16%	99%	1.6	10%	18%	2%	41%
MSCI AC Asia ex JP	-0.7	(0.7)	(1.4)	(0.8)	81%	14.6	10%	27%	12%	94%	1.6	11%	17%	4%	42%
MSCI World ex USA	-0.3	(0.3)	(1.6)	(0.6)	61%	17.1	7%	43%	27%	100%	1.5	5%	16%	-5%	24%
MSCI EM Latin America	-0.1	(0.6)	(1.9)	(0.2)	53%	15.4	15%	65%	21%	100%	1.8	10%	27%	-14%	36%
MSCI EM Eastern Europe	0.5	(0.1)	(0.6)	(0.2)	45%	8.9	9%	55%	31%	71%	0.8	-3%	6%	-15%	20%
MSCI BRIC	-1.0	(0.7)	(1.2)	(0.9)	84%	14.2	12%	35%	25%	97%	1.8	11%	17%	7%	59%
MSCI USA	-2.0	(0.5)	(2.3)	(1.1)	100%	22.3	1%	46%	29%	100%	3.7	5%	28%	6%	100%
MSCI Europe	-0.7	(0.3)	(1.8)	(0.6)	78%	17.4	6%	46%	28%	100%	1.7	5%	14%	-6%	31%
MSCI Japan	0.2	(0.1)	(0.6)	(0.4)	45%	16.5	9%	39%	31%	74%	1.3	3%	17%	3%	37%
MSCI Germany	-0.7	(0.1)	(1.9)	(0.9)	82%	17.1	8%	59%	36%	100%	1.5	8%	22%	-3%	26%
MSCI United Kingdom	0.6	(0.2)	(1.1)	0.1	21%	15.3	6%	45%	23%	85%	1.5	2%	9%	-14%	4%
MSCI China	-0.8	(0.6)	(0.8)	(0.8)	84%	13.9	12%	24%	23%	86%	1.9	14%	16%	15%	56%
MSCI USA Large Cap	-2.2	(0.5)	(2.3)	(1.2)	100%	22.1	1%	44%	29%	100%	3.9	7%	29%	10%	100%
MSCI USA Mid Cap	-1.0	0.1	(2.0)	(0.4)	99%	23.7	1%	60%	31%	100%	2.6	-5%	22%	-11%	51%
MSCI USA Small Cap	-0.6	(0.3)	(2.0)	(0.7)	87%	33.9	8%	112%	66%	98%	2.0	2%	30%	-10%	25%
MSCI USA Value	-0.5	(0.4)	(1.8)	(0.2)	79%	16.5	0%	44%	19%	100%	2.2	8%	25%	-7%	58%
MSCI USA Growth	-3.8	(1.1)	(2.8)	(2.5)	100%	32.3	8%	51%	43%	100%	9.6	16%	46%	43%	100%
MSCI India	-0.3	(0.7)	(1.5)	(0.2)	68%	20.7	16%	54%	16%	98%	2.6	7%	22%	-4%	13%
MSCI Korea	-0.3	(0.3)	(1.0)	(0.8)	72%	11.8	3%	30%	7%	93%	1.0	6%	19%	1%	16%
MSCI Hong Kong	0.8	(0.6)	(0.6)	0.7	15%	15.3	13%	16%	-1%	47%	1.1	14%	10%	-17%	7%
MSCI Taiwan	-0.4	(0.4)	(0.9)	(0.6)	86%	16.5	7%	25%	10%	93%	2.0	8%	19%	16%	77%
MSCI Singapore	1.0	(0.2)	(0.8)	0.4	8%	13.9	8%	32%	10%	64%	1.0	4%	9%	-19%	1%
MSCI Thailand	-0.7	(0.1)	(1.6)	0.3	88%	18.2	2%	44%	15%	100%	1.7	1%	20%	-20%	8%
MSCI Malaysia	-0.4	(0.6)	(1.8)	0.0	74%	18.2	7%	29%	10%	100%	1.5	3%	14%	-9%	4%
MSCI Philippines	0.7	(0.4)	(0.8)	1.1	24%	15.8	16%	49%	-3%	52%	1.7	10%	19%	-22%	10%
MSCI Indonesia	0.9	(0.3)	(0.6)	1.0	18%	15.1	16%	35%	-2%	81%	2.1	10%	14%	-23%	2%
MSCI China A Onshore Large Cap	-0.3	(0.4)	(0.6)	(0.4)	73%	12.8	11%	21%	10%	76%	2.0	11%	11%	8%	68%
MSCI Brazil	-0.9	(0.5)	(2.0)	(0.4)	87%	16.0	12%	79%	28%	100%	2.0	10%	39%	-8%	72%
MSCI Russia	0.4	(0.1)	(0.5)	(0.3)	51%	8.4	10%	57%	41%	76%	0.8	-5%	4%	-11%	30%
MSCI Mexico	1.0	(0.3)	(1.0)	(0.2)	16%	14.6	11%	37%	14%	51%	1.7	6%	5%	-16%	1%

Source: Bloomberg/Factset/Principal Global Asset Allocation; Valuation Composite (-ve = overvalued, we changed the methodology in Dec'19) is derived using earnings, book and dividend yield indicators. Green cells represent cheapness, Red cells expensiveness; As of 6/30/2020

Chart V2: Relative equity valuations

June-20	Price to NTM EPS	1M Chg	3M Chg	12M Chg	Times Cheaper	Price to Book	1M Chg	3M Chg	12M Chg	Times Cheaper
MSCI USA VS MSCI AC World	1.2	-3%	2%	2%	99%	1.6	0%	5%	4%	99%
MSCI Europe VS MSCI AC World	0.9	2%	2%	1%	42%	0.7	0%	-6%	-8%	0%
MSCI Japan VS MSCI AC World	0.9	5%	-3%	3%	8%	0.5	-2%	-3%	1%	2%
MSCI EM (Emerging Markets) VS MSCI AC World	0.7	6%	-6%	-8%	25%	0.7	4%	-2%	0%	8%
MSCI AC Asia ex JP VS MSCI AC World	0.8	5%	-11%	-11%	14%	0.7	5%	-3%	2%	13%
MSCI USA VS MSCI Europe	1.3	-5%	0%	1%	89%	2.2	0%	12%	12%	99%
MSCI AC Asia ex JP VS MSCI EM (Emerging	1.0	-1%	-5%	-3%	4%	1.0	1%	-1%	2%	64%
MSCI China VS MSCI EM (Emerging Markets)	1.0	1%	-7%	6%	40%	1.2	4%	-2%	12%	76%
MSCI USA Value VS MSCI USA Growth	0.5	-7%	-4%	-16%	0%	0.2	-7%	-14%	-35%	0%
MSCI USA Large Cap VS MSCI USA Mid Cap	0.9	0%	-10%	-1%	68%	1.5	13%	6%	24%	100%
MSCI USA VS MSCI World ex USA	1.3	-5%	2%	2%	99%	2.4	0%	10%	11%	99%

Source: Bloomberg/Factset/Principal Global Asset Allocation; Green cells represent cheapness, Red cells expensiveness; As of 6/30/2020

(b) Bond valuations

Based on our 10-yr rolling z-score models,

- US Treasuries remained expensive after yet another month of stable yields.
- IG moved towards fair value but HY spreads remained cheap, though levels of cheapness reduced further.

Chart V3: Sovereign and corporate bond yields

	UST 10-Year	BarCap US Investment Grade Credit			BarCap US Corporate High Yield		
	Yield %	YTW %	OAS %	Excess Spread %	YTW %	OAS %	Excess Spread %
Current	0.66	2.05	1.42	0.76	6.87	6.26	5.60
Max	3.47	4.27	2.55	1.88	9.51	8.80	8.13
Min	0.64	2.05	0.82	-2.15	4.91	3.16	0.10
Median	2.25	3.13	1.27	-0.98	6.39	4.59	2.25
Mean	2.23	3.18	1.32	-0.91	6.59	4.81	2.58
Std. Dev.	0.58	0.44	0.32	0.75	1.03	1.22	1.57
1m Change	0.00	-0.23	-0.22	-0.22	-0.15	-0.11	-0.11
3m Change	-0.01	-1.18	-1.13	-1.12	-2.57	-2.54	-2.53
12m Change	-1.35	-1.04	0.33	1.68	1.00	2.49	3.84
Current Z-Score	-2.73	-2.59	0.32	2.23	0.27	1.18	1.92

Source: Bloomberg/Factset/Principal Global Asset Allocation; YTW=Yield to Worst; OAS=Option Adjusted Spread; Excess Spread=OAS-UST 10yr; Z scores calculated using 10-yr rolling periods; IG Investment Grade, HY= High Yield; Negative=Expensive; As of 6/30/2020

(c) Currency valuations using purchasing-power parity-based models

Cheap: High Yielding EM currencies (Turkish Lira, Brazilian Real and Mexican Peso) occupy the top three spots.
Expensive: The US$ remained expensive, but Indonesian Rupiah, Thai Baht and Czech Krona were even more so.

