DBS Live more, Bank less

CIO Insights 3Q20

Resilient in the Storm

Don't Fight the Fed

Unprecedented policies of the Fed and other central banks put a floor to risk assets. Barring a severe second wave of infections, the dynamics of the fear of missing out (FOMO) and there is no alternative (TINA) will support equities and corporate bonds.

Win with Barbell

Our Barbell Strategy demonstrated resilience during the meltdown, and staged a massive rebound in the upturn. Position your portfolio in secular growth equities and income-generating assets in a world of ultra-low rates.

Post-Pandemic Winners

Our equity themes of Health Care and Technology will shine even brighter in a post-pandemic world. In Asia, stay Overweight China and Singapore stocks. Add Indonesia as a beneficiary of a young population embracing the digital economy.

Credit Spreads to Narrow

Falling short of reaching maximum employment and stable inflation will ensure a low rate policy from the Fed. Expect credit spreads to narrow and BBB/BB-rated bonds to benefit.

Source: Unsplash

Contents

Note: Unless otherwise stated, data is as of 12 June 2020.

Foreword

Dear valued clients,

Since the last time I addressed you, the world has been gripped by the black swan event of the COVID-19 pandemic. Financial markets have endured sell-downs, the outlook for the global economy seemed uncertain, and many of us have changed the way we work, play, and live. Nevertheless, central banks and governments worldwide have pulled out all the stops to arrest this unprecedented situation.

It is against this backdrop that I present to you 3Q2020's CIO Insights, a guide to chart your investment journey through this changed landscape. This quarterly report covers our latest asset allocation models, as well as our top investment calls across different asset classes.

Before COVID-19, the world was already facing a multitude of disruptions and challenges on all fronts. At DBS, we reiterate our commitment to you, our wealth client, to be a partner in your wealth journey. We have ramped up our portfolio advisory capabilities with our first-in-Asia Portfolio Advisory Enablement Tool. In just under five minutes, you will be able to assess the health of your investment portfolio and take advantage of relevant investment recommendations. Investment is a like marathon, it is not a sprint.

Keeping in mind our priority towards sustainability, we have also adopted MSCI ESG ratings, so that you can make informed investment decisions from an environmental, social, and governance standpoint.

Finally, we thank you for the privilege to be your preferred wealth management partner amid these uncertain times, and look forward to serving you even better.

Sim S. Lim
Group Head
Consumer Banking &
Wealth Management

Executive Summary

Dear valued clients,

We were in the eye of the pandemic storm at the start of 2Q20. Amid the volatility, we advocated that you stay invested in build-to-last portfolios as we expected governments and central banks across the world to push through unprecedented policies to quell the impact of the pandemic.

Such build-to-last portfolios would implement the Barbell Strategy – comprising secular growth equities on one end and income-generating assets on the other. Over the course of the second quarter, this strategy paid off handsomely.

Global equities recovered an impressive c.30% from the lows. Our favoured Health Care and Technology-related sectors clawed back all the losses and regained their all-time highs! On bonds, the Federal Reserve's shock and awe policies brought normalisation to the market, leading to robust returns on Investment Grade and High Yield bonds.

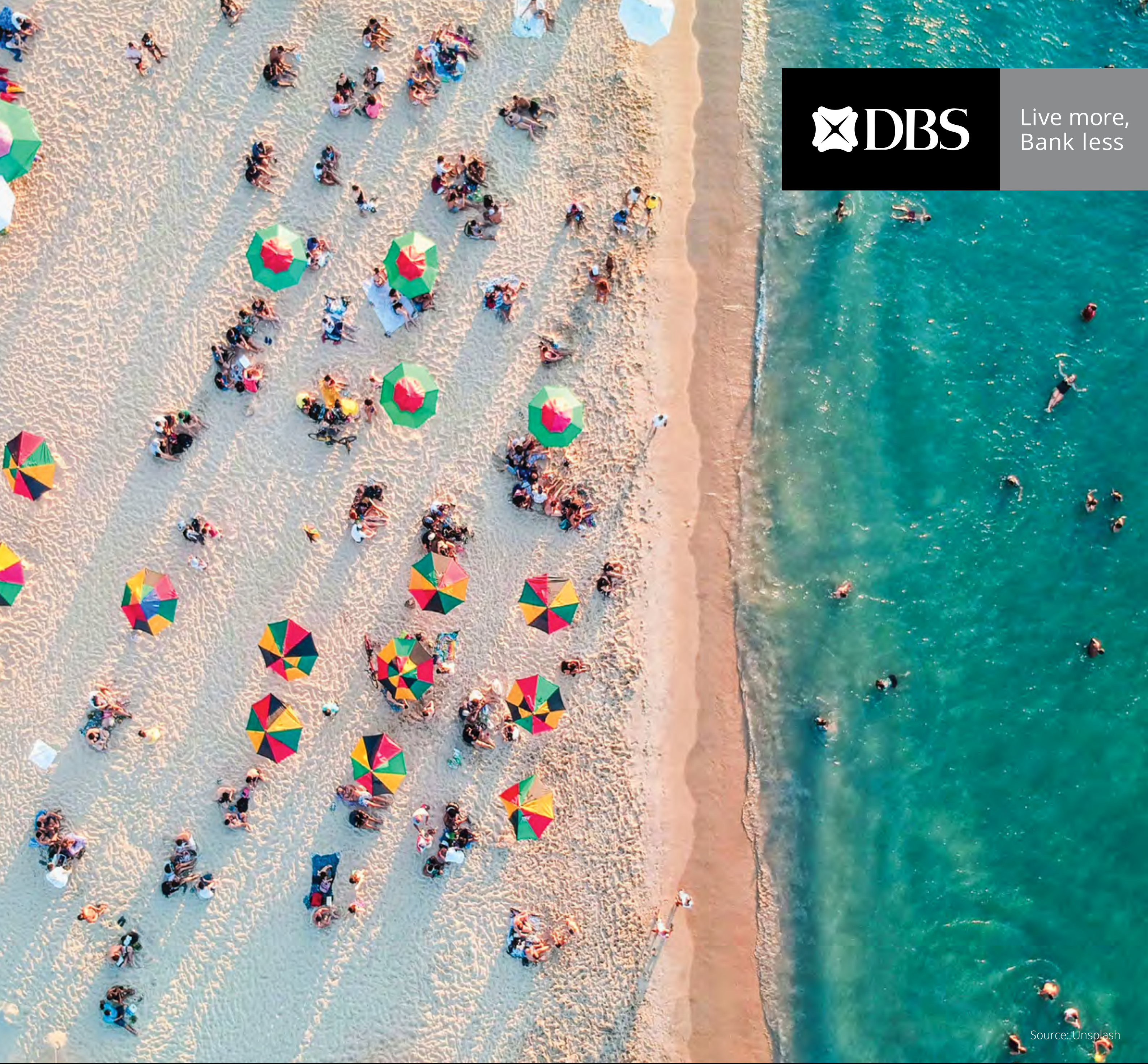
For this quarter, we continue to embrace this winning strategy. Barring a severe second wave of infections, the gradual reopening of economies would ensure a continual tailwind for risk assets.

We are also witnessing massive changes to the way we live, work, and play. Thus, for the third quarter, we highlight the opportunities in a post-pandemic era. In particular, the winners of work-from-home and supply chain diversification, the rise of e-Sports, as well as the growing influence of ESG investing.

I wish you success capitalising on the opportunities of our ever-changing, new world.

Hou Wey Fook, CFA
Chief Investment Officer

DBS Live more, Bank less



Source: Unsplash

Asset Allocation | 3Q20

A different perspective

Macro Outlook

Monetary Policy
DM central banks will keep monetary policy loose to aid the recovery process as economic reopening gathers pace. Fed to keep rates ultra low during 2020-21.

Economic Growth
Assuming modest return to activity, 3Q growth could turn positive. But keep an eye on the potential resurgence of the virus as lockdown eases.

Geopolitics
The re-escalation of US-China tension over the “origin” of COVID-19 virus will persist in 2H as the year-end US Presidential election looms.

Inflation
Inflation to stay subdued amid low energy prices and weak macro momentum. US and China inflation expected at 1.3% and 2.3% respectively in 2020.

Fiscal Policy
Unprecedented fiscal stimulus rolled out to keep COVID-19 impact in check. A resurgence of new infections will open the door for further fiscal action.

Market Outlook

Equities
Maintain preference for US and AxJ equities. Global “bifurcation” trend which sees tech-related sectors outperforming will persist in the post pandemic world.

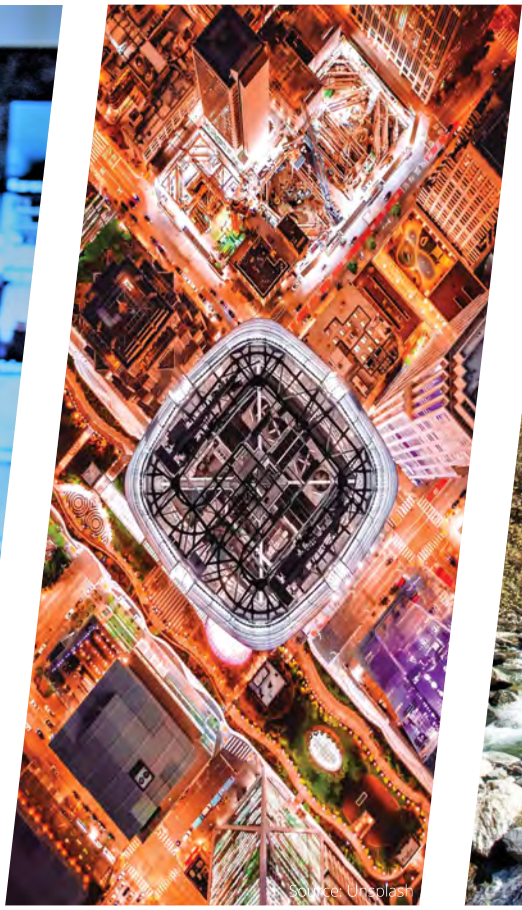
Currencies
FX volatility fell, given the convergence of interest rates in DM down to 0-0.25% amid unprecedented stimulus. Expect modest USD depreciation in 2H.

Rates
Short-term USD rates to stick close to EUR and JPY counterparts given loose monetary policy. G-3 curves to steepen as recovery takes hold.

Credit
For EM Asia, both IG and HY in BBB/BB space offer attractive risk premiums. For DM, US, and Europe IG trade wide in spread terms against historical averages.

Thematics
Seek opportunities in post-pandemic trends like “WFH”, e-Sports, alternative meat, and e-Commerce. 5G Technology is another major source of growth.


Source: Unsplash


Source: Unsplash


Source: Unsplash

New theme I: Beyond Pandemic

The COVID-19 pandemic has changed the way we live, work, and play completely. Major post-pandemic trends like the diversification of supply chains, rise in alternative meats, more individuals adopting the work-from-home approach, as well as the accentuation of e-Commerce and e-Sports will be the key drivers of growth in the future as consumers and companies adapt to the new normal.

New theme II: 5G – Part 2

The 5G communication standard is one of the factors that will determine who wins and who loses in the next phase of technological dominance. It is a crucial element in shaping the world of hyper-connectivity, facilitating the interlinkages of everything with everyone anytime, anywhere.

Ongoing theme: Health Care

There is a secular need for sustained health care expenditure in the years ahead. The sector's earnings have been stable through the cycles, while offering attractive long-term growth potential and compelling investment catalysts.

Asset Allocation

Hou Wey Fook, CFA | Chief Investment Officer
Dylan Cheang | Strategist

Changing perspectives

Global risk assets started 2020 in predictable fashion, notching up stellar gains during initial months amid a temporary truce in the US-China trade war. But the arrival of COVID-19 changed the narrative. The imposition of lockdowns around the world brought economic activities to a standstill. Global equities entered bear territories soon after while government bond yields raced to the bottom.

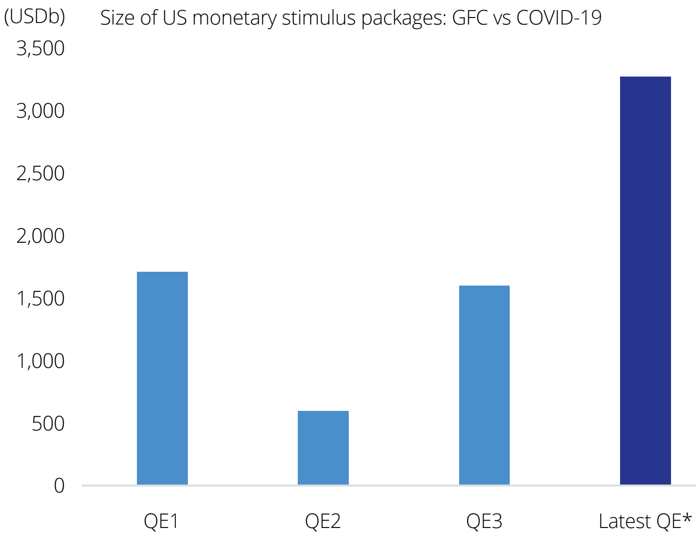
The unprecedented fiscal and monetary policy responses, particularly in the US, have since put a backstop to risk assets (Figure 1). But policies alone will not prevent the eventuality of a recession. That is a given. The more pertinent questions are: How long and deep will this recession be? And how will this slowdown impact corporate earnings?

The experience of China serves as useful reference. Since March, the country's economic momentum has shown gradual but definite signs of recovery (Figure 2). Nonetheless, we urge caution for two reasons. Firstly, it is too early to tell if the virus will return in multiple waves. Secondly, it remains to be seen if the unprecedented joblessness will translate to a sustained slump in consumer confidence and consumption.

The next three months are pivotal. This period will determine how successfully developed economies can emerge from the COVID-19 carnage. In the meantime, we believe the following themes will dominate the narratives during the second half of 2020:

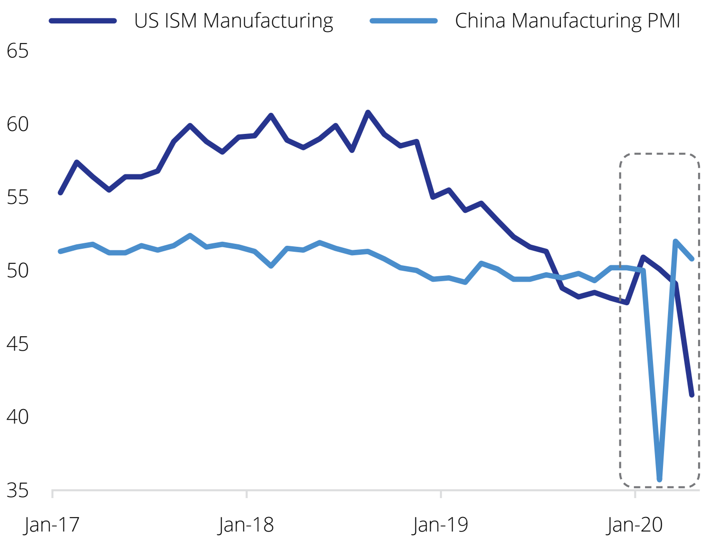
- Macro data and equity markets: correlated?
- Re-emergence of the fear of missing out (FOMO)
- Weak inflation and low policy rates: implications for valuations
- Acceleration of global bifurcation trend

Figure 1: Unprecedented monetary response from the Federal Reserve



Source: Bloomberg, DBS
* Bloomberg Economics

Figure 2: Will the anticipated US economic recovery follow a similar path to China?



Source: Bloomberg, DBS

Prevailing macro weakness: Is a sustained bear market imminent?

As US macro data continues to plummet, there is increasing market chatter that a prolonged equity bear market is imminent. Intuitively, this may seem logical: economic weakness translating to corporate earnings pullbacks and by extension, equity market losses.

But in reality, such an assumption is too simplistic. In order for this argument to hold water, one has to assume that: (a) the country has a closed economy; b) the country's stock exchange lists only domestic companies; and c) valuation remains unchanged. However, all these factors do not apply to conditions prevailing today.

Historical relationship between S&P 500 and the economy: Insignificant. Drawing from data reaching back to 1955, our regression analysis shows that the relationship between GDP growth and the S&P 500 Index has been insignificant (Figure 3). This view is reinforced by the ratio for S&P 500 market capitalisation as percentage of US GDP, which has been fluctuating over the years (Figure 4).

Figure 3: US GDP and the S&P 500 has exhibited low correlation historically

Source: Bloomberg, DBS

Figure 4: S&P 500 market cap as percentage of GDP changes through the years

Source: Bloomberg, DBS

After the dot-com bubble crash in 2000, the ratio gradually headed south from 121% to hit a trough of 50% by 1Q09. Since then, the ratio rebounded through the decade, eventually peaking at 128% in 4Q19 (before the coronavirus crisis brought it back to 103% at end-1Q20).

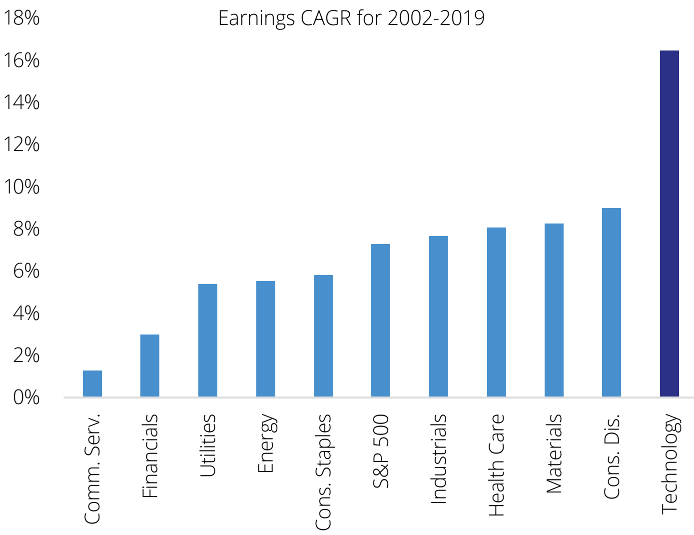
Thus, one can conclude that the relationship between the stock market and the economy is not significant. This drives home the point that apart from economic fundamentals, the stock market is also impacted by: (a) Valuation, (b) Liquidity, and (c) Positioning.

Sectoral composition: A bigger determinant of market returns. Breaking down the constituents of equity indices around the world, it is evident that some markets have greater exposure to certain sectors than others. In the US, for instance, technology-related companies account for c.37.4% of the S&P 500. But the representation of technology on the Euro Stoxx 50 Index is significantly lower at c.6.6%.

The sectoral composition of each market is a major factor in determining their trajectory given the difference in earnings growth profile. During 2002-19, the broader US market registered a CAGR of 7.3% (vs 16.5% for US Technology) (Figure 5). This explains why the growth trend for Technology stocks' market cap as percentage of US GDP is significantly higher than that of the S&P 500 (Figure 6).

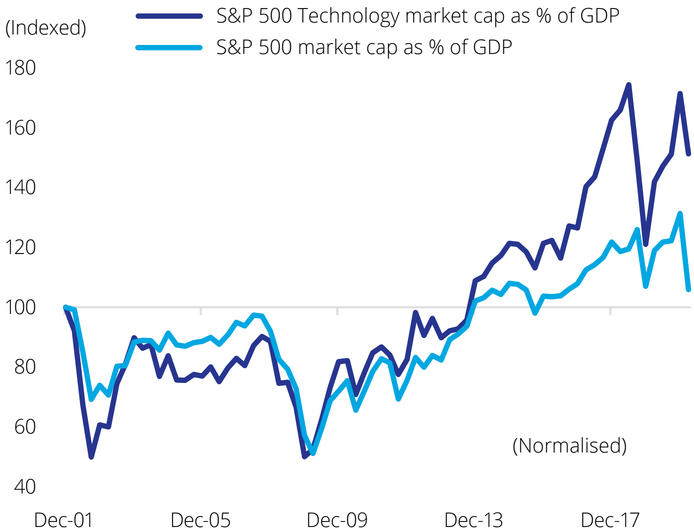
On this basis, we believe that markets with huge Technology exposure (such as the US) will stand a higher chance of grinding higher despite downbeat headline macro data.

Figure 5: US Technology possesses significantly higher earnings growth momentum over the years



Source: Bloomberg, DBS

Figure 6: The strong earnings growth profile for Technology translates to robust market performance



Source: Bloomberg, DBS

FOMO re-emergence

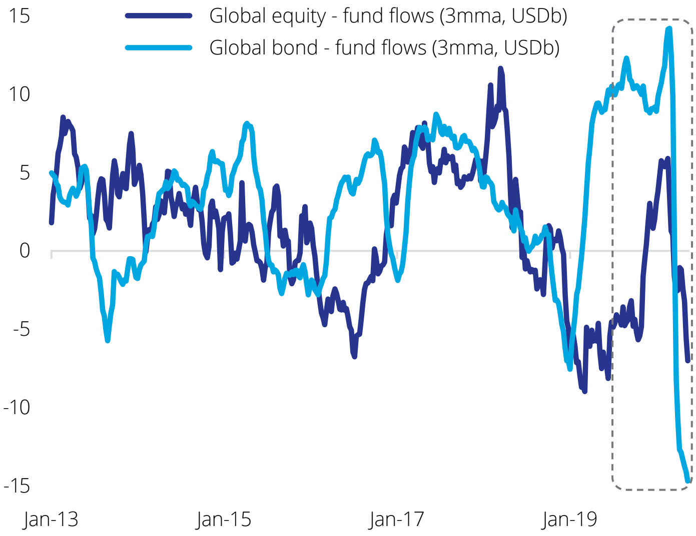
We first espoused the notion of FOMO (an acronym for the "fear of missing out") driving global risks assets back in December 2019 when we published our 1Q20 CIO Insights. Our view was timely as the S&P 500 notched further gains before COVID-19 came along and triggered the selloff. But the high octane rebound since late-March suggests that FOMO is back in the works and this is evident from:

- Muted fund outflows from equities during selldown
- Muted market reaction to incoming macro and corporate data

Muted funds outflow as portfolio allocators maintain strategic exposure to equities. From its peak to trough, the S&P 500 lost 33.9% during the COVID-19 carnage, making this among the fastest corrections in history. But surprisingly, the correction was not accompanied by a similar outflow in funds. Based on EPFR Global data, a total of USD33.5b exited from the asset class in 1Q20 (Figure 7). This is 23% lower than the average quarterly outflows of USD43.6b in 2019, a year which saw the S&P 500 notching gains of 29%.

Interestingly, it was the bond asset class that registered the larger outflows of USD107.1b during this period as investors reduced their exposure to corporate bonds. From a positioning perspective, these flow data suggest that portfolio allocators are maintaining their strategic exposure to equities despite the uncertainties posed by COVID-19. With global bond yields remaining anchored to the lows, investors will be compelled to look for yield in equities.

Figure 7: Contrary to expectations, bonds registered sharper outflows than equities during the COVID-19 selldown



Source: EPFR Global, DBS

Sell on rumour, buy the fact? Unsurprisingly, the negative impact from COVID-19 is starting to show up on macro and corporate numbers. The US ISM Manufacturing collapsed to 41.5 in April as manufacturing activities plunged into deep, contractionary territories. Corporate earnings have similarly undergone sharp downward revisions with forecasted EPS slashed by 22% in April.

Opinions pertaining to whether the current level of earnings cuts are "sufficient" are very polarised. Some think that more downgrades are forthcoming given that current revisions have not reached levels seen during the GFC (which peaked at -38% in March 2009) (Figure 8). But we have a different take on this.

Back in 2008, the Financial sector was the epicentre of the crisis and that incapacitated banks from performing their role as intermediaries to lend to the broader economy. But none of that is happening this time. The Financial sector remains healthy and while the likes of Industrials saw sharp downward earnings revisions, the downgrades for Technology and Health Care have been minimal given the resilient fundamentals of these sectors.

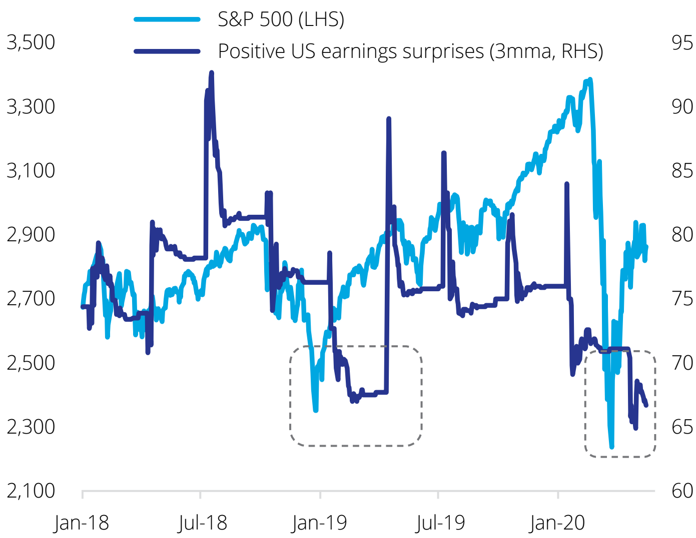
Source: Unsplash

Figure 8: Downward earnings revision: COVID-19 vs the subprime crisis

* adjusted

Source: Bloomberg, DBS

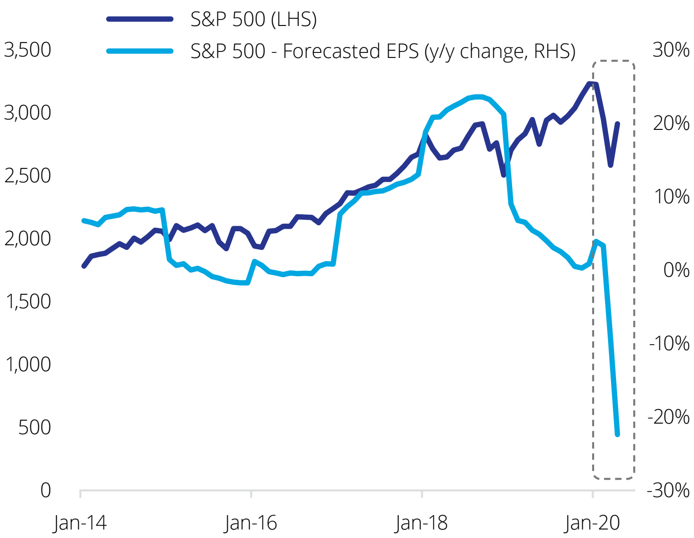
Figure 9: US equities tend to rally before the bottoming of positive earnings surprises



Source: Bloomberg, DBS

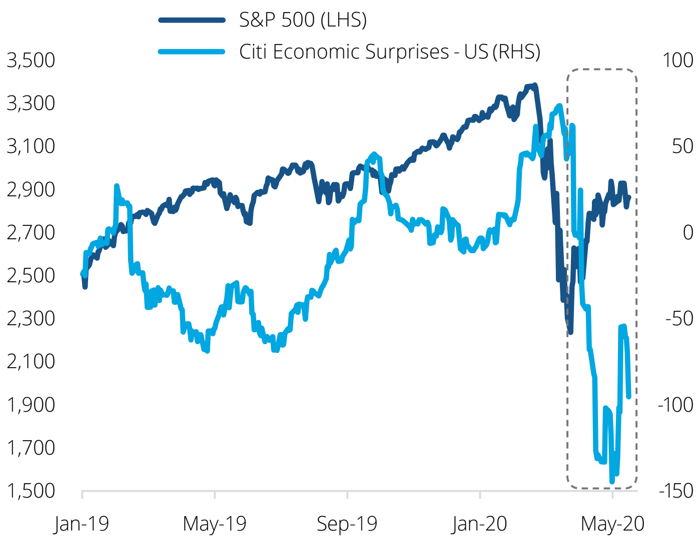
From recent price actions, it is evident that markets have already priced in the negative impact of the COVID-19 crisis and this explains the muted reaction to incoming macro and earnings data (Figures 10 and 11). In fact, investors are positioning for recovery and assuming a manageable level of new infection cases (our base-case scenario); we assign a low probability to the likelihood we will revisit the March lows of the market.

Figure 10: Sell on rumour and buy the fact? US equities rallied despite downward earnings revisions



Source: Bloomberg, DBS

Figure 11: Similarly, the S&P 500 rallied despite incoming negative macro surprises

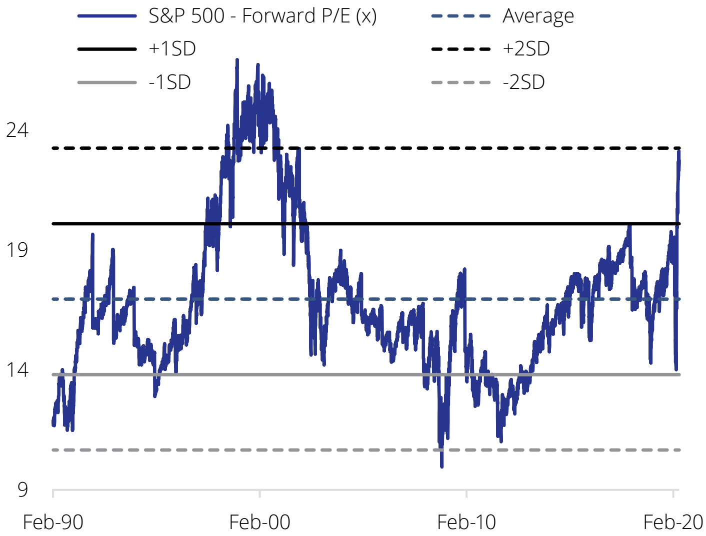


Source: Bloomberg, DBS

Weak inflation and low policy rates: Impact on valuations

Valuation for the S&P 500 is currently looking rich given the sharp rebound and drastic earnings downgrades. At 22.8x forward P/E, the market is trading close to the two standard deviations "expensive" level (Figure 12). But in our view, it is a fallacy to compare valuations today with that of yesteryears given differences in the inflation backdrop. Back in the 1970s, US inflation averaged at 7%. In contrast, inflation has been languishing at 1.6% on average since 2009.

Figure 12: US valuation is looking rich on forward P/E basis; but this does not paint the full picture

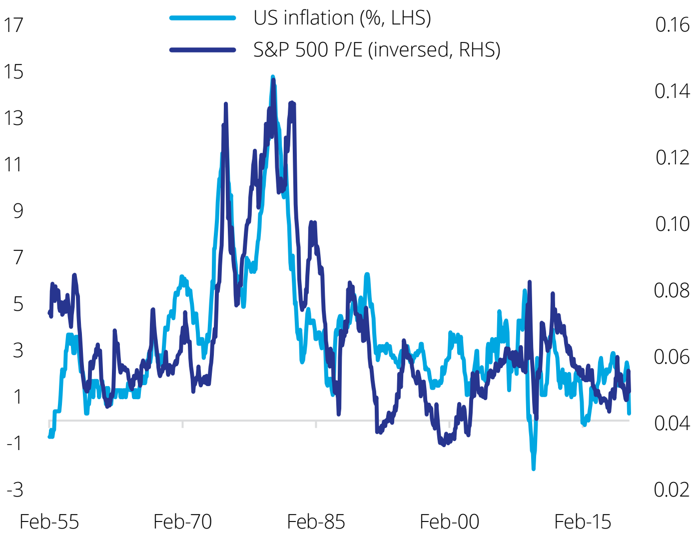


Source: Bloomberg, DBS

Factoring inflation into forward P/E valuations. The stark difference in inflation backdrop has huge bearings on valuation given the broad-based inverse relationship between them. Weak inflation translates to low policy rates, which in turn boost economic activities and buoy risk assets. The reverse happens when inflation is high (Figure 13).

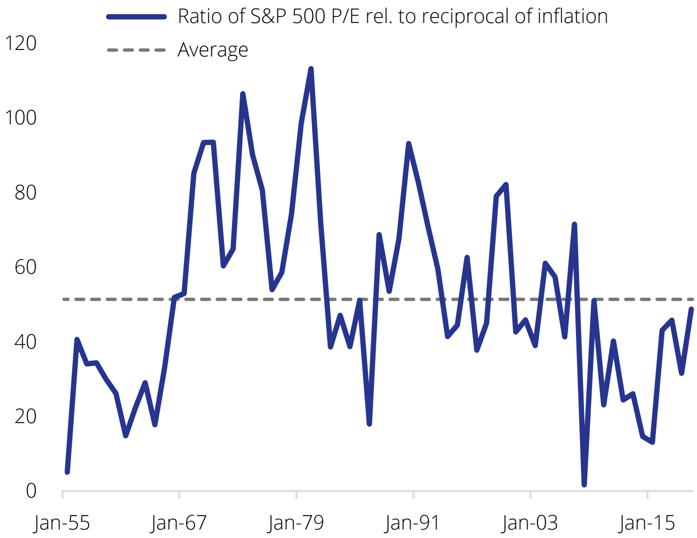
Therefore, a more rational way of looking at valuation is to analyse it in relation to inflation. In our analysis, we divide the P/E for the S&P 500 by the reciprocal of US inflation since 1955. The result shows that current P/E commensurate with prevailing inflation as the ratio is in line with the long-term average (Figure 14).

Figure 13: Close inverse relationship between US valuation and inflation



Source: Bloomberg, DBS

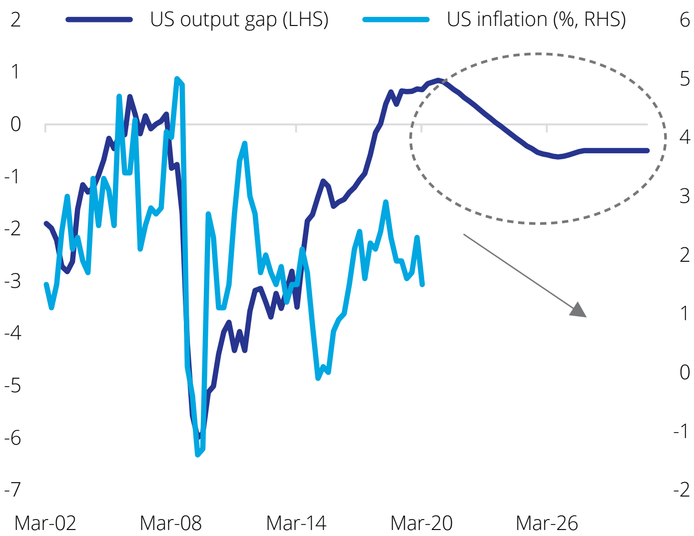
Figure 14: If inflation is factored in, the prevailing valuation for US equities does not look stretched



Source: Bloomberg, DBS

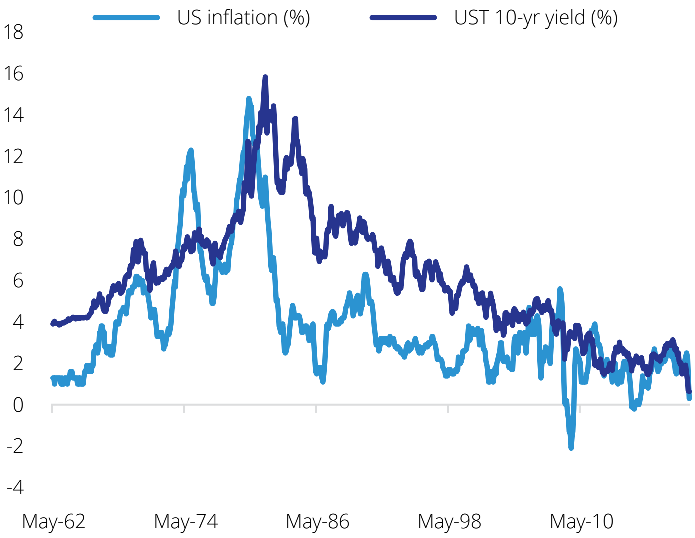
Equity/bond yield gap: A better valuation gauge in an era of low interest rates. Given the collapse in oil prices and a rapidly widening output gap, inflation is expected to stay subdued in the years ahead, exerting downward pressure on government bond yields (Figures 15 and 16). In such an environment, we believe the equity/bond yield gap will be a better valuation metric for equities as opposed to the widely used forward P/E methodology.

Figure 15: Inflation to stay weak as the output gap widens



Source: Bloomberg, DBS

Figure 16: Historical positive correlation between inflation and the UST 10-yr yield



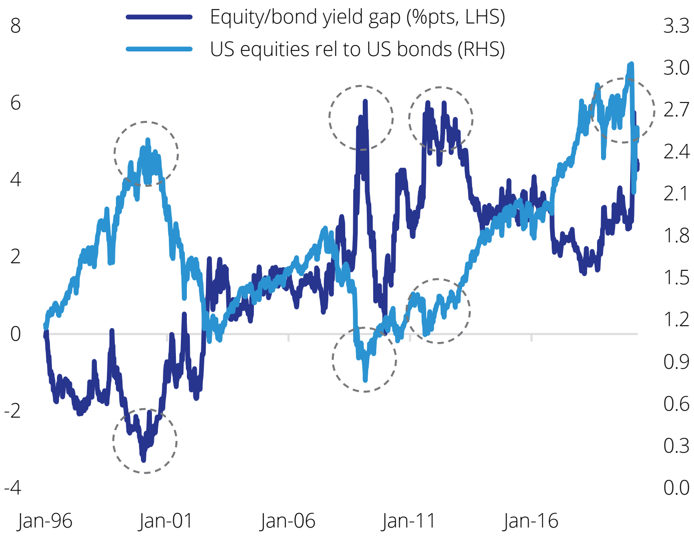
Source: Bloomberg, DBS

As the weekly data in Figure 17 show, the yield gap has historically exhibited a broad inverse relationship with the relative performance of equities over bonds:

- Yield gap trough – 2000: Back in 21 January 2000, the yield gap troughed at -3.3%. From that point till 12 July 2002, when the yield gap finally turned positive, bonds outperformed equities by 62%pts.
- Yield gap peak – 2009: On 6 March 2009, the yield gap peaked at 6.1%. From that point till 25 December 2009, when the yield gap troughed, equities outperformed bonds by 61%pts.
- Yield gap peak – 2011: On 30 September 2011, the yield gap peaked at 6.0%. From that point till 9 March 2018, when the yield gap troughed, equities outperformed bonds by 168%pts.

Currently, the yield gap stands at 4.4% and this augurs well for the relative performance of equities over bonds in the coming quarters.

Figure 17: Inverse relationship between yield gap and equity/bond relative performance



Source: Bloomberg, DBS

Acceleration of the global bifurcation trend

The global disruption wave has led to paradigm shifts in business models around the world. Today, e-Commerce has overtaken brick-and-mortar stores as the retail format of choice. Similarly, robotics and automation are displacing traditional manufacturing methods in factories.

This evolution has been ongoing for some time now. But the pandemic accelerated it.

No more "business as usual"; structural changes on the way. Given the nature of the COVID-19 crisis, several fundamental and structural changes have taken place in the way humans work, play, and live. For instance:

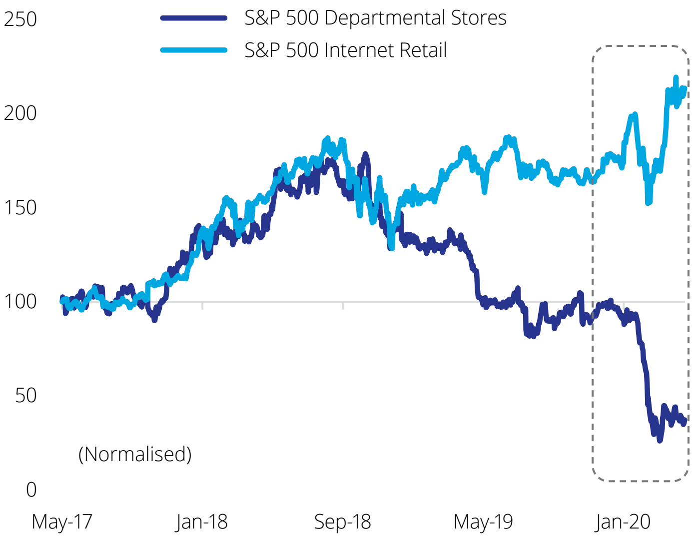
- From offline to online: Widespread economic lockdowns have led to the closure of traditional businesses. To overcome this headwind, companies have been forced to reinvent their operations and conduct business activities online instead (Figure 18).

- The rise of WFH: It is no longer business-as-usual for employees. For years, companies have resisted allowing employees to work from home (WFH). But COVID-19 changed that and surprisingly, anecdotal feedback from major companies has been positive thus far. There are early signs that WFH is here to stay.

- Sports – from traditional to virtual: Traditional sports have undergone seismic changes as physical events were cancelled, and this benefited virtual gaming (e-Sports) along the way (Figure 19).

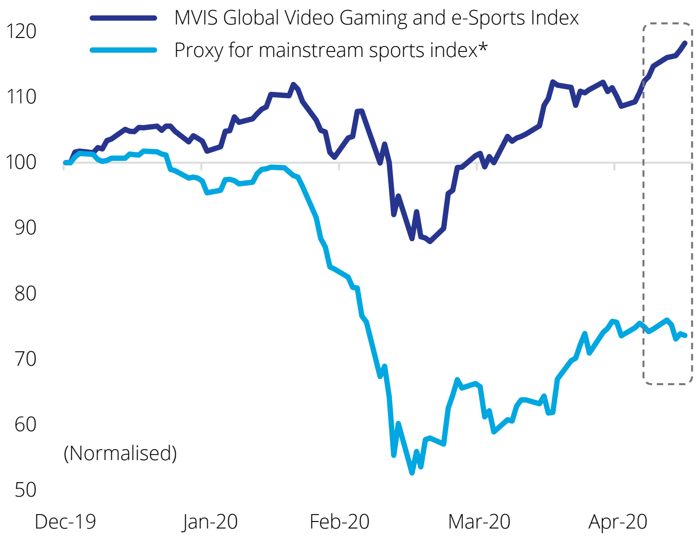
Geared beneficiary of post-pandemic landscape: Technology. Many of these trends will sustain beyond the pandemic and unsurprisingly, industries that benefit from these trends are predominantly the technology-related ones like e-Commerce, clouding computing, 5G, e-Sports, as well as the Health Care sector.