Chart V4: Real-Effective Exchange Rates based currency values

Currencies (overvalued in red)	Time-Weighted CPI REER Change	Time-Weighted PPI REER Change	Equal Weighted (CPI&PPI)	Rank
Turkey	-28%	-16%	-22%	1
Brazil	-33%	-5%	-19%	2
Mexico	-22%	-11%	-16%	3
S Africa	-22%	-10%	-16%	4
Malaysia	-11%	-14%	-13%	5
Norway	-14%	-6%	-10%	6
UK	-11%	-8%	-10%	7
Singapore	3%	-16%	-7%	8
Japan	-9%	-4%	-6%	9
Sweden	-10%	-1%	-6%	10
Canada	-5%	-3%	-4%	11
Hong Kong	7%	-15%	-4%	12
Taiwan	0%	-7%	-4%	13
Korea	-3%	-1%	-2%	14
Chile	-13%	8%	-2%	15
Hungary	-4%	1%	-1%	16
India	5%	-7%	-1%	17
Euro Area	1%	-1%	0%	18
Poland	-1%	2%	1%	19
Russia	4%	-1%	1%	20
Switzerland	-1%	6%	3%	21
Philippines	15%	-7%	4%	22
US	7%	4%	5%	23
Australia	6%	11%	9%	24
China	12%	8%	10%	25
Czech R	14%	10%	12%	26
Thailand	12%	23%	17%	27
Indonesia	12%	37%	24%	28

Source: Bloomberg/Factset/Principal Global Asset Allocation; Models use JP Morgan's CPI and PPI based currency values; As of 6/30/2020

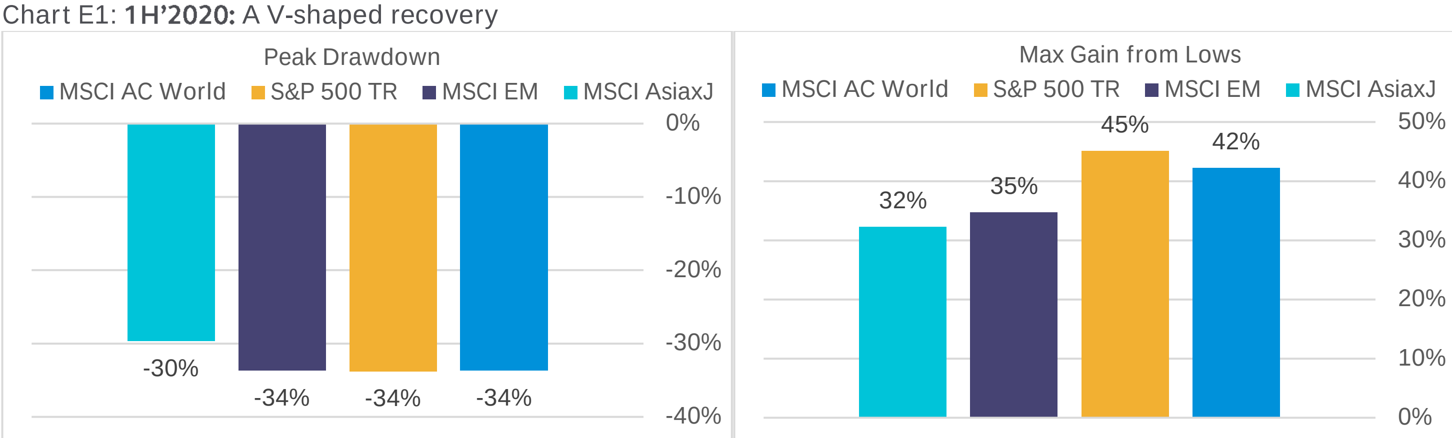
VI. Equities

HK SAR & China		30-Jun-20	Month	2Q'20	1Q'20	YTD'20	1yr	5 yrs	10 yrs	2019	2018
Hang Seng	HK$	24,427	6%	3%	-16%	-13%	-14%	-1%	2%	9%	-14%
H-Shares	HK$	9,759	2%	2%	-14%	-13%	-10%	-6%	-2%	10%	-14%
Shanghai Comp	CNY	2,985	5%	9%	-10%	-2%	0%	-7%	2%	22%	-25%
Shenzhen Comp	CNY	1,976	11%	19%	-3%	15%	26%	-4%	8%	36%	-33%
MSCI China	USD	626	9%	15%	-10%	4%	13%	5%	6%	23%	-19%
Developed											
S&P500-US	USD	3,100	2%	20%	-20%	-4%	5%	8%	12%	29%	-6%
Nasdaq-US	USD	10,059	6%	31%	-14%	12%	26%	15%	17%	35%	-4%
Russell 2000-US	USD	1,441	3%	25%	-31%	-14%	-8%	3%	9%	24%	-12%
DAX-Germany	EUR	12,311	6%	24%	-25%	-7%	-1%	2%	8%	25%	-18%
FTSE100-UK	GBP	6,170	2%	9%	-25%	-18%	-17%	-1%	2%	12%	-12%
CAC 40-France	EUR	4,936	5%	12%	-26%	-17%	-11%	1%	4%	26%	-11%
ASX 200-Australia	AUD	5,898	2%	16%	-24%	-12%	-11%	2%	3%	18%	-7%
Nikkei 225-Japan	JPY	22,288	2%	18%	-20%	-6%	5%	2%	9%	18%	-12%
Asia/Other EMs											
India-Sensex	INR	34,916	8%	18%	-29%	-15%	-11%	5%	7%	14%	6%
Korea-KOSPI	KRW	2,108	4%	20%	-20%	-4%	-1%	0%	2%	8%	-17%
Taiwan-TWSI	TWD	11,621	6%	20%	-19%	-3%	8%	5%	5%	23%	-9%
Singapore-STI	SGD	2,590	3%	4%	-23%	-20%	-22%	-5%	-1%	5%	-10%
Thai-SET Index	THB	1,339	0%	19%	-29%	-15%	-23%	-2%	5%	1%	-11%
Malaysia-KLCI	MYR	1,501	2%	11%	-15%	-6%	-10%	-3%	1%	-6%	-6%
Indonesia-JCI	IDR	4,905	3%	8%	-28%	-22%	-23%	0%	5%	2%	-3%
Brazil-BOVESPA	BRL	95,056	9%	30%	-37%	-18%	-6%	12%	5%	32%	15%
Russia-RTSI$	USD	1,213	-1%	20%	-35%	-22%	-12%	5%	-1%	45%	-7%
MSCI: Net Total Return (US$)											
MSCI AC World	USD	265	3%	19%	-21%	-6%	2%	6%	9%	27%	-9%
MSCI US	USD	8,501	2%	22%	-20%	-2%	8%	10%	13%	31%	-5%
MSCI Europe	USD	6,259	4%	15%	-24%	-13%	-7%	1%	6%	24%	-15%
MSCI Japan	USD	6,329	0%	12%	-17%	-7%	3%	3%	6%	20%	-13%
MSCI EM	USD	476	7%	18%	-24%	-10%	-3%	3%	3%	18%	-15%
MSCI AsiaPac xJ	USD	495	8%	18%	-21%	-6%	0%	4%	6%	19%	-14%

Source: Bloomberg/Factset/Principal Global Asset Allocation; Annualized for > 1yr time periods; As of 6/30/2020

Equities recovered further, powered by extremely easy financial conditions (details here and here), further evidence of recovery in macro-economic growth (details here) and slowing momentum in earnings cuts (details here). Volatility remained low (details here) which encouraged volatility targeting strategies to increase risk allocations, absorbing potential outflow from rebalancing of multi-asset strategies as detailed here. Retail flows into equity funds were meagre and institutional positioning moderate, leading us to believe that short covering had an important role to play in the rally. On COVID-19, progress hit at least a temporary roadblock as increased testing and a higher positive rate (particularly USA and EMs) caused new cases to spike (details here). In geo-politics, US-China relationship remained strained while India-China relationship took a downward turn, but markets took these developments in their stride, assigning a low probability to actions that could start impact growth meaningfully (details here).

Chart E1: **1H'2020:** A V-shaped recovery



Source: Bloomberg/Factset/Principal Global Asset Allocation' As of 6/30/2020

June saw a widening of the V-shaped recovery that had started in the last week of March. Markets that were beaten down significantly in 1Q'2020 but didn't take much part in the Apr-May recovery found fresh legs to climb higher. Europe and emerging markets delivered one of their strongest returns in recent history relative to US equities. While Europe gained on ECB's positive surprise in announcing a larger than expected monetary package and the region moving closer towards debt mutualization through a joint recovery fund (details here), the EM renaissance was primarily due to cheaper valuations across EM assets (bonds, equities and FX) and a further recovery in growth which helped overcome disappointing news on virus control.

35/40 markets gained in June and all finished in the green for 2Q'2020, in sharp contrast to all finishing deep in the red in 1Q'2020. Median local currency return was 2.8% for the month and 16% of the quarter (97th percentile among historical quarterly returns), which helped recover the median YTD'20 return to -13.4% from -15.3%. Higher beta markets like Shenzhen (11%), Turkey (10%) and Brazil (9%) stole the show for the month but for the quarter, the top three had a mix of cyclicals (Argentina 59%, Brazil 30%) and secular growth (Nasdaq 31%).

Styles & sectors

- Momentum finished strong, winning in EMs, Asia & Japan. It was also the best performing style over 3m, 6m, 12m, 3years and 5years.
- Growth followed momentum behind during the month, as also for longer time periods. It was followed closely by Quality.
- Value topped in Europe but lagged everywhere else, along with Min Volatility. It remained the worst performing styles over all time periods.
- Large caps underperformed Small Caps 1-2% in US, EMs and China but outperformed by similar margins in Europe and Japan. For the year, large caps retained a healthy lead over small caps in all countries.