Figure 18: Diverging trajectory of departmental stores and Internet retail



Source: Bloomberg, DBS

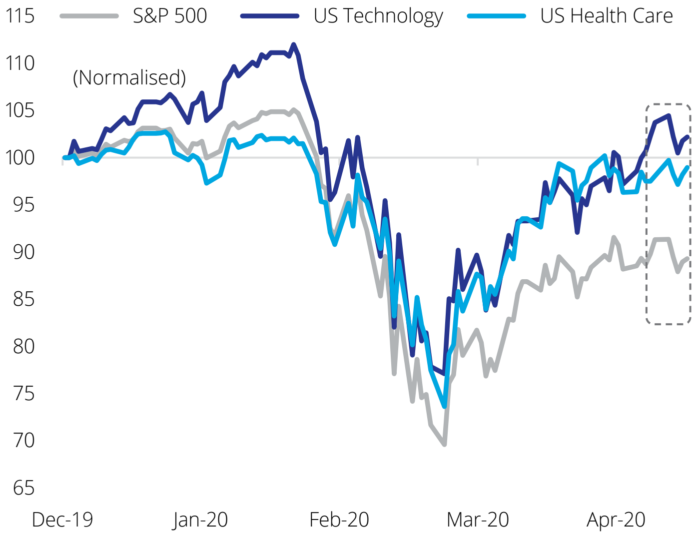
Figure 19: Outperformance of e-Sports vs traditional sports this year



*Consisting of Manchester United, Juventus, and Liberty Media Corp-Liberty Formula One.

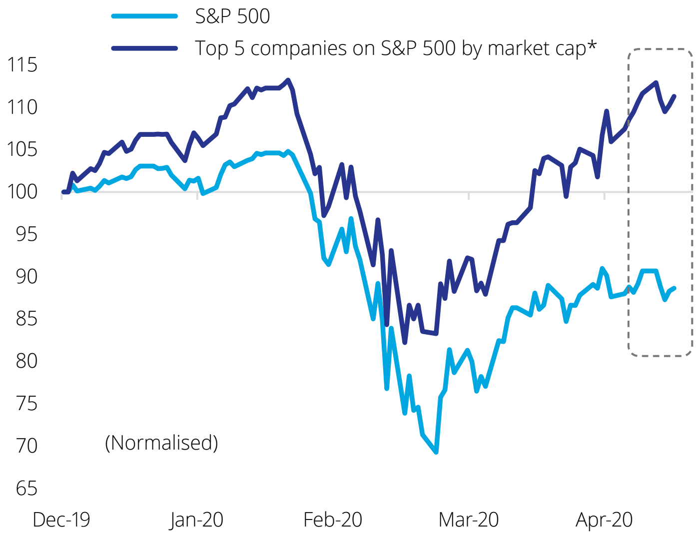
Source: Bloomberg, DBS

Figure 20: US Technology and Health Care have vastly outperformed the broader market this year



Source: Bloomberg, DBS

Figure 21: Outperformance by the top five largest companies was even starker



*Consisting of Microsoft, Apple, Amazon.com, Alphabet, and Facebook.

Source: Bloomberg, DBS

This is evident from the robust outperformance of US Technology and Health Care this year (Figure 20). The outperformance is even more stark if one captures the average performance of the five largest companies on the S&P 500 (Microsoft, Apple, Amazon, Alphabet, and Facebook) (Figure 21).

This is global bifurcation in play and this trend is set to accelerate in the coming years.

3Q20 Asset Allocation: Differentiation is key

Table 1: 3Q20 CIO Asset Allocation (CAA) Framework

Categories	Indicators	Score Range	Equities				Bonds		
			US	Europe	Japan	AxJ	DM Govt	DM Corp	EM Bonds
Fundamentals	PMI	-1 to +1	0	0	0	0	0	0	0
	Economic surprise	-1 to +1	0	0	0	0	0	0	0
	Inflation	-1 to +1	0	0	0	0	1	1	1
	Monetary policies	-1 to +1	1	1	1	1	1	1	1
	Forecasted EPS growth	-2 to +2	-1	-1	-1	0	-	-1	-1
	Earnings surprise	-2 to +2	0	0	0	0	-	0	0
Valuation	Forward P/E	-2 to +2	0	0	0	1	-	-	-
	P/B vs ROE	-2 to +2	0	-1	0	1	-	-	-
	Earnings yield - 10-yr yield	-2 to +2	1	1	1	1	-2	0	0
	Free Cash Flow yield	-2 to +2	2	-1	0	1	-	-	-
	Credit spread	-2 to +2	-	-	-	-	-	1	1
Momentum	Fund flows	-2 to +2	1	0	0	1	0	1	1
	Volatility	-1 to +1	0	0	0	0	0	-	-
	Catalysts	-2 to +2	1	1	1	1	0	0	1
Raw Score			5	0	2	7	0	3	4
Adjusted Score*			**0.24**	**0.00**	**0.10**	**0.33**	**0.00**	**0.19**	**0.25**

*Note: The "Adjusted Score" is calculated using the "Raw Score" divided by the maximum attainable score for each category. Source: DBS

Cross Assets: Equities remains the place to be as bond yields stay anchored to the lows. From a cross-assets perspective, we keep our preference for equities over bonds. In our CAA Framework, equities garnered a higher composite score of 0.17, as compared to 0.15 for bonds.

Fundamentals: With the gradual reopening of economies, macro data is expected to see some reprieve in the coming months. Using China as a point of reference, we expect manufacturing to undergo quicker rebound than consumption as a result of the drag caused by rising unemployment. With this in mind, we have assigned "0" scorings for the key macro categories like PMI and Economic Surprise.

In terms of corporate earnings, analysts have been slashing their forecast for global equities by c.22% since the start of 2020 and we expect further downward revisions in the coming months (albeit at a slower rate). But given the swift revisions, corporate earnings would unlikely show huge negative surprises during the quarter.

Valuation: On a cross-asset basis, the gap between earnings yields and Treasury yields has surged to c.4.4%pts and underpins our preference for equities over bonds (in particular, government bonds).

Momentum: Year-to-date, USD32.8b has exited from equity funds while the outflow from bonds was more severe at USD72.7b. Nonetheless, as financial conditions and macro momentum continue to stabilise in 3Q, we expect the flow of funds to rebound in tandem.

Catalyst: Potential upside surprise from discovery of COVID-19 vaccine.

<u>Equities</u>: Pandemic accelerates global bifurcation trend; Overweight markets with huge technology-related exposure. The COVID-19 crisis will put a dent in economic and corporate earnings growth across the board. However, there is a caveat here. While the top-down macro impact on trade, investments, and consumption is broadly homogenous, the bottom-up impact on specific industries can be extremely diverse.

Clearly, post-lockdown, the retail and tourism sectors will continue to face headwinds as consumers cut back on spending amid escalating job losses. On the other hand, technology-related sectors will see structural growth as businesses/consumers shift their activities from offline to online.

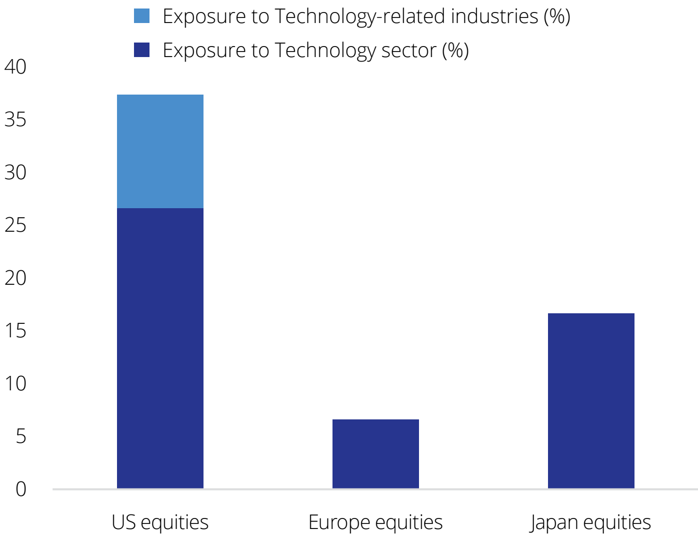
Given recent developments, it no longer makes sense to conduct global equities allocation based on solely macro factors. Instead, equities allocation should be carried out in accordance to each market's exposure to sectors that are less impacted by COVID-19, such as Technology for instance. As Figure 22 shows, the US possesses the highest exposure to Technology, followed by Japan and Europe. We maintain our conviction Overweight call on the US within DM.

In the case of Asia ex-Japan, given the relative success of the region's containment efforts for COVID-19, we expect the region to register the fastest economic rebound post-pandemic and this is already evident in the economic surprise indices (Figure 23). Maintain Overweight.

<u>Bonds</u>: Favour US IG; prefer Asia HY over global HY. Given widespread unemployment and sluggish consumption in the developed world, monetary accommodation is expected to persist in the course of 2020. Our economics research team expects the UST 10-year yield to end the year at 0.95% before trending higher in the course of 2021.

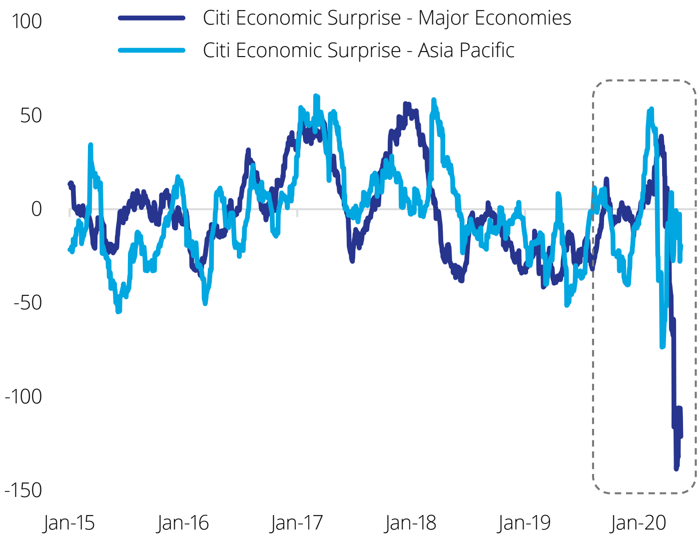
In the credit space, we have turned positive on US IG bonds as the current spreads-implied default rate is not justifiable in our view, given prevailing macro conditions. Within the HY segment, we continue to favour Asia HY over global HY given the region's attractive spreads differential (Figure 25).

Figure 22: US has the largest exposure to Technology among DM



Source: Bloomberg, DBS

Figure 23: Asia economies have rebounded faster than the developed ones

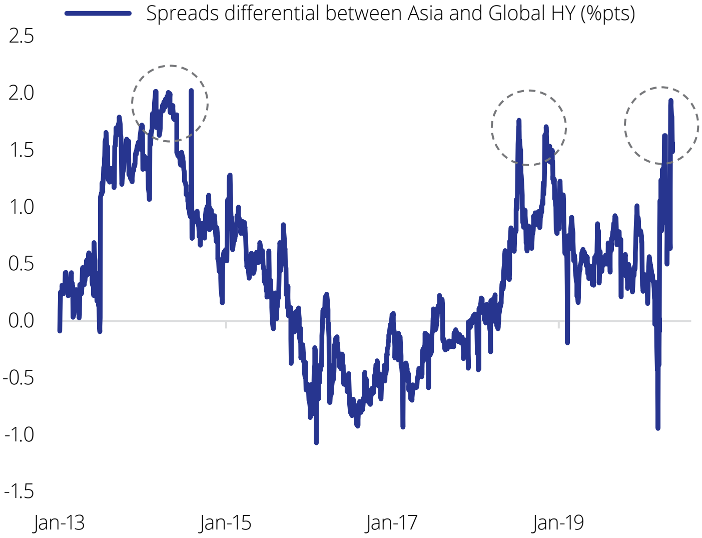


Source: Bloomberg, DBS

Figure 24: US IG spreads implying high default risks; not justifiable

Source: Bloomberg, DBS

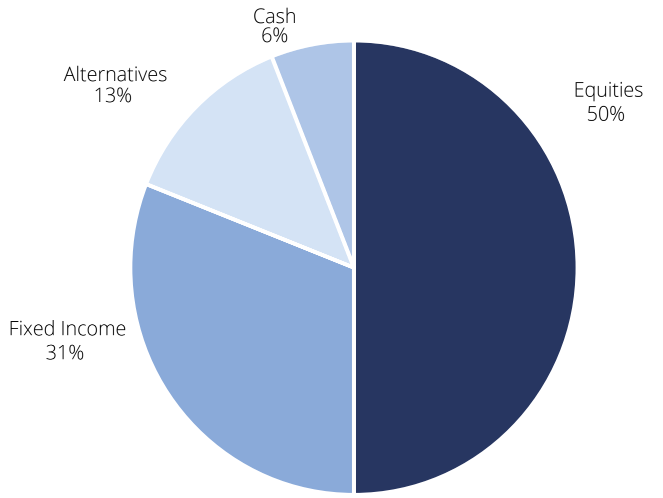
Figure 25: Asia HY spreads are wider than global HY



Source: Bloomberg, DBS

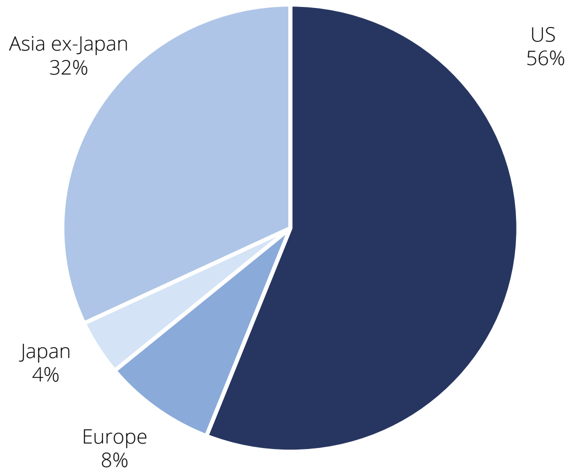
Source: Unsplash

Figure 26: TAA breakdown by asset class (Balanced Profile)



Source: DBS

Figure 27: TAA breakdown by geography within equities (Balanced Profile)



Source: DBS

Table 2: 3Q20 Global Tactical Asset Allocation (TAA)

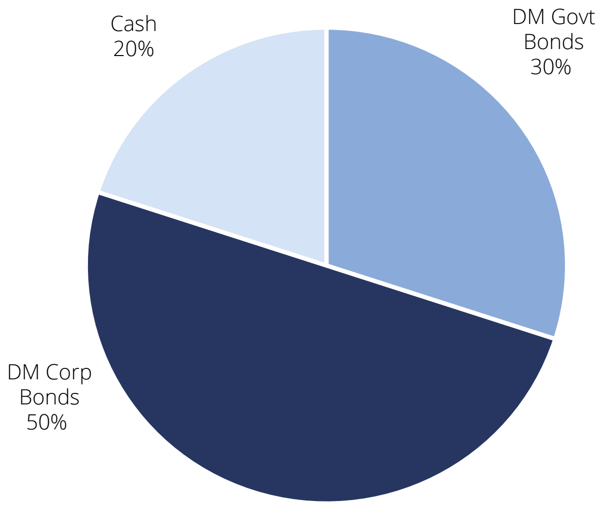
Asset Class		
	3-Month Basis	12-Month Basis
Equities	**Neutral**	**Neutral**
US Equities	Overweight	Overweight
Europe Equities	Underweight	Underweight
Japan Equities	Underweight	Underweight
Asia ex-Japan Equities	Overweight	Overweight
Fixed Income	**Underweight**	**Underweight**
Developed Markets (DM) Government Bonds	Underweight	Underweight
Developed Markets (DM) Corporate Bonds	Neutral	Neutral
Emerging Markets (EM) Bonds	Overweight	Neutral
Alternatives	**Overweight**	**Overweight**
Gold	Overweight	Overweight
Hedge Funds	Neutral	Neutral
Cash	**Overweight**	**Neutral**

Source: DBS

Conservative

	TAA	SAA	Active
Equities	0.0%	0.0%	
US	0.0%	0.0%	
Europe	0.0%	0.0%	
Japan	0.0%	0.0%	
Asia ex-Japan	0.0%	0.0%	
Fixed Income	80.0%	80.0%	
Developed Markets (DM)	80.0%	80.0%	
DM Government Bonds	30.0%	30.0%	
DM Corporate Bonds	50.0%	50.0%	
Emerging Markets (EM)	0.0%	0.0%	
Alternatives	0.0%	0.0%	
Gold	0.0%	0.0%	
Hedge Funds*	0.0%	0.0%	
Cash	20.0%	20.0%	

*Only P4 risk rated UCITs Alternatives

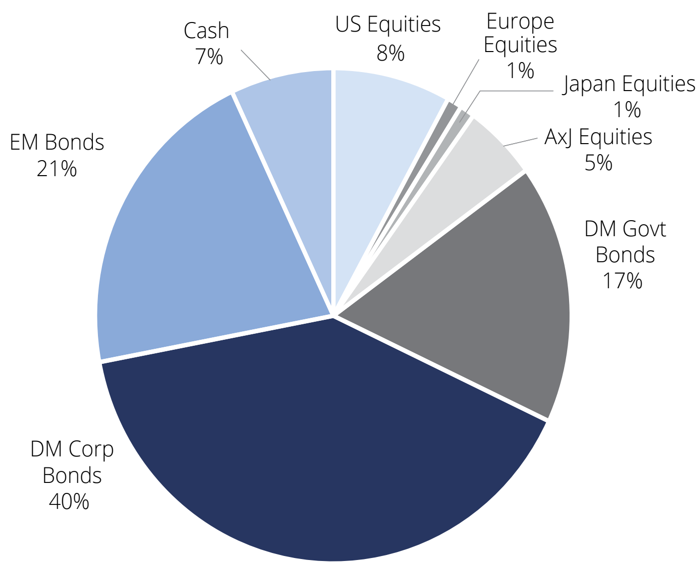


Source: DBS

Moderate

	TAA	SAA	Active
Equities	15.0%	15.0%	
US	8.0%	6.0%	2.0%
Europe	1.0%	4.0%	-3.0%
Japan	1.0%	2.0%	-1.0%
Asia ex-Japan	5.0%	3.0%	2.0%
Fixed Income	78.0%	80.0%	-2.0%
Developed Markets (DM)	57.0%	60.0%	-3.0%
DM Government Bonds	17.0%	20.0%	-3.0%
DM Corporate Bonds	40.0%	40.0%	
Emerging Markets (EM)	21.0%	20.0%	1.0%
Alternatives	0.0%	0.0%	
Gold	0.0%	0.0%	
Hedge Funds*	0.0%	0.0%	
Cash	7.0%	5.0%	2.0%

*Only P4 risk rated UCITs Alternatives

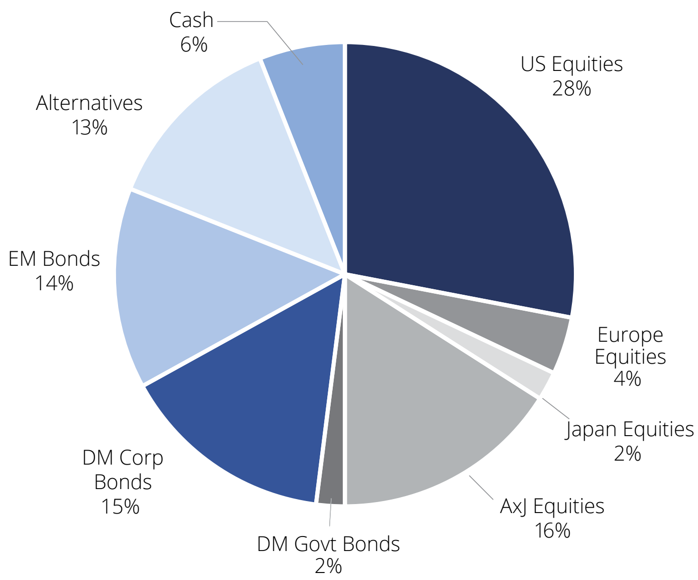


Source: DBS

Balanced

	TAA	SAA	Active
Equities	50.0%	50.0%	
US	28.0%	25.0%	3.0%
Europe	4.0%	10.0%	-6.0%
Japan	2.0%	5.0%	-3.0%
Asia ex-Japan	16.0%	10.0%	6.0%
Fixed Income	31.0%	35.0%	-4.0%
Developed Markets (DM)	17.0%	25.0%	-8.0%
DM Government Bonds	2.0%	10.0%	-8.0%
DM Corporate Bonds	15.0%	15.0%	
Emerging Markets (EM)	14.0%	10.0%	4.0%
Alternatives	13.0%	10.0%	3.0%
Gold	8.0%	5.0%	3.0%
Hedge Funds*	5.0%	5.0%	
Cash	6.0%	5.0%	1.0%

*Only P4 risk rated UCITs Alternatives

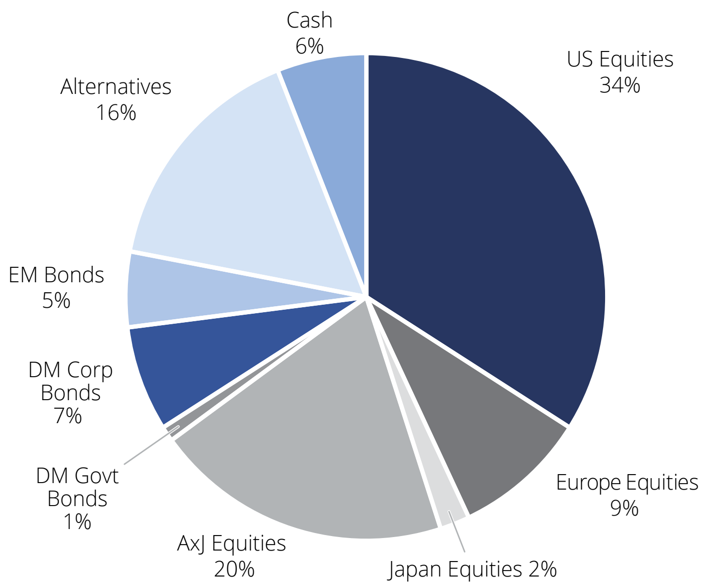


Source: DBS

Aggressive

	TAA	SAA	Active
Equities	65.0%	65.0%	
US	34.0%	30.0%	4.0%
Europe	9.0%	15.0%	-6.0%
Japan	2.0%	5.0%	-3.0%
Asia ex-Japan	20.0%	15.0%	5.0%
Fixed Income	13.0%	15.0%	-2.0%
Developed Markets (DM)	8.0%	11.0%	-3.0%
DM Government Bonds	1.0%	4.0%	-3.0%
DM Corporate Bonds	7.0%	7.0%	
Emerging Markets (EM)	5.0%	4.0%	1.0%
Alternatives	16.0%	15.0%	1.0%
Gold	6.0%	5.0%	1.0%
Hedge Funds*	10.0%	10.0%	
Cash	6.0%	5.0%	1.0%

*Only P4 risk rated UCITs Alternatives



Source: DBS

Notes:
1. The above are based on three-month views.
2. Asset allocation does not ensure a profit or protect against market loss.
3. "TAA' refers to "Tactical Asset Allocation". "SAA" refers to "Strategic Asset Allocation".
4. Based on the SAA model, the Aggressive model has the highest risk, followed by Balanced, Moderate, and Conservative, with Conservative being the least risky.
5. The investor type classification for the portfolio has no direct relationship with the Financial Needs Analysis customer risk profile types and the portfolios are not assigned any product risk rating based on the bank's proprietary risk rating methodology.

Macroeconomics | 3Q20

Looking past 2Q

Global Macroeconomics

Taimur Baig, Ph.D. | Chief Economist
Radhika Rao | Economist
Ma Tieying | Economist
Suvro Sarkar | Analyst

United States

Even as most states have moved toward easing lockdown measures, the damage for the April-June quarter is already done. The second quarter of 2020 is shaping up to be the worst quarter in history in terms of contraction in demand and activity. The Atlanta Fed's US GDP Nowcast model tracked the economy to contract by 10% (q/q, saar) at the beginning of May; by the end of the month that rate had moved to an astonishing 42% contraction. The model turned particularly with pessimistic jobs losses that climbed sharply (although the rate of increase has slowed), while industrial production, manufacturing activity, and retail trade contracted through April and early May.

As per our GDP Nowcasting model, we are tracking 2Q y/y real GDP growth to be -12% in the US (fairly similar to what would be the corresponding figure from the Atlanta Fed Nowcast), +3% in China, and -7% in Singapore. These outturns will be consistent with the path forecast by the IMF, which sees global growth contracting by 3% this year.

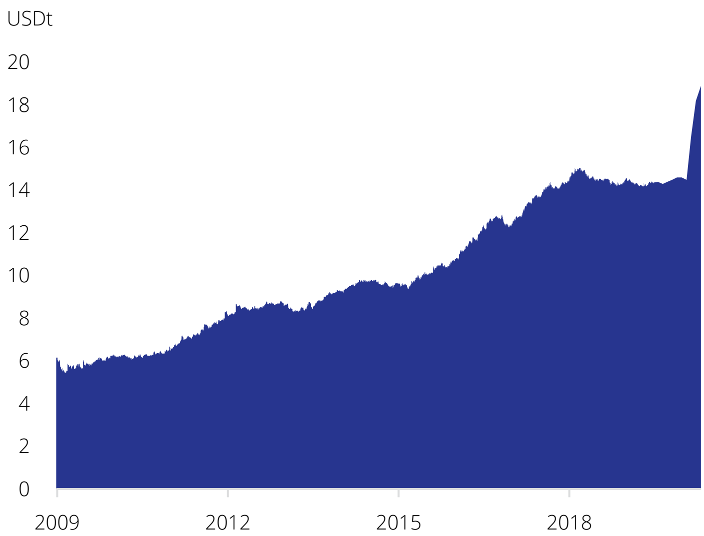
The issue at hand is not the unprecedented depth of this quarter's global economic contraction. Rather, for policymakers and market participants, the question is how the second half of the year will shape up. Even the prevailing consensus forecast for the year, dire at first glance, is based on a gradual return to normalcy in 2H20. Many policy packages and fiscal programmes are timed to expire by June, with the expectation that ongoing easing of lockdowns will progress steadily, gaining momentum in 3Q, rendering some of the support measures in place less essential.

Assuming a modest return to activity starting from June onward, 3Q growth could turn positive. Indeed, given the likely depth of 2Q contraction, even a tentative return to activity will produce pleasing headline growth figures for 3Q, although the actual level of activity would remain substantially below the level of 1Q, or even 4Q19 for that matter.

Hence even a sizeable jump in q/q activity in July to September will leave output significantly below capacity, keeping the US economy on overall contractionary territory for the entire year (our forecast for 2020 is -5% y/y).

Moreover, the downside risk to this scenario is considerable. A resurgence of the pandemic in the US, reflecting a premature easing of lockdowns or a seasonal wave of the pandemic, would upend investor expectations considerably, leading to a flight to safety and a major spike in asset price volatility, in our view.

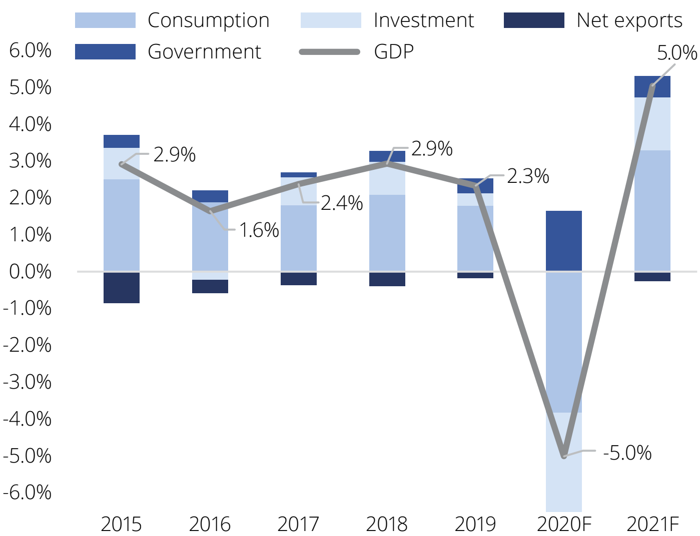
Figure 1: Sharp expansion of G-3 balance sheets during March-May, led by the US Federal Reserve



Source: Bloomberg, DBS

As economies attempt to normalise, the tricky trade-off between life and livelihood will likely haunt consumer and business sentiment for a considerable period. Areas such as travel, tourism, dining, and mass gatherings (sports, concerts, conferences, gaming) will either operate at substantially below capacity to ensure safety or be subject to a debilitating start-stop dynamic if the pandemic comes in waves. As difficult as 2Q has been, the heroic supportive measures put in place have acted as a critical band aid. As support measures run out but economic distress not dissipate entirely, the risk lies in how many corporate debt defaults and business failures will surface, rendering the chance of a smooth recovery questionable.

Figure 2: A sharp contraction to be followed by a snap-back in activities, hopefully



Source: CEIC, DBS

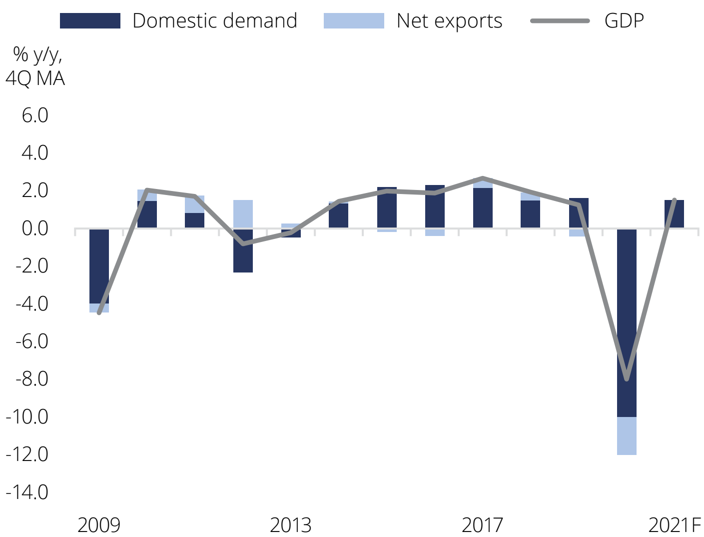
Eurozone

The Euro Area is likely to be a laggard among the G-3 economies this year, as the bloc not only entered 2020 on a weak footing but had also used up considerable monetary easing space last year.

Incoming data confirm a significant hit from COVID-19. Euro Area GDP contracted -3.1% y/y in 1Q20 vs 2019 average of 1.2%, despite strict lockdowns which only kicked in in mid-March. The plunge in economic activity differed among the core-4 countries, with Germany declining -2.3% y/y, while in Italy, Spain, and France where infection cases surged, the hurt to growth was sharper at -4.8%, -4.1%, and -5.4%, respectively.

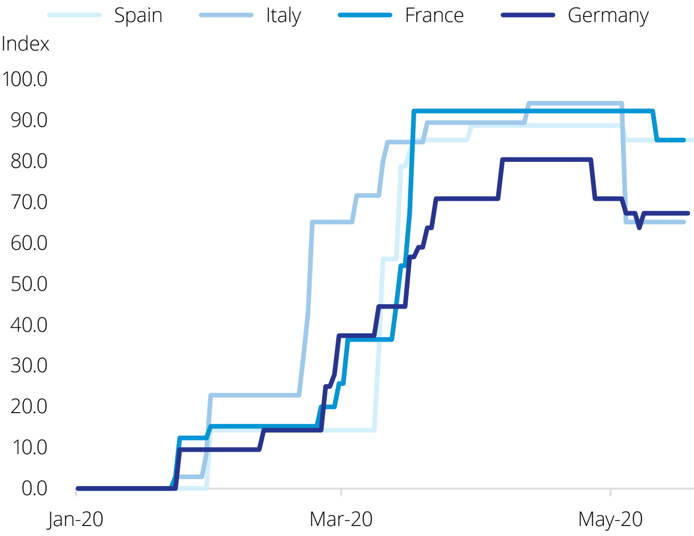
The second quarter plunge is likely to be deeper as it covers the phase of lockdowns and reopening only at a gradual pace. A variation is likely in the performance among member countries, with Germany's infection cases and fatalities – least among the core-4 – necessitating a less stringent lockdown compared to large-scale lockdowns in Italy/Spain (Figure 2). With 2Q to mark a trough and a phased unwinding of restrictions thereafter, we expect the Euro Area to decline 8% y/y this year, deeper than the GFC.

Figure 3: Euro Area to decelerate sharply in 2020



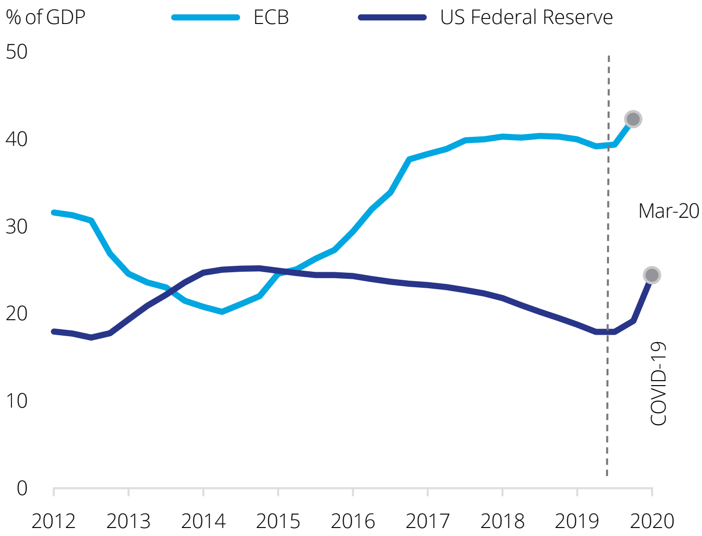
Source: CEIC, DBS

Figure 4: Stringency index



Sources: University of Oxford, DBS

Figure 5: ECB balance sheet expansion is underway

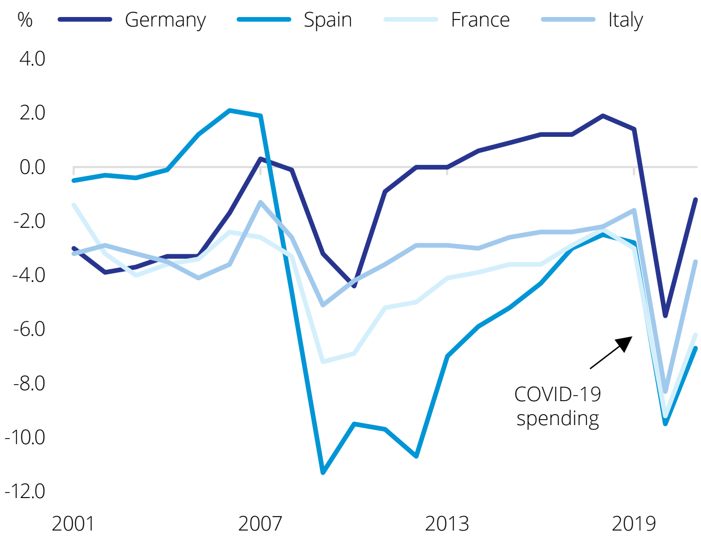


Sources: Bloomberg, DBS

Inflation is likely to stay sub-target in 2020 on low energy prices, disinflationary impact of slowdown, weak services price pressures, and depressing inflationary expectations. With policy rates effectively at the zero-bound, the ECB's support has been through balance sheet expansion via large-scale asset purchases (wider stock of eligible credit), introducing TLTROs, and a flood of liquidity for lenders. The Pandemic Emergency Purchase Programme, currently at EUR750b has been expanded to EUR1.3t. The recent German constitutional court questioning the validity of the QE programme is unlikely to be an impediment for the ECB, in our view.

Fiscal policy is expected to provide a significant counterbalancing impulse this year. National governments have rolled out support to shield corporates and households via wage subsidies, credit guarantees, work compensation schemes etc. This will entail costs, with Eurozone fiscal deficit to rise c.7% of GDP in 2020 vs -0.6% in 2019. The aggregate debt to GDP ratio will also near 100% of GDP, surpassing

Figure 6: Fiscal burden to rise in 2020



Sources: IMF, Bloomberg, DBS

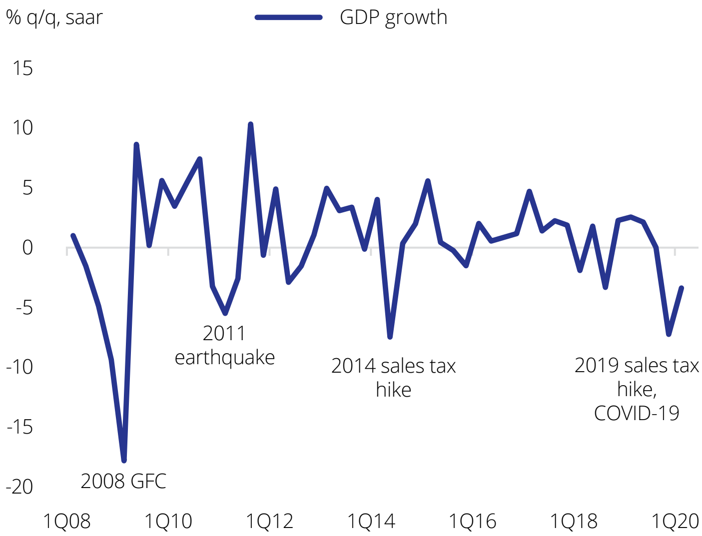
the 2011-12 crisis high. Italy's ratio is likely to jump to 160% of GDP from the current c.135%, raising debt sustainability worries in the face of a recession this year. Delayed prospects of a recovery keep the door open for further fiscal action.

EU-wide fiscal support is in the works primarily through a European Stability Mechanism unconditional loan facility, credit guarantee facility by the European Investment Bank (EIB), and EU programme to protect employment. The likelihood of joint bond issuance or corona bonds is low, but consensus is being sought for an EU recovery plan worth EUR500b, initiated by France and Germany, which along with outlays from the EU-budget is seen as another avenue of support for the member countries.

Japan

The Japanese economy has fallen into a deep recession, initially hit by the sales tax hike and then the COVID-19 pandemic. Real GDP contracted -3.4% q/q saar in 1Q, the second consecutive quarter of decline following the -7.3% in 4Q19. Given the intensifying COVID-19 and the resultant lockdowns in Japan and other major economies, growth is likely to contract further in 2Q, by more than -10%.

Figure 7: GDP growth has contracted for two quarters

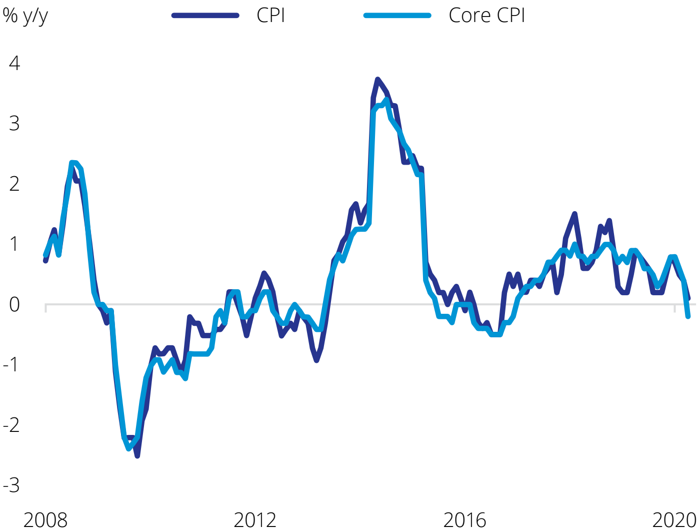


Sources: CEIC, DBS

A rebound could be expected for 3Q-4Q but a return to normalcy remains unlikely. Japan started to progressively lift the state of emergency for major prefectures from mid-May. But the number of new COVID-19 cases has not fallen to zero and the risk of second-wave infection remains. Meanwhile, the fallout of the COVID-19 shock on corporate/household balance sheet and the labour market is likely to emerge with a time lag, which would further weigh on consumption and investment in 2H20.

Deflation risk is rising, in the context of recession and a deeply negative output gap. Core CPI has turned negative, falling notably to -0.2% y/y in April from 0.6% in January-March. The percentage of consumers expecting prices to go up in the next 12 months declined to 70% in April, a level last seen in March 2013 before the BOJ started to launch quantitative and qualitative easing to address deflation expectations.

Figure 8: CPI figures are turning negative

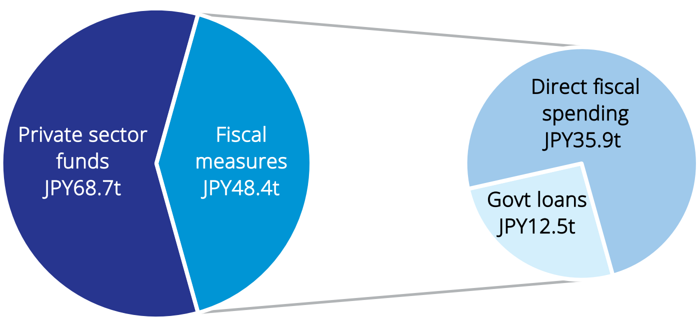


Sources: CEIC, DBS

Large scale stimulus is underway, but effectiveness is doubtful. The government has announced a huge stimulus package to shore up the economy, amounting to a total of JPY117t or 20% of GDP. A large portion of this package is government and private sector loans. While the package also includes direct spending such as cash handouts to households, the past experiences suggest that this would end up with an increase in household savings, as deflation expectations start to build.

Figure 9: Composition of Japan's COVID-19 stimulus package

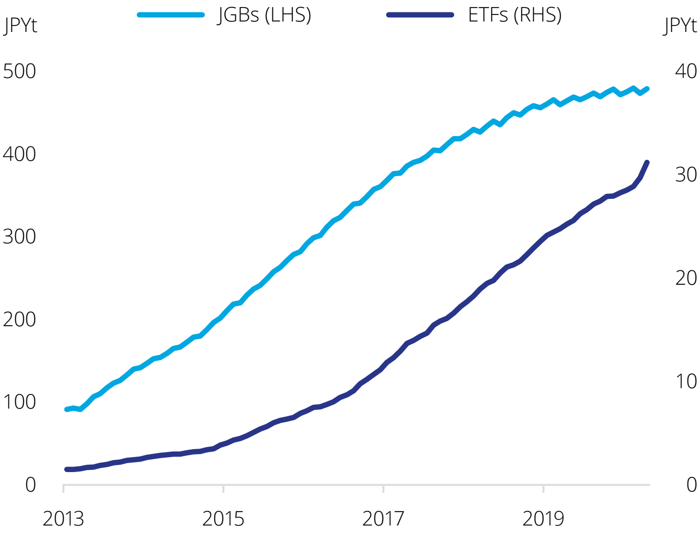
Total: JPY117.1t (20% of GDP)



Sources: Bloomberg, DBS

Source: Unsplash

Figure 10: BOJ's holdings of JGBs and ETFs



Sources: CEIC, DBS

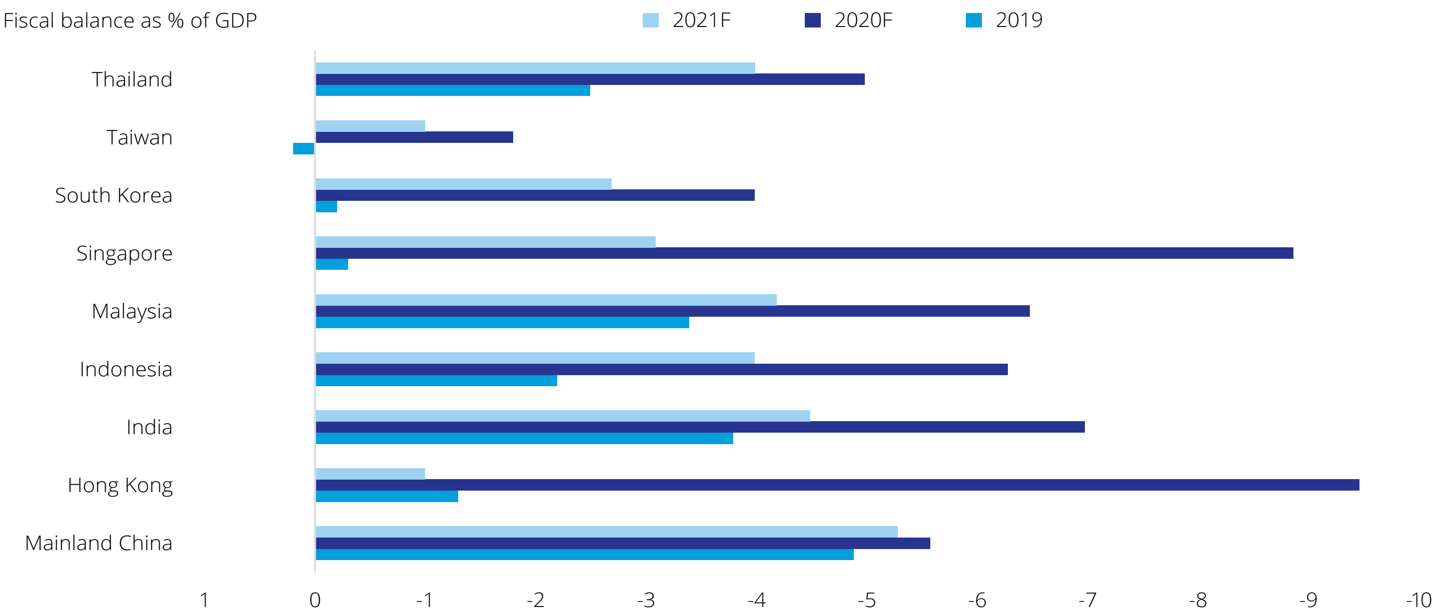
The BOJ has scraped the JGB purchase target of "around JPY80t" per annum, increased the buying of risky assets including ETFs, REITs, commercial papers, and corporate bonds, and launched a special loan programme to encourage banks to lend to small businesses. Policymakers still appear cautious about directly lowering rates, probably due to the concerns about deeper negative rates hurting financial institutions.

Asia: US-China tension to the fore

From 21-22 May, China belatedly held its annual "Two Sessions", including a political advisory body conference and a gathering of the NPC. The NPC is formally the highest political organ in the People's Republic of China. The main thrust of these events is economic policy, although the proposal of a security law for Hong Kong and Macau has been commanding the media headlines worldwide.

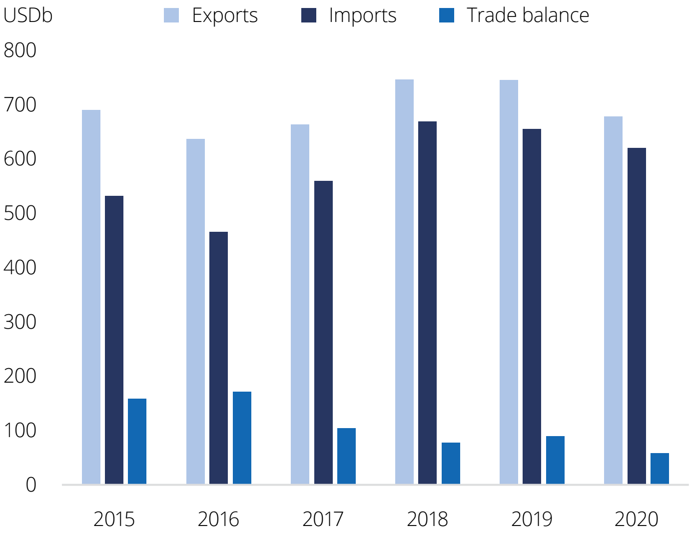
China's economy needed to grow by 5.6% this year to achieve the promised doubling of GDP since 2010, a goal that has been upended by the pandemic. Unsurprisingly, the authorities gave up on a quantitative target during the NPC. Looking at various projections in the official documents, we see evidence of a growth target of slightly below 2% this year, in line with our baseline expectations. There have been no major calls

Figure 11: China's fiscal response to the pandemic has been relatively muted



Source: IMF, CEIC, DBS

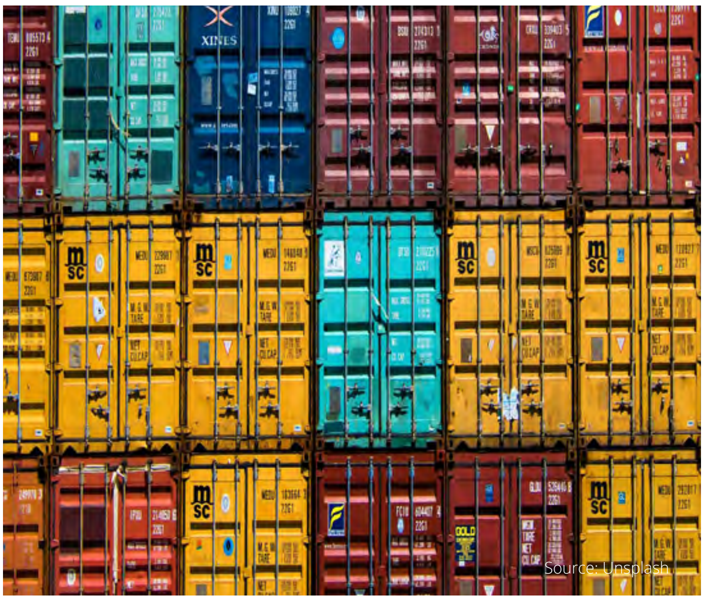
Figure 12: China's trade outturn vis-à-vis the US, January-April each year



Source: CEIC, DBS

for additional supportive measures, reflecting the perception that China has come out of the epidemic with less economic damage than most economies.

Among the numerous targets regarding trade, employment, poverty, and sectoral development, the key objective of this year's NPC remains ensuring prosperity and security amid a myriad of constraints. But the bigger picture is that of an emerging superpower, facing considerable mistrust and misgiving from nations that stand to lose from the rise of a dominant China. That of course brings us to the US-China rivalry of this era.



Source: Unsplash

The list of US-China frictions is long, each with grave geopolitical implications and complexities. With elections looming, US politicians are compelled to ratchet up the tension in the coming months. Anti-China rhetoric and measures are not the sole domain of Trump Republicans, as per our reading. Regardless of what happens in the US Presidential, Senate, and Congress races in November, China will be looking at an increasingly antagonistic US in the coming years, in our view.

The friction is two-way: the US is after China on trade, technology transfer, human rights, freedom of movement in the South China Sea, and Taiwan. China, meanwhile, is keen to assert its control over Hong Kong, competitiveness in new generation technology, internal and regional stability, energy and food security, and a steady rise in the standard of living.

Unfortunately, the relationship between the two superpowers is increasingly in the realm of a zero-sum rivalry for dominance as opposed healthy, win-win competition. Latest developments from Hong Kong could only exacerbate matters, we are afraid.

China is keen to ensure two objectives: first, it wants to eliminate domestic dissension and establish unchallenged leadership in Asia. Second, it seeks to gain hard and soft power in the global landscape. On the first, while China has secure borders with Russia and North Asia, and not much opposition from the Southeast Asian neighbours, its border with India is still disputed. Issues around Taiwan and maritime rights in the South China Sea are still outstanding and will remain under observation by the US, in our view. On the second, China's economic and military might have made some headways in South Asia and Africa in recent years, although its soft power is dwarfed by that of the US.

Wars between nuclear powers are unlikely, but a ruinous cold war that hurts global trade, supply chains, efficiency of common standards, and geopolitical stability is increasingly on the cards.

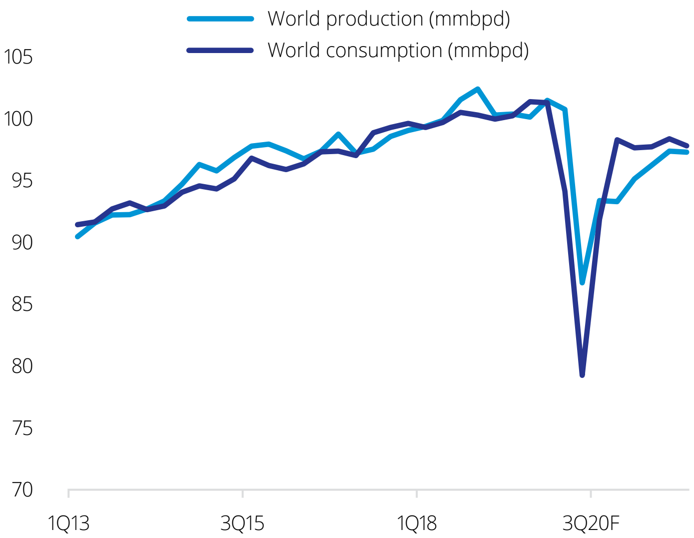
Oil rallies earlier than expected

Demand supply balance could be achieved by 3Q20. Brent crude oil prices touched a low of USD19/bbl in April 2020, down by more than 70% from the early 2020 peak of USD69/bbl, while WTI prices, as represented by near month futures price, went negative in April for the first time in history as oil storage became hard to find. Demand destruction due to the COVID-19 pandemic response peaked in April as we expected, but the easing of lockdown restrictions in some parts of the world ahead of the infection rates peaking has meant that the oil demand recovery could be faster than we had anticipated.

Thus, Brent has more than doubled from the recent low to hover around USD40/bbl in early-June, owing to earlier-than-expected easing of global lockdowns especially in the US, sharp declines in global oil production (by around 15.0 mmbpd m/m), and the resultant easing of pressure on oil storage facilities.

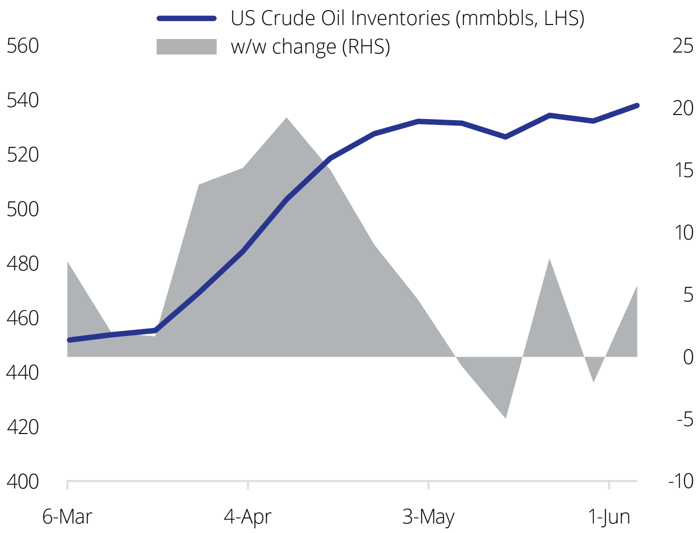
We now project global oil demand to decline by around 9.0 mmbpd in 2020 (compared to our earlier projection of 11.0 mmbpd decline), while supplies are expected to fall by around 7.0 mmbpd in 2020, after accounting for the OPEC+ cuts and non-OPEC declines, especially from the US and Canada. Thus, we now expect Brent crude oil prices to average between

Figure 13: Demand-supply balance should be reached by 3Q20



Source: EIA, DBS forecasts

Figure 14: US crude oil inventories see record additions in April before easing off in May



Source: Bloomberg, DBS

Table 1: Quarterly average oil price forecast 2020-21– DBS base case view

USD per barrel	1Q20A	2Q20F	3Q20F	4Q20F	1Q21F	2Q21F	3Q21F	4Q21F
Average Brent crude oil price	51.0	33.5	42.0	52.5	49.5	56.5	58.0	57.0
Average WTI crude oil price	46.0	30.5	39.0	48.5	45.5	52.5	54.0	53.0

Source: DBS

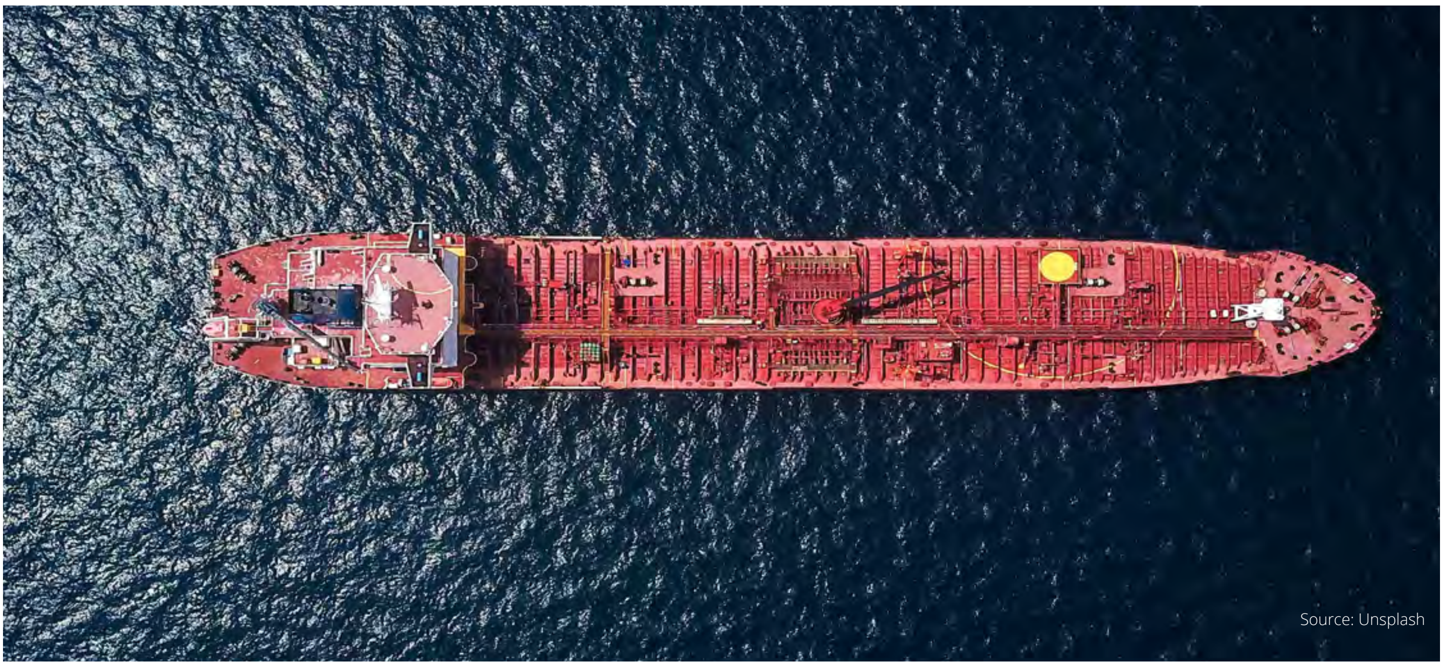
USD40-45/bbl in 2020 (higher than earlier projection of USD37-42/bbl), and between USD55-60/bbl in 2021. Inventory overhang caused by wide supply-demand gap in 2020 will be the key moderating factor for oil prices in 2021, without which oil price upward trajectory would have been sharper.

Oil demand recovering faster than expected. Chinese oil demand was the first to recover in 2Q20, as the government gradually lifted containment measures in major cities. As more people return to work and use private cars instead of public transport, demand for gasoline is holding up in China and should return to normal by 3Q20. Diesel demand is also supported by surging e-Commerce deliveries and the resumption in industrial activities. Jet fuel demand is the only component that will continue to see muted demand for rest of the year as international travel will remain restricted.

The US has also crossed an uneasy threshold, with all 50 states beginning to re-open in some way around two months after the coronavirus first pushed the country into lockdown. This has resulted in pickup in gasoline demand in the US, though heavily populated areas like New York, New Jersey, and California remain under lockdown. Still, the drawdown in crude oil inventories has been a key optimistic signal for the oil market that things are turning. European economies have also been partially easing lockdown norms since the beginning of May, albeit amid fears of a second wave of infections. So far, signs are there that easing will continue.

Supply side discipline remains solid as of now. While we do not have official data yet to back up the claims, OPEC+ supplies could have fallen by more than 10.0 mmbpd in May, from the peaks of April 2020. Add to that are shut-ins and outages from non-OPEC countries like the US, Canada, Brazil, Norway, and others, as well as estimates point to up to 15.0 mmbpd cut in supplies, if not more, in May 2020 compared to the previous month. US shale has been an important component of that decline, falling by about 1.5 mmbpd from levels at the start of the year. Given the current demand improvement trajectory, we believe the demand-supply balance could be reached as early as July or August 2020.

Saudi Arabia and Gulf allies have put in place extra cuts to balance the market in June. We hope the fragile truce with Russia can be maintained as Russia could look to try and ease the production curbs somewhat in the second half of 2020. The OPEC+ production cuts have been maintained at c.10mmbpd levels for an additional month in July 2020, and laggards like Iraq and Nigeria have been asked to compensate for not cutting enough earlier, with deeper cuts later in the year. For now, the OPEC+ production cut discipline looks rather solid and should help oil prices breach the USD50/bbl levels by the end of the year, a level most countries are comfortable with.



Source: Unsplash

Table 2: GDP growth and CPI inflation forecasts

	GDP growth, % y/y				CPI inflation, % y/y, ave			
	2018	2019	2020F	2021F	2018	2019	2020F	2021F
Mainland China	6.6	6.1	2.0	5.6	2.1	2.3	2.3	2.5
Hong Kong	3.0	-1.2	-4.0	1.5	2.4	2.7	2.5	2.5
India	6.8	4.9	-4.4	4.0	4.0	3.7	4.8	3.5
India (FY basis)*	6.2	4.2	-4.8	4.5	3.4	4.8	3.9	4.1
Indonesia	5.2	5.0	-1.0	3.5	3.2	2.8	2.7	3.0
Malaysia	4.7	4.3	-1.6	3.2	1.0	0.7	-0.4	1.8
Philippines**	6.2	5.9	-2.5	3.5	5.2	2.5	2.4	3.0
Singapore	3.1	0.7	-5.7	3.5	0.4	0.6	-0.7	1.5
South Korea	2.7	2.0	-1.1	2.9	1.5	0.4	0.2	0.5
Taiwan	2.7	2.7	-1.0	2.9	1.3	0.6	0.1	0.5
Thailand	4.2	2.4	-5.5	2.0	1.1	0.7	-2.5	1.0
Vietnam	7.1	7.0	4.4	6.2	3.5	2.8	2.6	3.0
Eurozone	1.9	0.9	-8.0	1.5	1.8	1.2	1.0	1.2
Japan	0.3	0.7	-3.0	2.8	1.0	0.5	-0.1	0.0
United States***	2.9	2.3	-5.0	5.0	1.9	2.3	1.3	1.5

* refers to fiscal years, i.e. 2020 represents FY21 - year ending March 2021. ** new CPI series. *** eop for CPI inflation.

Source: CEIC, DBS

Table 3: Policy interest rates forecasts, eop

	1Q20A	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Mainland China*	4.35	3.85	3.70	3.55	3.55	3.55	3.55	3.55
India	4.40	4.00	3.65	3.65	3.65	3.65	3.65	3.65
Indonesia	4.50	4.50	4.25	4.25	4.25	4.25	4.25	4.25
Malaysia	2.50	2.00	2.00	2.00	2.00	2.00	2.25	2.50
Philippines	3.25	2.25	2.00	2.00	2.00	2.00	2.00	2.00
Singapore**	0.85	0.40	0.40	0.40	0.40	0.40	0.40	0.40
South Korea	0.75	0.50	0.50	0.50	0.50	0.50	0.50	0.75
Taiwan	1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Thailand	0.75	0.50	0.25	0.25	0.25	0.25	0.25	0.25
Vietnam***	5.00	3.50	3.50	3.50	4.00	4.50	5.00	5.00
Eurozone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Japan	-0.10	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20
United States***	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

* 1-yr Loan Prime Rate; ** 3M SOR ; *** prime rate.

Source: CEIC, DBS

DBS Live more, Bank less

Source: Unsplash

US Equities | 3Q20

All eyes on economic reopening

US Equities

Dylan Cheang | Strategist

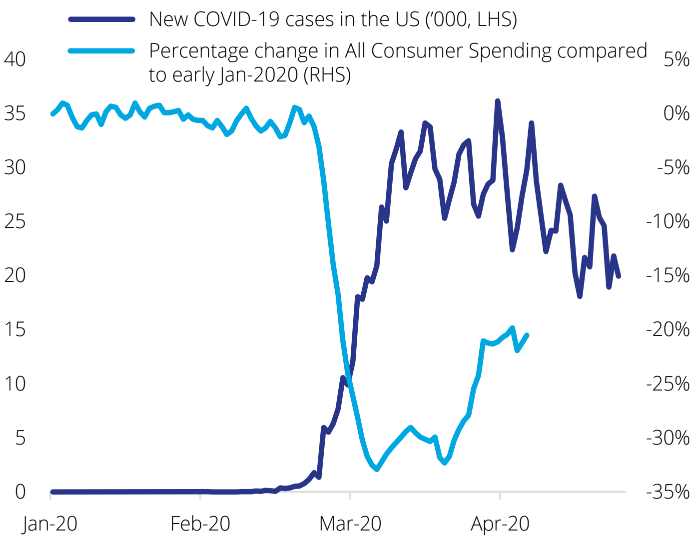
The S&P 500 notched up 18.2% gains (as of 12 June 2020) during the second quarter as unprecedented fiscal and monetary easings put a backstop to risk assets. Clearly, the worst of the crisis is likely behind us and investors' attention in the coming months will be focused on how successful the economic openings are. On this front, we have been advising investors to use China as a point of reference. Chinese macro data started to rebound when the number of new COVID-19 cases hit a peak and we believe the US will follow a broadly similar trajectory.

Given the lagging nature of economic numbers, we relied on alternative data to track the US's economic re-opening. According to Harvard-based Opportunity Insights, economic activities in the US have started to rebound and this coincided with the peaking of new COVID-19 cases:

- Consumption: Since 13 April, Opportunity Insights data show that the percentage change in US consumer spending (as compared to early January 2020) has recovered from a trough of -32.3% to -20.5% by 30 April (Figure 1)

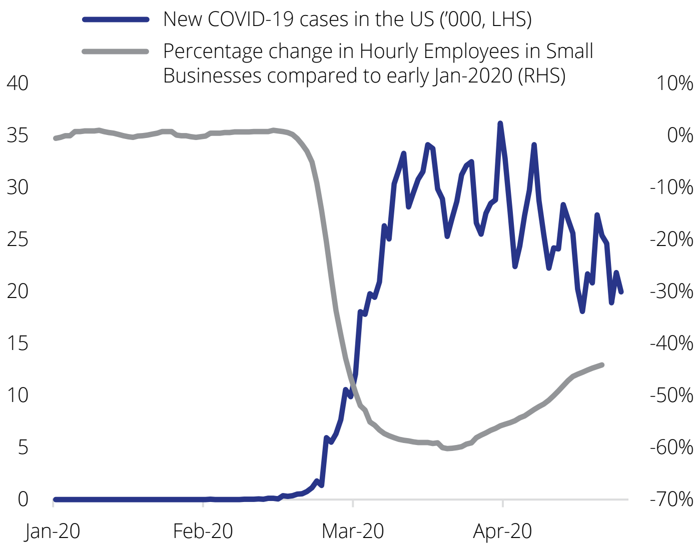
- Employment: Similarly, since 13 April, the percentage change in hourly employees for small businesses (as compared to early January 2020) has rebounded from a trough of -60.2% to -44.1% by 15 May (Figure 2)

Figure 1: Back to Life – US consumption showing signs of recovery after the acute plunge



Source: Opportunity Insights, Bloomberg

Figure 2: Back to Work – The jobs situation at small businesses is moderating



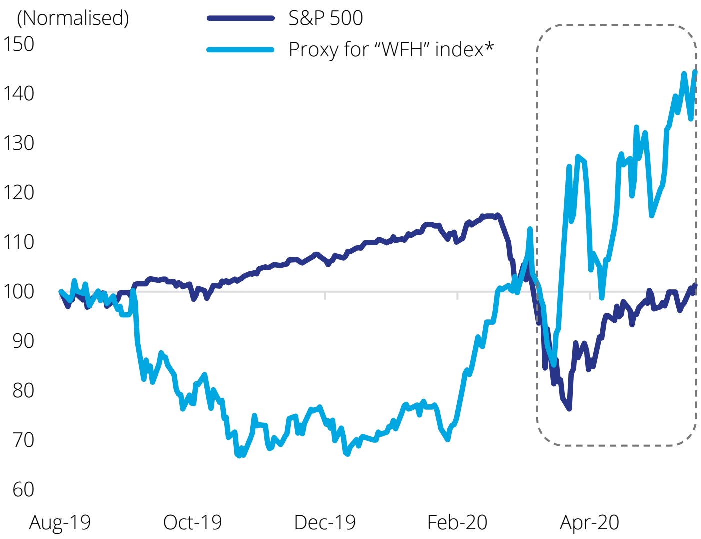
Source: Opportunity Insights, Bloomberg

Ride on post-pandemic trends. In the quarters ahead, even without recurrent waves of coronaviral infection, consumption patterns in the US will never be the same. As the country gradually re-opens its economy, we believe some forms of precautionary measures (such as social distancing) will remain in place, particularly in the absence of a vaccine. The broad-based changes in the way people work and live will accentuate the following trends:

- The rise of working from home: Companies have traditionally resisted the idea of allowing employees to work from home (WFH). But COVID-19 changed all that. Companies are coming to the realisation that employees working from home can be equally productive from an output perspective. Given the potential cost savings from commercial real estate if more employees operate from home, we believe that this WFH trend will persist in some forms even after the viral crisis is over (Figure 3).

- The rise of e-Commerce: During the economic lockdown, retailers and food companies faced overnight collapse in business flows. To survive, many have reinvented their operations and redirected their business activities online. This trend is expected to persist even as the economy reopens as consumers take precautionary measures and practise social distancing. Online retailing as well as online food delivery will see rising demand.

Figure 3: Outperformance of WFH-related companies vs broader market

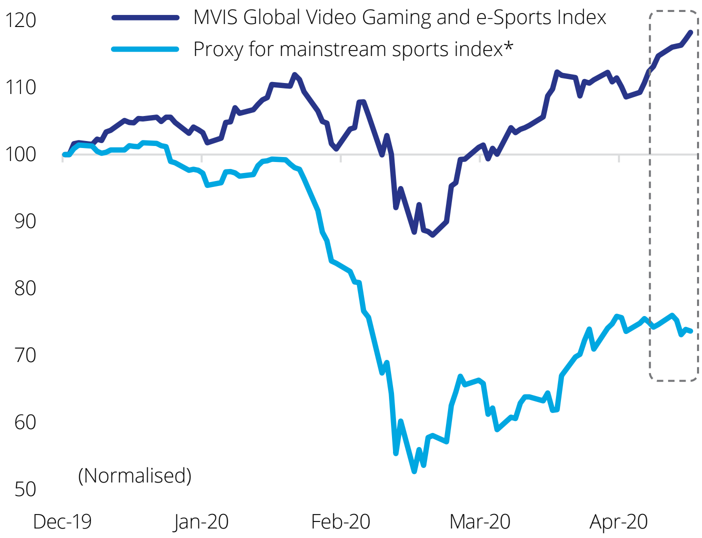


Source: Bloomberg, DBS
*Consisting of Zoom Video Communications and Slack Technologies

- The rise of e-Sports: Traditional sports underwent seismic change as physical events were cancelled during the coronaviral crisis. This benefited virtual gaming (e-Sports) along the way as consumers searched for alternatives, with gaming platforms like Twitch reporting sharp jumps in viewership (Figure 4).

  There are concerns on whether this demand spike is a flash in the pan. We think not. e-Sports allows sporting bodies to stay engaged with their fans/sponsors as well as diversify revenue streams. Moreover, e-Sports is also less prone to disruptions given that Internet connectivity is all it needs and therefore, consumers' interest in this space is expected to stay resilient.

Figure 4: Outperformance of e-Sports vs traditional sports this year



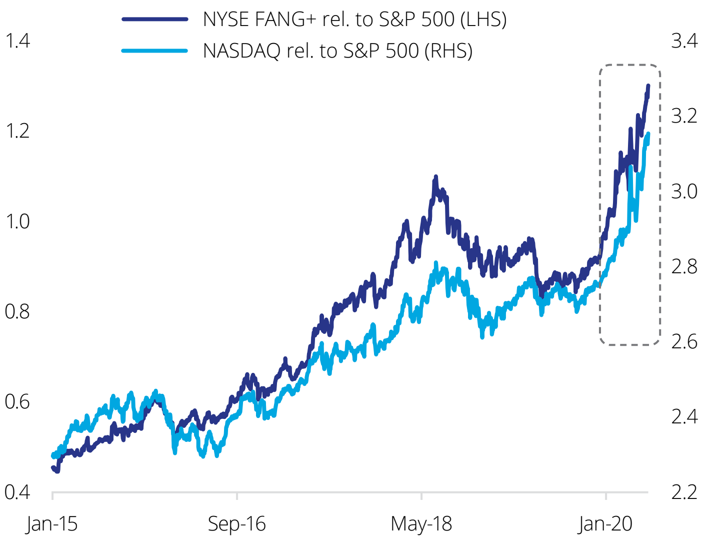
Source: Bloomberg, DBS
*Consisting of Manchester United, Juventus, and Liberty Media Corp-Liberty Formula One

Source: Unsplash

US Technology: Beneficiary of post-pandemic landscape. Industries that will benefit from the post-pandemic trends are predominantly Technology-related, such as e-Commerce, cloud computing, 5G, and e-Sports. This explains why the NYSE FANG+ and NASDAQ indices have outperformed the broader market by 33.4%pts and 12.7%pts respectively YTD (as of 12 June 2020). The outperformance is similarly stark if one captures the average performance of the five largest companies on the S&P 500 (Microsoft, Apple, Amazon, Alphabet, and Facebook).

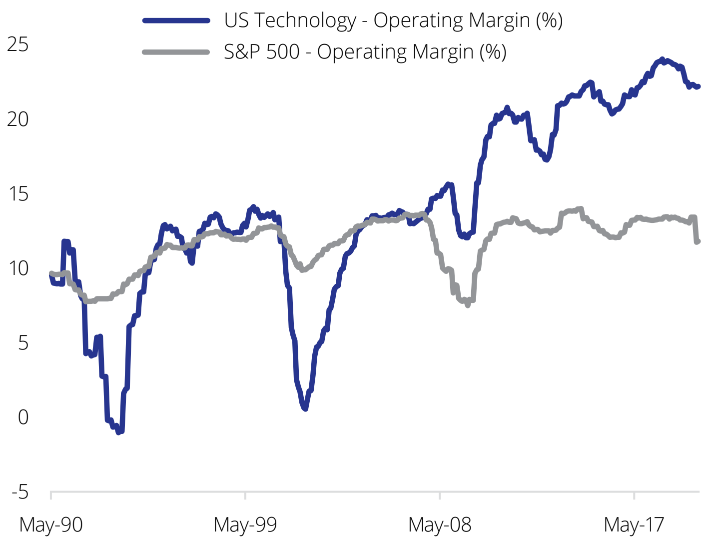
US Technology has generally been outperforming the broader market since the dot-com crash and the COVID-19 crisis accentuated the sector's dominance. This is bifurcation in play and we expect this trend to accelerate in the post-pandemic world given structural tailwinds underpinning the sector, such as strong pricing power and improving operating costs control (for more information, please refer to the Asset Allocation chapter in 2Q20 CIO Insights – Build to Last).

Figure 5: The COVID-19 crisis has triggered a bout of outperformance for Technology-related plays



Source: Bloomberg, DBS

Figure 6: US Technology enjoys superior margin advantage given strong pricing power and improving costs control



Source: Bloomberg, DBS

3Q20 US Sector Strategy

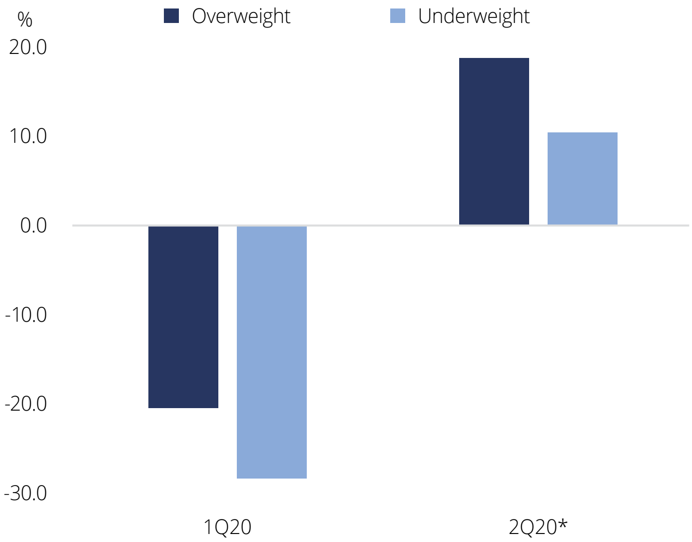
Robust outperformance. Our US sectoral calls have registered robust outperformance this year, both on the downside and the upside. During 1Q20 when risk assets were plummeting amid escalating viral shock, our Overweight calls registered an absolute loss of 20.5% on average and this constituted a 7.9%pts outperformance over our Underweight calls, which lost 28.4% during the quarter.

In 2Q20* (*as of 12 June), risk assets rallied across the board as unprecedented policy support, coupled with rising prospects of economic reopening, buoyed sentiments. Our Overweight calls registered absolute gains of 22.2% on average, outperforming our Underweight calls by 4.3%pts. On a YTD basis, our Overweight sectoral basket has cumulatively outperformed the Underweight basket by 12.7%pts.

	1Q20	2Q20*
Overweight	-20.5	22.2
Underweight	-28.4	17.9
Outperformance	7.9	4.3

* As of 12 June 2020

Figure 7: Our Overweight calls have substantially outperformed our Underweight calls



Source: Bloomberg, DBS
*As of 12 June 2020.

Maintain exposure in Health Care and Technology-related sectors. We have in our publication CIO Perspectives – US Technology & Health Care: Strongest earnings and valuation matrix showcased our three-stage Earnings and Valuation Framework. The key impetus behind setting up this framework is for investors to look through the noise and ascertain where US sectors currently stand from an earnings and valuation standpoint.

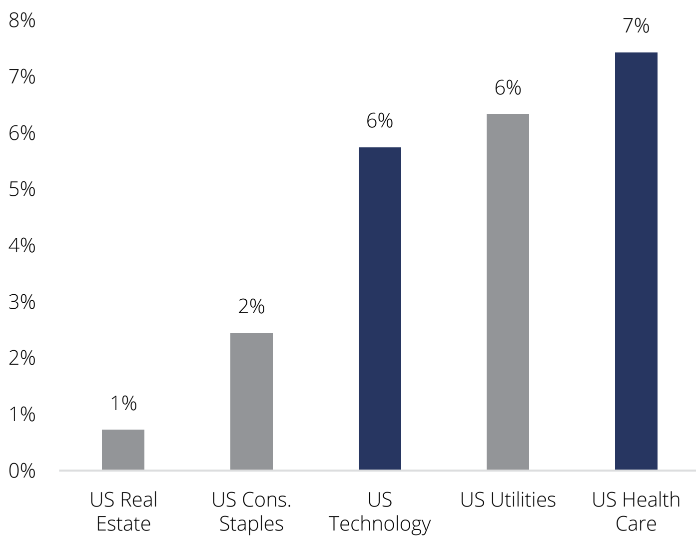
Our framework sought to eliminate sectors with excessive valuation expansion as well as unrealistically small earnings downgrades (relative to macro conditions). In the end, the growth sectors that managed to clear our screening criteria and emerged as the ones with the best valuation and earnings matrix were Technology and Heath Care (Figure 8). We maintain our Overweight view on Technology-related sectors as they are expected to benefit from the post-pandemic landscape. Similarly, the US Health Care sector will benefit from renewed portfolio flows in light of the pandemic situation.

On the other hand, we stay Underweight on Industrials as the sector is expected to face continued headwinds as global economic momentum moderates. Within Industrials, the airline industry will be particularly vulnerable as companies/consumers cut back on air travel (Figure 9). Outlook for the Financials sector is not looking good either amid net interest margin contraction, rising loan loss provisions, and weakening loan growth.

Dialling up our pro-growth conviction in the Overweight calls. As the US economy gradually emerges from its lockdown in the course of 3Q, we expect macro and corporate earnings data to undergo sequential rebound. Henceforth, we are increasing our conviction on the Technology-related and Health Care sectors in our Overweight calls. The actions taken are:

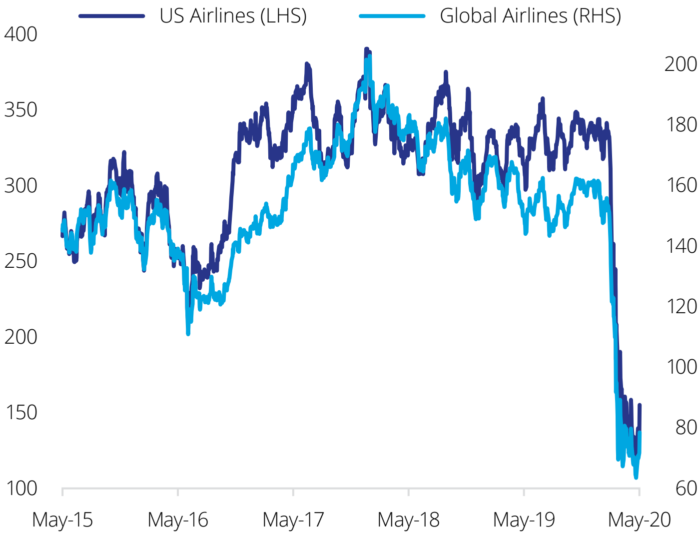
- Downgrading Real Estate to Neutral – the rise of the "working from home" trend will pose future headwinds for commercial real estate.
- Maintaining Utilities at Neutral despite its upbeat earnings and valuation matrix. We continue to stay Overweight on secular winners in long-term, irreversible trends of digitalisation and global ageing.

Figure 8: US Technology and Health Care – strong earnings fundamentals



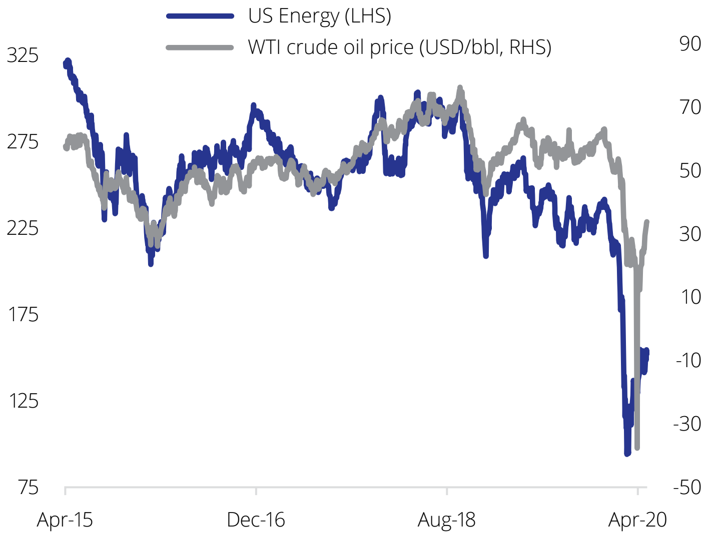
Source: Bloomberg, DBS

Figure 9: The collapse in airline stocks will unlikely recover anytime soon post-pandemic



Source: Bloomberg, DBS

Figure 10: US Energy stocks are expected to rebound in tandem with crude oil price



Source: Bloomberg, DBS

Source: Unsplash

Maintain tactical Overweight on US Energy amid rebounding crude oil prices. To recap, we previously upgraded US Energy to an Overweight for dividend reasons. With government bond yield languishing at the lows, we recommended a "hunt for yield" strategy in high dividend sectors and one of which is Energy. Dividend yield for US Energy was 4.1% then and it was more than twice of the S&P 500's.

However, the sector has met a perfect storm this year with the COVID-19 crisis and the Russia-Saudi Arabia oil price war. But the latter has since been resolved with OPEC+ members agreeing to coordinated production cuts. More importantly, as countries emerge from their economic lockdowns, oil demand is expected to rebound in the coming months. We expect WTI crude oil price at end 2020 at USD48.5/bbl and this augurs well for the outlook of energy stocks (Figure 10). Maintain Overweight.

Table 1: 3Q20 US sector allocation

	Overweight	Neutral	Underweight
US Sectors	Technology	Utilities	Financials
	Communication Services	Consumer Staples	Materials
	Consumer Discretionary	Real Estate	Industrials
	Health Care		
	Energy*		

* Note: (1) This refers only to US integrated oil majors and (2) This Overweight call is rendered on a portfolio basis pertaining to US equities. It does not represent an Overweight view on physical energy prices.

Source: DBS

Table 2: US sector key financial ratios

	Forward P/E (x)	P/B (x)	EV/EBITDA (x)	ROE (%)	ROA (%)
S&P 500 Index	24.3	3.4	14.3	13.5	2.7
S&P 500 Financials	17.4	1.2	8	9.3	1
S&P 500 Energy	-	1.2	21.1	-8.4	-3.8
S&P 500 Technology	25.9	8.4	17.9	28.9	10.3
S&P 500 Materials	23.8	2.4	13.7	6.6	2.7
S&P 500 Industrials	31	3.7	12	20.1	4.8
S&P 500 Cons. Staples	20.2	5.9	15.4	22.2	6.2
S&P 500 Cons. Discretionary	50.7	9.4	15.2	26.8	5.1
S&P 500 Comm. Services	22	3.4	11.6	14.2	5.4
S&P 500 Utilities	18.2	2.1	12.3	10.1	2.6
S&P 500 Real Estate	47.5	3.4	21	10.7	4
S&P 500 Health Care	17.1	4.4	14.4	19.4	6.5

Source: Bloomberg
* data as at 12 June 2020.