Chart E2: Style returns

Returns ($)	30-Jun-20												
Style Return-1m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst	Style Return-3m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst
US	4%	-1%	5%	1%	-1%	6%	US	23%	13%	30%	20%	13%	17%
EM	14%	5%	9%	6%	3%	11%	EM	38%	14%	22%	17%	12%	26%
AsiaxJ	17%	6%	10%	8%	4%	13%	AsiaxJ	40%	14%	23%	18%	12%	28%
Europe	4%	6%	3%	3%	2%	3%	Europe	18%	14%	17%	15%	11%	7%
Japan	3%	-2%	2%	2%	-1%	5%	Japan	17%	7%	16%	16%	5%	12%
Style Return-6m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst	Style Return-12m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst
US	5%	-17%	12%	2%	-7%	29%	US	12%	-9%	26%	16%	0%	35%
EM	6%	-18%	-2%	-9%	-10%	24%	EM	15%	-16%	10%	-1%	-8%	31%
AsiaxJ	19%	-14%	2%	-2%	-9%	33%	AsiaxJ	22%	-13%	13%	6%	-8%	35%
Europe	0%	-21%	-4%	-6%	-8%	21%	Europe	7%	-16%	3%	4%	-2%	23%
Japan	5%	-15%	1%	4%	-10%	21%	Japan	17%	-6%	13%	20%	-2%	26%
Style Return-36m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst	Style Return-60m	Momentum	Value	Growth	Quality	Min Vol	Best-Worst
US	15%	1%	19%	16%	9%	18%	US	14%	5%	15%	14%	10%	11%
EM	10%	-3%	6%	1%	1%	12%	EM	6%	-1%	6%	2%	1%	7%
AsiaxJ	11%	-2%	9%	5%	2%	13%	AsiaxJ	8%	0%	9%	6%	2%	9%
Europe	6%	-5%	5%	6%	3%	12%	Europe	6%	-2%	5%	6%	4%	9%
Japan	8%	-3%	7%	8%	2%	11%	Japan	5%	-2%	6%	8%	4%	10%

Source: Bloomberg/Factset/Principal Global Asset Allocation, As of 6/30/2020

- Among sectors, noticeable trends were-
  - IT outperformed in every region, extending its lead over other sectors.
  - Consumer discretionary outperformed comfortably in US and EMs.
  - Energy underperformed despite higher oil prices and remained the worst performing sector in 1H'2020.
  - Financials also underperformed, finishing as the second worst performing sector in 1H'2020.
  - Industrials struggled as well, worsening their relative return in all markets other than Europe.
  - US REITs eked out a small relative gain over equities but their 1H'2020 numbers stayed grim (-18% versus Global Reits -13%, S&P500 -3% and US High Yield -4%).

Chart E3: Sector returns: the winners and losers in YTD returns: Last month vs the month prior

YTD 6-20 Returns	US	Europe	Japan	AC World	EMs	Asia-x-Japan	China
Broad Market	-3%	-14%	-9%	-7%	-11%	-6%	2%
IT	15%	2%	-3%	12%	-2%	-2%	19%
Cons Disc	11%	-18%	-11%	1%	0%	0%	8%
Energy	-37%	-39%	-30%	-35%	-27%	-18%	-31%
Materials	-8%	-11%	-12%	-10%	-15%	-12%	-12%
Financials	-25%	-27%	-22%	-25%	-27%	-18%	-15%
Industrials	-14%	-15%	-13%	-14%	-17%	-15%	-9%
Relative							
Value vs Growth	-29%	-18%	-16%	-24%	-17%	-18%	-33%
Large vs Small Cap	11%	2%	3%	7%	4%	2%	6%
IT vs Market	18%	16%	6%	19%	9%	4%	17%
Cons Disc vs Market	14%	-4%	-2%	8%	11%	6%	6%
Energy vs Market	-34%	-25%	-21%	-28%	-16%	-12%	-33%
Materials vs Market	-5%	3%	-4%	-3%	-4%	-6%	-14%
Financials vs Market	-21%	-13%	-13%	-17%	-16%	-12%	-18%
Industrials vs Market	-11%	-1%	-4%	-7%	-6%	-10%	-11%

Versus Prev Month	US	Europe	Japan	AC World	EMs	Asia-x-Japan	China
Broad Market	2%	2%	0%	3%	6%	7%	8%
IT	8%	5%	3%	8%	9%	9%	21%
Cons Disc	6%	2%	0%	5%	7%	7%	8%
Energy	-1%	0%	-6%	0%	2%	4%	-3%
Materials	2%	4%	0%	3%	4%	4%	0%
Financials	0%	4%	-2%	2%	3%	5%	1%
Industrials	1%	4%	-1%	2%	3%	4%	2%
Relative							
Value vs Growth	-6%	1%	-3%	-4%	-5%	-6%	-11%
Large vs Small Cap	-1%	2%	1%	0%	-1%	0%	-1%
IT vs Market	6%	3%	3%	5%	3%	2%	13%
Cons Disc vs Market	4%	-1%	0%	2%	2%	0%	0%
Energy vs Market	-3%	-2%	-6%	-3%	-4%	-3%	-11%
Materials vs Market	0%	2%	0%	1%	-2%	-2%	-8%
Financials vs Market	-2%	2%	-2%	-1%	-3%	-2%	-7%
Industrials vs Market	-1%	2%	-1%	-1%	-3%	-3%	-6%

Source: Bloomberg/Factset/Principal Global Asset Allocation, As of 6/30/2020

Bottom-up earnings (FY2020)

- EPS growth expectations edged lower, but the rate of negative change declined. MSCI AC World's 2020 expected EPS growth was -23%yoy in June versus -21% in May. We are likely to end at -25% by the time 2Q'2020 results are out. Value, cyclicals (energy, financials) and small cap earnings have been hit the hardest, but cuts are beginning to stabilize. At a regional level, Russia, UK & Europe were the worst. 3-month revisions breadth (upgrades/total changes) remained weak but ticked up a tad.
- 2**Q'2020 Earnings season**: 2Q'2020 earnings are upon us. Corporate commentary on recovery and need for more stimulus will be keenly watched. Expectations are for EPS to drop -44%yoy each for S&P 500 & MSCI Germany.

Chart E4: Projected revenue and earnings growth

June-20		Sales Growth		Earnings Growth		Margin Growth		Dividend Yield		Payout Ratios	
	CCY	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
MSCI AC World	USD	-8%	8%	-23%	28%	-16%	19%	2%	2%	49%	42%
MSCI World Index	USD	-9%	7%	-24%	28%	-17%	19%	2%	2%	51%	43%
MSCI World ex USA	USD	-11%	6%	-30%	30%	-21%	23%	3%	3%	59%	52%
MSCI EM (Emerging Markets)	USD	-7%	11%	-14%	27%	-7%	15%	2%	3%	39%	36%
MSCI AC Asia Pacific ex JP	USD	-4%	10%	-9%	22%	-5%	11%	2%	3%	42%	39%
S&P 500	USD	-5%	9%	-22%	29%	-18%	19%	2%	2%	46%	37%
MSCI Europe	EUR	-14%	8%	-34%	33%	-22%	24%	3%	4%	62%	55%
MSCI Japan	JPY	-8%	3%	-27%	28%	-20%	24%	2%	3%	49%	39%
MSCI Germany	EUR	-10%	7%	-32%	47%	-24%	38%	3%	3%	58%	45%
MSCI China	CNY	-1%	13%	-6%	19%	-5%	5%	2%	2%	27%	26%
MSCI United Kingdom	GBP	-21%	10%	-36%	31%	-19%	19%	4%	5%	68%	62%
MSCI India	INR	-13%	10%	-18%	29%	-6%	17%	2%	2%	38%	35%
MSCI Korea	KRW	-4%	9%	14%	41%	19%	30%	2%	3%	33%	26%
MSCI Taiwan	TWD	-1%	6%	1%	17%	2%	10%	4%	4%	64%	61%
MSCI Brazil	BRL	-1%	12%	-25%	68%	-24%	50%	2%	4%	51%	49%
MSCI USA Large Cap	USD	-6%	9%	-19%	25%	-14%	15%	2%	2%	45%	38%
MSCI USA Mid Cap	USD	-7%	7%	-28%	36%	-23%	27%	2%	2%	45%	33%
MSCI USA Small Cap	USD	-9%	7%	-53%	101%	-49%	87%	2%	2%	75%	39%
S&P 500 Value	USD	-7%	8%	-31%	33%	-26%	24%	3%	3%	58%	44%
S&P 500 Growth	USD	-1%	11%	-10%	24%	-9%	12%	1%	1%	34%	30%
MSCI AC Asia ex JP	USD	-4%	10%	-8%	24%	-3%	12%	2%	3%	39%	35%
MSCI Hong Kong	HKD	-15%	12%	-21%	30%	-7%	17%	3%	4%	60%	51%
MSCI Singapore	SGD	-16%	8%	-29%	15%	-15%	6%	5%	5%	72%	65%
MSCI Malaysia	MYR	-10%	9%	-20%	23%	-12%	13%	3%	3%	61%	58%
MSCI Thailand	THB	-13%	9%	-29%	25%	-18%	14%	3%	3%	54%	51%
MSCI Indonesia	IDR	-6%	9%	-27%	29%	-23%	18%	3%	3%	56%	44%
MSCI Philippines	PHP	-10%	16%	-35%	29%	-28%	12%	2%	2%	37%	28%
MSCI Mexico	MXN	2%	8%	-29%	55%	-31%	44%	2%	4%	49%	48%
MSCI Russia	USD	-25%	13%	-51%	45%	-35%	28%	6%	7%	65%	56%
MSCI Chile	CLP	-16%	9%	-21%	29%	-7%	18%	3%	3%	52%	44%
MSCI Australia	AUD	-9%	3%	-23%	12%	-16%	8%	3%	4%	63%	67%

Source: Bloomberg/Factset/Principal Global Asset Allocation; Estimates are sell-side analysts' bottom-up aggregated expectations; As of 6/30/2020

Chart E5: Sectoral earnings growth heatmap for 2020: Cyclicals decimated, Tech & defensives are the saviors