Europe Equities | 3Q20

Treading water

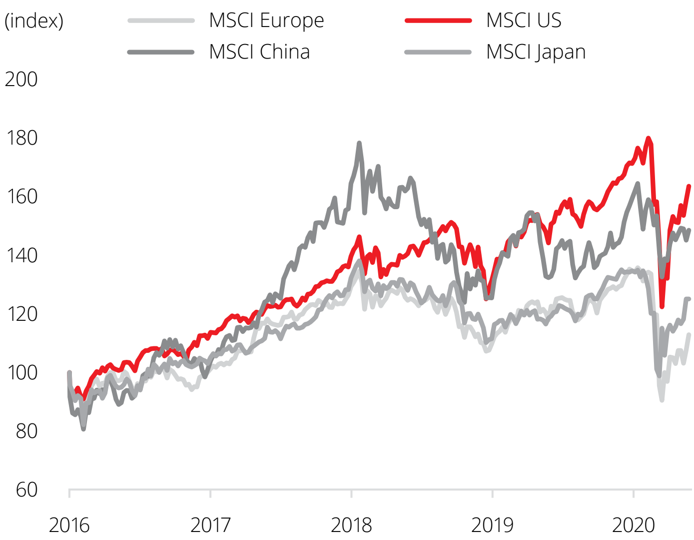
Europe Equities

Joanne Goh | Strategist

In Europe, the COVID paradigm is far from over and the battle to revive the region from a deep recession is likely to be long haul. As governments work to implement fiscal stimulus that cushion downside risks by raising debt levels, and companies work to ensure survival by cutting capital spending and dividends, the region is going to trade in a lagging fashion. Even as our base scenario includes a 2H20 rebound for the global economy, Europe's growth appeal relative to the US's is questioned given its deep structural issues. We believe Europe will continue to underperform global markets.

Our concerns have been the region's weak domestic growth, negative yields that affect banks' profitability, a lack of a Technology sector in the market structure, and the politics that hinder market reforms. These issues, which led to its past underperformance, are unlikely to ease going forward.

Figure 1: Europe has underperformed global markets since 2016



Source: Bloomberg, DBS

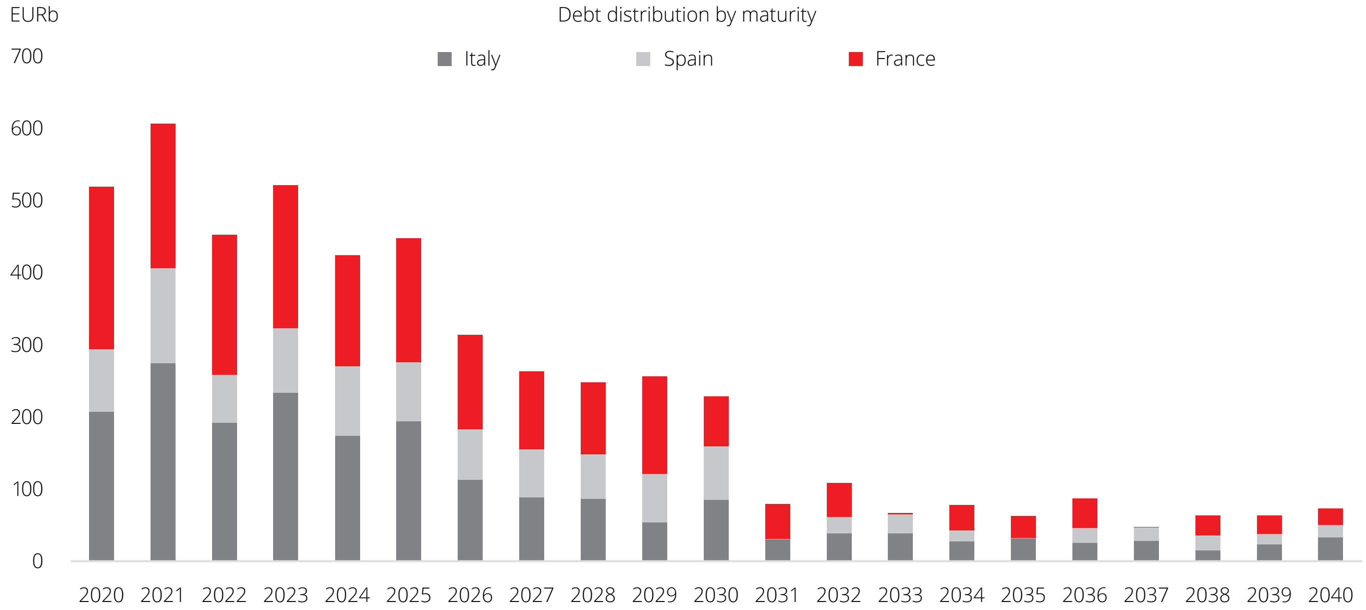
The Eurozone entered the pandemic crisis on a very weak footing, and the subsequent recovery will be very challenging. 2019 GDP growth was already the lowest in six years, we forecast a -8% for 2020 and the outlook for 2021 is highly uncertain. Budget balances, high debt levels, and weak growth were issues before COVID-19, and all the stimulus implemented to sustain the economies should further weaken the fiscal balances. Some economies like Italy and Spain look vulnerable and markets are likely to refocus on these issues once the details on various rescue programmes are finalised.

Stimulus upsize. In its latest move, the ECB upped the ante on global stimulus by expanding the Pandemic Emergency Purchase Programme to EUR1.35t and extending it until at least end-June 2021. Still, in comparison with the US Federal Reserve's unlimited QE and interest rate cuts, some market observers commented that it may not be enough to rescue the region from a deep recession and rising unemployment – more may be needed. For now, the central bank's actions should keep a lid on borrowing costs for governments, providing lifelines for countries and companies facing defaults and bankruptcies. Yields on Italian bonds have dropped on the news.

Europe's Industrial Revolution. Separately, individual European countries and the EU are devising fiscal plans to boost the economy. From this regard, the demonstration of a coherent EU-wide support and some imagination in the ways how monies will be spent could bring about the region's much needed reform.

The EU chief wants the EUR750b joint recovery fund to target clean energy initiatives to transform Europe. Meanwhile Germany's chancellor has taken the chance to associate Germany's rescue package with reforms, industry upgrades, and state controls to revolutionise the country's economy with "a view to the future". EUR100b will be set aside to groom

Figure 2: ECB's bond purchase a backstop for more than EUR1t debt maturing in 2020/21 among Italy, Spain, and France

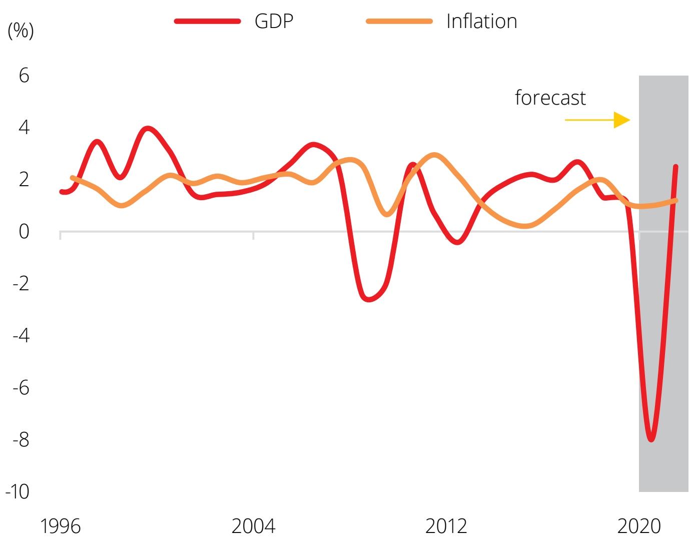


Source: Bloomberg, DBS

home champions in the area of AI, battery cells, and clean energy, including measures to protect companies against foreign competition as well as to reduce dependence on overseas supply chains. Spending is also being set aside for infrastructure projects on digital, security, defence, 5G data networks, railway upgrades, and the doubling of electric vehicles incentives. We believe Europe's Industrial and Technology sectors could be revived with these initiatives.

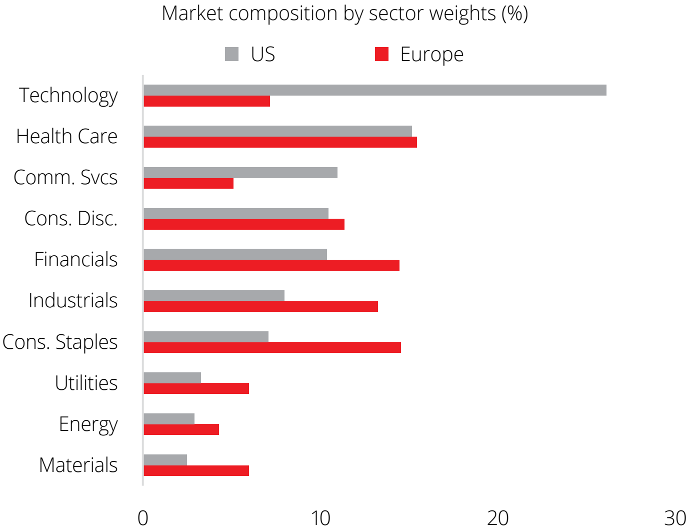
Fewer outperforming global sectors. The pandemic crisis is likely to benefit the Technology sector as the world moves toward digitalisation, driving a stronger demand for e-infrastructure. This trend should continue to support the outperformance of Technology and select Consumer Discretionary stocks, which are not big sectors in Europe. Moreover, the banking sector faces the headwind of negative yields as well as weak growth in the region. Therefore, the Europe equity market is not likely to outperform, given its under-representation in sectors that benefit from a post-COVID world.

Figure 3: Weak economic growth has dragged on since 2012



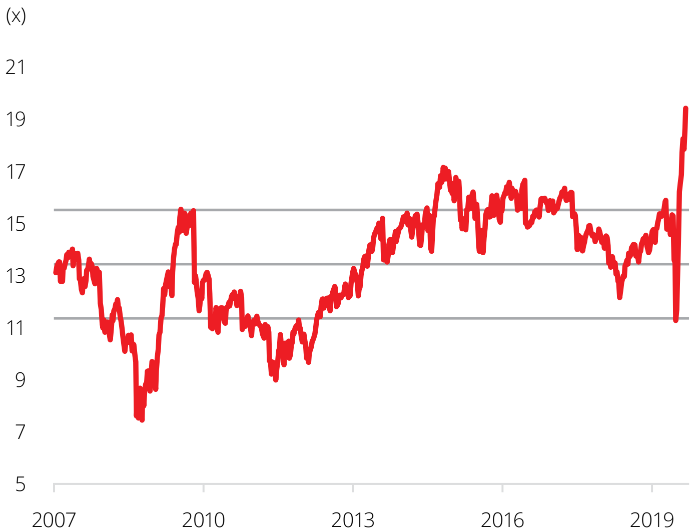
Source: Bloomberg, DBS

Figure 4: Old economy stocks and the lack of a strong Tech sector are key to Europe's underperformance



Source: Bloomberg, DBS

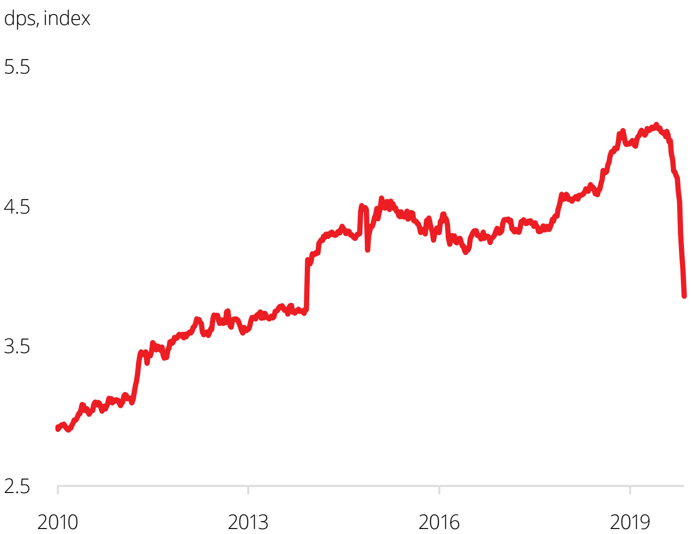
Figure 5: P/E valuation is off the charts



Source: DBS, Bloomberg

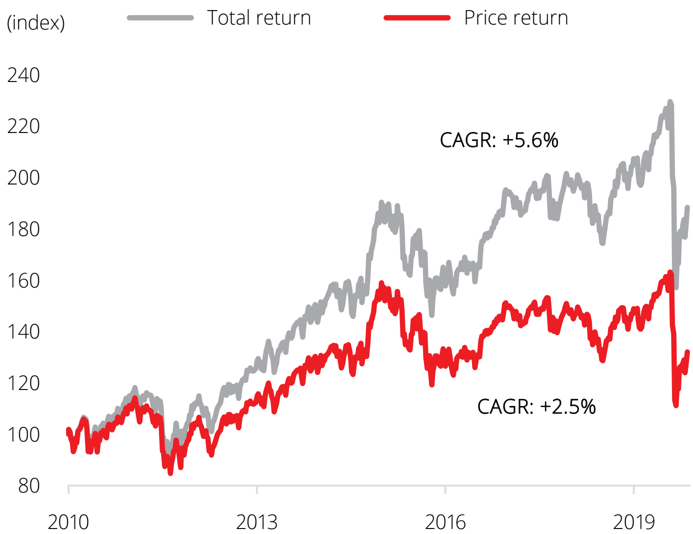
Earnings cuts led to expensive valuations; outlook still uncertain. Prior to the wide spread of COVID-19 and lockdowns, 1Q20 earnings have started to show weakness, leading to more cuts for the rest of the year. The first quarter reported 32% y/y decline, weighed on mainly by Financials, Consumer Discretionary, Energy, and Materials. The forward P/E valuation suggests that the market has yet to price in earnings risk adequately. Hence, unless earnings recover in a big way, Europe will continue to be very expensive.

Figure 6: Dividends per share cut by 24%



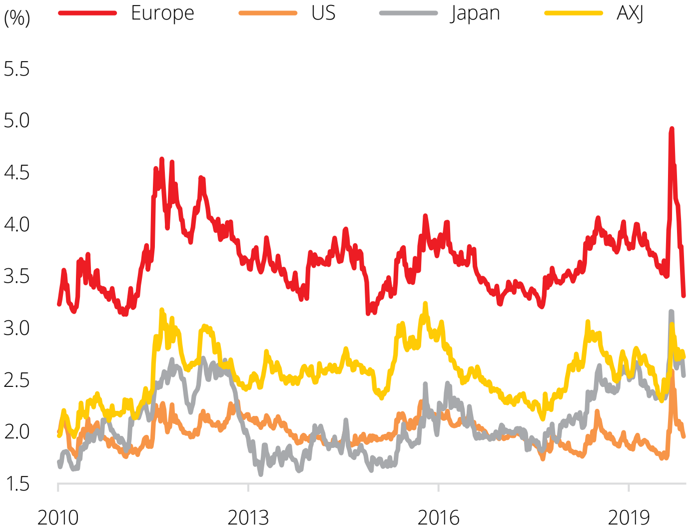
Source: Bloomberg

Figure 7: Dividends reinvested are critical to total returns in Europe



Source: Bloomberg, DBS

Figure 8: Yields by region – Europe has the highest proportion of high yielding stocks



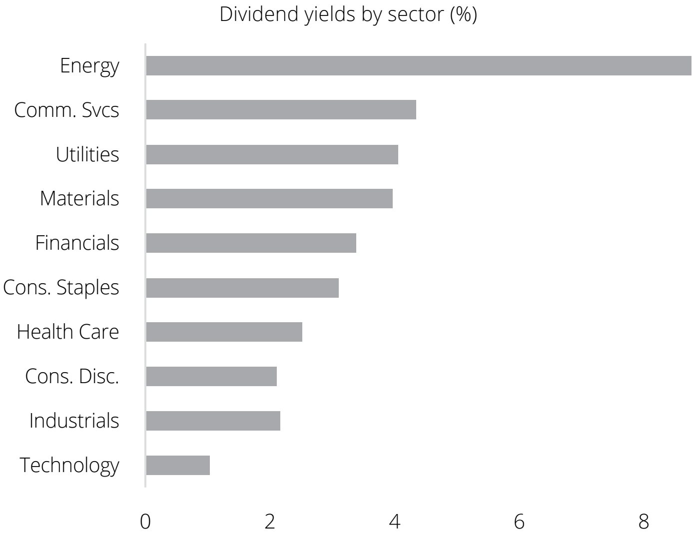
Source: Bloomberg, DBS

Dividend cut in the first line of defence. In line with the deep earnings cuts, dividends have also been cut as companies shored up their balance sheets and preserved cash in their first line of defence. Regulators have asked companies which received government bailout money to refrain from issuing dividends and doing share buybacks. Banks, automakers, and industrial companies formed the bulk of the cuts, while most energy and insurance companies have resisted. Currently, over 200 companies have cut dividends by some 24%. Dividend yield is now 3.3% vs an average of 3.6%.

The attractiveness of Europe equities as high yielding income stocks may have been eroded. To be sure, dividends are a critical element of the long-term performance of Europe equities. For the past 10 years, re-invested dividends comprised more than half of the total returns from Europe.

Source: Unsplash

Figure 9: Energy, Telco, and Utilities sectors yield more than 4%



Source: Bloomberg, DBS

Source: Unsplash

Despite the cuts, Europe is still one of the regions with the highest dividend yields and is still considered attractive when compared to a negative bond yield of -0.4%. Thus, we will continue to be on the lookout for dividend-yielding stocks in Europe which have already disclosed their dividend plans in 1Q. An acceleration in restructuring plans by way of cost cutting, deleveraging, asset sales, or M&A activities should see stronger balance sheets for these companies going forward.

We believe European oil majors remain attractive dividend plays as the oil price gradually recovers towards USD40/bbl. Bank dividends, however, are impacted as they are hamstrung by government policies. For the bank sector, our preferred play is through AT1s, as we believe they will not be impacted by government regulations.

Quality names for uncertain times. Due to the heightened macro uncertainties in Europe and without much valuation cushion, we will be highly selective in Europe with a bias towards:

1. Global champions in Technology and Industrials where earnings will be less exposed to the domestic demand squeeze
2. Dividend-yielding stocks that have cushion for potential dividend cuts and are on a recovery path, such as European oil majors
3. Avoiding sectors which could be the subject of a head-on trade war with the US, such as the auto sector
4. Avoiding banks due to the negative interest rate landscape as well as rising provisions
5. AT1s of strong European banks

DBS Live more, Bank less

Source: Unsplash

Japan Equities | 3Q20

Recovering

Japan Equities

Joanne Goh | Strategist
Glenn Ng, CFA | Equities

Japan's Topix Index has recovered 28% from March's trough and ended 1H at -8%. We consider this remarkable, in view of the deep recession Japan is going through. The economy was already in a technical recession by 1Q and deflation had returned, nullifying the effort of Abenomics since 2013. Economic growth is expected to contract further in 2Q, before picking up in second half.

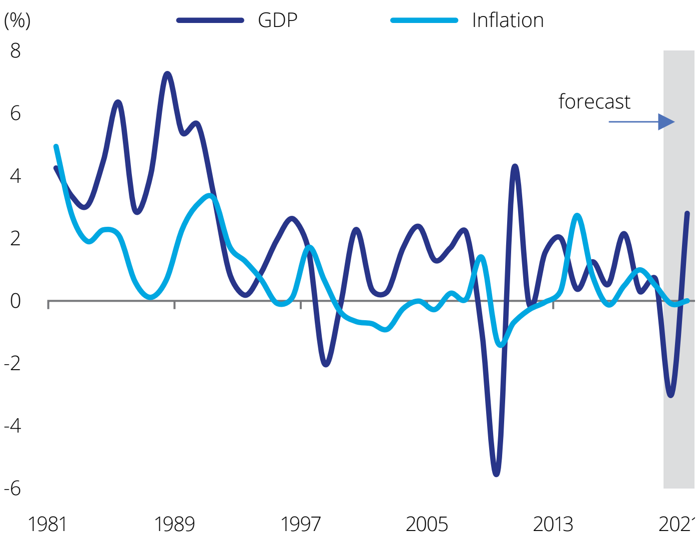
Investors' focus is now on how the economy will function upon the lifting of the state of emergency, which is supported by outsized stimulus. At the same time, there are fears of a second wave which could again undermine sentiments. Japan's "coronastimulus" is one of the highest so far among major countries, totalling 22% of GDP. Given the limited scope on monetary easing (Japan's policy rate is already at -0.1%), the speed and size of its existing QE programme's expansion (including unlimited bond buying, doubling of ETF purchases, and direct support of Japan Inc, SMEs, and households) was a major surprise. This implies that: 1) the downside risk to the economy is sufficiently reduced; and 2) the strong liquidity and low interest rate environment should continue to support risk assets including equities.

We also keep in mind that economic reports in the days and weeks ahead will continue to reflect a deep recession and the case for optimism seems precarious. However, the current situation is not too unfamiliar to Japan which has experienced several economic crises and a humanitarian crisis in the past 30 years.

During the 1990s, Japan conspicuously "lost a decade", experiencing a period of economic stagnation from about 1991 to 2001. This was caused by the real estate bubble's burst in late 1991. Thereafter, the dot-com bubble and the GFC happened, leaving Japan in crisis mode until Abenomics came about in 2013. QE was started and coined by the BOJ to fight domestic deflation.

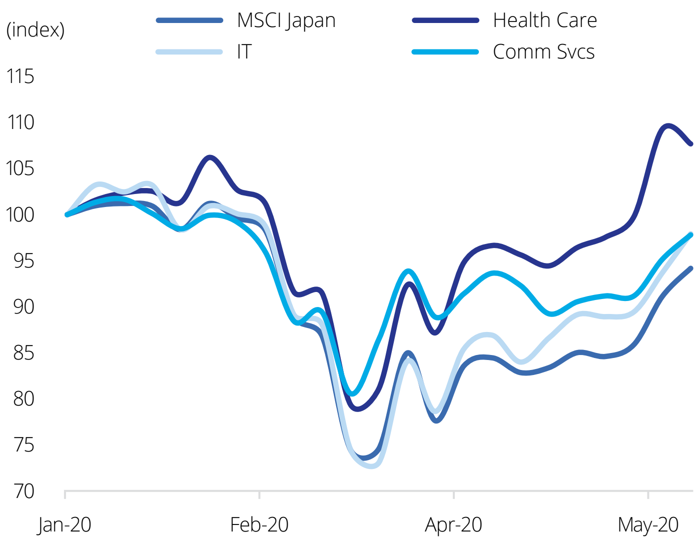
The current shock from the pandemic to the Japanese society should be about the same as the Fukushima earthquake in March 2011, if not for the crisis management experience acquired then. Observers have commented that the Japanese are more family-oriented and motivated to seek a better work-life balance after the disaster. The introduction of teleworking, cycling as a form of commute, and using smartphones as an

Figure 1: GDP and inflation chart



Source: Bloomberg, DBS

Figure 2: Health Care and IT to carry positive momentum

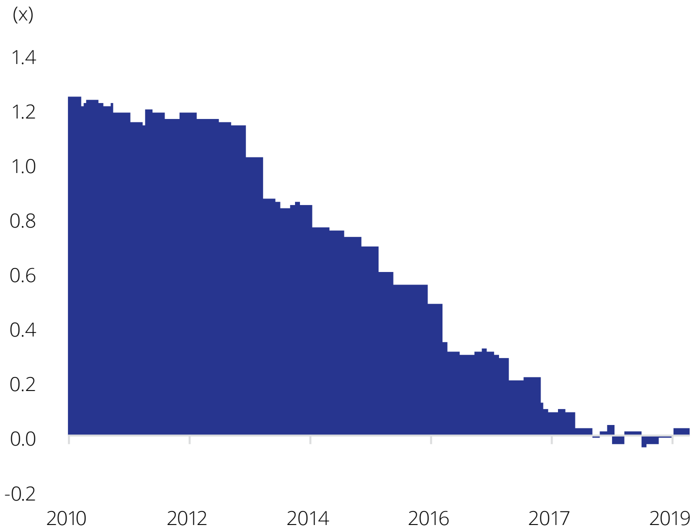


Source: Bloomberg, DBS

information-gathering tool were some developing trends in the wake of the disaster. The steadfast attitude in handling the outbreak and the low death tolls can be partly explained against this backdrop.

We thus believe Japan can handle the crisis better than other nations and the Topix Index should be able to recover this year's losses in no time. The presence of industrial leaders in key global sectors such as health care, automation, and autos, and the market's sector composition which is biased towards Health Care and Information Technology should also help to carry the momentum from the ongoing optimism derived from the reopening of global economies. It is also worth noting that Japanese companies have entered the crisis with strong balance sheets.

Figure 3: Average net debt/equity is now close to zero in Japan



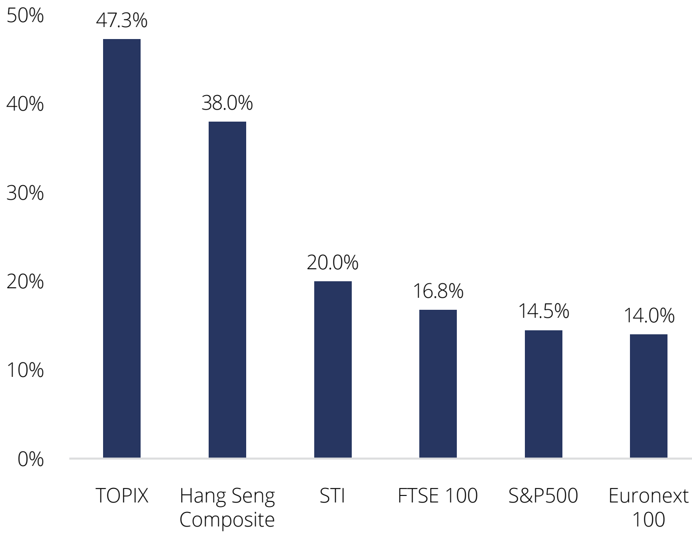
Source: Bloomberg, DBS

High cash levels come in handy. Japan's listed companies have largely inefficient balance sheets as a result of the deflationary-era mindsets among management. Between 2010-2013, the average net debt to equity of listed companies in the Topix Index was range-bound between 1.0x-1.4x. However, since 2013, that ratio has consistently trended downwards owing to the rise in earnings, cashflows, and retained equity. Today the average debt/ equity is negative, and the number of net cash companies in Japan is the highest among major regions. Putting the low ROEs aside, we believe the balance sheet prudence is helping Japanese companies survive the crisis better.

Secular growth trends accentuated by the pandemic. We believe Health Care and the IT sectors should still remain in focus in the coming quarter as we have yet to move away from the COVID paradigm. The demand for pharmaceuticals and health care will be driven by the pursuit for vaccines, the promotion of good health, and the desire for a safe quality of life. This crisis has also clearly accelerated digitalisation and the use of technologies in all areas including working, schooling, shopping, medical and entertainment, creating demand for 5G, cloud computing, IT solutions, and logistics.

We feature medical devices, IT solutions, and the logistics sector in this quarter.

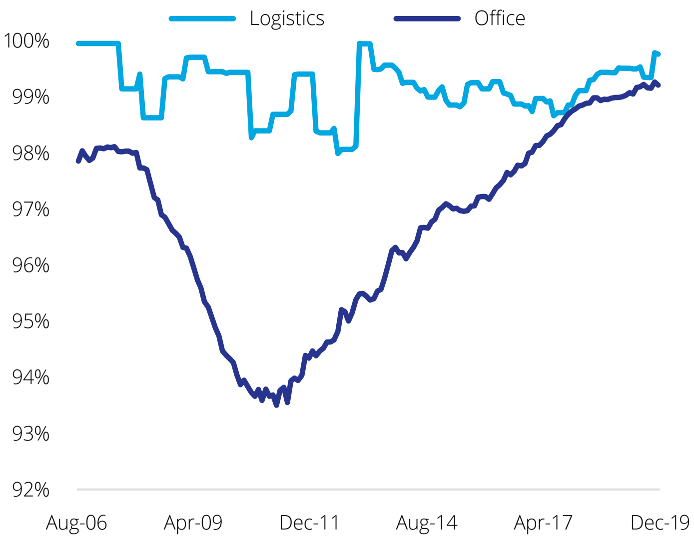
Figure 4: % of net cash companies highest in Japan



Source: Bloomberg, DBS

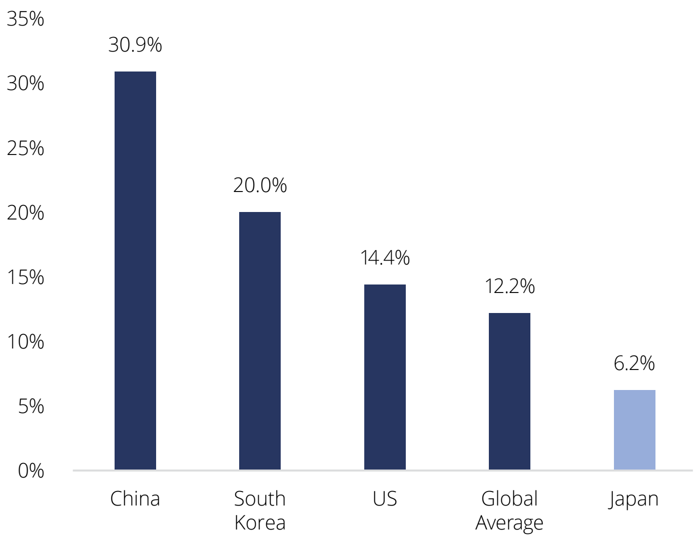
Logistics J-REITs should hold up well. Despite having rebounded sharply after the March selloff, we like the larger-cap Logistics J-REITs for their defensive portfolios. Japan's logistics property market is characterised by a large pool of ageing assets that are over 40 years old (c.40% of the space in the market) and there is a lack of modern facilities. The larger J-REITs, with their newer and higher quality assets due to reputable sponsors, have thus tended to outperform the logistics market. Occupancy levels for the sector remained stable at the 98-100% level even during the 2008 GFC, owing to strong demand for logistics assets.

Figure 5: Occupancy rate of Japan's Logistics vs Office REIT-owned properties



Source: ARES Japan Property Index

Figure 6: 2018 e-Commerce as a % of total retail sales



Source: Bloomberg, DBS

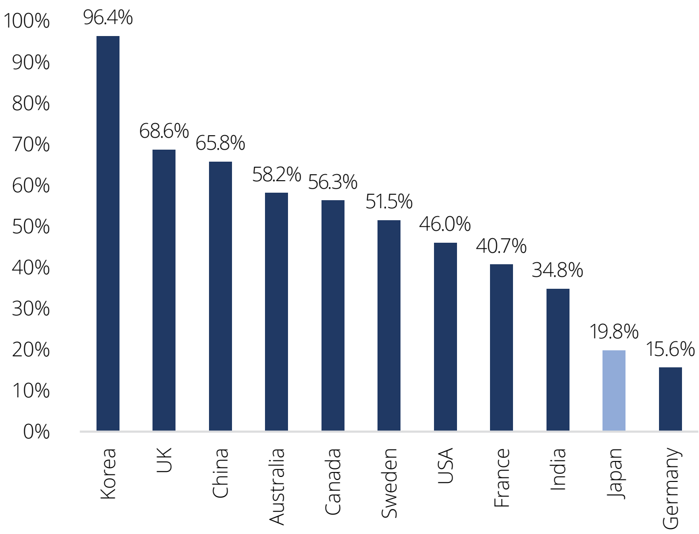
Positive COVID response. The majority of logistics property tenants are third-party logistics companies. Thanks to strong demand for e-Commerce due to the stay-at-home trend, the big logistics landlords have commented that these 3PL tenants have reported flat-to-increased volumes during the COVID-19 period, which has offset areas of weakness such as apparel and exports.

The potential growth in e-Commerce demand in Japan over the next decade should be higher than other developed economies, a boon for logistics asset owners. Japan's e-Commerce adoption rate remains low at just over 6% of retail sales (vs a global average of 12%, and higher in developed countries), which implies a long growth runway ahead. One obstacle to e-Commerce adoption has been Japan's low cashless payment ratio of c.20%, based on a study done in 2017 by the Bank of International Settlements. This had historically been driven by a lack of necessity, as crime rates are low in Japan, and near-zero interest rates do not incentivise people to convert their cash to deposits or other "digital" assets. However, the government is pushing for that number to double to around 40% by 2025 and has begun offering rebates on cashless payments since October 2019. This should encourage the Internet-savvy but e-payment resistant population to migrate their spending habits online.

Source: Unsplash

Japan's IT Services sector benefits from the rise in domestic IT spending, which is driven by several factors including: i) the ageing population resulting in an acute labour shortage, ii) work-style reforms, and iii) the rise in next-generation IT technologies including cloud, big data, and AI. Demand for IT services will also become more urgent due to the crisis as WFH trends start to emerge, resulting in greater demand for B2B and communication tools, such as web-conferencing, business chat, virtual desktop infrastructure, digital banking, authentication security, and products that can help reduce paper-based documents and improve productivity.

Figure 7: Demand for digital payment solutions to accelerate given low cashless payment ratio



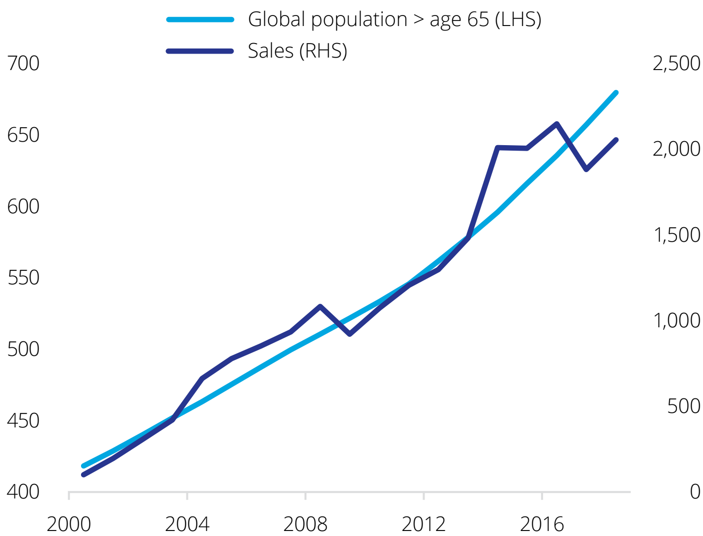
Source: BIS, SuMi TRUST. As of 2016

For the Health Care sector, we generally prefer funds to individual names as the sector would need professional expertise for opportunistic assessment. The sector also encompasses a wide range of products and services such as pharmaceuticals, medical devices and hospitals, as well as new areas of AI-enhanced medtech and tele-doctors after COVID, which can best be represented in a diversified portfolio.

A more stable sector is the Medical Device sector as medical device companies are clear beneficiaries of an ageing population. The prevalence of major diseases like cancer and cardiovascular disease increases exponentially, not linearly, with age. Indeed, sales of Japan's listed medical device companies have tracked the global elderly population (defined as those above the age of 65) at a stunningly high 97% correlation since the turn of the 21st century, and have more than quadrupled their sales levels in that time frame. Looking ahead, the US Census Bureau expects growth in the global ageing population to accelerate to a 3.2% CAGR over the next 10 years (up from 2.7% from 2010-2018); we think this will continue to be a secular trend that supports the growth in medical device sales.

While there is some degree of pricing risk (particularly in China), medical device price regulation is generally in more of a "steady-state" status in DM as compared to pharmaceuticals/drugs, and product differentiation is also significant (unlike in the pharmaceuticals space where generics and biosimilars are commonplace), which helps counter downward pricing pressure. We therefore think the Medical Device sector provides a favourable risk-reward profile and is our preferred way to play the theme of rising health care spending.

Figure 8: World population above age 65 vs Japan Medical Device Company Sales (Indexed, 2000=100)



Source: Bloomberg, US Census Bureau, DBS

*Japan Medical Device Companies used: Sysmex, Terumo, Asahi Intecc, BML, Miraca, Nihon Kohden, Nipro, Olympus, Shimadzu

Source: Unsplash

Asia ex-Japan Equities | 3Q20

Reopening

Asia ex-Japan Equities

Yeang Cheng Ling | Strategist
Joanne Goh | Strategist

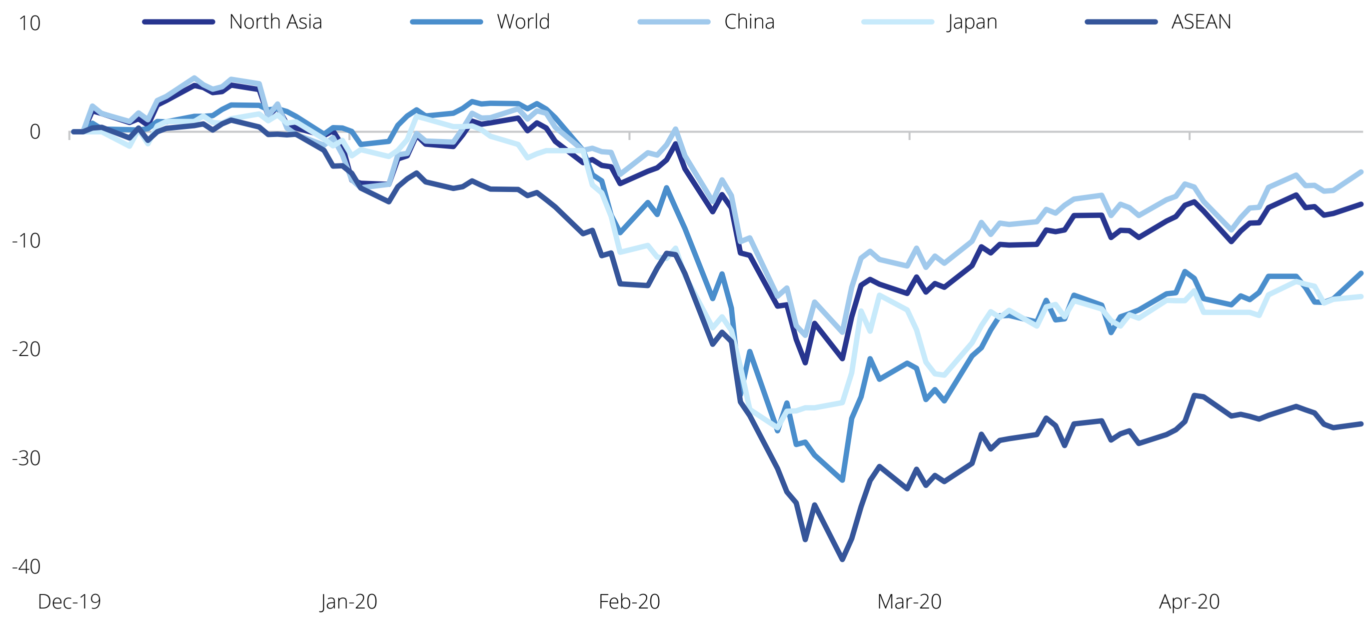
The year of Metal Rat has been overwhelmed by the COVID-19 pandemic outbreak which has cast a pall over the whole world. Livelihoods have been drastically altered while lockdowns and work-from-home have become the new normal.

China reported its first official quarterly GDP growth contraction in more than 40 years. In the first quarter, the economy took a dive of 6.8% from a year ago because of the lockdowns to contain the spread of COVID-19. While the economy has not fully bottomed for a decisive recovery, the markets are already looking forward to improvement in the second half of 2020, to a projected full-year economic growth of 1.8% in the world's second-largest economy (Bloomberg consensus).

After the initial selldown in first quarter, financial markets in Asia have shown their ability to decouple from the bleak economic data. Equities indices in Asia recovered from their lows since the second half of March. Mainland China and North Asian equities recorded single-digit declines YTD (Figure 1), considerably better than global, Japan, and ASEAN equities which decreased by double digits. This is justified by the better earnings outlook for North Asia equities (Figure 2). We expect themes and sectors that possess superior secular fundamentals to sustain their outperformance.

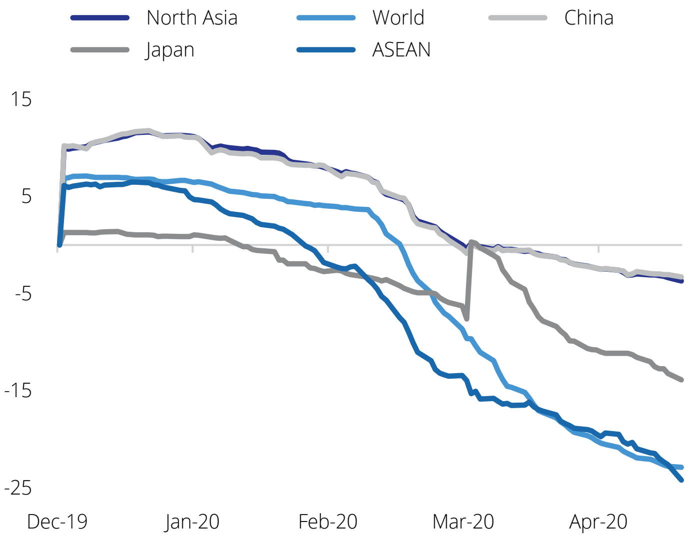
We remain constructive on North Asia e-Commerce and upstream semiconductors which are long-term beneficiaries of online retail spending, remote connectivity, cloud data access, smart devices, and the surge in visitations and airtime on social media platforms; and large China state banks.

Figure 1: Asia equities YTD performance



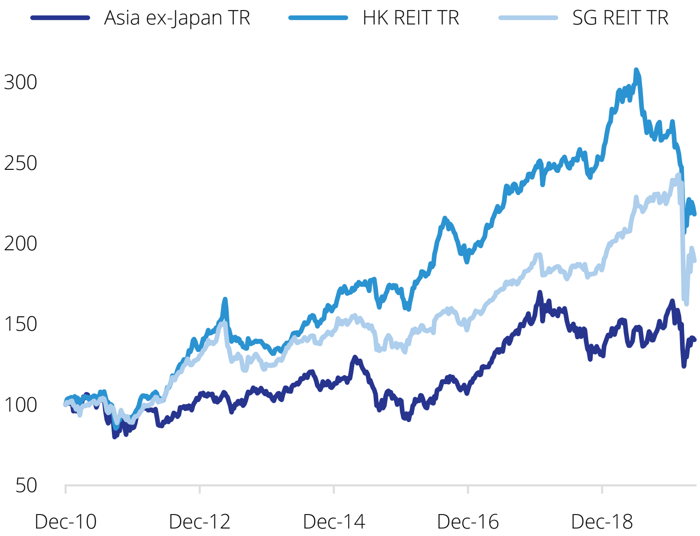
Source: Bloomberg, DBS

Figure 2: Better earnings quality in North Asia (% revision)



Source: Bloomberg, DBS

Figure 3: Asia REITs are an important asset class



Source: Bloomberg, DBS

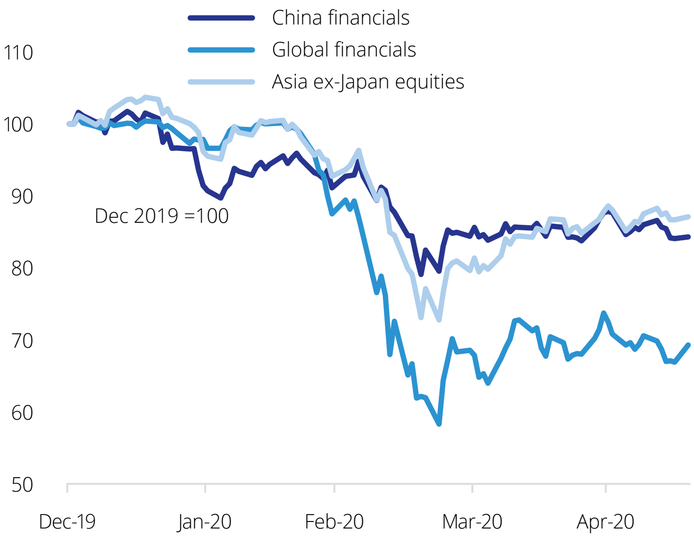
Hong Kong and Singapore are two Asian economies with a high proportion of GDP derived from services and consumption. One effective avenue for investors to participate in the long-term Asia secular consumption trend is through investing in publicly listed REITs which are committed to distribute a high level of profits to unit holders.

Hong Kong and Singapore REITs outperformed admirably in the past decade, and with interest rates staying low for longer, sectors with strategic assets and ability to monetise should continue to outshine (Figure 3).

The banking sector holds the key to supporting the resilience of any country and it is especially important to mega economies. At the current juncture, China's policy responses have been restrained. It has yet to introduce any form of large-scale stimulus packages, unlike other nations. Rather, China is relying on its state-owned banks to extend credit facilities to corporates in need, including credit support via the network of state enterprises.

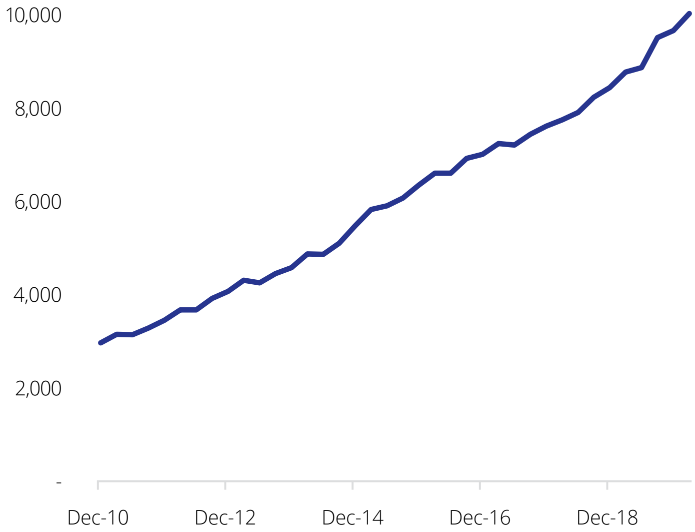
Source: Unsplash

Figure 4: China financials outperformed their global peers



Source: Bloomberg, DBS

Figure 5: Combined equities of China's big-five state banks (CNYb)



Source: Bloomberg, DBS

Year-to-date, China financials have performed in line with Asia ex-Japan equities while significantly outperforming their global peers (Figure 4), due to attractive valuations and their track record of reasonable dividend payment. Over the decade, leading state banks have consistently built up their capital buffer, following the historic belief of preparing for danger in times of peace (居安思危).

In 1Q20, the combined equities of China's five largest state banks totalled CNY10t (USD1.4t) (Figure 5), equivalent to 10% of the country's GDP. This value has more than tripled since 2008's GFC and the large banks are better positioned to absorb economic shocks.

Source: Unsplash

With the gradual easing of lockdowns, business activities and daily lives are slowly returning to normal (Figure 6 and 7), the sentiment and expectations about China's outlook and financial well-being should return to its long-term recovery path, given time.

At present, there remains an absence of conventional stimulus policies – a combination of infrastructure projects, incentives to spur local consumption, and measures to boost income.

Against such a backdrop, we expect the government to prioritise the stimulus measures and policy reforms that address the immediate issues post COVID-19:

1. Possibility of manufacturing facilities relocating away from China
2. Disruption to external end demand
3. Restoring domestic confidence
4. Reinstating the agricultural distribution network
5. Rebooting the economic growth trajectory

For the coming quarter, we remain Overweight on Asia ex-Japan equities in the context of a global Barbell Portfolio on themes that demonstrate long-term secular growth prospects and sectors that provide attractive dividend yields.

Figure 6: China retail activities are recovering

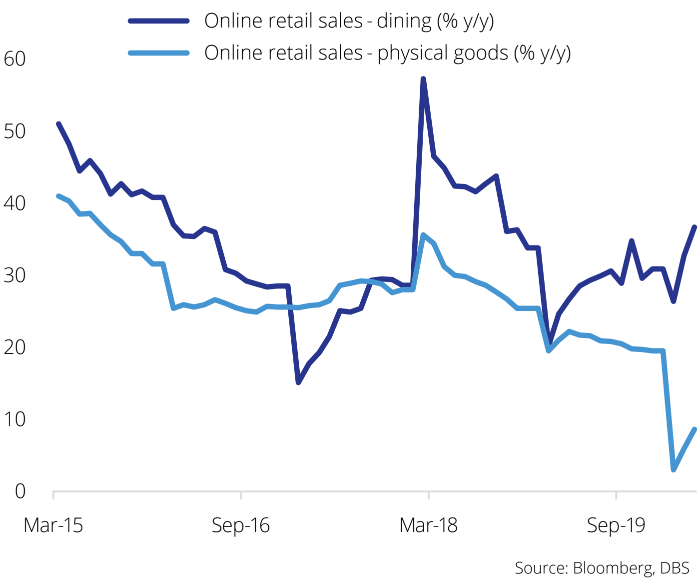
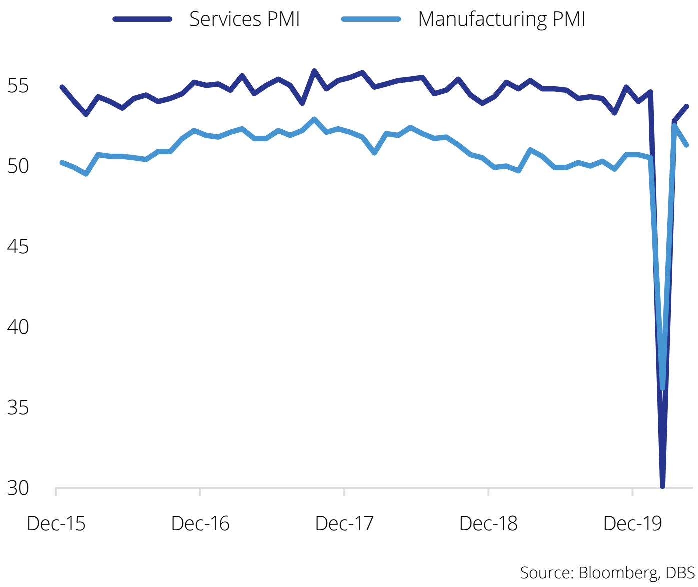


Figure 7: China high frequency data swings back to normal

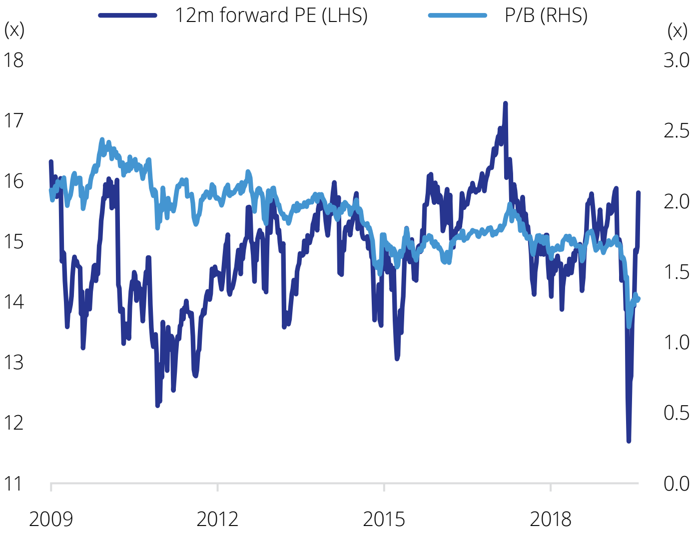


ASEAN: Challenging times offer opportunities

Times will be challenging for ASEAN markets in the medium term as they encountered forceful headwinds during the pandemic. Across ASEAN economies, governments face slumping tax revenues and soaring stimulus costs. Economic growth and balance sheets will be weaker, which will need years to repair, and lend themselves vulnerable to further shocks. GDP forecasts are negative between -5.7% for Singapore and -1% for Indonesia.

The MSCI ASEAN Index is down 39% in USD terms, at their worst by March, but have recovered a quarter of the losses. While earnings and dividends are very likely to be pressured further, P/B values are trading near post-GFC low. ASEAN markets have been among the worst hit, and reflecting this, we see value in several companies and sectors where balance sheets appear sound and earnings recovery could be more rapid than others.

Figure 8: MSCI ASEAN Index P/B valuations at below 1



Source: Bloomberg, DBS

Among ASEAN, our preferred markets are Indonesia and Singapore. They are still in partial lockdown and preparing to re-open, guarded mainly by transmission rates and the trade-off between public health and economic loss. Both markets trade at around 13x forward P/E, and are the cheapest markets in ASEAN, thus leaving room for earnings adjustments.

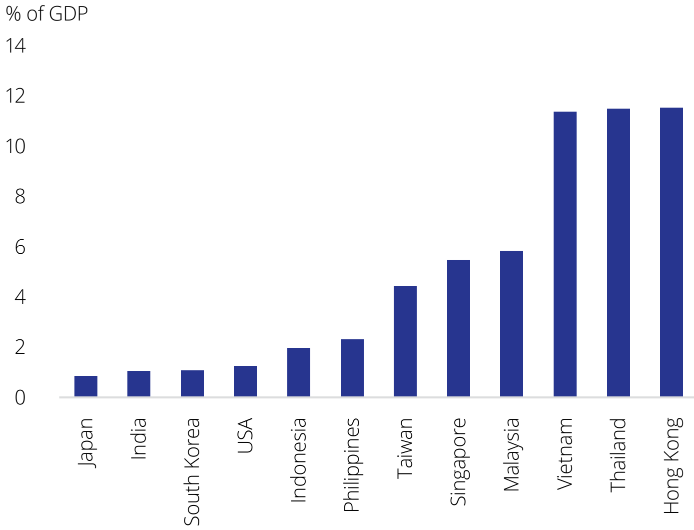
We believe normalcy can quickly resume in Indonesia once restrictions are lifted. Essentially a self-sufficient country with young working population, domestic consumption will continue to drive recovery. BI and the government have provided support with rate cuts and stimulus. Foreign investors started to return to the country's bond and equity markets in May. Sectors which have been more resilient during the selloff include consumer staples and telcos, while banks have been the hardest hit.

In Singapore, economic growth has been further downgraded to the -5% to -7% range for 2020 (DBSf: -5.7%). So far, the Singapore government has committed SGD92.9b – or nearly 20% of GDP – in response to the COVID-19 crisis. We believe the Straits Times Index (STI), which has lost 22% YTD, has already priced in a lot of negatives, and investors should focus on the post-COVID recovery.

The following section presents near-term opportunities in key ASEAN sectors. We also present our long-term views on Indonesia.

ASEAN tourism. Tourism was the hardest hit sector, and ASEAN economies are generally dependent on tourism receipts – for example, it is as high as 11.5% of GDP for Thailand. As a result of a collapse in tourist arrivals, many direct market sectors (such as airlines, hotels, and airport operators) and indirect sectors (such as retail malls and restaurants) have been affected. Although share prices in these sectors have dropped significantly and pent-up demand could surface as lockdown eases, we believe they are still to avoid for now until we have more clarity on the transmission

Figure 9: Tourism revenue as % of GDP



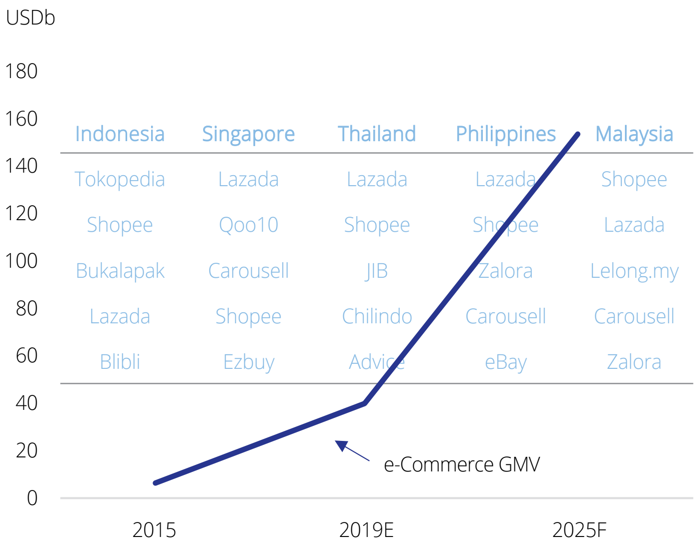
Source: CEIC, DBS

patterns of the virus. A relapse of the pandemic later in the year and a shift in consumption behaviour are key risks to the 12-month ahead outlook.

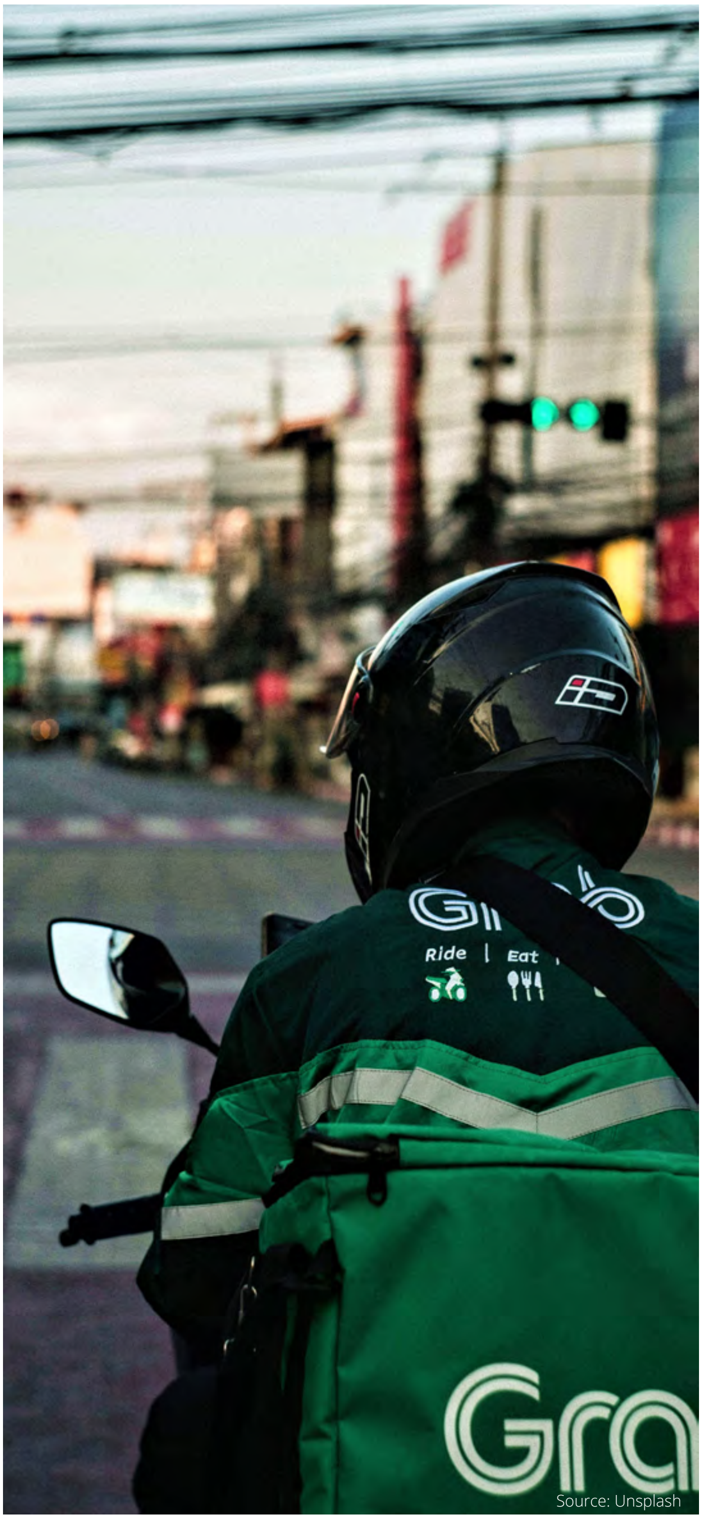
ASEAN digital ecosystem. The sector is a winner in this COVID-19 outbreak as the reliance on being contactless and digital economy has replaced physical daily contact. Online transactions such as shopping, financial services, gaming, meetings, and conferences have escalated as a result of lockdowns and work-from-home measures.

We believe the e-Commerce sector will continue to do well as the stay home situation has not only increased transaction volume but subscriber numbers as well. According to a report by Temasek and Bain & Company, online shopping in ASEAN could reach USD153b by 2025, given rapid Internet adoption and changing consumer shopping behaviour. SEA's Shopee, Alibaba's Lazada, SoftBank-backed Tokopedia, and other local operators are among the largest e-Commerce platforms in the region that are positioning for market share in the rapidly growing market.

Figure 10: Top five e-Commerce sites in ASEAN vying for share in the USD153b business



Source: Top sites survey data from aseanup.com, e-Commerce GMV forecasts from Google & Temasek, Bain & Company, e-Conomy SEA 2019 report

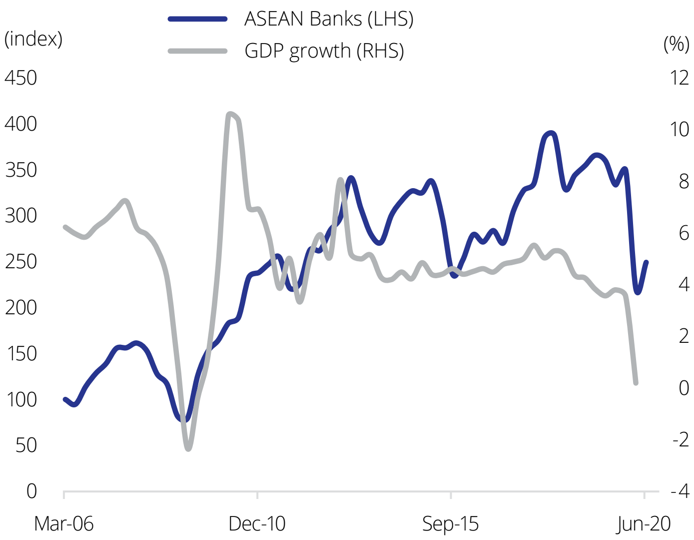


Source: Unsplash

ASEAN telcos. Because of workforce management measures and increase in digitalisation, there is evidence that Internet usage has increased during the lockdown period. Telco companies are so far the best proxies for an increase in data usage in ASEAN, as well as telco towers and broadband providers. Their earnings should be more resilient amid a flood of earnings downgrades and their dividends defensible, in our view.

ASEAN banks. ASEAN's banking sector has greatly underperformed the ASEAN regional index YTD, with large banks' shares down 15-55% this year through 26 May. As the sector that is the most sensitive to the economy, and higher beta to the market, the sharp selloff is perhaps understandable. Given the dire economic backdrop, which is likely to pressure NIM, loan growth, credit costs, and non-performing loans, we recommend investors to stay with the large and safer banks despite the low valuations in the sector. Banks that can sustain their dividends also reflect their balance sheet strength.

Figure 11: ASEAN banks unlikely to outperform as recession deepens



Source: Bloomberg, DBS

ASEAN oil and gas. Crude oil prices saw extreme volatility in the first half of the year as both demand and supply were in disarray. As more supply cuts and demand gradually improve after the easing of social restrictions, oil prices have found some stability in the near term, with WTI hovering around USD33/bbl. We expect WTI to return to above USD40/bbl by end of the year, as demand continues to improve and more production cuts, especially from US shale.

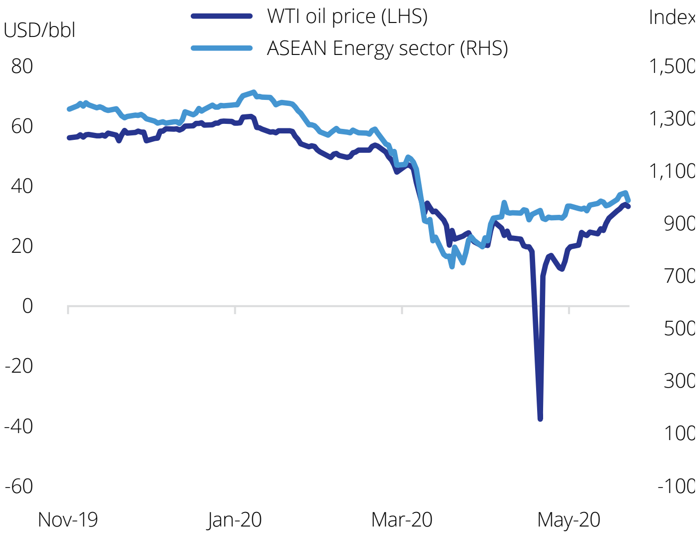
Share price performance of upstream players are most correlated to crude oil prices as Exploration & Production earnings are directly hit by depressed oil prices and most oil producers are making losses at oil prices <USD30/bbl. Some of the ASEAN upstream companies had lost c.40% of their market capitalisation in two weeks post-OPEC+ fallout, but have since recouped nearly half of the losses. As oil prices recover, pure upstream companies remain the best proxies to ride oil price recovery while refineries are safer proxy to demand recovery post COVID-19.

Singapore REITs. It has been a challenging time for S-REITS over the past three months as Singapore prepared for its fight against COVID-19. Concerns over the impact of the COVID-19 outbreak on Singapore's economic growth and REITs' ability to pay still high dividends, along with a slew of indiscriminate selling and margin calls, have weighed on the sector.

We estimated the DPU cuts among the REITs to be around 10-30% and are weighted toward the retail and hospitality REITs where the impact on earnings will be direct. Based on an average 20% slash in dividends, future yield spread based on current prices will be 3.9% yield instead of 5.2% currently. This is still higher than the historical average spread of 3.5%, which remains attractive against Singapore's bond yield of 0.7%.

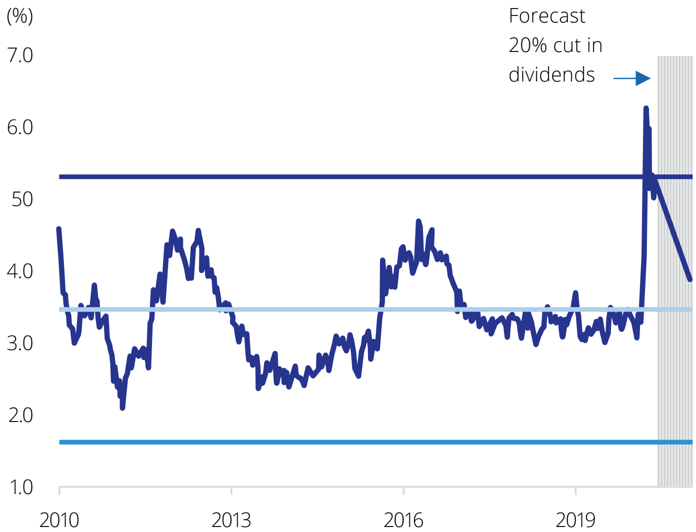
We believe 2020 is now the year for a REITs reset. The P/B values are currently at near historical post crisis low levels of 0.85 times. Historically, such deep value discounts have led to strong price recovery owing to strong balance sheet strength among industry leaders. The REITs have demonstrated their abilities to grow dividends over the years by asset injection or yield accretive acquisitions other than organic growth.

Figure 12: ASEAN energy sector proxy for oil price



Source: Bloomberg, DBS

Figure 13: Singapore REITs sector average spread vs Singapore bond yields and proforma



Source: Bloomberg, DBS.

Singapore residential sector. Unlike the GFC period when property prices had a V-shaped recovery, there will be challenges for the sector now as Singapore faces the deepest and the most protracted recession ever. However, we believe there are many backstops for the worst to happen in the sector despite the fear of rising high unemployment rate. The following factors are observed:

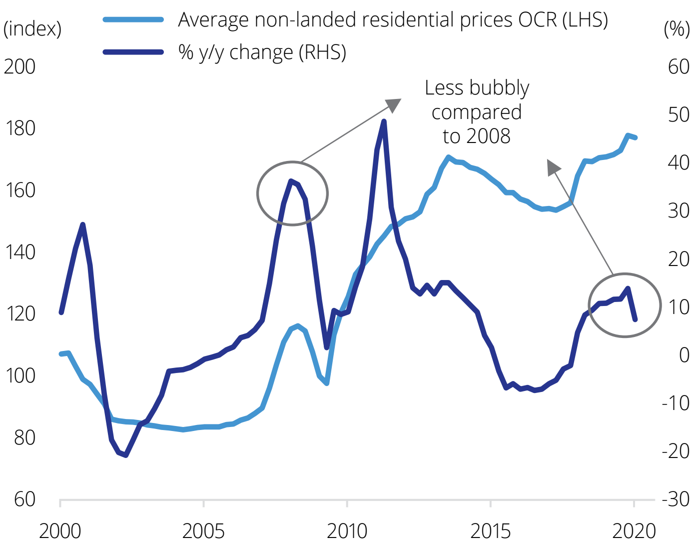
1) Thanks to the government's series of tightening measures to cool the market in the past few years, including limiting loan exposure and a series of stamp duties, Singapore's home prices are entering the economic recession in a less "bubbly" stage. This also implies that there is policy flexibility for the government to reverse some of the curbs should the home market turn more bearish.
2) An unprecedented economic stimulus package close to 20% of GDP was introduced to help Singaporeans tide over the economic hardship, and that includes job support, loan extension, and support for small and medium-sized enterprises.
3) We believe there will also be a significant drop in the supply side as well due to construction delays, and the government has allowed developers to extend the completion period by six months. Developers will also be

Source: Unsplash

less pressured to dispose unsold units at deep discounts as they can also request an extension on the requirement to dispose units within five years of completion. Annual new completions are likely to fall to the lowest in two decades.

Overall, we expect prices to fall by 5-10% in 2020 with primary sales volumes to contract 20-25%.

Figure 14: Singapore property not overpriced



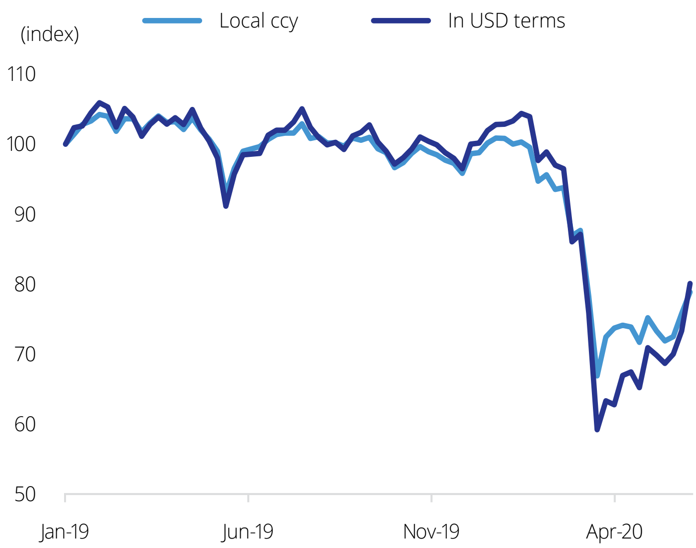
Source: Bloomberg, DBS

Spotlight on Indonesia: positioning for post-COVID recovery

The Jakarta Composite Index (JCI) has gained c.20% in local currency terms and c.40% in USD terms from March's bottom. We believe the market is taking a breather after the recent strong gains, but we expect more upside for the index for it to recover to pre-crisis levels.

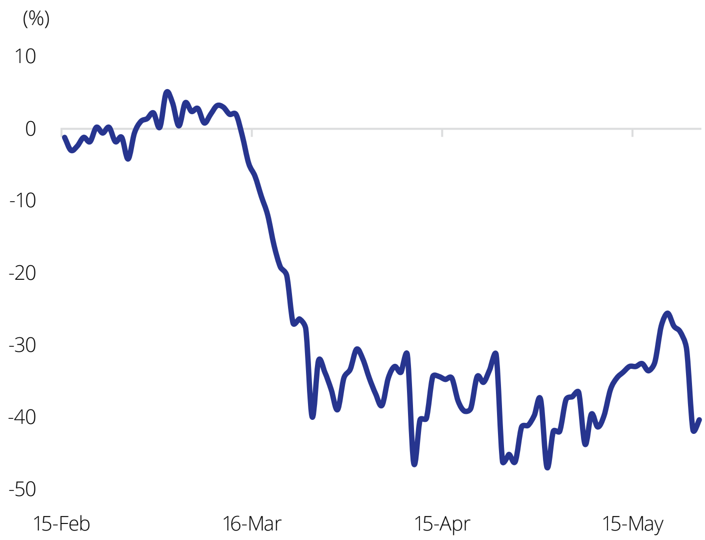
Indonesia is also feeling the global economic optimism as restrictions ease and normalcy returns. The country was in a lockdown since April and has started to open gradually after Ramadan. The government has taken strict measures during the festive season. Google data on mobility indicate the lockdown has been effective in reducing mobility by 45% through May, contributing to limiting transmission.

Figure 15: JCI in local and USD terms – index to recover towards pre-crisis level



Source: Bloomberg, DBS

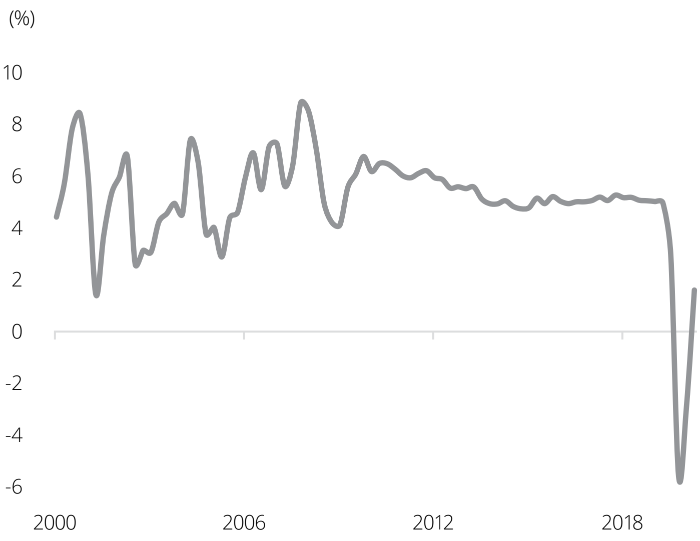
Figure 16: Data show lockdown has been effective in reducing mobility



Source: Google
Average across retail, recreation, grocery, pharmacy, transit station, and workplace. Changes from 1 February.

Worst recession. Due to the economic shutdown globally and domestically, Indonesia is expected to register the worst growth in 2Q, after a sharp drop in the previous quarter. With the government's fiscal stimulus and monetary easing support, together with Indonesia's structural demographics strength, we believe the worst will be over for Indonesia in 2Q20 and the economy is to gradually recover toward normalcy in 2021.

Figure 17: Indonesia GDP growth, year-on-year change



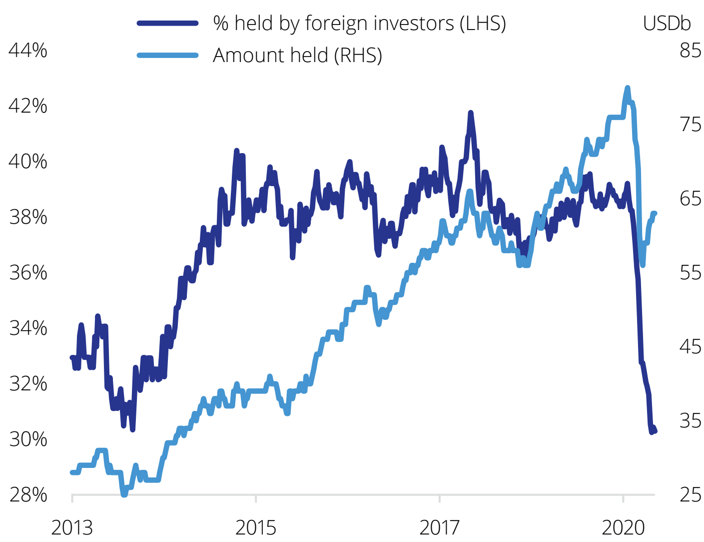
Source: Bloomberg, DBS

The government has launched three fiscal stimulus packages amounting to USD25b to combat COVID-19, primarily aiming to boost health care facilities, provide social safety net (cash disbursement to the poor, electricity tariff subsidy), tax breaks for SME and businesses, and credit relaxation.

Indonesia's consumption is still largely domestic-centric and driven by consumption of the low-middle income class. In addition, consumption of the low-income class relies on social subsidies or assistance from the government. IDR110t of that stimulus would be allocated for social safety net programme (mainly for the poor/low income) such as family assistance program (PKH), food aid, and cash subsidy. This hopefully would help consumption in Indonesia during the COVID-19 pandemic.

Rupiah sell off unwarranted. The rupiah also saw a severe selloff in March. The bond, foreign exchange, and equities markets are closely related as Indonesia still relies on foreign capital flows in the bond market, with foreign investors holding as much as up to 40% of total government holdings. A selloff in the bond market as a result of USD liquidity tightening in March led to an exodus of capital, thus weakening the rupiah and outflows in the equities markets. As sentiments turn more positive, the unwinding of such extreme pessimism can result in more upside.

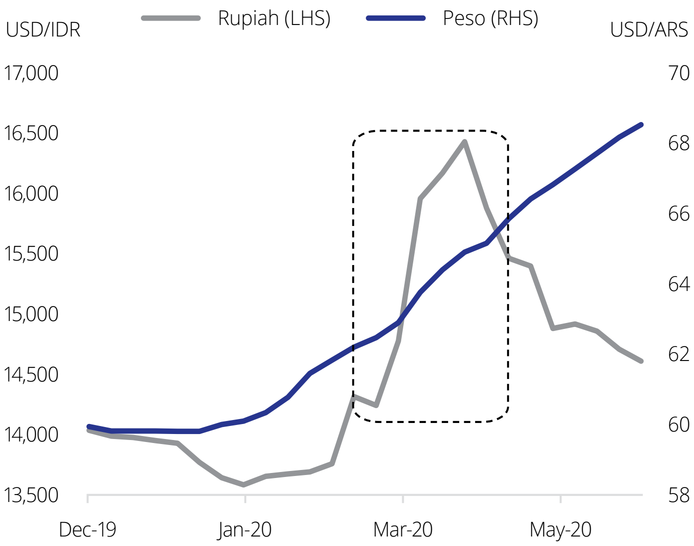
Figure 18: Foreign investors dumped Indonesian bonds indiscriminately



Source: Bloomberg, DBS

Indonesia is not Argentina. During the selloff, the Indonesia rupiah has fallen more than the Argentina peso but there are no parallels between the two. To be sure, Argentina's sovereign rating status is of non-IG while that of Indonesia is affirmed as IG by all three ratings agencies. As a serial defaulter, public sector debt in Argentina is 90% of GDP and it is currently negotiating with its creditors to restructure its debt. Pre-existing challenges such as high public debt to GDP and an economy which is already in recession in 2019 leaves very limited scope for stimulus.

Figure 19: Indonesia rupiah has fallen more than Argentina peso, but Indonesia is not Argentina



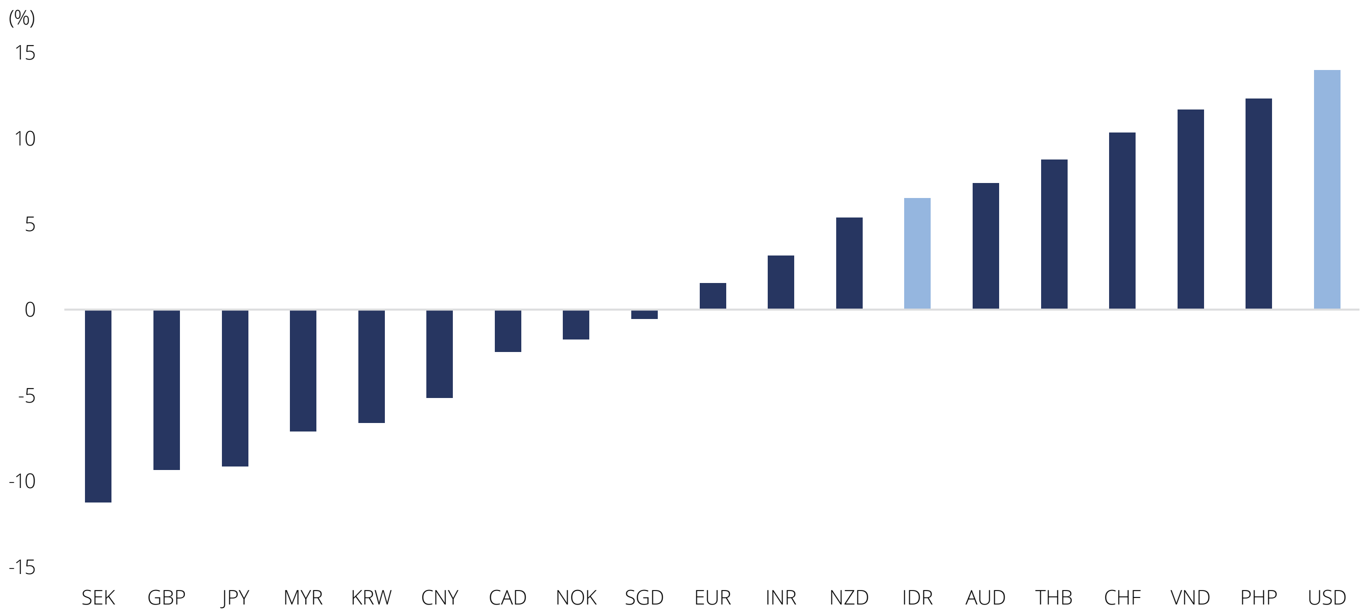
Source: Bloomberg

On the other hand, Indonesia is one of the strong performers in Asia, recording close to 5% GDP growth in 2019, and its public sector debt is 33%. The drop in the Argentina peso is perhaps limited by capital controls imposed since end of last year, whereas capital controls has never been proposed in Indonesia despite the volatility in rupiah. Instead, Indonesia has chosen to strengthen its balance sheet, reduce debt levels, build stronger reserves over the years, and regulate corporates to hedge their USD exposure. "Maintain rupiah stability in line with fundamentals and market mechanics" has been the policy direction for BI.

Still room for rupiah to appreciate amid USD weakness. The rupiah has strengthened back to IDR14,000 recently from a low of IDR16,500 per USD, we believe there is still room for appreciation under an anticipated broad-based USD weakness. According to our analysis FX: The DEER guide to long-term FX positioning, on a relative basis, IDR is 4% overvalued vs 15% overvalued in USD. Thus IDR could ease somewhat vs USD as it is still 11% undervalued vs USD. The central bank now expects the currency to further gain against the greenback to levels around IDR13,600 to IDR13,800 per USD.

Source: Unsplash

Figure 20: G-10 and Asia: DEER valuations (June 2020)



Source: IMF, CEIC, DBS

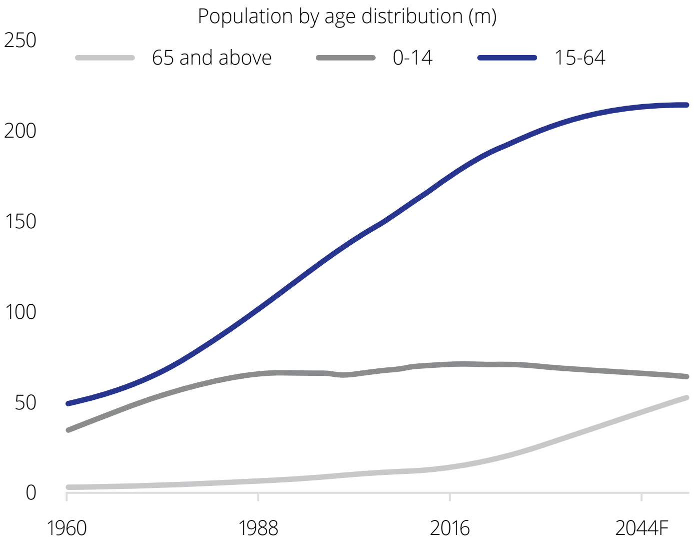
Fiscal cap lifted for unprecedented times to ensure strong and adequate support. One of the concerns in Indonesia has been its limited capacity to spend due to the 3% cap on fiscal deficit. The Indonesian government has announced a regulation to lift the deficit cap for three years from 2020 to 2022 to provide social assistance and other support as the country battles COVID-19. The planned 2020 deficit is expected to reach 6.27% of GDP, with total funds to counter impact of the pandemic estimated at IDR641.7t (USD45.5b).

The increase in budget financing will come from a variety of sources, including multilateral agencies, foreign currency capital markets, and domestic issuance, with the central bank as lender of last resort. The much-needed lift in the fiscal cap reflected the government's swift response to COVID-19 and should ensure that there is strong and adequate support for economic recovery.