2020 EPS Growth as of 6'20	Currency	Overall	Financials	Cons Disc	Real Estate	Materials	Industrials	Energy	IT	Comm Services	Staples	Health Care	Utilities
MSCI AC World	USD	-23%	-31%	-47%	-10%	-16%	-33%	-82%	0%	-12%	-4%	-1%	-2%
MSCI World Index	USD	-24%	-35%	-53%	-11%	-21%	-34%	-89%	-3%	-14%	-4%	-1%	-3%
MSCI World ex USA	USD	-30%	-34%	-53%	-15%	-21%	-37%	-81%	-8%	-14%	-6%	3%	-7%
MSCI EAFE	USD	-29%	-35%	-53%	-15%	-23%	-37%	-80%	-9%	-14%	-7%	3%	-8%
MSCI EM (Emerging Markets)	USD	-14%	-15%	-13%	-6%	10%	-19%	-65%	20%	2%	-3%	-2%	8%
MSCI AC Asia Pacific ex JP	USD	-9%	-11%	-18%	-7%	-11%	-18%	-47%	19%	6%	8%	0%	16%
MSCI USA	USD	-21%	-37%	-54%	-9%	-21%	-32%	-99%	-2%	-15%	-2%	-3%	1%
MSCI Europe	USD	-32%	-43%	-62%	-10%	-24%	-37%	-82%	-14%	-13%	-8%	3%	-7%
MSCI Japan	JPY	-27%	-18%	-42%	-14%	-37%	-40%	-85%	-3%	-16%	-5%	5%	-19%
MSCI Germany	EUR	-32%	-23%	-66%	4%	-56%	-47%		-16%	-9%	-24%	7%	-2%
MSCI United Kingdom	GBP	-36%	-50%	-57%	-18%	-10%	-25%	-86%	-45%	-19%	-5%	1%	-9%
MSCI Australia	AUD	-23%	-29%	-20%	-13%	-16%	-33%	-54%	-65%	-20%	-2%	-4%	-9%
MSCI China	CNY	-6%	-1%	2%	2%	-5%	-12%	-56%	20%	4%	25%	-7%	2%
MSCI India	INR	-18%	-13%	-65%		-47%	-36%	-17%	0%	103%	-2%	0%	-6%
MSCI Korea	KRW	14%	-11%	-15%		43%	13%	-289%	33%	105%	15%	63%	-158%
MSCI Taiwan	TWD	1%	-7%	-21%	-42%	-27%	-75%	-47%	14%	-6%	1%	-158%	
MSCI Brazil	BRL	-25%	-18%	-56%	-50%	-388%	4%	-124%	-48%	-9%	-24%	11%	-10%
MSCI Russia	USD	-51%	-42%			-15%		-66%		-7%	5%		7%

Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020

Chart E6: EPS trend (Rebased to 12/31/19=100)

2020-21 EPS Rebased		Jun-20	May-20	Mar-20	Dec-19	Jun-19
AC World	USD	75	76	90	100	105
World	USD	75	76	91	100	105
World x US	USD	71	73	88	100	106
EM	USD	75	78	86	100	106
Asia-Pac x J	USD	80	82	89	100	104
S&P 500	USD	77	78	92	100	105
Europe	EUR	69	71	87	100	105
Japan	JPY	73	80	96	100	105
Germany	EUR	70	73	87	100	108
China	CNY	86	91	93	100	104
UK	GBP	68	69	86	100	110
India	INR	70	76	94	100	108
Korea	KRW	82	83	95	100	103
Taiwan	TWD	90	90	94	100	96
Brazil	BRL	69	69	87	100	109
US Large	USD	78	79	93	100	105
US Mid	USD	73	72	91	100	105
US Small	USD	56	56	84	100	106
US Value	USD	71	72	90	100	103
US Growth	USD	85	85	96	100	106
Asia x J	USD	81	83	90	100	104
HK	HKD	78	82	89	100	106
Singapore	SGD	73	74	91	100	107
Malaysia	MYR	77	79	91	100	108
Thailand	THB	66	68	82	100	115
Indonesia	IDR	69	76	92	100	107
Philippines	PHP	65	69	96	100	98
Mexico	MXN	71	76	99	100	113
Russia	USD	54	58	64	100	103
Chile	CLP	73	77	92	100	108
Australia	AUD	78	78	93	100	107
New Zealand	NZD	83	85	97	100	102

Chart E7: Earnings Revision Ratio (0.5=neutral)

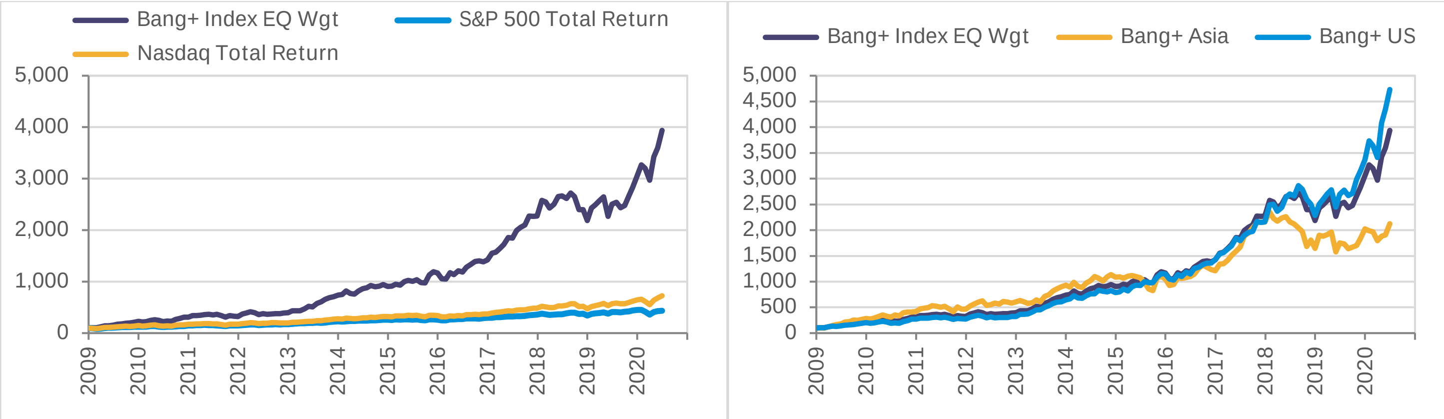
3m ERR 2020-21	Jun-20	May-20	Mar-20	Dec-19	Sep-19
AC World	0.25	0.18	0.32	0.43	0.40
World	0.23	0.14	0.30	0.42	0.39
World x US	0.21	0.15	0.29	0.42	0.38
EM	0.28	0.24	0.34	0.44	0.40
Asia-Pac x J	0.28	0.24	0.33	0.44	0.40
S&P 500	0.26	0.13	0.31	0.41	0.41
Europe	0.20	0.12	0.26	0.41	0.39
Japan	0.17	0.16	0.31	0.46	0.37
Germany	0.23	0.14	0.24	0.41	0.32
China	0.33	0.31	0.38	0.45	0.43
UK	0.17	0.11	0.26	0.32	0.41
India	0.12	0.07	0.28	0.42	0.40
Korea	0.32	0.22	0.33	0.38	0.39
Taiwan	0.40	0.25	0.32	0.60	0.46
Brazil	0.24	0.21	0.31	0.52	0.44
US Large	0.28	0.14	0.33	0.42	0.42
US Mid	0.24	0.13	0.29	0.41	0.40
US Small	0.29	0.19	0.31	0.41	0.39
US Value	0.24	0.13	0.29	0.39	0.39
US Growth	0.30	0.15	0.34	0.45	0.46
Asia x J	0.28	0.24	0.34	0.44	0.41
HK	0.18	0.13	0.24	0.34	0.29
Singapore	0.09	0.11	0.35	0.30	0.43
Malaysia	0.18	0.19	0.33	0.45	0.25
Thailand	0.12	0.08	0.16	0.34	0.30
Indonesia	0.23	0.18	0.18	0.41	0.39
Philippines	0.13	0.11	0.41	0.48	0.49
Mexico	0.18	0.20	0.32	0.34	0.28
Russia	0.33	0.31	0.44	0.33	0.46
Chile	0.24	0.16	0.26	0.39	0.24
Australia	0.29	0.16	0.27	0.41	0.35
New Zealand	0.49	0.31	0.42	0.50	0.37

Source: Bloomberg/Factset/Principal Global Asset Allocation; Earnings Revision ratio = Upgrades/(Upgrades+Downgrades); As of 6/30/2020,

Bang+ Index

Our Bang+ Index outperformed broader markets handsomely, rising 9.5% vs. S&P 500 return of 2% and MSCI ACWI return of 3.2%. For 1H'2020, its return of 28% dwarfed that for S&P 500 (-3%) and MSCI ACWI (-6%). Bang+ US gained 9% and Bang+ Asia 11%. Twelve out the thirteen stocks gained, with returns ranging from -5% to 29%. Bang+US retained its substantial lead over Bang+Asia, with a relative gain of 24% annualized over five years.

Chart E8: PGAA's Bang+ Index



Source: Bloomberg/Factset/Principal Global Asset Allocation; all returns are from MSCI indices except for the Bang+ index; As of 6/30/2020

BANG+ is a proprietary index created by Principal Global Asset Allocation in 2017. The index was created to monitor and track the largest U.S. and Asia technology stocks. The BANG+ index contains global "bellwether" technology companies that, in concert, inform the performance pattern of leading technology firms around the globe. It comprises 13 stocks (Apple, Amazon, Alphabet, Facebook, Microsoft, Intel, Nvidia, Tesla, Netflix, Tencent, Alibaba, Baidu and Samsung) with returns measured in US$. The index is rebased to 100 as of 31 December 2008. The performance shown is presented for illustrative purposes and are provided solely for conceptual discussion only and does not represent an actual strategy managed by Principal Global Asset Allocation. The proprietary index historical return was created with the benefit of hindsight and no representation is being made that any account will or is likely to achieve profits or losses like those shown. Proprietary model output is based upon certain assumptions that may change, are not guaranteed and should not be relied upon as a significant basis for an investment decision. It should not be assumed that securities identified above will prove to be profitable or have been chosen for investment within our portfolios. Any reference to a specific security does not constitute a recommendation to buy, sell or hold such security.

VII. Fixed Income

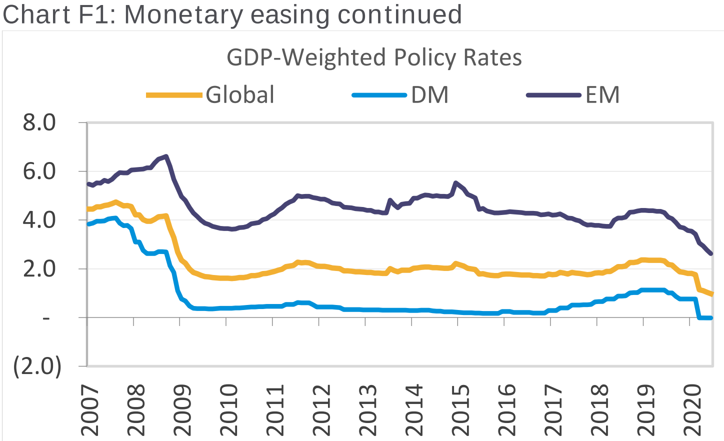
Key Policy Rates (%)		30-Jun-20	Month	2Q'20	1Q'20	YTD'20	1yr	5 yrs	10 yrs	2019	2018
US-Fed Funds	USD	0.25	-	-	(1.50)	(1.50)	(2.25)	-	-	(0.75)	1.00
UK Bank Rate	GBP	0.10	-	-	(0.65)	(0.65)	(0.65)	(0.40)	(0.40)	-	0.25
ECB Dep Rate	EUR	-0.50	-	-	-	-	(0.10)	(0.30)	(0.75)	(0.10)	-
Australia Cash Rate	AUD	0.25	-	-	(0.50)	(0.50)	(1.00)	(1.75)	(4.25)	(0.75)	-
China 7-day Rev Repo	CNY	2.20	-	-	(0.30)	(0.30)	(0.35)	(0.30)	-	(0.05)	0.05
Sovereigns (%)											
USA-10y	USD	0.66	0.00	(0.01)	(1.25)	(1.26)	(1.35)	(1.70)	(2.28)	(0.77)	0.28
UK-10y	GBP	0.17	(0.01)	(0.18)	(0.47)	(0.65)	(0.66)	(1.85)	(3.18)	(0.46)	0.09
GER-10y	EUR	-0.45	(0.01)	0.02	(0.29)	(0.27)	(0.13)	(1.22)	(3.03)	(0.43)	(0.19)
Australia-10y	AUD	0.87	(0.02)	0.11	(0.61)	(0.50)	(0.45)	(2.14)	(4.22)	(0.95)	(0.31)
Japan-10y	JPY	0.03	0.02	0.01	0.03	0.04	0.19	(0.44)	(1.06)	(0.01)	(0.05)
China-10y	CNY	2.85	0.16	0.27	(0.56)	(0.29)	(0.39)	(0.77)	(0.46)	(0.17)	(0.59)
India-10y	INR	5.89	0.12	(0.25)	(0.42)	(0.67)	(0.99)	(1.97)	(1.66)	(0.81)	0.04
Credit Spreads (bps)											
3m $ LIBOR-OIS	USD	24	(5)	(114)	103	(11)	4	10	(10)	(6)	14
US IG Corp	USD	150	(24)	(122)	179	57	35	5	(43)	(60)	60
US HY Corp	USD	626	(11)	(254)	544	290	249	150	(74)	(190)	183
Europe 5y IG CDS	EUR	67	(6)	(30)	52	22	15	(9)	(63)	(44)	43
Asia 5y IG CDS	USD	87	(15)	(54)	87	33	22	(27)	(58)	(43)	29
JPM EMBI Index	USD	433	(30)	(144)	300	156	67	42	75	(157)	124

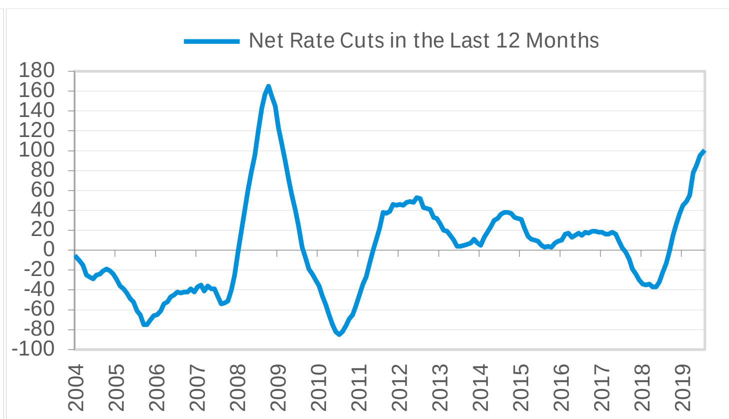
Source: Bloomberg/Factset/Principal Global Asset Allocation; Annualized > 1yr; As of 6/30/2020

Interest Rates and Yields

a) Policy rates: Details of key central bank actions during the month can be found here. PGAA's global policy rate indicator dropped -5bps to yet another all-time low of 0.98%. With DM policy rate already at -0.02% and EM policy rate dropping to 2.62% (both well below their GFC lows), a bulk of the incremental easing will likely be in the form of balance sheet support.

Chart F1: Monetary easing continued





Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020

b) Implied Fed Funds Forwards Rates remined pegged to zero up to 3 years. While the Fed doesn't seem inclined to using negative rates, markets will test their resolve every now and then.

c) Nominal Sovereign 10-yr Yields: **PGAA's** Global Sovereign 10-yr yield indicator closed at 1.83% (+2bps) in another month that saw yields move in a narrow range. 15 markets ended with higher yields and 14 lower. PGAA's DM yield composite was almost unchanged at 0.40%. EM yields eased 6bps to 3.91%, pulled up by Asian yields which rose 10bps to 3.18% as China's yields rose 16bps on continued growth recovery. Within EMs, the bias was for yields to be higher in Asia (Indian yields too rose 12bps) and EMEA (4bps) but lower in Latin America (Brazil -25bps and Mexico -36bps). In Europe, German yields were unchanged while peripheral yields came in further (Greece -31bps, Italy -22bps) as debt mutualization became a real possibility and ECB expanded its asset purchase program. The UST-Bund spread was unchanged at -111bps, hovering near its 6-year low. EM-US carry widened 5bps to 325bps (all-time high is 366bps).

d) Real Sovereign 10-yr real yields: Based on Inflation swaps, they were lower in US (-21 bps to -96bps), Germany (-7bps to -134bps), and Australia (-18bps to -50bps) as inflation expectations moved up. They were stable in UK and Japan at -322bps and 19bps respectively. However, based on CPI releases which come with a lag, they were higher as inflation came off further. PGAA's Global Real Yield indicator finished at -49bps from –37bps, with DMs at -28bps and EMs at 72bps. The *EM real yield carry over real USTs widened 26bp to 86bps.* Real UST carry over bunds widened 8bps to 128bps but has compressed -119bps in the past 12 months.

e) Term structure: Yield Curves (2-10s) narrowed another tad. Our global indicator finished -3bps lower at 70bps, driven by -10bps of narrowing in EMs to 109bps (further risk premium reduction). US 2-10 spread widened 2bps to 51bps. All curves were positive. Italy (110bps) continued to offer the best term carry in DMs and Brazil (338bps) in EMs.

Chart F2a: Nominal yields

10-yr Nominal Yields	Jun-20	1M Chg	3M Chg	12M Chg
Global	1.81	0.01	(0.14)	(0.81)
DM	0.40	(0.01)	(0.04)	(0.80)
EM	3.91	0.05	(0.28)	(0.81)
G7	0.40	(0.01)	(0.05)	(0.84)
DM ex US	0.15	(0.02)	(0.07)	(0.28)
US	0.66	0.00	(0.01)	(1.35)
Japan	0.03	0.02	0.01	0.19
Germany	(0.45)	(0.01)	0.02	(0.13)
EM-US	3.25	0.05	(0.27)	0.53
US - DM ex US	0.50	0.03	0.06	(1.06)
US - Japan	0.63	(0.02)	(0.02)	(1.54)
US - Germany	1.11	0.01	(0.03)	(1.22)

Chart F2b: Real yields deflated by CPI releases

10-yr Real Yields (deflated by CPI)	Jun-20	1M Chg	3M Chg	12M Chg
Global	0.12	0.49	0.88	(0.36)
DM	(0.28)	0.35	0.78	(0.08)
EM	0.72	0.70	1.03	(0.77)
G7	(0.26)	0.37	0.81	(0.11)
DM ex US	(0.41)	0.27	0.65	0.53
US	(0.14)	0.44	0.92	(0.72)
Japan	(0.17)	0.12	0.44	0.69
Germany	(1.42)	0.36	0.68	0.47
EM-US	0.86	0.26	0.11	(0.05)
US - DM ex US	0.26	0.17	0.27	(1.24)
US - Japan	0.03	0.31	0.48	(1.40)
US - Germany	1.28	0.08	0.24	(1.19)

Source: Bloomberg/Factset/Principal Global Asset Allocation; Yields are current GDP weighted; As of 6/30/2020

Credit spreads compressed again with IG taking the lead relative to HY. Central bank support stayed high (the Fed commenced its secondary market corporate credit facility). Bond funds had another month of strong inflows (details here). Asian HY outperformed (positive growth cues from China and cheap relative to US/Euro HY) and continues to provide the best relative value opportunity, though highly concentrated in Chinese issuers (61% As of 6/30/2020).