Young populous nation embracing new economy

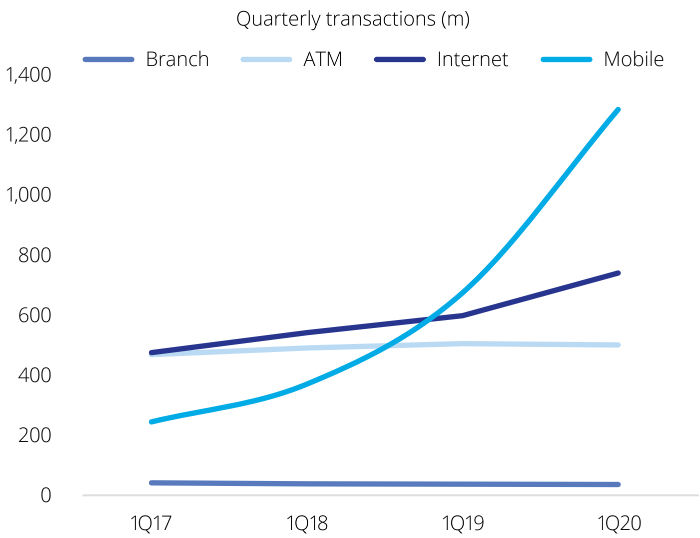
The investment strength in Indonesia lies in its favourable demographics. Indonesia is the third most populous country in Asia, the fourth globally, and has a high proportion of young working adults. Within ASEAN, the country's household consumption spending leads the rest, accounting for 42% of the region in total. This should drive many consumer brands to seek a share in the market. Indonesia is also fast becoming the region's biggest e-Commerce market, as private equity funds continue to invest in start-ups in the digital arena, endorsed by President Joko "Jokowi" Widodo's push for a digital economy.

Figure 21: Consumption supported by 200+ million working adults



Source: World Bank

Figure 22: Banks' customers are embracing digital banking

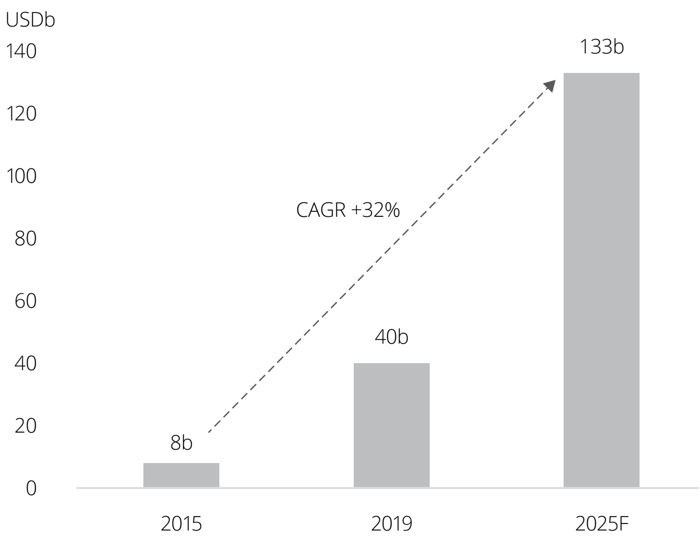


Source: BCA

Long-term winners can thus be found in the Consumer sector. As consumption proxies, we see telcos and banks as business enablers to capture the benefits of a digital economy due to its sheer size of their customer base. The pandemic has accelerated the digitalisation process as structural changes are taking place in the way we work and interact with one another. Online businesses from mobile banking, shopping, social media, video streaming, and gaming are highly scalable as the country is populated with young working adults. Digital technology, connectivity, and social media typically play an important role in how Millennials make decisions.

Thanks also to Jokowi's reform efforts, the improvement in infrastructure, soft ones such as establishment of nationwide identity cards, encouraging higher education, far reaching telecommunications network, improvement in logistics infrastructure, and welcoming foreign investments have played major roles in expediting the digitalisation process.

Figure 23: Indonesia's Internet economy poised to increase at a CAGR of 32% between 2015 and 2025



Source: Google, Temasek, and Bain "e-Conomy SEA 2019" report

Table 1: Summary of key Asia investment themes

Themes	Beneficiaries
Digitalisation, 5G	Semiconductors, IC Design, Cloud Computing
e-Sports	Gaming platforms
Ageing population	Insurance
Dividend plays	Singapore REITS
	Singapore banks
	China large banks
Asia domestic consumption	China e-Commerce
	Indonesia banks
	Indonesia telcos
Government stimulus	China banks
	Indonesia consumption
Market reform	China A-shares
	Vietnam

Source: DBS

DBS Live more, Bank less

Global Rates | 3Q20

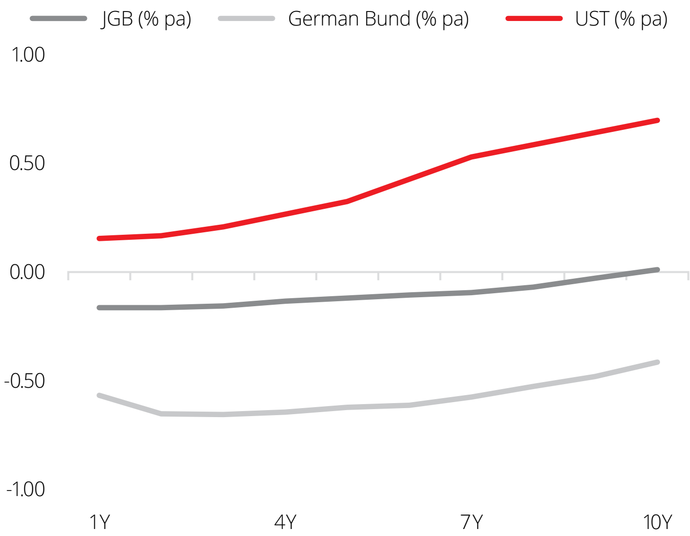
COVID aftermath

Global Rates

Eugene Leow | Strategist
Duncan Tan | Strategist

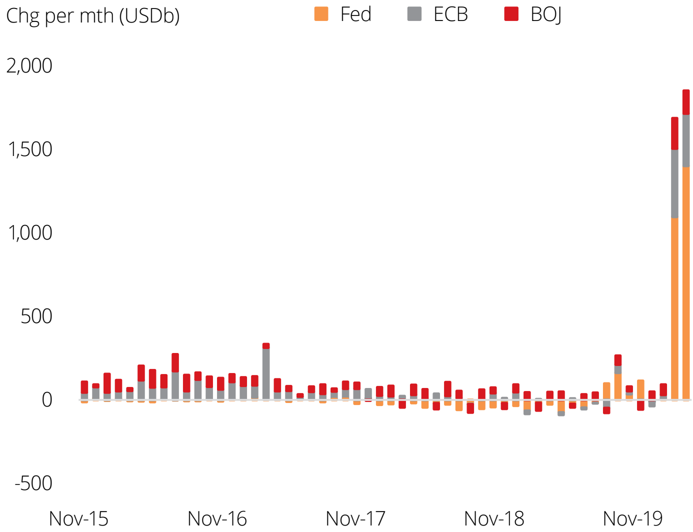
Aggressive actions from G-3 central banks and governments have calmed markets that were initially spooked by COVID-19. Credit spreads blew out and liquidity dried up (even for USTs) when market participants realised how serious the economic impact would be. However, balance sheet expansions by the G-3 central banks (to the tune of USD1.7t and USD1.8t in March and April, respectively) have injected a lot of liquidity into the market while unconventional policies (including credit support for bonds and Main Street) were also announced. To address USD shortages, the Federal Reserve also extended swap and repo lines to central banks around the world. Taken together, liquidity and USD shortage issues have eased while there are lingering stresses in credit markets. However, the impact on the real economy is sizeable and we expect only a modest recovery in 2H20 as tourism-related sectors weigh.

Figure 1: G-3 curves to steepen in 2H20 as recovery occurs



Source: Bloomberg, DBS

Figure 2: G-3 central banks ramping up asset purchases



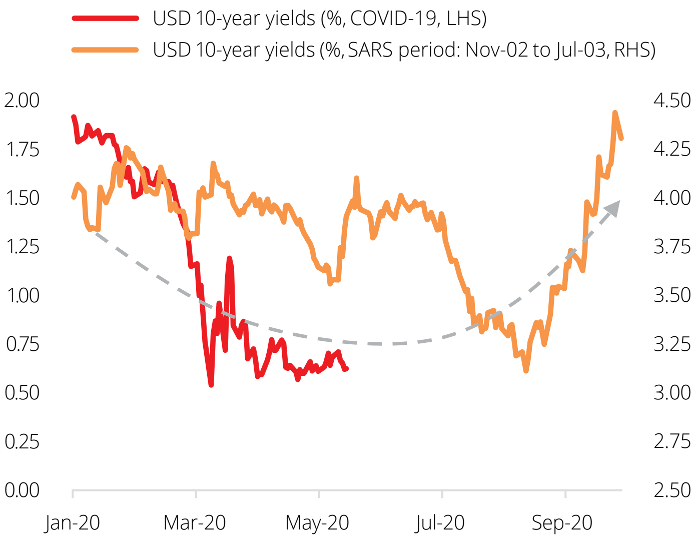
Source: Bloomberg, DBS

DM central banks will keep monetary policy loose through our forecast horizon. This implies that short-term USD rates will be sticking close to their EUR and JPY counterparts through 2021. There has been speculation of negative rates in the US but we think that other unconventional tools will be used before negative rates get considered.

Longer-term G3 rates are mixed. Note that 10-year JGB and German Bund yields are off their lows while 10-year UST yields ended significantly lower in the aftermath of COVID-19. This is because of constraints on monetary and fiscal policy in the different regions. As JPY and EUR interest were already floored at zero (or slightly negative), there is limited room for their central banks to cut rates or purchase government bonds. Instead, fiscal drivers take precedence and markets start to price in the supply deluge, driving yields modestly higher in Japan and Germany even amid a lacklustre economic outlook.

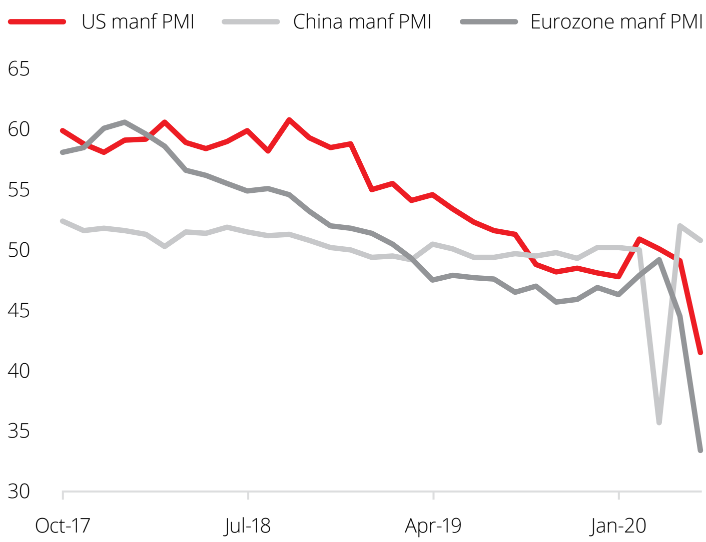
We expect G-3 government curves to steepen over the coming few quarters. This view is contingent on a recovery in the global economy and that any second virus wave will be contained. In particular, we think that the timing mismatch in UST purchases (which the Fed has already begun tapering) and sizeable issuances over the coming quarters will put upward pressure on the long-end of the UST curve. Accordingly, there will be similar spillover effects onto to the JGB and Bund curves. The key risk to our view is a slow re-opening of the global economy or a start/stop nature that threatens to spill unto a solvency crisis for the private sector. Under this risk scenario, USD rates would be depressed for an extended period and the Fed would consider negative policy rates.

Figure 3: 10-year US yields can rise modestly

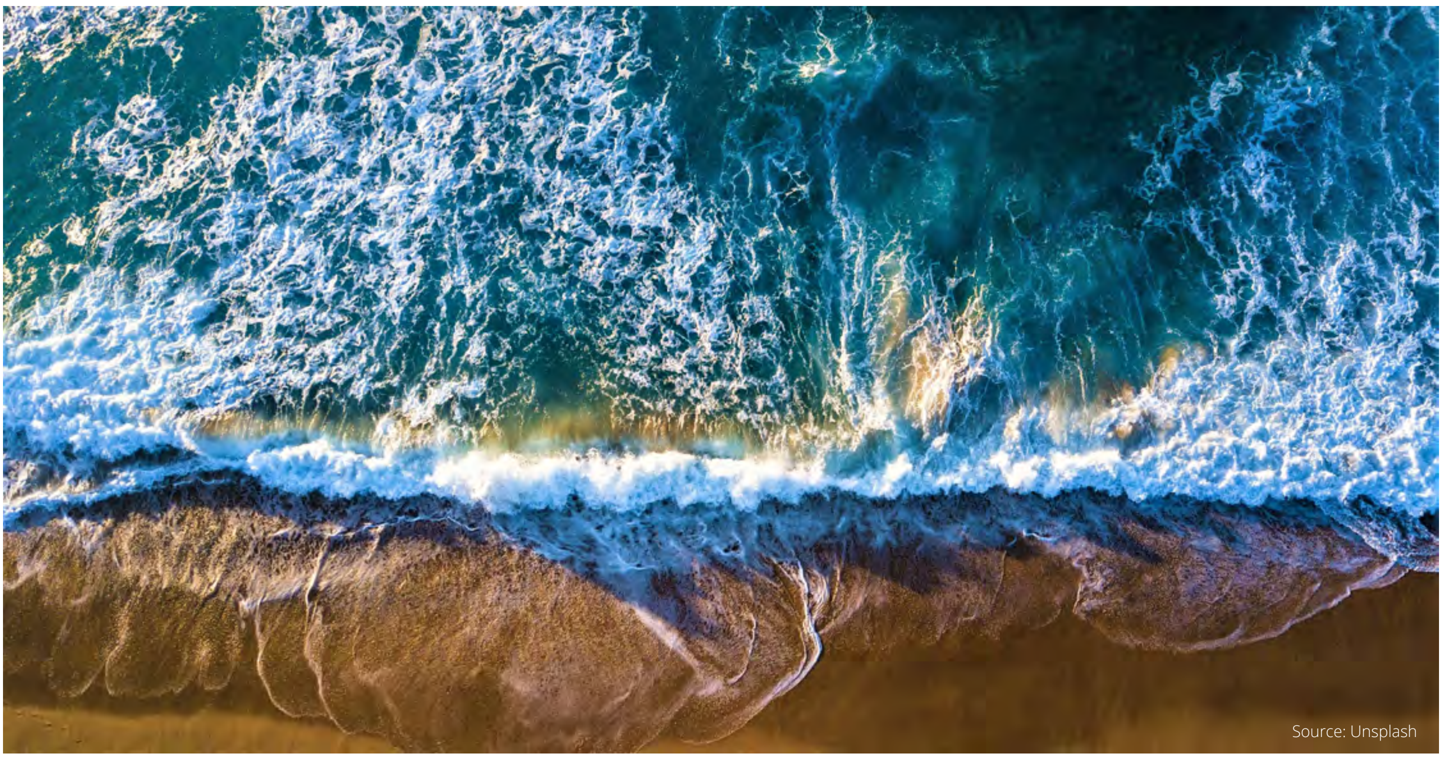


Source: Bloomberg, DBS

Figure 4: 2Q20 to bear the brunt of economic shock



Source: Bloomberg, DBS



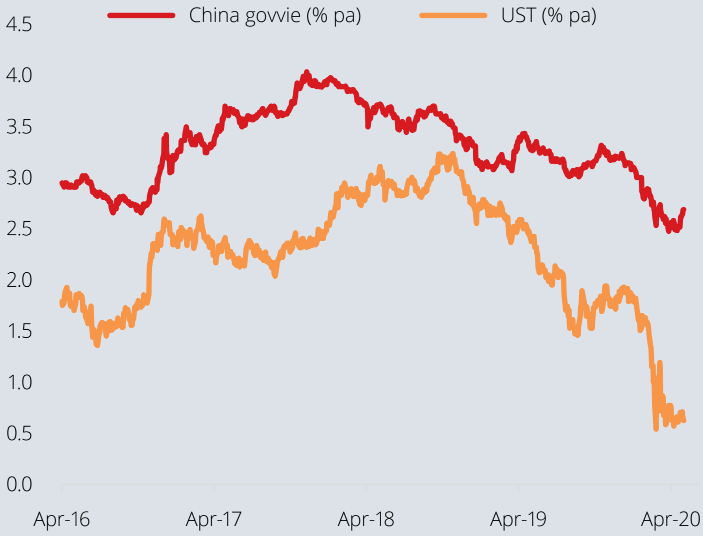
Source: Unsplash

Asia Rates

CNY rates: Relatively high yielding

We think China government bonds (CGBs) are attractive in this low-yield environment. From a fundamental perspective, Chinese data have been lacklustre at best. While China has contained COVID-19, April CPI numbers missed by a significant margin (actual: 3.3% y/y, consensus: 3.7%). Trade numbers also painted a mixed picture. The PBOC should add to the 30 bps of cumulative cuts in the 1-year LPR and MLF rates in the coming few months, providing even more monetary support. From a technical perspective, we note that the curve is steep, with a lot of term premium built into the shorter tenors. Moreover, yield declines in CGBs have lagged that of USTs. The 200 bps yield pickup in 10-year CGB over the equivalent UST look particularly attractive. We think there are few avenues that offer safety with much of the DM rates floored around zero. CGBs will likely benefit in this environment.

Figure 5: China yields are relatively high

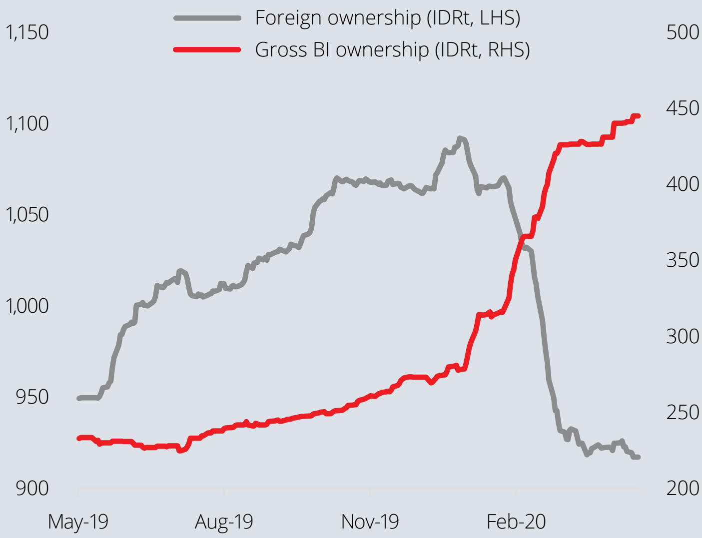


Source: Bloomberg, DBS

IDR rates: Climbing the steep curve

Indonesia government bonds were one of the hardest hit within Asia through the COVID-19 crisis. Most of this has got to do with the high levels of foreign ownership (close to 40% of outstanding) leading into a volatile March. Currently, foreign investors own about 32% of Indo govvies, suggesting that caution still lingers. We note that the Indo govvie curve is steep, with the 2-year/10-year spread hovering around 150 bps, high by historical standards. Part of this can be attributed to larger issuances to accommodate a temporary increase in budget deficit to 6% of GDP (the cap was set at 3%) for 2020 as the government acts to cushion negative fallout from COVID-19. However, we note that BI is now playing an active role in buying government bonds and has also encouraged banks to take on more government bonds. Domestic demand for govvies are not quite enough to nudge yields significantly lower. It would likely require a return of foreign investor interest (likely over the medium term) to nudge 10-year yields towards 7%. For local investors, we like extending duration out to the intermediate tenors, noting that BI will anchor rates for the coming year.

Figure 6: Foreign interest to return to Indo govvies

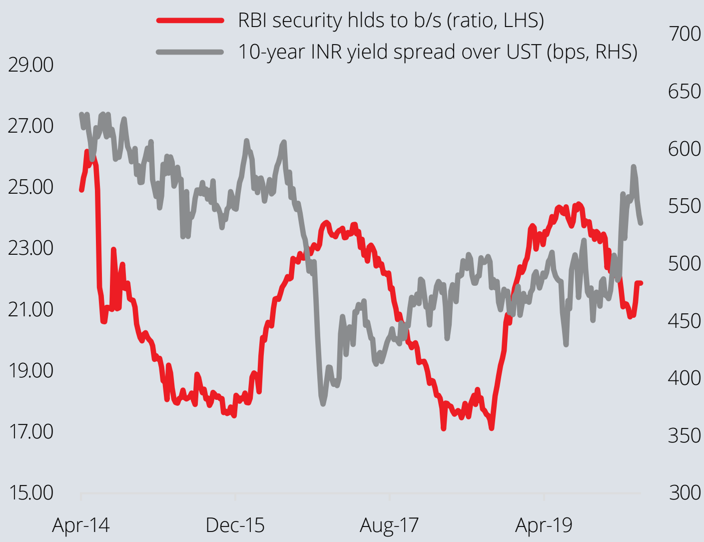


Source: Bloomberg, DBS

INR rates: Bullish to neutral

The fiscal and monetary tug-of-war has also played out in India. With the government having announced INR20t (9.7% of GDP) worth of support packages to combat the COVID-19 induced slowdown, yields would have been much higher if not for RBI's aggressive intervention. Notably, the RBI has increased its balance sheet, a jump of 22% since the start of the year as a plethora of support programmes (aimed at driving down interest rates) were implemented. The ratio of RBI security holdings to its balance sheet is also on the high side. In some ways, the RBI's policies have worked as 10-year yields dropped close to 6% while bill rates are now below 4%. With another 35 bps worth of cuts (taking the reverse repo rate to 3.65%) upcoming, there would still be considerable downward pressure on INR rates. We think that INR rates will stay low for several months as a combination of low oil prices and low foreign portfolio ownership of bonds help. Beyond the short term, we are somewhat concerned that if the RBI turns too aggressive, there could be negative implications on the currency and INR assets in general.

Figure 7: RBI support needed



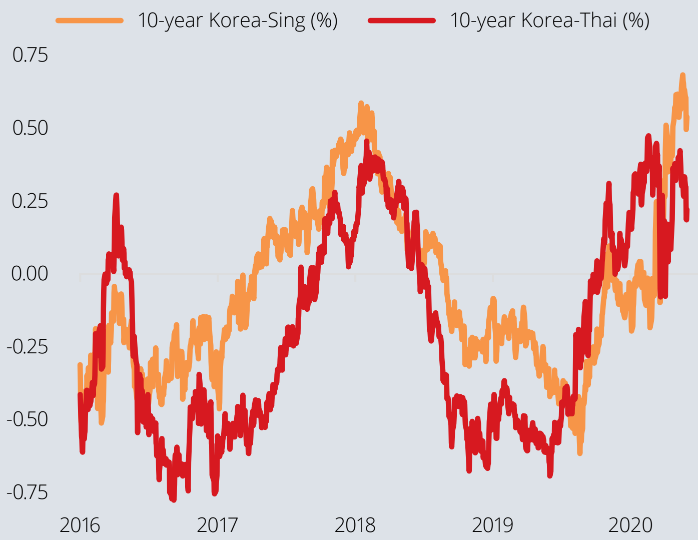
Source: Bloomberg, DBS

KRW rates: Safety and resilience

In a global synchronised downturn with high fiscal financing needs everywhere, low yielders like South Korea would offer much-needed safety and resilience. KTB yields are more anchored to G-3 yields rather than correlated to broader EM. South Korea's high credit standing likely means that yields would be less sensitive to supply increases. As Asia's safe-haven bond, KTBs tend to see strong foreign buying during periods of risk-off.

Besides attractive fundamentals, KTBs also enjoy large valuation buffers. 10-year yield spreads against peer low yielders, such as Singapore and Thailand, are close to their widest levels in many years. On an asset swapped to USD basis, KTB yields screen as extremely cheap relative to historical. Going into the second half of 2020, KTBs are one of our conviction picks.

Figure 8: Yield spreads between KTB and peers are wide vs historical



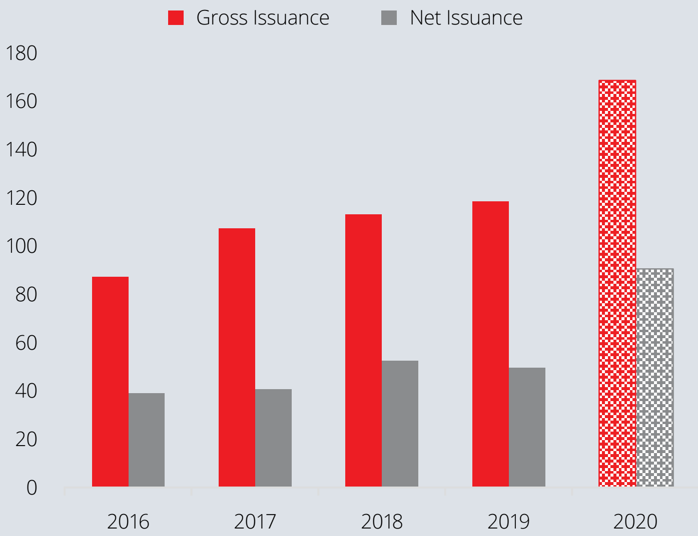
Source: Bloomberg, DBS

MYR rates: Steeper yield curves and wider bond-swap spreads

Malaysia's budget deficit is expected to almost double to 6% in 2020, largely a result of the large COVID-19 support packages announced. Issuances of MGS and MGII would consequently have to be ramped up. Our 2020 projections are for an increase in gross issuances to MYR169b (2019: MYR119b) and net issuances to MYR91b (2019: MYR50b).

Considering the projected sharp increase in supply and likely soft aggregate demand for MGS/MGII, the risks are skewed towards steeper bond yield curves and wider bond-swap spreads. In particular, monthly net contributions to the EPF, and as a result, the size of the fund's MGS/MGII purchases are expected to decline ahead. Our estimates show that recent changes, including lowering of minimum employee contribution rates and allowing members to withdraw from their accounts, would result in a net drain of c.MYR25-30b or c.3% of the EPF's portfolio value.

Figure 9: Much higher MGS/MGII issuances expected in 2020



Source: Bloomberg, DBS

PHP rates: Strong outperformer

Year to date, the Philippine local government bond (RPGB) has been a strong outperformer. RPGBs have largely kept pace with the rally in USTs, while many Asian peers have lagged. The PHP has also been resilient and stable through local lockdown measures and bouts of global market volatility. **Despite likely rich valuations, we do not see any near-term triggers/catalysts for RPGBs to cheapen and thus, prefer to stay neutral.** Inflation should continue to print closer to the lower end of BSP's target range.

Flush onshore liquidity, due to BSP's ongoing RRR cuts, continue to dampen any upward pressures on rates. We point to money market, interbank, and front-end swap rates that have been declining relative to the BSP's interest rate corridor. On budget funding, supply pressures should be manageable as the Philippines has access to offshore dollar bond markets and loans from multilateral organisation such as the Asian Development Bank.

Figure 10: RPGB yields have kept pace with the decline in UST yields

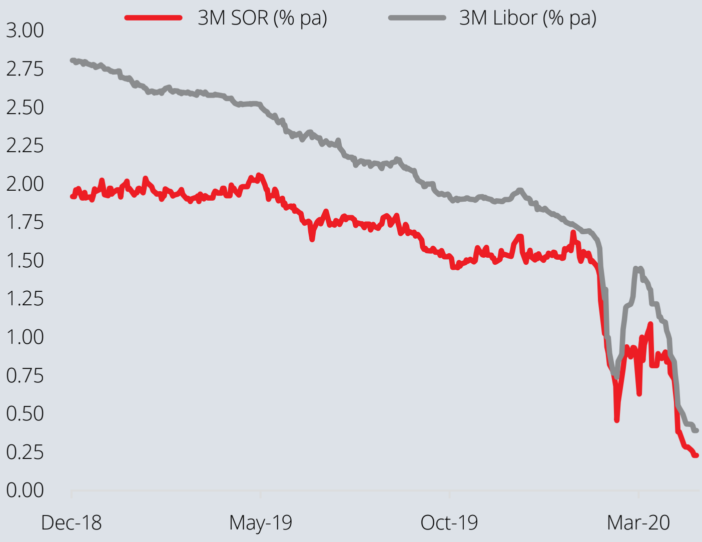
Source: Bloomberg, DBS

SGD Rates: SARS-redux

Short-term SGD rates will probably stay low for an extended period. Sibor and SOR finally followed Libor lower after an initial bout of volatility in March. To recap, the market was spooked after the Fed's cumulative 150 bps rate cut in March and this perversely drove Libor higher as credit risks were priced in. However, as the Fed announced unlimited QE and a plethora of other funding measures, Libor has since normalised, alongside the SOR. Sibor lags somewhat. However, SGD liquidity is clearly flush. Notably, bills issued from the MAS have been seeing firm demand, with 3M bill rates dipping below 0.3% (levels not seen since 2013).

Moreover, the banking sector is no longer tight with the loan-to-deposit ratio dipping below 1. We think that this could be due in part to a slightly more risk averse environment, prompting a surge in deposits. In any case, Sibor may have further to fall, compared to SOR. SOR and related short-term SGD interest rate swaps may be vulnerable (to the upside) to a ratcheting up of US-China tensions.

Figure 11: SOR to stay low with Libor



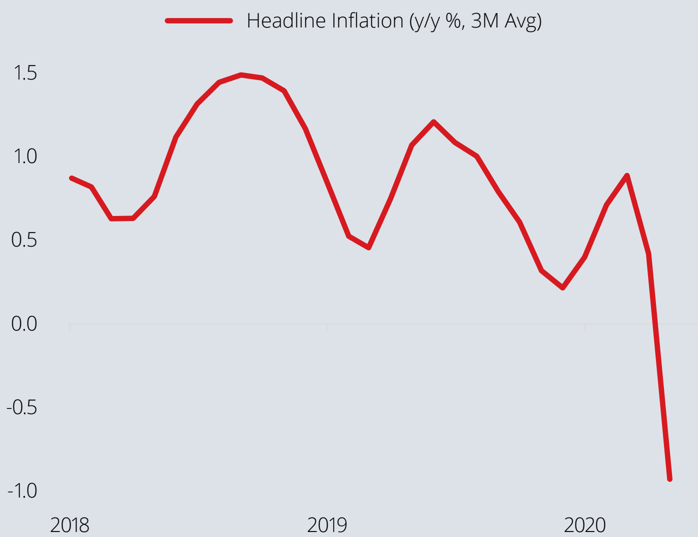
Source: Bloomberg, DBS

THB rates: Well-anchored

The Thai economy's higher dependence on tourism and merchandise exports likely mean that recovery, post the lifting of domestic containment measures, is likely to be slow and more drawn out. Disinflationary pressures are also building with the BOT expecting headline inflation to average below zero in 2020. Our forecast is for BOT to cut the policy rate by another 25 bps in 3Q, to land at its effective lower bound of 0.25%.

Prospects should continue to rise for the BOT to implement unconventional policy measures such as yield curve control and large-scale asset purchases. Therefore, THB interest rates are likely to be well-anchored and scope for curve steepening is limited. We expect the BOT to maintain ample liquidity in the financial system and coordinate with the Public Debt Management Office to ensure that the much larger supply of public debt this year can be comfortably absorbed by the market.

Figure 12: Disinflationary pressures are building in Thailand



Source: Bloomberg, DBS

Table 1: Rates forecasts

		2020				2021			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
US	3m Libor	1.45	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	2Y	0.25	0.20	0.25	0.30	0.35	0.40	0.50	0.60
	10Y	0.67	0.70	0.80	0.95	1.05	1.15	1.25	1.30
	10Y-2Y	42	50	55	65	70	75	75	70
Japan	3m Tibor	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	2Y	-0.14	-0.15	-0.15	-0.13	-0.13	-0.10	-0.10	-0.10
	10Y	0.02	-0.05	-0.05	0.00	0.00	0.05	0.05	0.05
	10Y-2Y	16	10	10	13	13	15	15	15
Eurozone	3m Euribor	-0.36	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
	2Y	-0.69	-0.75	-0.70	-0.65	-0.60	-0.55	-0.55	-0.55
	10Y	-0.47	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20
	10Y-2Y	22	25	25	25	25	25	30	35
Indonesia	3m Jibor	4.88	4.90	4.65	4.65	4.65	4.65	4.65	4.65
	2Y	6.24	6.20	6.00	5.80	5.70	5.70	5.70	5.70
	10Y	7.91	7.80	7.60	7.40	7.20	7.00	7.00	7.00
	10Y-2Y	167	160	160	160	150	130	130	130
Malaysia	3m Klibor	2.80	2.30	2.25	2.25	2.25	2.25	2.50	2.75
	3Y	2.76	2.30	2.40	2.50	2.60	2.60	2.75	2.90
	10Y	3.36	2.85	3.05	3.25	3.40	3.40	3.50	3.60
	10Y-3Y	60	55	65	75	80	80	75	70
Philippines	3m PHP ref rate	3.95	1.50	1.45	1.40	1.50	1.75	2.00	2.25
	2Y	4.46	2.70	2.50	2.55	2.60	2.65	2.75	2.85
	10Y	4.86	3.30	3.30	3.45	3.55	3.65	3.75	3.80
	10Y-2Y	40	60	80	90	95	100	100	95
Singapore	3m Sibor	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	2Y	0.73	0.25	0.25	0.25	0.25	0.30	0.40	0.45
	10Y	1.29	0.75	0.78	0.85	0.95	1.00	1.05	1.10
	10Y-2Y	56	50	53	60	70	70	65	65
Thailand	3m Bibor	0.87	0.62	0.37	0.37	0.37	0.37	0.37	0.37
	2Y	0.81	0.55	0.37	0.37	0.37	0.37	0.37	0.37
	10Y	1.40	1.00	1.10	1.20	1.25	1.30	1.35	1.40
	10Y-2Y	58	45	73	83	88	93	98	103
Mainland China	1Y Lending rate	4.35	3.85	3.70	3.55	3.55	3.55	3.55	3.55
	3Y	2.06	2.30	2.25	2.25	2.25	2.25	2.25	2.25
	10Y	2.59	2.95	2.85	2.80	2.80	2.80	2.80	2.80
	10Y-3Y	52	65	60	55	55	55	55	55
Hong Kong	3m Hibor	1.93	0.85	0.85	0.85	0.85	0.85	0.85	0.85
	2Y	0.67	0.35	0.40	0.45	0.50	0.55	0.65	0.75
	10Y	0.72	0.55	0.70	0.85	0.95	1.05	1.15	1.20
	10Y-2Y	5	20	30	40	45	50	50	45

%, eop, govt bond yield for 2-year and 10-year, spread bps.

Source: CEIC, Bloomberg, DBS

		2020				2021			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
South Korea	3M CD	1.10	0.75	0.65	0.65	0.65	0.65	0.65	0.90
	3Y	1.07	0.85	0.55	0.50	0.50	0.50	0.55	0.75
	10Y	1.55	1.35	1.10	0.95	1.05	1.15	1.25	1.30
	10Y-3Y	48	50	55	45	55	65	70	55
India	3M Mibor	5.93	4.80	4.45	4.45	4.45	4.45	4.45	4.45
	2Y	5.27	4.35	4.20	4.30	4.40	4.50	4.50	4.50
	10Y	6.14	5.70	5.50	5.70	5.90	6.10	6.10	6.10
	10Y-2Y	87	135	130	140	150	160	160	160

%, eop, govt bond yield for 2-year and 10-year, spread bps.

Source: CEIC, Bloomberg, DBS

DBS Live more, Bank less


Source: Unsplash

Global Credit | 3Q20

Leading the recovery

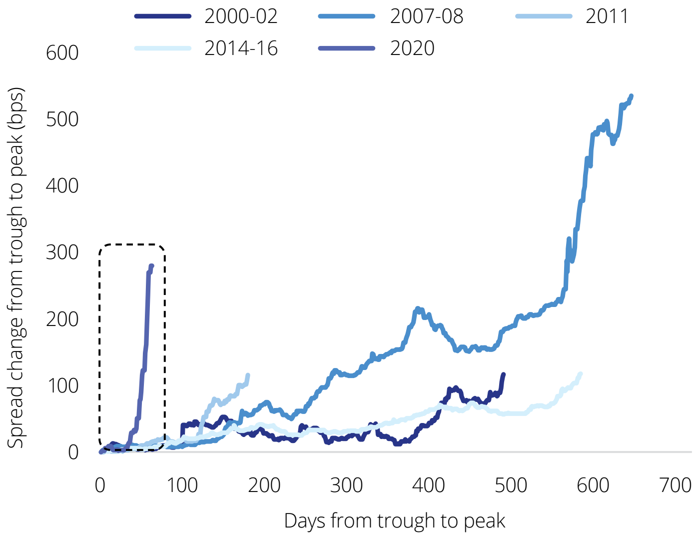
Global Credit

Daryl Ho, CFA | Strategist

All the wrong things in all the right places. The first quarter of 2020 would no doubt find its place in the annals of noteworthy credit crises, if not for its magnitude of spread widening, then certainly with the speed by which the widening occurred. It was the perfect storm of a pandemic-led demand slump, combined with a crude supply glut, thrown into an expensively priced credit market that already had its ability to handle a liquidity shock greatly hampered due to rising regulatory constraints put in place since the GFC in 2008.

The Fed spoke and calmed the storm. In addressing the market carnage, the Federal Reserve's conventional playbook of cutting rates to zero and embarking on open-ended QE proved insufficient to soothe credit markets that saw liquidity conditions tighten by the day; cash bond prices still gapped multiple points lower on irrepressible forced selling.

Figure 1: Unprecedented velocity of US corporate credit spread widening in 1Q20



Source: Bloomberg, DBS

Table 1: Summary of the Fed's lending facilities (in USDb)

Fed facility	Treasury equity funding	Leverage multiplier	Max leveraged capacity
Primary Market Corporate Credit Facility (PMCCF)*	50	10	750
Secondary Market Corporate Credit Facility (SMCCF)*	25		
Main Street Lending Program	75	8	600
Municipal Liquidity Facility	35	14	500
Paycheck Protection Program (PPP)	-	-	350
Term Asset-Backed Securities Loan Facility (TALF)	10	10	100
Primary Dealer Credit Facility	-	-	
Money Market Mutual Fund Liquidity Facility (MMLF)	10	10**	
Commercial Paper Funding Facility (CPFF)	10	10**	
Total	**215**		**2,300**

* Credit facilities not presented separately. SMCCF allows 10x leverage for IG bonds and ETFs, 7x for sub-IG and 3x-7x for other eligible assets. PMCCF allows 10x leverage for IG bonds/syndicated loans and 7x for other assets.

** Assumed 10x leverage based on acceptance of only highly rated assets as collateral.

Source: US Federal Reserve Board, DBS

It was not until the Fed's unprecedented step of setting up the Primary and Secondary Market Corporate Credit Facilities to purchase both IG, and more controversially, HY US credits that liquidity in the global bond markets regained some sense of normalcy.

It is more about the signal than the flow. These facilities, taken together among a total of USD2.3t of lending initiatives, provided a strong signal that the Fed can and will do whatever it takes to be the liquidity provider of last resort when the market is suffering a crisis of confidence. In terms of the actual flow of funds from the Fed into credit markets, it is likely that only a fraction of the full capacity of the credit facilities will be deployed due to the stringent set of criteria that come with its utilisation.

As such, we believe that the Fed backstop has calmed the credit markets more predominantly by reducing the extreme left tail risks of a liquidity-driven meltdown, rather than through actual purchases of corporate credits to support bond prices.

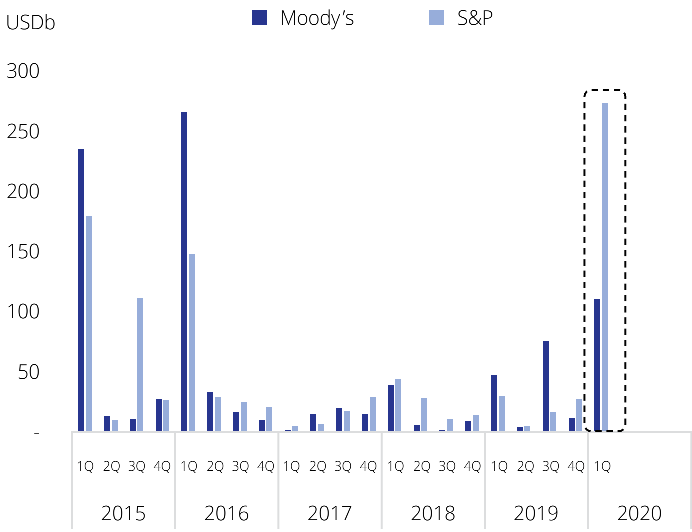
An uneasy calm after the storm. It may have taken everything except the kitchen sink; but these measures have worked, judging as asset prices saw strong recovery in 2Q20 across most major classes. However, investors are now left with a sense of uneasiness – how could financial assets seemingly defy valuations, while economic fundamentals appear more inclined to deteriorate while the shape and speed of recovery remain uncertain? Such fears encapsulate the credit markets, seeing that:

1. Credit ratings agencies have **picked up the pace of negative ratings actions** (most noticeably with IG to HY downgrades, producing Fallen Angels);

2. **Defaults have and are expected to rise** while business cash flow is impeded by a stagnant economy; and

3. The **memory of the credit crisis** in March remains fresh in investors' minds.

Figure 2: Notional amounts of Fallen Angels rising to near-term peaks



Source: Moody's, S&P, Bloomberg, DBS

While credit was the epicentre of the March selloff, it is also most likely to lead the recovery. Contrary to the broader sentiment of cautious pessimism, we posit that the universe of credit is still the asset class of choice in a slower growth environment, especially while spreads are still pricing in rather excessive levels of defaults in select markets.

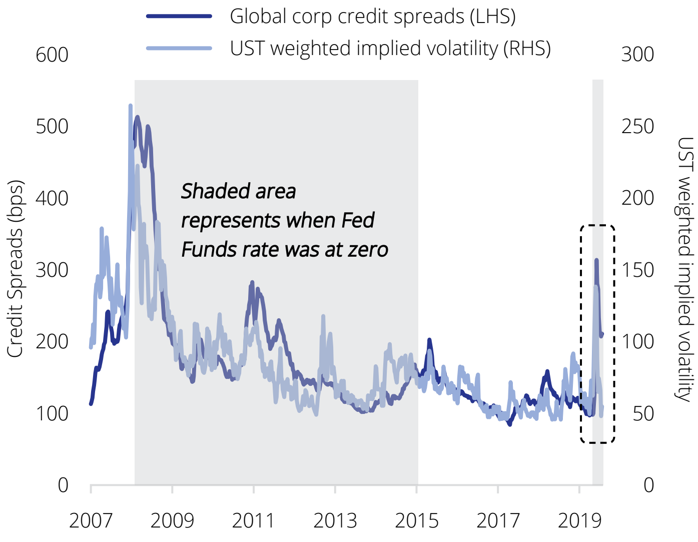
Will the unwinding of extraordinary policy support negate the price recovery? One cannot shake the sense that credit markets are on life support – and rightfully so. The world could have been on the brink of financial market failure and credit inaccessibility had the Fed not stepped in with extraordinary measures. The very definition of "extraordinary" then begets worry that its cessation might come as quickly as its implementation once the world reverts to the ordinary.

However, the world may have to get comfortable living in extraordinary times for a little while longer, considering how far we are from "ordinary" as defined by the objectives of the Fed's dual mandate:

1. **Maximum employment:** Unemployment is expected to remain beyond 10% for 2020, far in excess of estimates of 4.0-4.6% for the natural rate. It last took more than eight years for U3 unemployment to converge to those levels after the GFC.

2. **Stable prices:** The Fed has been undershooting inflation expectations of 2% for core PCE for much of the last decade. The disinflationary (or even deflationary) pressures of the fall in aggregate demand is likely to work against this objective.

Figure 3: Global credit spreads have not "caught down" to declining implied volatility of UST market



Source: Bloomberg, DBS

These factors suggest that the environment of low rates and QE is likely to persist for a longer horizon. The Fed simply cannot afford to allow yields to drift much higher while both objectives remain far from reach. Moreover, the Fed may also need to err on the side of caution due to a much larger anticipated rise in UST supply following the sizeable stimulus measures. Considering the US Congressional Budget Office's (CBO) fiscal deficit estimates of USD3.7t and USD2.1t in 2020 and 2021, respectively, the Fed may ultimately even need to transit from its current fixed schedule of bond purchases to some form of yield curve control to deal with the surge in issuances; in order to prevent the recurrence of the dysfunction in the UST market seen in March which resulted in abnormal volatility.

As the market adjusts to lower rates, credit spreads should compress in a hunt for yield. Global credit last saw a strong bull run in the previous instance that the Fed funds rate was slashed to zero, lasting nearly a decade as concerns of credit risks were dwarfed by a search for yield. This is by no means advocating indiscriminate risk-taking, but rather that the selection of good quality IG and HY credit would likely receive a tailwind of fund flows to support bond prices.

IG to lead the way. As such, credit spreads are likely to "catch down" as they adjust to the environment of lower rates. This is with emphasis to IG credit, as the Fed has also explicitly introduced IG credit as a conduit of policymaking, unlike in the 2008 GFC with only UST and mortgage-backed securities (MBS). The market, as a result, is likely to adjust the perceived risk premium of IG credit lower over the longer term.

What are the implied default rates of current spreads across the global credit markets? For this analysis, we model spread-implied default probability by the hazard rate. For the sake of simplicity, we assume that the various index-level spreads remain constant and reflect credit risk primarily, while other premiums involving liquidity, structural, and duration adjustments are negligible for comparative purposes. We also assume a range of recovery rates between 10-30% (stressed estimates; Moody's estimate for trailing 12-month recovery is 32.9% for senior unsecured bonds in their March 2020 default report).

IG spreads are pricing in high multiples of the four-year cumulative historical default norms. IG issuers very rarely default in the short term while still classified as high grade. As such, a measure of cumulative default rates over a longer horizon is more meaningful for this analysis. Using Moody's historical data for IG bonds, four-year cumulative default rates range between 0.4-0.5%. By this measure, US IG spreads are pricing in c.14x, Europe IG c.8x, and Asia IG c.19x their respective historical cumulative four-year default rates (assuming 20% recovery). These are elevated levels in our view.

Table 2: Cumulative default rates implied by current spreads are far in excess of historical levels

US IG Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	1.6%	1.8%	2.1%
	2Y	3.2%	3.6%	4.1%
	3Y	4.8%	5.4%	6.1%
	4Y	6.4%	7.1%	8.1%

US HY Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	6.0%	6.7%	7.7%
	2Y	11.7%	13.0%	14.8%
	3Y	17.0%	18.9%	21.3%
	4Y	22.0%	24.4%	27.3%

Europe IG Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	0.9%	1.1%	1.2%
	2Y	1.9%	2.1%	2.4%
	3Y	2.8%	3.1%	3.6%
	4Y	3.7%	4.1%	4.7%

Europe HY Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	4.7%	5.3%	6.0%
	2Y	9.2%	10.3%	11.7%
	3Y	13.5%	15.1%	17.1%
	4Y	17.6%	19.6%	22.1%

Asia IG Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	2.2%	2.5%	2.9%
	2Y	4.4%	4.9%	5.6%
	3Y	6.5%	7.3%	8.3%
	4Y	8.6%	9.6%	10.9%

Asia HY Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	8.2%	9.2%	10.4%
	2Y	15.7%	17.5%	19.7%
	3Y	22.6%	25.0%	28.1%
	4Y	28.9%	31.9%	35.5%

LatAm Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	5.9%	6.6%	7.5%
	2Y	11.4%	12.7%	14.4%
	3Y	16.6%	18.4%	20.8%
	4Y	21.4%	23.8%	26.7%

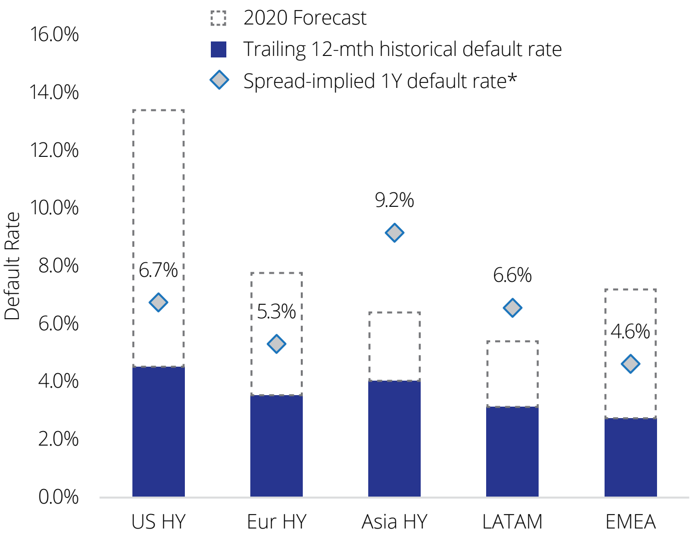
EMEA Cumulative Default Rate

		Recovery Rate		
		10%	20%	30%
Period	1Y	4.1%	4.6%	5.3%
	2Y	8.1%	9.0%	10.2%
	3Y	11.8%	13.2%	15.0%
	4Y	15.5%	17.2%	19.4%

Source: Bloomberg, DBS

HY spreads are also pricing in higher than average levels of defaults, but these are more warranted in line with forecasted trends for 2020. Looking across the HY and EM space, we also see implied default rates around 1.5-2x higher for select HY and EM markets as compared to their historical one-year averages. However, these are more validated as default forecasts for 2020 are expected to come significantly higher; as such spreads are pricing in such risks adequately, although not without discrepancies.

Figure 4: US HY spreads are tighter, while Asia HY spreads wider than forecasted default rates for 2020 imply



* Using 20% recovery rate assumption. Source: Moody's, JPMorgan, Bloomberg, DBS

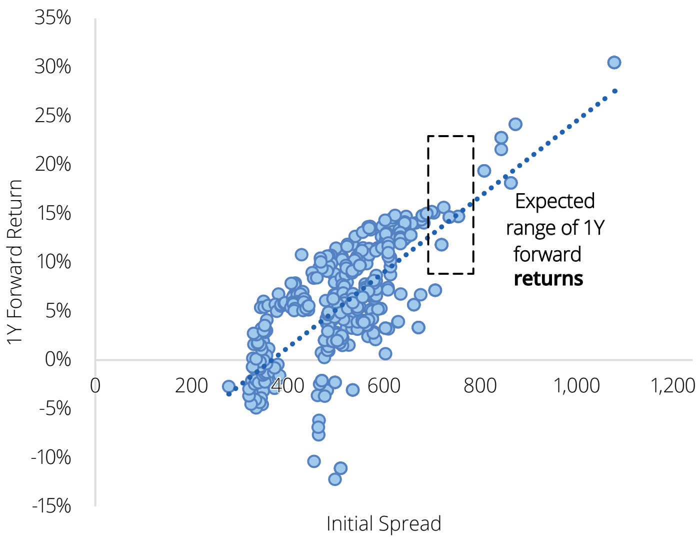
US HY spreads are tighter than forecasted defaults indicate, while Asia HY is substantially wider. US HY has one of the highest forecasted default rates for 2020, likely due to:

1. The **Energy sector** (c.15% of Index) under strain from crude prices staying below breakeven levels for leveraged shale oil producers; and

2. The **Consumer Discretionary sector** (c.20% of Index including autos, hotels, airlines, restaurants, and retail) having spending curtailed by the pandemic-produced lockdown.

Bonds, however, have been driven by a policy-led spread tightening as the market now expects even companies at risk to be able to raise funding thanks to the Fed's backstop. Fundamentally however, credit risks to these sectors have not materially improved.

Figure 5: Historically, Asia HY spreads starting at c.800bps see high probability of strong positive 1Y forward returns



Source: Bloomberg, DBS

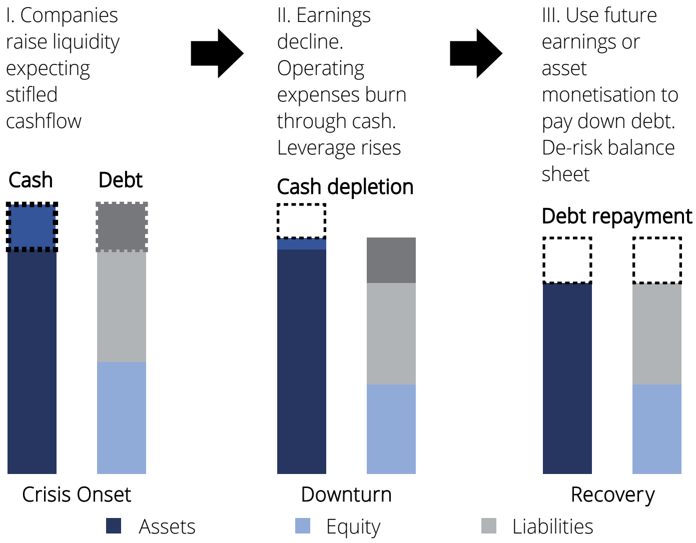
Asia HY is likely to perform, if history is any indication. Asia HY on the other hand, are not direct beneficiaries of US policy support, and prices have lagged the recovery. As such, spreads are still implying default rates nearly 1.5x wider than projected. As risk sentiment recovers, we believe spreads in Asia should tighten in line with lower realised defaults rates in the region, and consider that value remains to be found in Asia HY.

Ultimately, the picture of recovery appears conducive for the outperformance of bonds. The COVID-19 outbreak caused an economic halt, starving businesses from their much-needed lifeblood of stable cashflows. Businesses had to resort to exceptional methods of preserving cash, either by (a) reducing dividends and capex plans, or (b) raising debt by drawing down contingent bank facilities or via capital markets.

In a recovery scenario, debtholders are likely to benefit first. Raising debt is essentially taking an advance on a company's future cashflows. While this temporarily raises companies' leverage profile, it gives them the financial flexibility to survive the downturn. However, as the economy improves, it is likely that management would then reserve future cashflows to first repay debt in order to de-risk balance sheets. It is after all, the lesser of two evils to withhold dividends than to default on debt obligations. Against this backdrop, benefits are likely to first accrue to the debtholder in terms of lower gearing, before it accrues to the shareholder in terms of dividends, share buybacks, or growth capex.

In summary, we continue to like EM Asia on valuations, with both IG and HY in the BBB/BB segment offering attractive risk premiums to investors. For DM, US and Europe IG still trade elevated in spread terms against historical averages and have the added advantage of direct policy support. While the world focuses on recovering from the pandemic, risks on the horizon remain with US election uncertainty as well as an unwelcomed resurgence of US-China geopolitical tensions. Investors would be better positioned to go up in quality, capturing the certainty of fixed income while most other forms of earnings remain difficult to project.

Figure 6: Future recovery should begin a deleveraging cycle as companies prioritise balance sheet de-risking post-crisis



Source: DBS

Source: Unsplash

DBS

Live more,
Bank less

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Global Currencies | 3Q20

Dollar weakness

Global Currencies

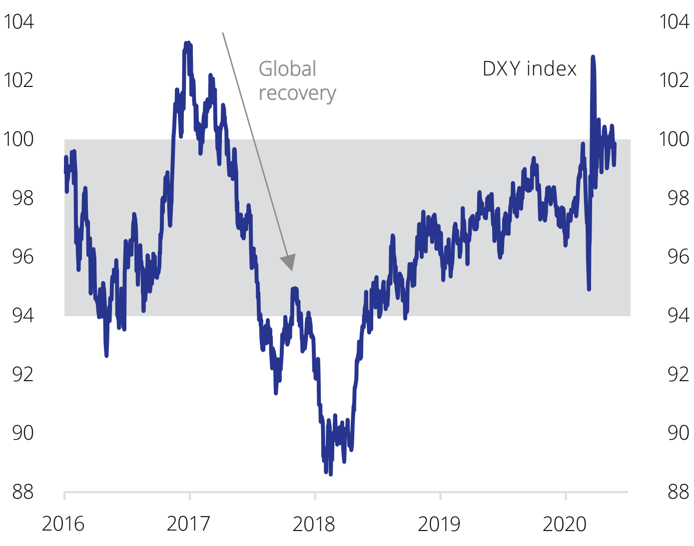
Philip Wee | Strategist

The global economic recovery is contingent on a stable USD. This was evident in the financial market panic triggered by shortages of USD funding which has thankfully been swiftly addressed by the Fed's swap lines to many countries in March. However, exchange rate volatility has decreased with the convergence of interest rates in the DM down to 0-0.25% amid unprecedented stimulus to address the recession in 1H. The pace of the USD's depreciation is, on the other hand, likely to be modest, similar to the recovery expected in 2H. Most countries have started to ease lockdowns to reopen their economies but only slowly in phases to avoid a second wave of infections. Many will keep safe management practices in place until a vaccine is found which will keep their economies operating at sub-optimal levels.

The coronavirus has severely undermined the USD's strong fundamentals of 2018-2019. The strong US labour market has given way to the highest unemployment rate (20 April: 14.7%) since the Great Depression. Although the Fed has rejected negative rates, its balance sheet has, between 26 February and 20 May, ballooned by 70% to USD7.09t, and far outpaced the 17% and 7% expansion of its EU and Japan counterparts respectively. The US Treasury borrowed almost USD3t in 2Q20, the quarter the Congressional Budget Office expects US real GDP to dive 38% q/q saar. According to the IMF and consensus, the EU is likely to rebound faster than the US in 2021. If so, the US Dollar Index (DXY) will be undermined by its largest component, EUR.

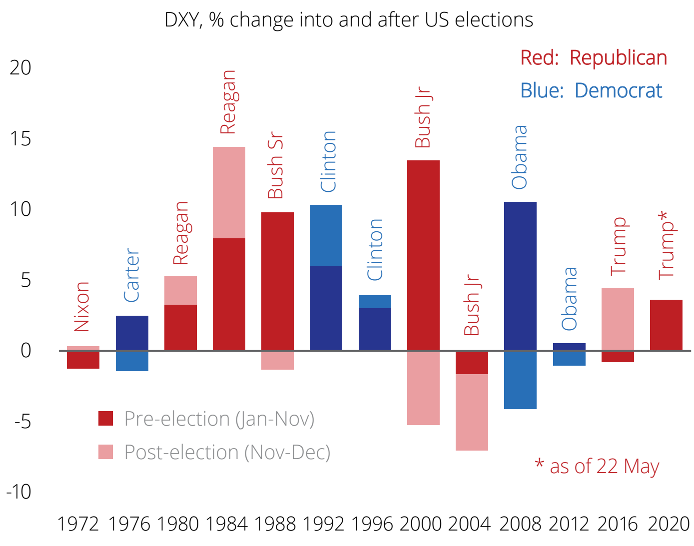
EUR is well-positioned to eventually appreciate into 1.10-1.15, assuming the post-pandemic global recovery arrives as scheduled in 2H. According to the IMF and consensus, the Eurozone's rebound will surpass the US's in 2021. The risk of another EU sovereign debt crisis has been mitigated by the ECB's readiness "to do whatever it takes" and a German-Franco plan for the European Commission to issue EUR500b of "euro bonds" to help the worst-affected EU nations against the coronavirus. On 22 April, the ECB relaxed a key lending

Figure 1: The US dollar



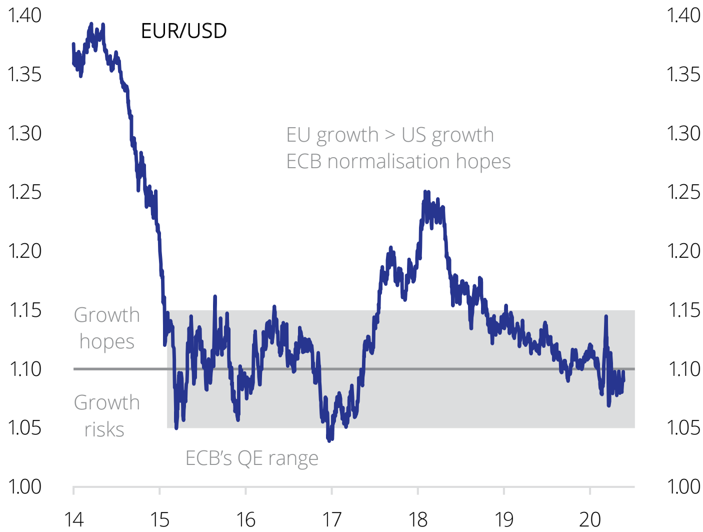
Source: Bloomberg, DBS

Figure 2: DXY & US presidential elections



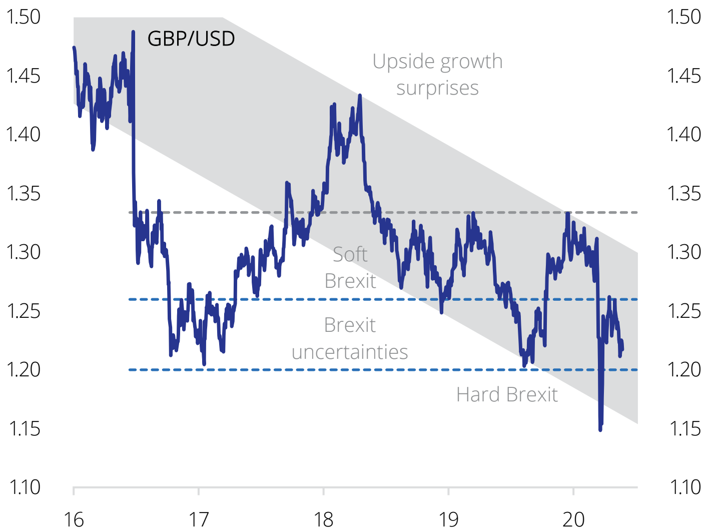
Source: Bloomberg, DBS

Figure 3: The euro



Source: Bloomberg, DBS

Figure 4: The British pound



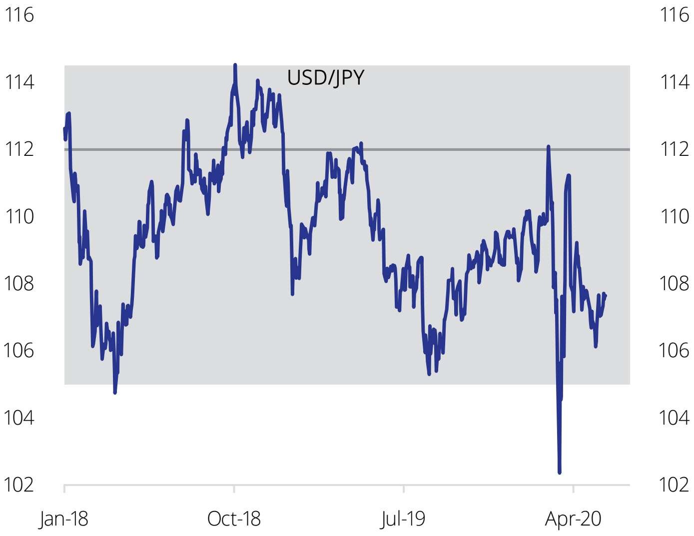
Source: Bloomberg, DBS

criterion to shield, until September 2021, marketable assets deemed eligible as collateral on 7 April against debt rating downgrades. The Italian 10-year bond yield has, since 23 April, held below 2%, even after the one-notch debt rating downgrade by Fitch to BBB- on 28 April. That said, the German Constitutional Court's ruling on 5 May against the ECB's rescue programmes remains unresolved and a source of volatility.

GBP's recovery from the coronavirus selloff is not secure. The UK has come under fire from MPs and Brussels for lacking a coherent strategy to contain the coronavirus. The UK has, as of 21 May, reported the second most deaths after the US. The National Institute of Economic and Social Research (NIESR) predicted that the economy would take a GBP800b hit from the coronavirus over the next 10 years. The window is closing for the UK to extend the Brexit transition by the 30 June deadline. Failure to do so risks adding more damage with a hard Brexit or a bad deal by end-2021. The BOE has not ruled out negative rates; yields on 2-year gilts have turned negative since 21 May. Unlike the economies (Switzerland, Denmark, Japan, the EU, and Sweden) that have adopted negative rates, the UK does not have a Current Account surplus but a deficit that needs to be funded. GBP has kept to a 1.20-1.26 range but another stab below 1.20 cannot be ruled out.

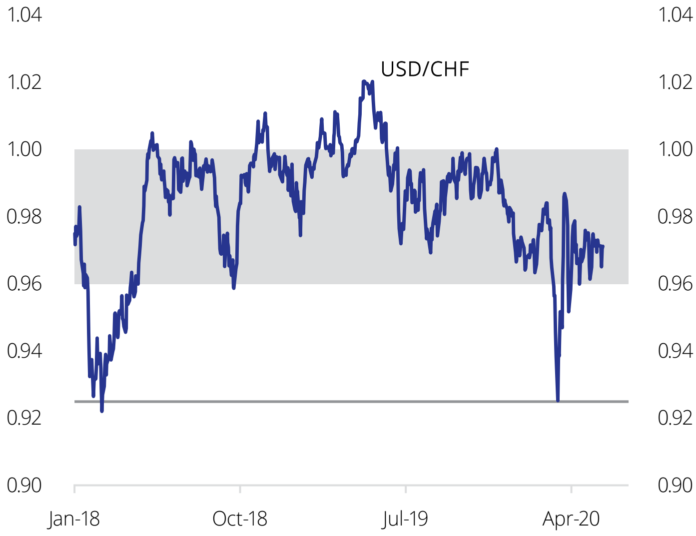
The Japanese yen's tenuous depreciation within 105-110. After the pandemic rollercoaster in March, USDJPY has consolidated in a 106-108 range in April-May. Currency volatility, including the JPY, has been crushed by unprecedented aggressive fiscal and monetary policies across countries. Expectations for the JPY to depreciate towards 110 per USD over the next six to 12 months have been predicated on a gradual recovery after a deeper recession in 2Q. Japan ended its state of emergency ahead of schedule on 25 May instead of 31 May. Until such a recovery materialises and gains traction, JPY is still considered a hedge against any deterioration in the global outlook or a heightening in US-China tensions. The BOJ, at an emergency meeting on 21 May, bolstered its support for business financing with an additional programme of JPY30t to a total JPY75t. This should help narrow the gap with the Fed's ultra-loose policies and steer USD/JPY from 100.

Figure 5: The Japanese yen



Source: Bloomberg, DBS

Figure 6: The Swiss franc

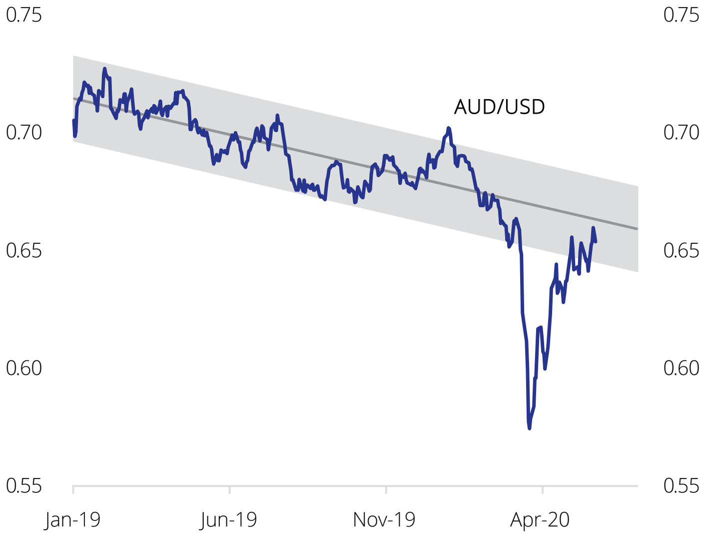


Source: Bloomberg, DBS

The Swiss franc is looking for a post-pandemic consolidation. USD/CHF has been mostly within 0.96-1.00 after the US-China trade war started in 2Q18. EUR/CHF, on the other hand, has fallen over the past two years to 1.05 from 1.20 but this was more about a weaker EUR than a stronger CHF. The SNB has stepped up intervention to counter the flight to safety into CHF during the coronavirus panic in March. USD/CHF dipped briefly to 0.92 before returning into a higher 0.96-0.98 range in April-May. The SNB reported a loss of CHF38.2b in 1Q20 from the coronavirus which lowered the value of its equity portfolio by CHF31.9b. A stronger CHF led to translation losses of CHF17.1b in its foreign stocks and bonds. Looking ahead, a global recovery is seen keeping USD/CHF within its 0.96-1.00 range but renewed US-China trade tensions, if they erupt, could hurt this by pushing EUR/CHF closer towards parity.

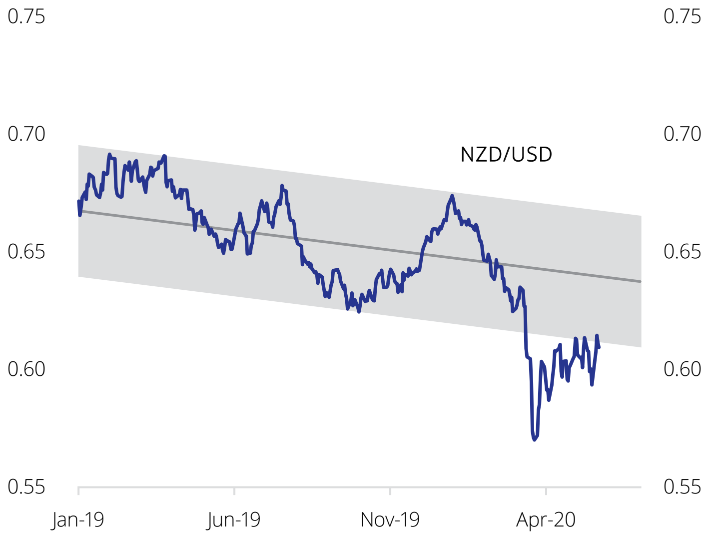
Source: Unsplash

Figure 7: The Australian dollar



Source: Bloomberg, DBS

Figure 8: The New Zealand dollar



Source: Bloomberg, DBS

AUD's appreciation to slow after its post-pandemic rebound. AUD was the worst-hit DM currency during the coronavirus selloff in March and the best performer during its the subsequent rebound in April-May. COVID-19 reversed the negative AU-US bond yield differential that weighed on the AUD since 2018. While the RBA lowered, on 19 March, its cash rate target to the upper bound of the Fed Funds Rate at 0.25%, it also anchored the 3-year treasury yield at 0.25% and rejected negative rates. More importantly, the RBA and the US Fed established, on 20 March, a USD60b swap line to address the shortages of USD liquidity. AUD has a history of appreciating during the recovery from a global recession, especially one led by China and Asia. But the pace will be slower this time around from the RBA's commitment to keep rates low for some years to nurse the recovery.

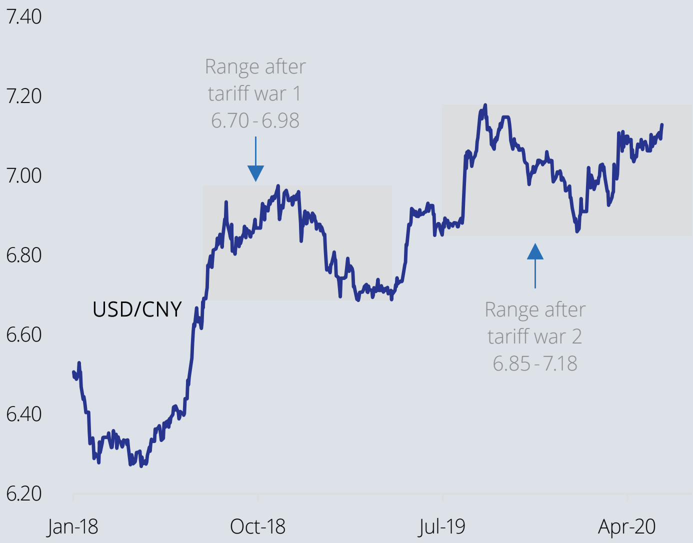
NZD has been slower to recover than AUD. The RBNZ, compared to its Australian counterpart, has been less reserved about negative rates and debt monetisation. It has since clarified negative rates as a last resort. RBNZ doubled, on 13 May, the size of its Large Scale Asset Purchase programme to NZD60b to support fiscal policy by keeping borrowing rates low. The Treasury delivered a NZD50b COVID-19 Response and Recovery fund on 14 May and has projected a surge in net debt to 53.6% of GDP in 2023 from 19% in 2019. New Zealand has relaxed its COVID-19 Alert Level 3 to 2 on 14 May, the minimal level to hold elections on 19 September. According to the RBNZ and the Treasury, the economy would return to 85-91% of normal output under Level 2 as opposed to 75-81% under Level 3. Prime Minister Jacinda Ardern said that the easing of restrictions would stop at Level 1 until a vaccine is found. This would keep the economy operating at 90-96% of capacity.

Asia Currencies

CNY

A stable Chinese yuan during the post-pandemic recovery. The mid-rate for USD/CNY has been holding a +/-2% band around 7 after the second tariff war last year. Although the real economy contracted for the first time in decades on the coronavirus, China has, at the NPC, refrained from massive fiscal stimulus. The present landscape is different from the GFC. US-China relations have moved from cooperation and engagement to competition and confrontation across trade, technology, investments, the coronavirus, and politics. US President Trump is likely to step up China-bashing for his re-election ahead of the US elections in November. On the other hand, it is equally important to heed incoming data, especially those pertaining to China's return towards economic normalcy from the coronavirus.

Figure 9: Chinese yuan



Source: Bloomberg, DBS

HKD

The HKD peg to the USD has been remarkably resilient during the coronavirus. The Hong Kong economy will shrink a second year by 4.8% (IMF forecast) in 2020 from the global pandemic. Fitch has downgraded, on 20 April, Hong Kong's long-term foreign currency issuer default debt rating by one notch to AA- with a stable outlook. HKD was, however, driven by external factors. The USD has weakened worldwide after the Fed's aggressive monetary easing measures in March and swap lines to address shortages of USD liquidity. As the US 3M Libor fell towards and below 1% in late April, the Hong Kong Monetary Authority was, for the first time in four years, forced to intervene to support the lower limit of the 7.75-7.85 convertibility band. That said, do expect volatility from the security law proposed by Beijing for Hong Kong in late May.

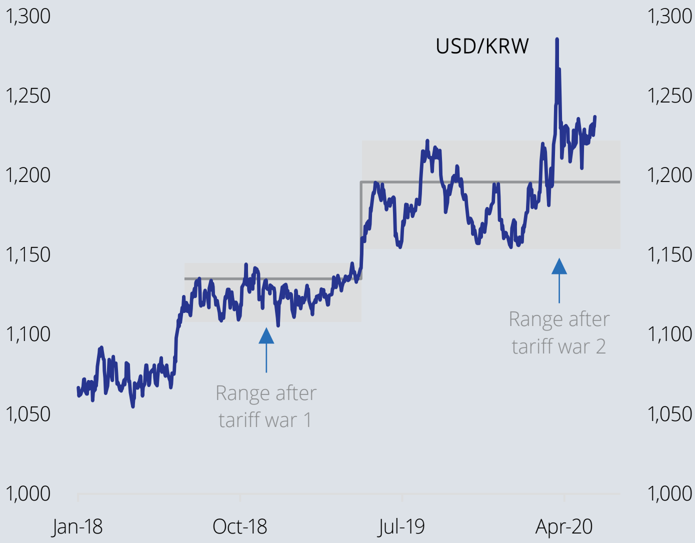
Figure 10: Hong Kong dollar

Source: Bloomberg, DBS

KRW

The South Korean won was hit hardest in Northeast Asia from acute USD liquidity shortages during the coronavirus selloff in March. KRW bottomed at 1286 per USD on 19 March when the BOK established a USD60b swap line with the US Federal Reserve. The subsequent recovery of KRW stalled around 1220 or the ceiling of the range set during the second US-China tariff war in 2019. As witnessed in 2018-2019, KRW has yet to shake off its vulnerability to renewed US-China trade tensions. On a positive note, interest rate differentials, unlike the past two years, now favour KRW over USD. S&P and Moody's have affirmed the country's sovereign debt rating with stable outlooks but stayed vigilant on its weak corporate debt metrics. Until the global recovery outlook gains traction, KRW's recovery is likely to be gradual.

Figure 11: South Korean won

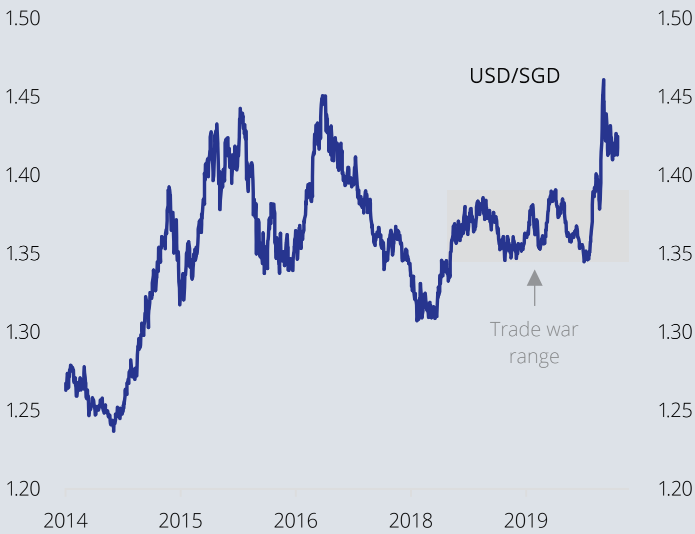


Source: Bloomberg, DBS

SGD

SGD's appreciation will be slow with the economy's recovery in the second half of the year. Singapore's circuit breaker ended on 1 June as scheduled. Relaxing restrictions on economic and social activities will be drawn out in three phases in June, July, and 4Q, assuming no new waves of infections. Phase 3 will remain in place, possibly into 2021 or longer, until a vaccine is found. While the final phase will relax most activities, the safe management measures will keep the economy operating below normal levels. Still, we expect SGD to appreciate below 1.40 per USD once global recovery prospects improve and gain traction. This will be heralded by the ascension of the SGD NEER (currently cautious slightly below the mid-point) into the upper or stronger half of its policy band.

Figure 12: Singapore dollar



Source: Bloomberg, DBS

INR

The Indian rupee may not be strong, but sentiment appears excessively pessimistic. INR depreciated to a new lifetime low near 77 per USD on the coronavirus. Optically, INR appeared slow to recover in April-May after the pandemic selloff in March. However, on a YTD basis, as of 22 May, INR's losses (-6.0%) did not deviate far from its Asian peers such as SGD (-5.5%), IDR (-5.7%), THB (-6.1%), MYR (6.2%), and KRW (-6.5%). India's headlines have been more negative than its peers i.e. debt rating downgrade risks from recession and wider fiscal deficits, as well as funding and liquidity concerns in its non-bank financial institutions. On the other hand, INR is not under pressure from traditional factors. US monetary policy has been aggressively loosened. India's account deficit has not widened but narrowed, and inflation has peaked and returned into its 2-6% target.

Figure 13: Indian rupee

Source: Bloomberg, DBS

IDR

The Indonesian rupiah was the hardest hit Asian currency during the coronavirus selloff and the best performer during the post-pandemic recovery. IDR stabilised substantially after BI secured, in early April, a USD60b repo facility with the US Fed. By May, IDR has appreciated into a 14,000-15,000 range that is likely to remain for the rest of the year. The government has abandoned its budget deficit limit at 3% of GDP to support the economy. The budget deficit is expected to widen to 6.27% of GDP, its widest since 1988. BI has resisted rate cuts to maintain the currency's stability. The official growth target for 2020 is now lower at 2.3% with a worst-case scenario of -0.2%. Indonesia has proposed to reopen its economy in five phases from 1 June to 20-29 July. The full resumption of economic activities will be carried out under a new health protocol until a vaccine is found.

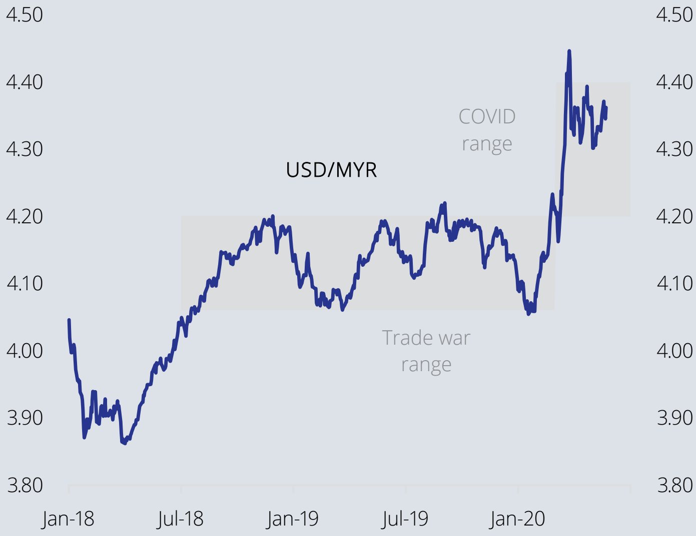
Figure 14: Indonesian rupiah

Source: Bloomberg, DBS

MYR

The coronavirus crisis has weakened MYR into a higher trading range of 4.20-4.40 per USD from the 4.05-4.20 band set during the trade war. Growth is set to turn negative in 2Q after slowing to a post-GFC low of 0.7% y/y in 1Q. The Movement Control Order (MCO) that came into force on 18 March was only relaxed from 4 May and replaced by a conditional MCO that expired on 9 June. The official growth forecast remains at -2% to -0.5% for 2020. The stimulus packages to cushion against the coronavirus have totalled 15% of GDP; the central bank has lowered rates by 100 bps to 2%. Unless domestic political uncertainties evolve into a crisis, or a second wave of infections emerges, MYR is still expected to recover with its Asian counterparts during the modest global recovery expected later this year.

Figure 15: Malaysian ringgit

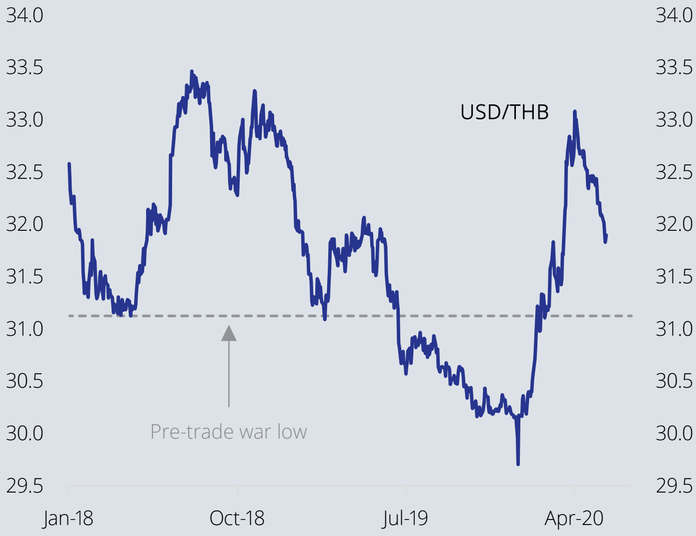


Source: Bloomberg, DBS

THB

The Thai baht has started to recover after it bottomed at 33 per USD during the coronavirus selloff. Interest rate differentials have turned positive in favour of THB over USD after the Fed's aggressive rate cuts in March. Although Thailand's economic contraction is expected to deepen in 2Q from -1.8% y/y in 1Q, focus has turned to the reopening of the Thai economy (in four stages every fortnight) from 3 May into June. The BOT remains optimistic of a recovery from stimulus packages totalling around 12% of GDP. For now, debt rating agencies have only downgraded Thailand's sovereign debt rating outlook to stable from positive. Unlike its Asian counterparts, Thailand's international liquidity position is strong e.g. foreign reserves are not below but well above external debt levels. THB's recovery is, however, likely to be limited to its pre-trade war level around 31.

Figure 16: Thai baht

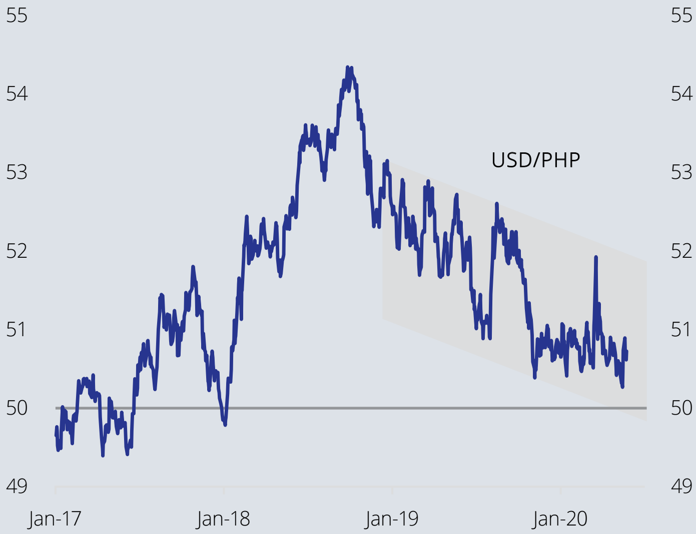


Source: Bloomberg, DBS

PHP

A stronger Philippine peso below 50 per USD is not desirable. The factors responsible for PHP's appreciation in the past couple of years have weakened. Fitch, on 7 May, downgraded the country's BBB long-term foreign debt rating outlook to stable from positive. The post-pandemic economic rebound in 2021 needs to turn up to assuage concerns over its wider budget deficit and higher public debt in 2020. The global economy will also need to improve given the dependence of the Current Account deficit on overseas foreign worker remittances. Real GDP contracted 0.2% y/y in 2Q for the first time since 1998. For 2020, the government now expects the economy to shrink 2.0-3.4%, maintain its 2-4% inflation target, and assume a USD/PHP rate of 50-54.