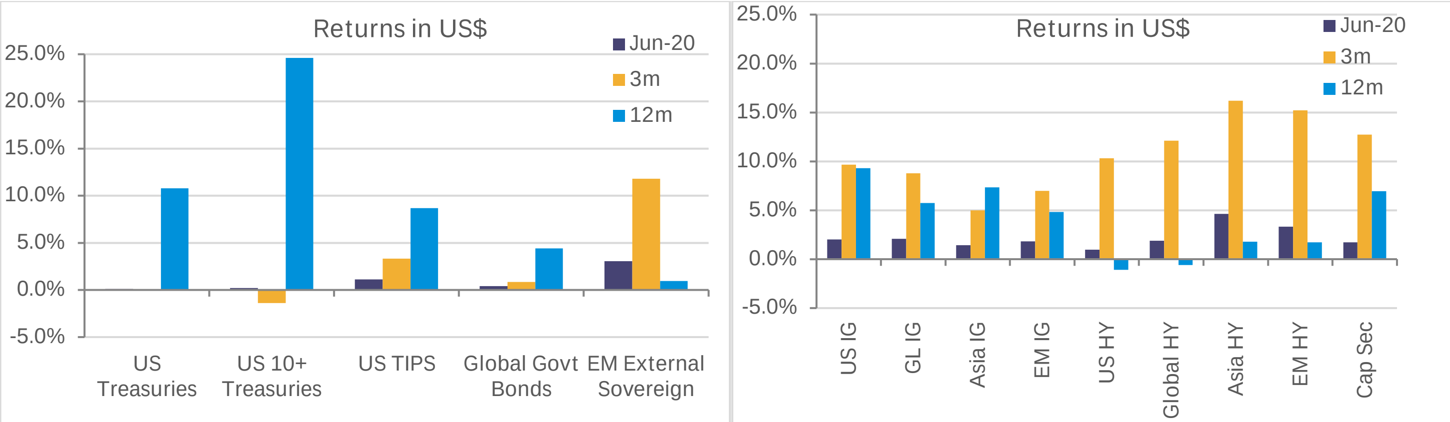
Chart F3: Global credit spreads

									Relative Spreads						High Yield - IG Spreads				
Option Adjusted Spread (bps)	US IG Corp	EUR IG Corp	Asia IG $	EM IG $	US HY Corp	EUR HY Corp	Asia HY $	EM HY $	Asia - US IG	Asia - US HY	EM - US IG	EM - US HY	US - EU IG	US - EU HY	US	Global	Asia	EM	EU
Jun-20	160	147	209	232	644	524	888	760	49	244	72	116	13	120	484	483	679	528	377
YTD Chg	59	53	85	82	284	216	328	266	26	44	23	(18)	6	68	225	210	243	184	163
1m Chg	(27)	(19)	(23)	(26)	(10)	(33)	(144)	(78)	4	(134)	1	(68)	(8)	23	17	(9)	(121)	(52)	(14)
3m Chg	(145)	(91)	(72)	(138)	(233)	(230)	(488)	(394)	73	(255)	7	(161)	(54)	(3)	(88)	(150)	(416)	(256)	(139)
6m Chg	59	53	85	82	284	216	328	266	26	44	23	(18)	6	68	225	210	243	184	163
12m Chg	38	33	71	58	237	153	353	268	33	116	20	31	5	84	199	187	282	210	120
24m Chg	30	25	56	55	273	136	297	273	26	24	25	-	5	137	243	212	241	218	111
36m Chg	45	44	79	75	267	236	443	300	34	176	30	33	1	31	222	214	364	225	192
High	305	337	298	370	877	974	1,376	1,154	67	499	135	454	67	206	575	633	1,095	784	650
Low	91	75	111	127	328	233	321	320	(24)	(323)	34	(16)	(71)	(237)	215	228	151	193	144
Median	147	129	166	212	483	437	544	636	20	44	59	126	11	40	335	365	369	423	305
Current-Median	13	18	43	20	161	87	344	124	29	200	13	(10)	2	80	149	118	310	105	72
Current-Low	69	72	98	105	316	291	567	440	73	567	38	132	84	357	269	255	528	335	233
Standard Deviation	38	50	41	48	127	149	160	166	16	167	19	89	24	72	92	97	149	124	103

Source: Bloomberg/Factset/Principal Global Asset Allocation; Spreads are based on ICE BofAML indices and represent the Option Adjusted Spread vs Govt in BPs. IG= Investment Grade; HY=High Yield; EM=Emerging Markets adjusted for rebalancing effect; High/Low/Median are since Dec'09; As of 6/30/2020

Bond Returns: Long credit duration reaped rich rewards yet again while treasury returns were uninspiring for a third successive month. Currency effects were marginally positive with US$ hedged indices underperforming unhedged ones slightly.

Chart F4: Fixed Income returns



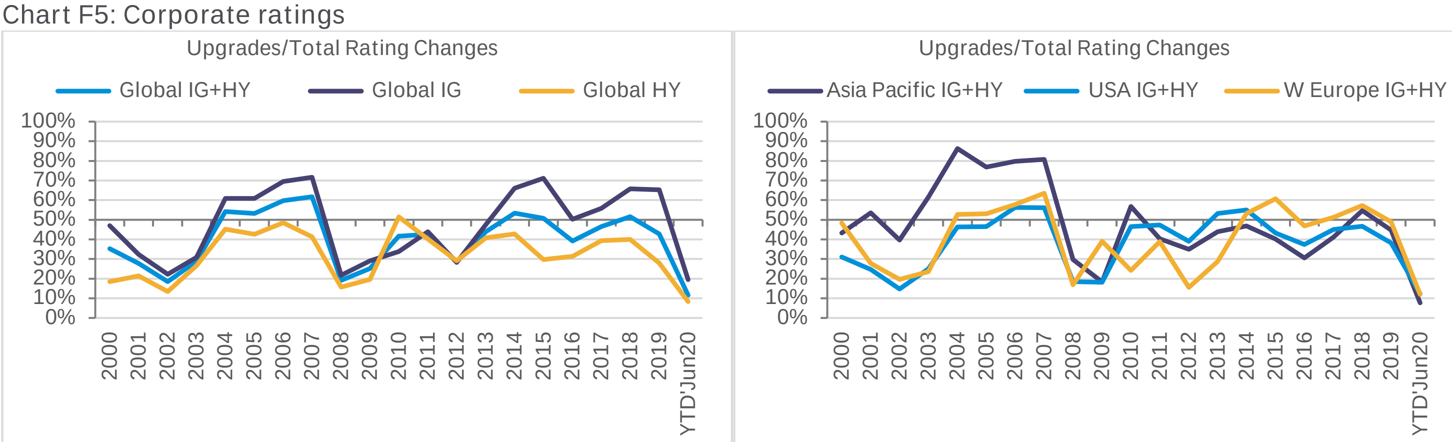
Source: Bloomberg/Factset/Principal Global Asset Allocation; Returns are from ICE BofAML indices; IG=Investment Grade, HY=High Yield; As of 6/30/2020

Credit Ratings: On the sovereign side, the main rating actions were-

- Fitch ↓ **Canada's** foreign currency rating to AA+, Stable from AAA, Negative.
- S&P kept **India's foreign** currency rating at the lowest investment grade slab i.e. BBB- with a Stable outlook, offering some respite after Moody's downgrade to Baa3 in May. Failure to get back quickly enough to its structural growth rate (6.5-7.5%) would risk a downgrade.
- **Moody's** kept USA at Aaa, Stable.
- S&P ↓ **Japan's** Outlook to Stable from Positive, keeping it at A+ (Moody's has it at A1, Stable and Fitch at A, Stable).

On the corporate side, the ratio of global rating upgrade to total rating changes was relatively unchanged at 12%, with IG at 20% and HY at 8%. We expect the rating environment to remain weak.

Chart F5: Corporate ratings



Source: Bloomberg/Factset/Principal Global Asset Allocation; Ratios represent rating and outlook upgrades as % of total changes by Moody's, S&P & Fitch; Global=US + W Europe + Asia-Pac, IG=Investment Grade, HY=High Yield; As of 6/30/2020

VIII. Currencies

CURRENCIES	30-Jun-20	Month	2Q'20	1Q'20	YTD'20	1yr	5 yrs	10 yrs	2019	2018
DXY Index	97.39	-1%	-2%	3%	1%	1%	0%	1%	0%	4%
BB Asia $ Index	102.89	-1%	-2%	4%	2%	2%	2%	1%	0%	4%
BB LatAm $ Index	42.05	2%	0%	22%	22%	30%	12%	10%	6%	16%
USD/EURO	1.12	-1%	-2%	2%	0%	1%	0%	1%	2%	5%
USD/GBP	1.24	0%	0%	7%	7%	2%	5%	2%	-4%	6%
USD/AUD	0.69	-3%	-11%	15%	2%	2%	2%	2%	0%	11%
Yen/USD	107.93	0%	0%	-1%	-1%	0%	-3%	2%	-1%	-3%
HKD/USD	7.75	0%	0%	-1%	-1%	-1%	0%	0%	-1%	0%
CNY/USD	7.07	-1%	0%	2%	1%	3%	3%	0%	1%	6%

Source: Bloomberg/Factset/Principal Global Asset Allocation. +ve numbers indicates USD appreciation; Annualized > 1yr; As of 6/30/2020

Better orientation towards risk caused the US$ to weaken against 21 of the 30 currencies we track it against, making it the third successive month **of such action, in sharp contrast to 1Q'2020 when each of the months** saw $ gains. The overriding theme was reduction in net $ length, encouraged by a pro-cyclical stance towards risk assets on recovering growth. On the DM side of things, the pro-cyclical bias pushed the $ lower most prominently against the AUD (-3%) and Kiwi (-4%). In Asia, it dropped against every single currency we track, with losses against Korean Won and Thai Baht (-3%) being the most prominent. However, the story changed in LatAm, with gains against every single currency, particularly against the Mexican Peso (4%), despite their cheapness. Rising COVID cases may have been the main reason as Governments grappled to contain the virus spread. In EMEA, the greenback's performance was mixed, with gains against Ruble and Forint but losses against Rand, Zloty and Czech Krona. Despite losing some ground in **2Q'2020,** the $ was still up against 22 currencies **in 1H'2020**, the largest of which came against the Brazilian Real (36%), Rand (24%) and Mexican Peso (22%). Gains against Asian currencies were miniscule relative to LatAM and EMEA. On the other side, its worst performance came against the Swiss Franc (-2%).

The Bloomberg EM-8 carry index was unchanged, which kept its YTD'2020 loss to -11%.

Our real effective exchange rate-based valuation matrix can be accessed here. The US$ remains expensive. Currencies in EEMEA and Latin America are cheap while those in Asia (excluding China) near fair value.

Implied Currency Volatility: DM volatility rose 6% but stayed -16% below its long-term average. On the other hand, EM volatility dropped 4% to close the gap to its long-term average to just 4%

Basis Swaps: Our global basis indicator for currencies like EUR, JPY, KRW was stable, indicating orderly $ funding conditions. The 3-month basis was stable at -9bps while the 1-yr widened -3bps to -35bps (Korean basis widened -18bps).

$ Carry: $ carry vs German and other DM currencies ticked up after declining the last several months. The 2-yr USDEUR interest rate swap differential finished 6bps wider at 61bps (cycle high of 312bps). Lower carry and expensive valuations should punctuate the $ march going forward.

Chart CU1: $ positioning approaching oversold levels?

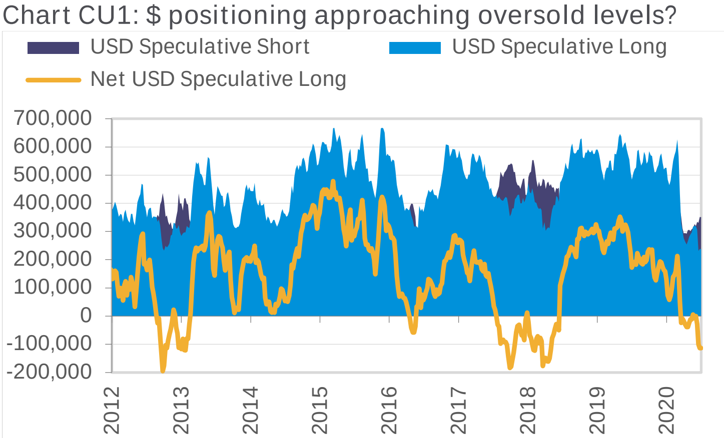
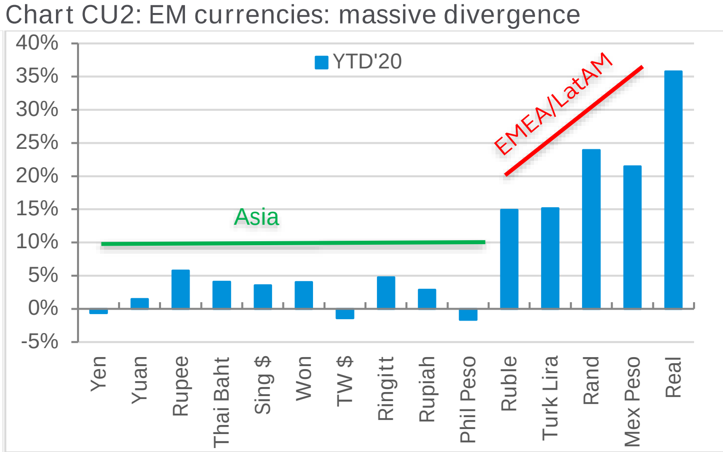


Chart CU2: EM currencies: massive divergence



Source: Bloomberg/Factset/Principal Global Asset Allocation; USD speculative length includes positions against EUR, GBP, JPY, CAD, AUD and DXY Index. As of 6/30/2020

IX. Commodities

Commodities		30-Jun-20	Month	2Q'20	1Q'20	YTD'20	1yr	5 yrs	10 yrs	2019	2018
GS Commodity Index	USD	325.5	6%	27%	-41%	-25%	-23%	-6%	-4%	17%	-15%
Nymex Crude	USD/bl	39.3	11%	92%	-66%	-36%	-33%	-8%	-6%	34%	-25%
Brent Crude	USD/bl	41.2	16%	81%	-66%	-38%	-38%	-8%	-6%	23%	-20%
Gold	USD/toz	1,800.5	4%	14%	4%	18%	27%	9%	4%	19%	-2%
Silver	USD/toz	18.5	0%	31%	-21%	3%	22%	4%	0%	15%	-9%
Copper	USD/T	6,013.8	12%	22%	-20%	-3%	0%	1%	-1%	3%	-18%
Aluminum	USD/T	1,608.3	5%	6%	-16%	-11%	-10%	-1%	-2%	-2%	-19%
Corn	USc/bu	338.5	4%	-1%	-12%	-13%	-19%	-4%	0%	3%	7%
Soybean	USc/bu	884.3	5%	0%	-6%	-6%	-2%	-3%	-1%	7%	-7%
Wheat	USc/bu	490.0	-6%	-14%	2%	-12%	-7%	-4%	1%	11%	18%

Source: Bloomberg/Factset/Principal Global Asset Allocation; Annualized > 1yr; As of 6/30/2020

The GS commodity index helped itself to a gain of 6% (-25% **YTD'20**20), powered by energy and base metals.

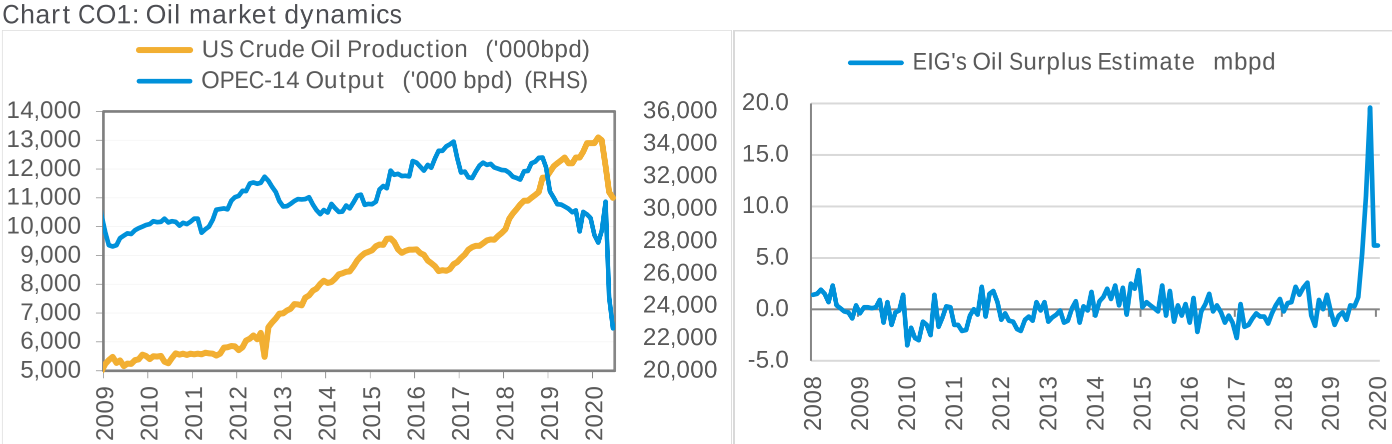
Energy: The GS energy index rode the recovering cyclical risk sentiment to gain 10% and take 2Q'2020 gain to 61% (though down -36% in 1H'2020). Both Brent and Nymex made double-digit gains which nearly doubled their levels from 1Q'2020 in a V-shaped recovery for the most traded commodity in the world. A key development during the month, other than the cyclical recovery theme, was OPEC+ forcing members to honor quota reductions (-23% each other than Mexico) agreed as part of the deal announced in April. May outputs had revealed quite a few countries had not implemented the cuts, so the June meeting was all about forcing them to not only comply, but also make up for the failed cuts in 3Q'2020. Another important development was an extension of the cuts for another month (the 9.7mbpd cut in Apr-June was to decline to -7.6mbpd in July-Sep). Indeed OEC-14 output declined to 22.6mbpd in June from 24.6mbpd in May and 30.4mbpd in April. Combined with US and Russian output declines of 2.1mbpd each in 2Q'2020, it made for a significant reduction in oil supplies, helping rebalance the market and support prices. On the demand side, China's demand is back to normal while that from other countries is recovering. Indeed, the Energy Intelligence Group's estimate of excess supply shrank from 20mbpd in April to 6mbp in June. We think the next OPEC meeting will be important – another extension with strict quota compliance will keep oil prices well supported in the face of recovering global growth.

Precious metals stayed in demand despite an improving sentiment towards risk assets as both real and nominal rates remained low. Rising geo-political tensions (details here) helped too. Fund flows remained strong. The GS Precious metals index gained 3% (13%YTD'2020) to be the only sub-segment within commodities to record positive gains in 1H'2020.

Industrial metals: The sector gained on the back of a 12% rally in copper, driven by recovering growth and low inventories due to COVID related disruptions in copper mines in Chile. The sector closed 2Q'2020 with gains of 13% to trim 2H'2020 drawdown to -7%.

Agricultural commodity prices were up modestly (GS Agriculture index 2% for the month, -11% YTD'2020). China's decision to resume purchase of agricultural commodities helped sentiment, particularly for soybeans.

Chart CO1: Oil market dynamics



Source: Bloomberg/Factset/Principal Global Asset Allocation; EIG=Energy Intelligence Group*; As of 6/30/2020;*

X. Looking ahead

1. Growth

The global economy is indeed recovering from the COVID-19 related shock (details here and here), never mind fresh cuts in global growth estimates by both IMF and OECD. We expect the recovery process to advance in 3Q'2020 but at a pace slower than that in June. Full recovery of the loss of GDP in 1H'2020 will anyway take several quarters. Many sectors (travel, tourism, hoteling, real estate) will have to change business models significantly, a process that will take time. A critical component of the growth equation is progress on COVID-19 (our COVID chartbook can be accessed here). With cases rising, there is a risk that return-to-work strategies could be delayed, causing the recovery process to be halted or even reversed for a few weeks. If that happens, global GDP growth estimates will see another leg down. Another critical component is expiring fiscal support measures. We don't think the global economy is on a strong enough footing yet to withstand a rapid withdrawal of support, so complacency could create a negative feedback loop.

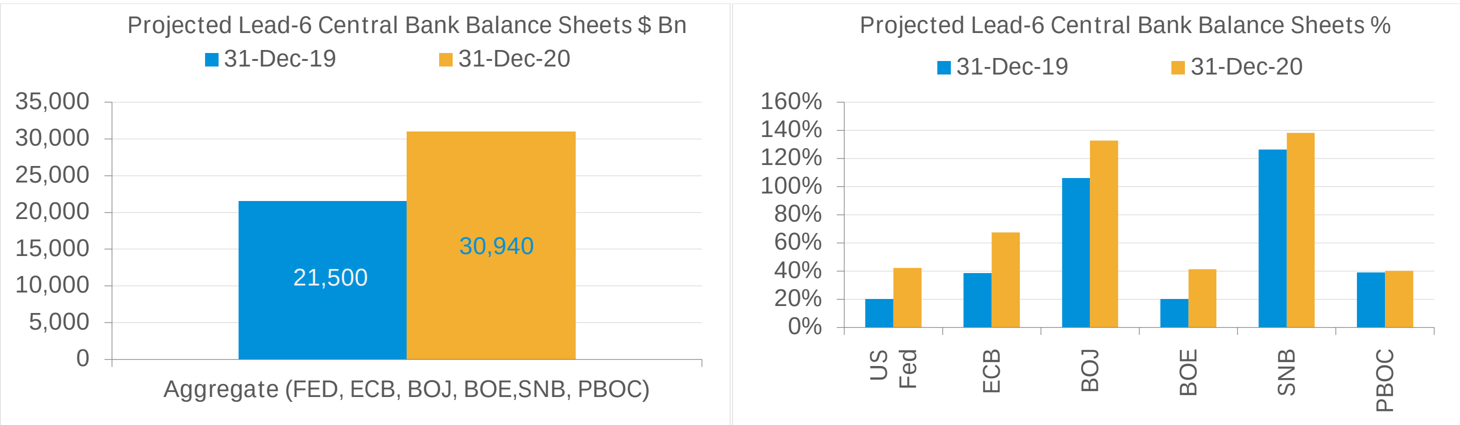
2. Inflation

Inflation came off sharply in 2Q'202, as anticipated by **PGAA's leading inflation indicator**. With growth and commodity prices recovering, the worst of the inflation decline is behind us. Indeed, our cyclical indicator predicts a gradual rise in 3Q'2020 but not enough to cause policy makers to turn hawkish. From a more structural perspective, we could see higher inflation after the recovery gets more mature, provided corporate consolidation causes market shares to get concentrated. Government policies that make international trade less free flowing can reduce competition and enable more pricing power to survivors could also create inflation at the margin. Evidence of market structures influencing inflation can be found in US Services and US Medical CPI (lower substitution effects), which grew @2.5% and 3.1% annualized over the last 15 years (May'2005 to May'2020). In contrast, overall CPI rose @1.6% annualized.

3. Monetary policy & global financial conditions

Global monetary policy has never been easier. Central banks are determined to use their balance sheets to not just contain term/risk premia but also take credit risk. Balance sheets of the leading six central banks (Fed, ECB, BoJ, BoE, PBOC & SNB) could rise from 38% of their combined GDP in 2019 to 57% in 2020 (US$9.4 trillion in current currency terms). Such acts have had a hugely favorable effect on our financial condition index components (yields, credit spreads, volatility, monetary growth and equity performance). However, we are not too far from the easiest levels financial conditions can get to, given the limited room for yields, spreads and volatility to compress further.

Chart LA1: Central Bank Balance Sheets



Source: Bloomberg/Factset/Principal Global Asset Allocation; As of 6/30/2020;

4. Valuations

- Anti-fragile assets like global safe-haven treasuries and gold remain firmly in the expensive camp.
- Equity valuations have become optically expensive after the impressive recovery in prices in 2Q'2020 combined with deep earnings cuts (our equity valuation composites can be accessed here). The extremely depressed levels of safe haven yields (sovereign bonds) is obviously a key supporting factor. On the other hand, while it is natural for multiples to expand during environments where forceful monetary/fiscal action causes prices to recover, visibility on timeliness

and magnitude of normalization of earnings is important for markets to sustain. The trajectory of victory over the virus, therefore, holds the key as it will determine the speed at which corporate earnings recover.

- Corporate spreads have narrowed in the last two months. While IG is fast approaching fair value, there is some room for HY spreads to compress to more normalized levels. While Central bank intervention by way of corporate purchases is helping the flow of credit, fundamentals (corporate ability to payback debts) will ultimately guide the path that spreads take.
- On the Currency side of things, the $ is in the "expensive' club, based on purchasing power parity. Combined with reduced interest rate differential for US$ fixed income assets, it will make it a steeper climb higher for the greenback unless COVID-19 related uncertainty and rising geopolitical tensions generate a risk-off bid for it. A weaker dollar will be a big positive for risk assets in emerging economies.

5. Sentiments & technical indicators

The market isn't oversold anymore, nor does it appear overbought. Declining volatility implies systematic, risk-parity and momentum strategies have been adding risk, as detailed here but there is scope for them to add further. Retail sentiment hasn't been euphoric either. Overall, we assess these indicators to be neutral.

6. What can cause risk assets to continue their rally?

   Our check-list of various factors required to sustain the rally looks like-

   a. Positive progress on the virus: It remains a key necessary condition. The flattening of the COVID-19 curve was halted, at least temporarily in June, with a rise in new cases in US and EMs. However, news on vaccine development was encouraging. Overall, we assess this factor to have turned neutral from supportive.
   b. Return to work strategies: There is mixed evidence on this front. While some US states have had to reverse course, the global trend hasn't started moving towards increased stringency yet. But we remain watchful.
   c. Extreme de-growth factored into estimates: Both macro and micro estimates of growth are quite low. Bottom-up analysts could revise their earnings forecasts some more, based on corporate cues when the 2Q'2020 reporting season gets under way. Macro-economic surprises have already turned positive, raising the bar for further positive surprises.
   d. Monetary policy – Central banks have delivered sufficiently. They must not raise rates even if inflation picks up cyclically, else compressed risk premiums will start to rise, denting market returns.
   e. Fiscal policy –Some of the fiscal programs will expire in coming weeks and need to be renewed till such time as economies have restarted meaningfully. Current levels of cross-asset valuation leave little scope for disappointment.
   f. Valuations – Equities moved into an expensive zone in May'2020 and richened further in June'2020. IG spreads are close to fair value while HY still offers some valuation upside. The lack of returns on risk-free alternatives should keep corporate risk premiums suppressed as long as the policy setting is supportive.
   g. When does good news for the economy turn into bad news for markets? This question is paramount in our minds. So far, markets have ridden the good news on monetary/fiscal support along with progress on COVID-19. The odd bad news hasn't really been taken as "bad" on the belief that if it gets worse, it will only invite more supportive policy action, given the fierce determination policy makers have shown thus far. At some stage, good news on the economy must start raising prospects of reduced monetary/fiscal support, at which point markets are bound to pause to take stock.

7. Key risks

At this stage, the key risks we envision are-

- Failure to contain the spread of COVID-19 leading a halt in return to work strategies.
- Monetary/fiscal policy support is withdrawn too soon.
- The US election cycle starts creating political noise (dysfunctional Congress and US-China relationship under strain as China becomes a focal point). Also, a democratic control of all 3 branches of the Govt. will almost certainly cause corporate taxes to rise. Historically, a clean sweep has yielded weaker results than a divided power set-up.
- From a longer-term perspective, Govt intervention in allocation of resources will come with strings attached. Laws could be tightened around buybacks, distributions, leverage etc.

- Social stress caused by COVID-19 could manifest itself in unanticipated ways including bouts of unrest, which could dampen the recovery. Also, prolonged unemployment payouts could disincentivize workers from returning to work, impacting potential labor supply.

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Managing Director – Portfolio Manager, Principal Global Investors (Hong Kong) Ltd.
03 July 2020
The piece was written with contributions from my HK-based colleagues, Han Peng and Raj Singh

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MM10579-13 | 05/2020 | 1175176 – 052021