Figure 17: Philippine peso

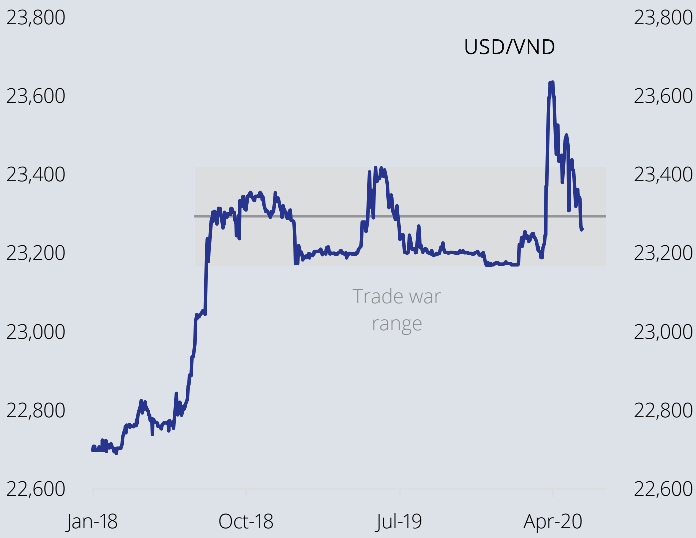


Source: Bloomberg, DBS

VND

The Vietnamese dong was notably resilient during the coronavirus selloff in March; it shed only 2% YTD against the USD, about the same as CNY. From its weakest level of 23,600 per USD, VND has returned into its 23,170-23,420 trade-war range where we expect it will remain into 2021. While Vietnam did not report negative growth in 1Q; real GDP growth did slow to 3.8% y/y. Although Vietnam appeared to have suppressed the virus in April, its recovery pace is still dependent on its major trading and investment partners. The National Assembly Standing Committee reckoned full-year growth in 2020 could be 4.4-5.2% or slower at 3.6-4.4%, depending on whether these partners contain the virus in 3Q or later in 4Q. While the country is seen as a beneficiary of renewed US-China trade tensions, there is little incentive for more currency appreciation given its negative trade performance and slowing inflation.

Figure 18: Vietnamese dong



Source: Bloomberg, DBS

Table 1: DBS currency forecasts

Exchange rates, eop							
	17 June	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Mainland China	7.1294	7.08	7.06	7.02	6.98	6.94	6.90
Hong Kong	7.7558	7.75	7.76	7.76	7.77	7.77	7.78
India	75.955	75.5	75.0	74.5	74.0	73.5	73.0
Indonesia	14,710	14,500	14,400	14,300	14,200	14,100	14,000
Malaysia	4.3625	4.30	4.28	4.26	4.24	4.22	4.20
The Philippines	50.729	51.0	51.0	50.8	50.6	50.4	50.2
Singapore	1.4249	1.40	1.39	1.38	1.37	1.36	1.35
South Korea	1237	1220	1210	1200	1190	1180	1170
Thailand	31.898	31.5	31.4	31.3	31.2	31.1	31.0
Vietnam	23,263	23,240	23,220	23,210	23,200	23,180	23,170
Australia	0.6537	0.67	0.67	0.68	0.69	0.69	0.70
Eurozone	1.0901	1.10	1.11	1.12	1.13	1.14	1.15
Japan	107.64	108	109	109	110	111	112
New Zealand	0.6094	0.62	0.63	0.63	0.64	0.64	0.65
Switzerland	0.9712	0.96	0.96	0.96	0.96	0.96	0.97
United Kingdom	1.2173	1.22	1.22	1.23	1.24	1.25	1.26

Australia, Eurozone, and United Kingdom are direct quotes.

Source: Bloomberg, DBS

Source: Unsplash

Alternatives: Gold | 3Q20

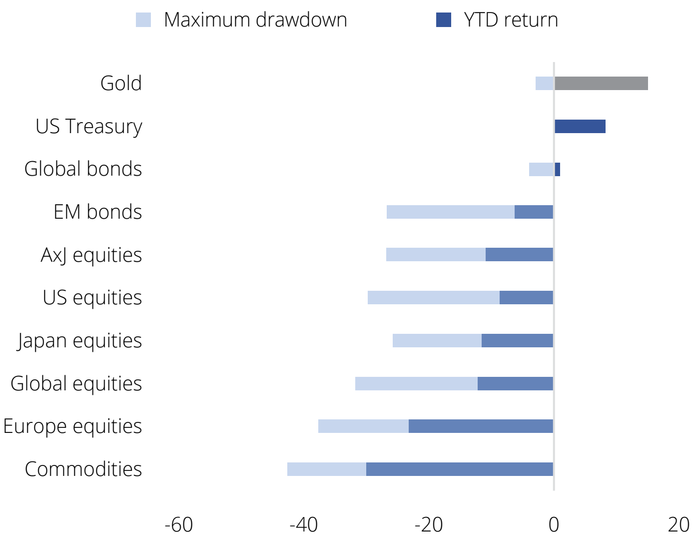
Precious hedge

Alternatives: Gold

Joanne Goh | Strategist

Gold did exactly what it was supposed to do when the markets descended into chaos at end-March, and outperformed all other asset classes including bonds since the beginning of the year.

Figure 1: Gold outperformed major asset classes with one of the least drawdown YTD



Source: Bloomberg, DBS

Gold price also experienced volatility. Gold prices dipped along with equities at end of 1Q20 when the S&P 500 Index fell into bear market territory, sliding from a high of USD1,707 an ounce on 9 March to a low of USD1,453 per ounce on 16 March.

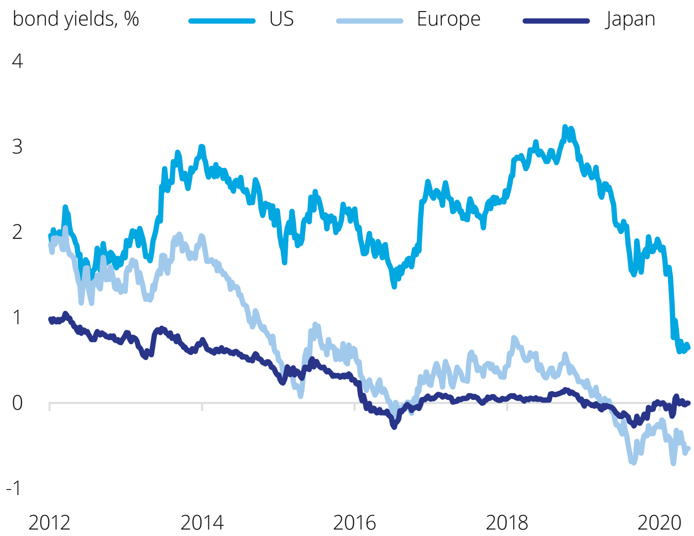
The sharp volatility also casted doubts on the effectiveness of gold as a portfolio hedge, as it can behave more like a "risk on" asset at times.

Moreover, gold prices can stay flat and go through a long basing period before making sudden and dramatic moves. Investors are also concerned the current prices maybe too high compared to the historical average.

However, we believe adding gold to the portfolio at current levels still make sense for investors wanting diversification for their portfolio, especially in this heightened state of uncertainties. **We see gold rising toward USD1,900/oz by middle of next year.**

Uncertainties abound a post-COVID world. Our base case view looked for a gradual return to close to 95% of economic activity by the end of this year as global cities slowly open, with the worst quarter being 2Q20. Yet these forecasts did not consider how a post-COVID world will look like after much dislocation. Many countries have reported a second wave of infections after their social distancing measures were lifted while Federal Reserve chairman Jerome Powell warned about lengthy and unprecedented risks to the US economy. Meanwhile, US interest rate futures suggested the US may join Europe and Japan in the negative territory.

Figure 2: US, Europe, and Japan 10-year bond yields could converge if the Fed cuts rates further



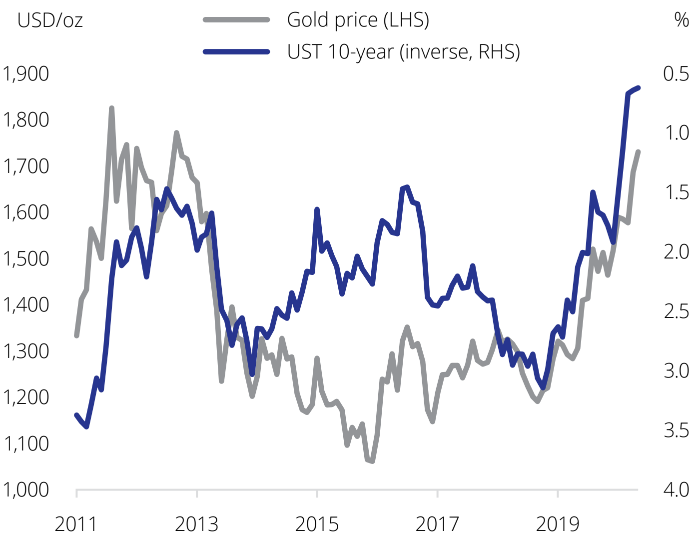
Source: Bloomberg, DBS

Drivers playing out to support further price increases. Our pricing model for gold suggests the three most important drivers for gold price are bond yields (negative correlation), the US Dollar Index (DXY) (negative correlation), and recession risk (positive correlation). **These factors have played out well except for the DXY which is still hovering around 97.**

The resilience of the DXY can be attributed to its safe-haven status and the relative higher yield against the euro and yen, which are both in negative territory. Although it is not our base case, it is both possible and probable that US yields could go into the negative category. The spread between US and Europe/Japan yields are narrowing, and Fed futures are pricing in negative interest rates by next year as markets get more nervous about the extent of the economic damage and stimulus needed. Correspondingly, the relative strength of the DXY could be challenged.

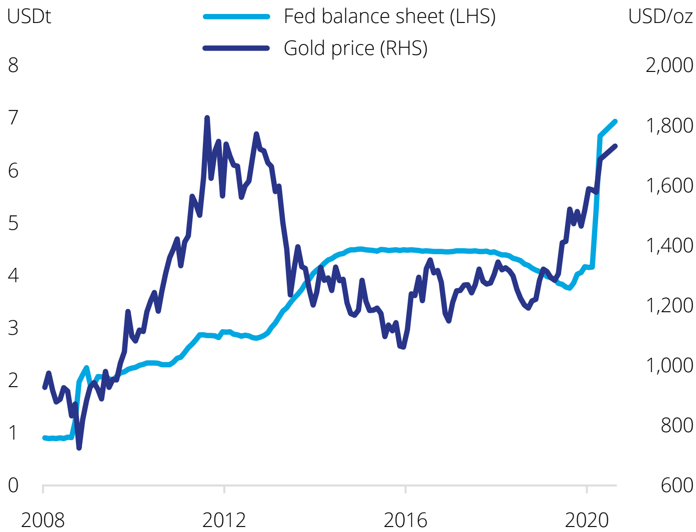
In the near term, the trajectory for gold is most likely up. Now that liquidity has appeared to be back to normal, the knock-on effect from the Fed's stimulus may be the ample liquidity that looks for a home, just like in 2008. Gold typically responds to the notion of systemic risks evolving. The unprecedented stimulus could suggest rising inflation, debt crisis, currency crisis or banking crisis in the making, which may threaten the global financial system.

Figure 3: Inverse relationship holds between gold and interest rates



Source: Bloomberg, DBS

Figure 4: Gold price could overshoot on Fed balance sheet expansion



Source: Bloomberg, DBS

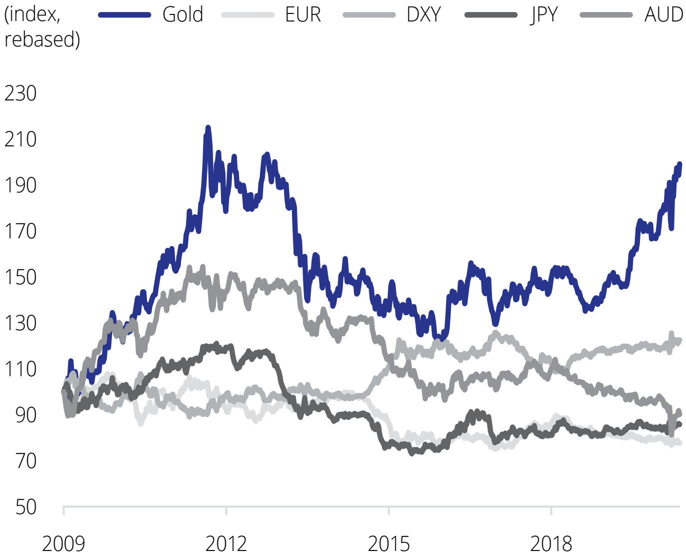
Source: Unsplash

Gold has outperformed all major currencies

Since 2009, QE, the Eurozone debt crisis, declining interest rates, and volatile commodity prices have overwhelmed forex markets from time to time. Gold, if held as a currency proxy, would have outperformed all the major currencies since then.

Now that global interest rates turning negative is becoming closer to reality, global investors could be turning to gold as a safe haven. First of all, the opportunity costs of holding gold are almost zero, and secondly fiat currencies are losing their worth as money printing by central banks seem unstoppable. Meanwhile, the supply of gold production on hand is limited at a time when central banks are expanding their gold reserves and retail investors are chasing after gold ETFs.

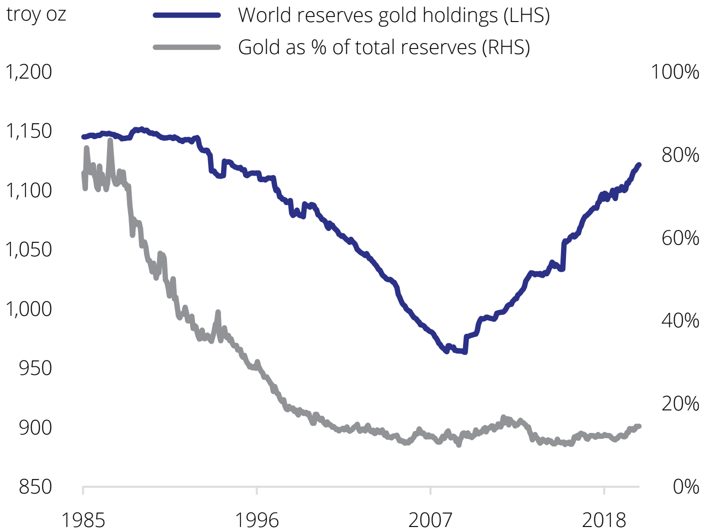
Figure 5: Gold prices have appreciated more than major currencies* since 2019



* excludes compound interest.

Source: Bloomberg, DBS

Figure 6: Central bank net purchases a steady source of new gold demand; % of reserves sees room to rise



Source: IMF, Bloomberg

Portfolio analysis supports an increased allocation to gold

Historical data shows gold acts as "risk diversifier" and protects downside when bonds and equities suffer losses. Table 1 shows how adding gold to a standard portfolio (a split of 50-50 between equities and bonds) would have affected the risk and reward across the last 30 years. It can smooth risk and return for the overall portfolio and reduce the overall losses when stocks and bonds fall sharply. The effectiveness was even more pronounced in the past five years; we believe this is due to the rising risks associated with heightened uncertainty in US policies.

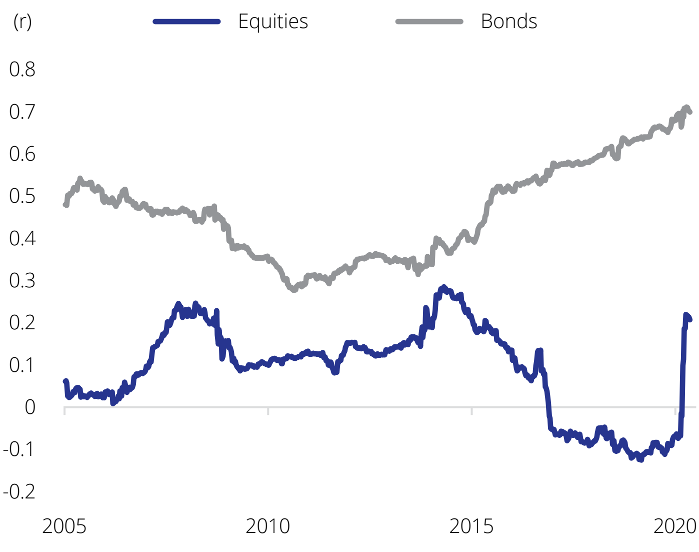
Although gold's average volatility is higher than equities on a 30-year time horizon, the low and sometimes inverse correlation between gold and equities will work in its favour when stocks fall sharply, thus reducing the risk of the overall portfolio.

Table 1: Adding gold reduces risk to the portfolio without compromising return

	50 equities/ 50 bonds	Gold	Portfolio performance with % of gold				
			0%	5%	10%	15%	20%
30-year							
Standard deviation	9.9	14.4	9.9	9.7	9.4	9.2	9.1
Average return	7.1	5.5	7.1	7.1	7.0	6.9	6.8
Maximum drawdown	-18.5	-28.3	-18.5	-17.3	-16.1	-14.9	-13.7
5-year include YTD							
Standard deviation	15.9	10.7	15.9	15.3	14.7	14.1	13.5
Average return	0.9	6.7	0.9	1.1	1.4	1.7	2.0
Maximum drawdown	-25.8	-10.4	-25.8	-23.9	-22.0	-20.1	-18.2

Source: Bloomberg, DBS

Figure 7: Correlation of gold vs stocks and bonds



Based on rolling five-year weekly returns

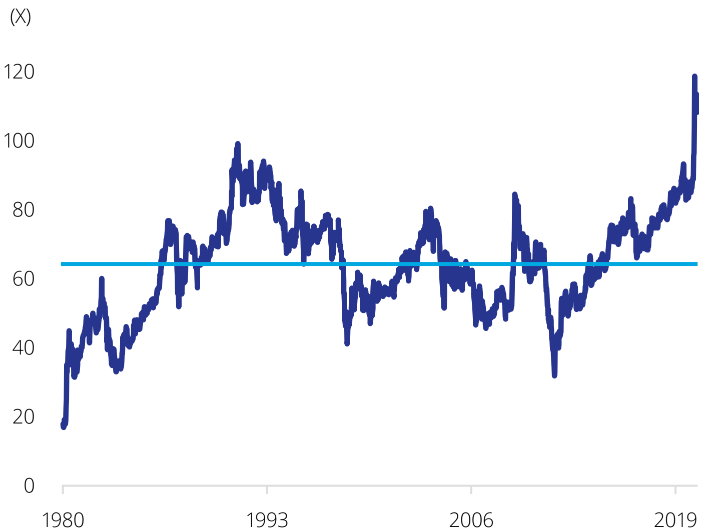
Source: Bloomberg, DBS

Silver as a beta play

Silver is undervalued vs gold. Investors looking for a higher beta play can consider silver. Gold has always been more expensive than silver due to its "preciousness". The gold/silver ratio is now at 109x, just a tad below its all-time high of 120x, vs a historical average of 65x. Although what constitutes an appropriate ratio is debatable, with the view that gold price is likely to turn higher, silver prices can go up quicker than gold prices as the ratio has room to mean-revert.

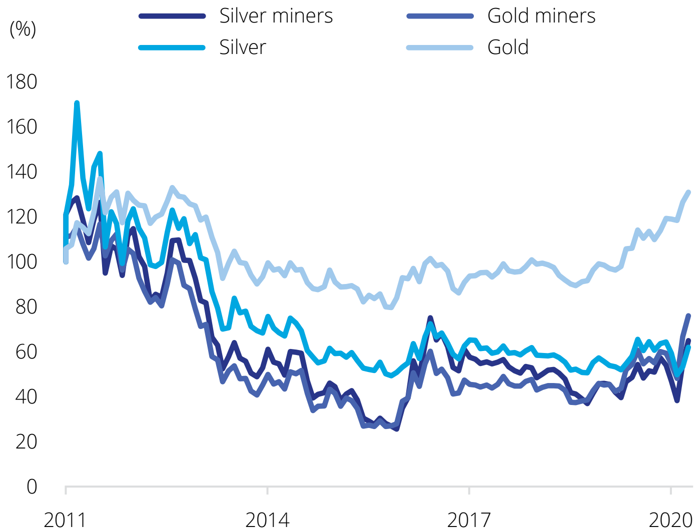
The fundamentals for silver, however, are less compelling than gold. Firstly, there is a structural surplus in silver and the situation is unlikely to ease until a new use can be discovered. Secondly, silver is considered more "industrial" than gold as 50% of its demand are from industrial usage, and hence demand should be weaker as the global economy stalls.

Figure 8: Gold/silver price ratio



Source: Bloomberg, DBS

Figure 9: Performance of gold, silver, gold miners, and silver miners



Source: Bloomberg, DBS

However, we believe there are two mitigating factors:

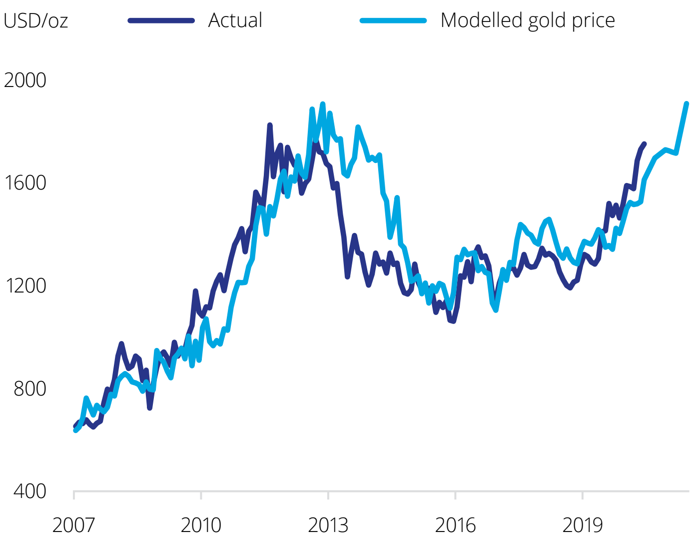
1. The weaker fundamentals are already reflected in silver's price which is 16% below its five-year high, while gold is already 34% above its five-year average.
2. Silver is a by-product of mining for other metals, including copper, lead, and zinc. According to reports, nearly all mining projects globally were halted because of the lockdowns. Near-term supply squeeze could tilt the supply balance while investment demand remains robust.

Miners as a leverage play on gold and silver.

Clearly, miners of gold and silver will benefit as these precious metal prices go up, at the same time they are "leveraged" plays. Gold is by far the largest of the precious metals in terms of mined metal value, combined market capitalisation, and number of listed companies. Many gold producers have repaired their balance sheets, cut costs, and are now more focused on profitable production. Production costs can further improve with lower oil prices and cheaper domestic currencies as tailwinds. According to Bloomberg estimates, a gold price move from USD1,600 to USD1,800 per ounce can translate to an additional near 40% increase in free cashflow, on average, for the seniors and mid-tier miners.

The NYSE Arca Gold Miners Index (GDM) has risen by 19%, outperforming the gold price's 14% rally this year. Indeed, as a leveraged play, it has outperformed the gold price at every gold price rally. Investor demand is derived from fund managers who cannot invest directly in commodities.

Figure 10: Gold price model



Source: DBS

Modelling gold price

There are many factors affecting gold prices but we believe the long-term trend should be positive as persistent, stable demand from central banks and pension funds is very much in place. Primarily, our model for gold prices suggests its sensitivity to the movements of bond yields (negative correlation), DXY (negative correlation), and the probability of recession (positive correlation). Our base case calls for a recovery in the global economy and that any second virus wave will be contained. Under this scenario, USD could underperform EUR modestly as Fed's balance sheet expansion has outpaced that of the ECB. US bond yields could normalise towards 1% given limited scope for rate cuts.

Table 2: Gold price forecast (USD/oz)

	3Q20	4Q20	1Q21	2Q21
Gold price forecast (USD/oz, period end)	1,697	1,729	1,716	1,908
High	1,849	1,886	1,879	2,089
Low	1,569	1,597	1,579	1,756
Assumptions based on consensus forecasts:				
DXY Index	97.75	97.00	96.70	95.35
Bond yield (%)	0.84	0.94	1.05	1.14
Recession probability (%)	35	24	18	19
Silver price forecast (USD/oz)	19.5	20.3	19.7	22.4
Assumption:				
XAU/XAG ratio	87	85	87	85

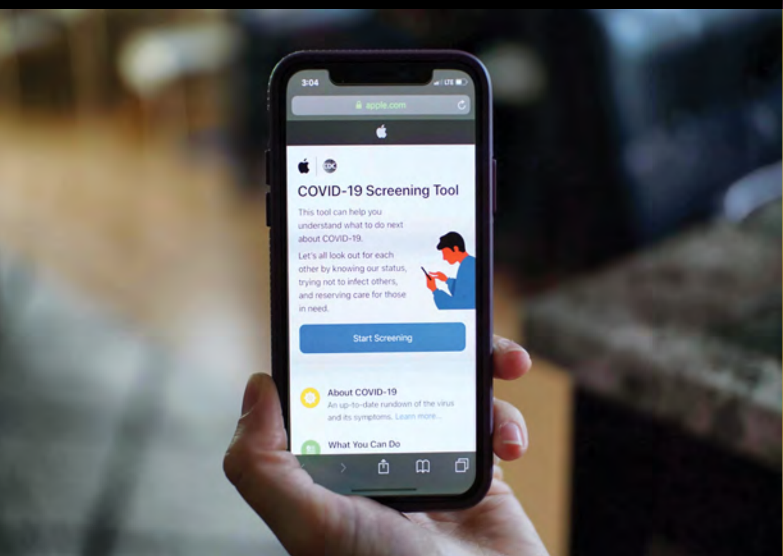
Source: DBS

DBS

Live more,
Bank less

Thematic Strategy | 3Q20

Beyond Pandemic



Source: Unsplash

Theme I: Beyond Pandemic

Dylan Cheang | Strategist
Benjamin Goh | Analyst

The COVID-19 crisis is the largest pandemic that the world has seen since the Spanish Flu of 1918. By May, there were more than 5.5m cases reported in 188 countries and the death toll has exceeded 340,000. In a bid to contain the crisis, many countries around the world imposed economic lockdowns, travel restrictions, and various social distancing measures.

These measures came at a price. While helping to prevent the rapid spread of the virus, they also inevitably led to the closure of businesses that triggered widespread unemployment. In the US, for instance, the unemployment rate surged from 2.5% in December 2019 – the lowest in 50 years – to 14.7% in April 2020, the highest ever in history. Retails sales similarly nose-dived as people stayed home instead of going out.

Faced with unprecedented hardship and challenges, companies needed to evolve to survive. Retail businesses, particularly those in the F&B industry, started to focus on online sales as consumers avoided "face-to-face" interactions and did their purchasing on the web instead. Equally, employees were encouraged to work from home in order to avoid potential workplace infection.

The pandemic has single-handedly changed the way humans work, interact, and live their lives. The structural implications on business processes will be substantial in the coming years.

So, what's next? Five major post-pandemic trends. As consumers and companies adapt to the "new normal", we believe there are five major trends that will take hold in the post-pandemic world and they are:

1. Diversification of supply chains
2. The rise of alternative meat
3. WFH – the new normal
4. Accentuation of e-Commerce
5. e-Sports – the new alternative

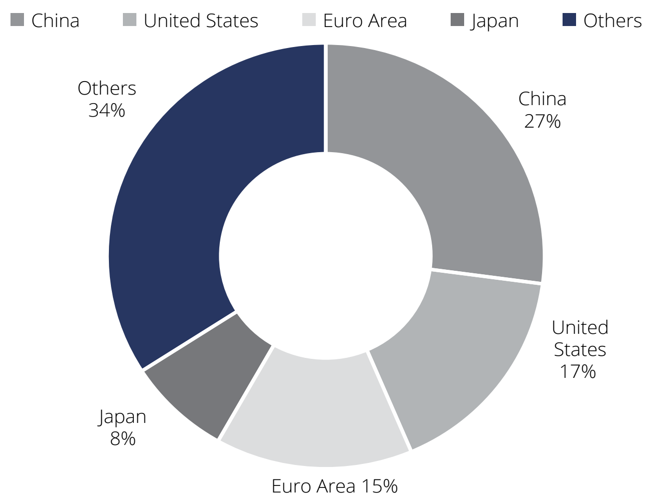
Trend 1: Diversification of supply chains

The global supply chain is the lifeblood of the global economy. In the past decades, companies have been pursuing supply chain optimisation to reduce cost and maximise efficiency. China was the destination of choice for companies looking to set up manufacturing operations given its low labour cost, moderate tax rate, and strong business ecosystem. Today, China accounts for 27% of the global manufacturing output, far superseding the United States and Japan (Figure 1).

<u>Pandemic impact</u>: Risk of over-concentration in supply chain exposed. The black swan event of COVID-19 exposed the vulnerabilities that companies with high dependence on China faced for their manufacturing needs. The "just-in-time" production model, which limits the volume of stocks held in inventory, has been adopted by many of these companies.

As factories undergo shutdowns across China, the knock-on effect on manufacturing supply chains has been enormous. Automakers like Hyundai and Nissan had to close their production lines while Apple acknowledged that its iPhone

Figure 1: China accounts for 27% of global manufacturing output



Source: The World Bank
*as of 2017

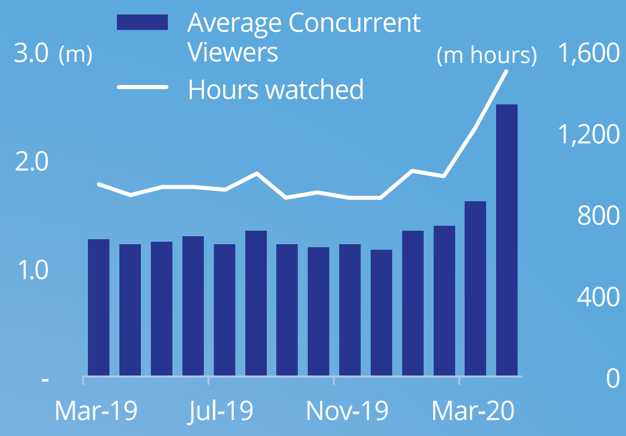
74% of companies plan to shift permanently to more remote work post COVID-19

Main beneficiaries:

Video Conferencing & Collaboration Applications

Cloud Computing

Average Concurrent Viewers on Twitch



e-Sports will be an important complement to traditional sports in future

"WFH"

e-Sports

e-Commerce

Beyond Pandemic

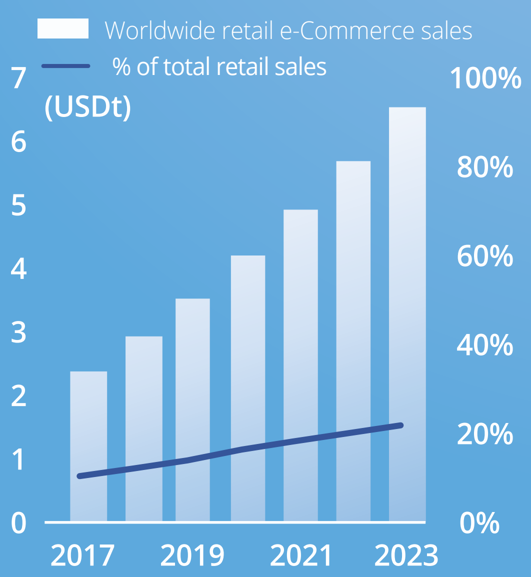
Alternative Meat

Major "Offline" to "Online" Shift

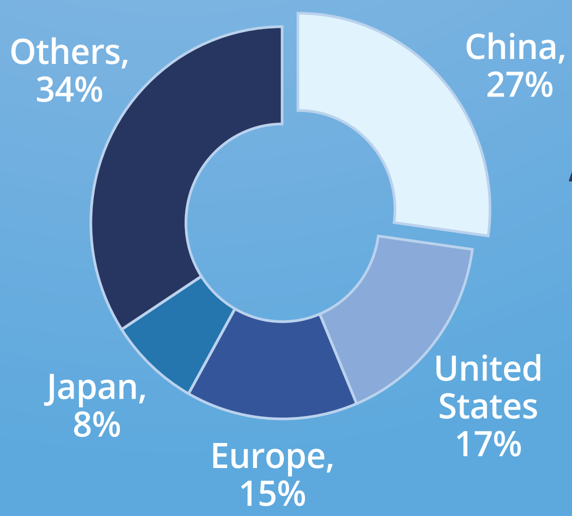
Supply Chain Diversification

Plant-based meat market expected to hit c.USD100b in 15 years

Worldwide Retail e-Commerce Sales

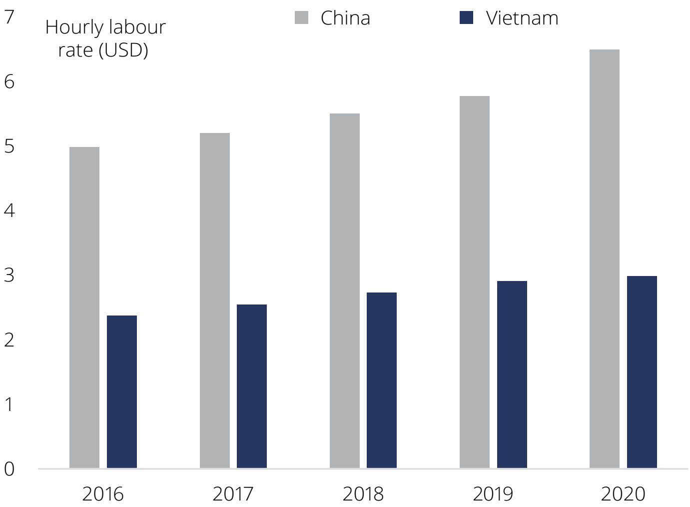


Global Manufacturing Output



China will remain "World's Factory"; Not easy to replicate ecosystems overnight operations will be affected. The disruptions have since sparked a major rethink among companies if their heavy reliance on China for manufacturing is viable in the long run. Or is it time to diversify their supply chains to other countries such as Vietnam (Figure 2)?

Figure 2: Lower labour cost makes Vietnam an attractive alternative



Source: IHS Markit

Strategic diversification of industries on the cards? Post-pandemic, governments may encourage their domestic companies to diversify manufacturing operations either via subsidies or through the imposition of tariffs. This is particularly so for companies involved in the following strategic industries:

1. Technology: The global technology supply chain which US companies rely on has come under close scrutiny by the Trump Administration. This is not surprising. Apart from jobs creation, there are also strategic considerations on why the government wants high-end tech operations to be based domestically in the US.

   So far, the push for companies to relocate their supply chain back to the US appears to be gaining some traction. For instance, one of Apple's biggest suppliers, TMSC, has recently announced plans to build a semiconductor plant in Arizona.

2. Health Care: China is the second largest exporter of drugs and biologics (drugs from natural sources) to the US and about 80% of the Active Pharmaceutical Ingredients come from China and India. Although the current disruptions have yet to cause any major drug shortages (and this is mainly due to pharmaceutical companies maintaining eight to 10 months of inventories), it has nonetheless renewed calls to bring production back to the US and Europe.

3. Food: With food shortages grabbing headlines once again during the pandemic, this will compel countries to pursue self-reliance on their food supply. A recent report by the UN's Food and Agriculture Organization touched on how a protracted pandemic could put a strain on the global food supply chain.

   The report concluded that countries need to build up alternative food sources to reduce food security risk. This includes enacting policies that will protect domestic farmers' food production, making sure there is enough stockpiles of staple commodities and creating a favourable environment for food trade with other countries.

China will remain as the "World's Factory"; not easy to replicate a new ecosystem overnight. In reality, companies relocating their operations away from China is nothing new. The trend has been ongoing for a few years, given the US-China trade tensions and rising labour cost in the country. However, in a survey conducted by the American Chamber of Commerce in China, 70% of the companies surveyed said they had no plans to relocate their supply chain operations away from China as a result of the pandemic. The survey result drove home two crucial points:

1. The strong ecosystem in China, especially in the Technology space, is not easily replicated elsewhere.

2. Companies that want to move out of China have more or less already done so. Those that remained belong to one of the two groups:

   - Companies that require highly skilled labour, infrastructure, and raw materials that are not available elsewhere.
   - Companies that want to maintain a strong presence in China to cater to its large domestic market.

"China+" strategy a more likely outcome. So, while companies may diversify their operations away from China post-pandemic, the shift is likely be marginal. China will remain as the most important manufacturer in the world given that the supply chain ecosystem is already highly entrenched and cannot be replaced overnight.

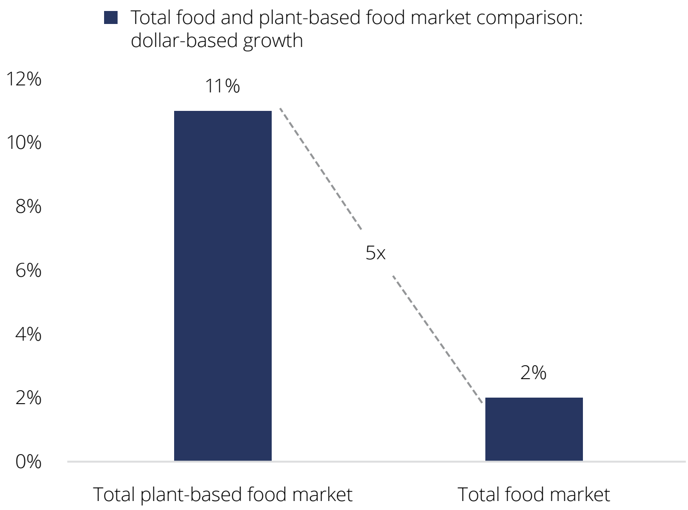
A more likely scenario, in our view, is for companies to diversify parts of their operations to other countries while maintaining the bulk in China. Geared beneficiaries of this trend include countries in ASEAN and Eastern Europe.

Trend 2: The rise of alternative meat

Plant-based meat is not new. It has been in the market for a long time. But tastewise, such plant-based meat has generally been subpar – nowhere close to actual meat. Furthermore, the target segment back then was primarily consumers who had already committed to avoid eating meat.

But times have changed. With better research and development, the new entrants have hit the right formula. Today, the plant-based meat tastes and smells like actual meat. With an improved product, not surprisingly, these companies are upping the ante and taking the game one step further: targeting meat eaters instead of vegetarians.

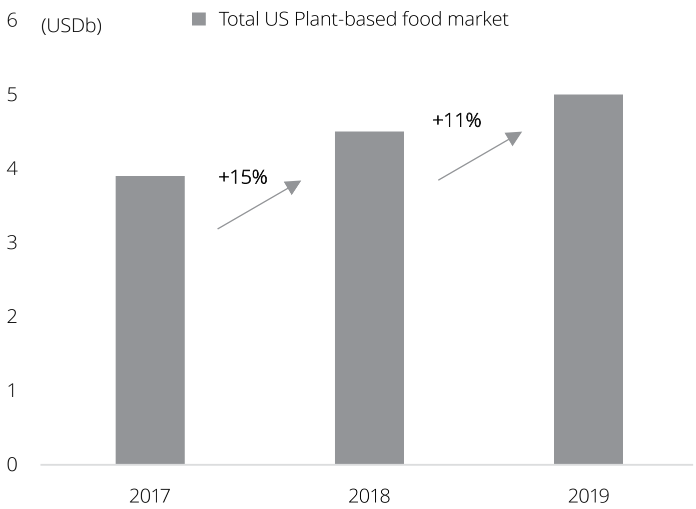
Figure 3: Plant-based food market grew five times faster than total food sales over the past year



Source: GFI

Factors fuelling the rise of alternative meat. Meat has traditionally been a staple for affluent consumers, particularly those in developed economies. But times are changing. Today, consumers are increasingly switching to a plant-based meat (alternative meat) diet. In the US, for instance, the plant-based food market has grown five times faster than the total food market last year (Figure 3), racking up retail sales of USD5b in 2019 (+11% y/y) (Figure 4).

Figure 4: US retail sales of plant-based food is worth USD5b



Source: GFI

Source: Unsplash

We believe the robust growth in the demand for alternative meat can be attributed to the following factors:

1. Environment and sustainability: According to a water education study conducted by UNESCO-IHE Institute for Water Education, vegetables require c.322 litres of water per kilogramme. Beef, on the other hand, requires an enormous c.15,415 litres of water per kilogramme and this is c.47x more than the requirements of vegetables (Figure 5). Livestock takes up nearly 80% of global agricultural land, contributes 75% of greenhouse gases from food, yet it only produces less than 20% of the world's supply of calories and this underlines the sustainability challenges the world faces in coming years if there is no change in human's dietary requirement (Figure 6).

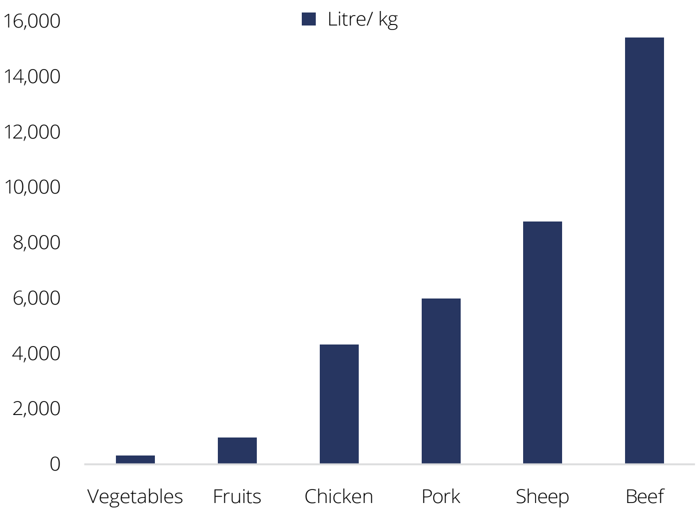
   But change is coming. Two prominent alternative meat companies, Impossible Food and Beyond Meat, claim that their meat production processes have less environmental impact than traditional meat production. Their assertions have since been validated by separate third parties:

   - Quantis, a third-party sustainability consulting firm, said that the "Impossible Burger 2.0" (by Impossible Food) uses 87% less water, 96% less land, as well as reduces water contamination by 92% compared to the production of traditional beef patties.

   - The University of Michigan's Centre for Sustainable Systems found that the Beyond Burger patty (by Beyond Meat) produced 90% less greenhouse gas emissions, required 46% less energy and 93% less impact on land use.

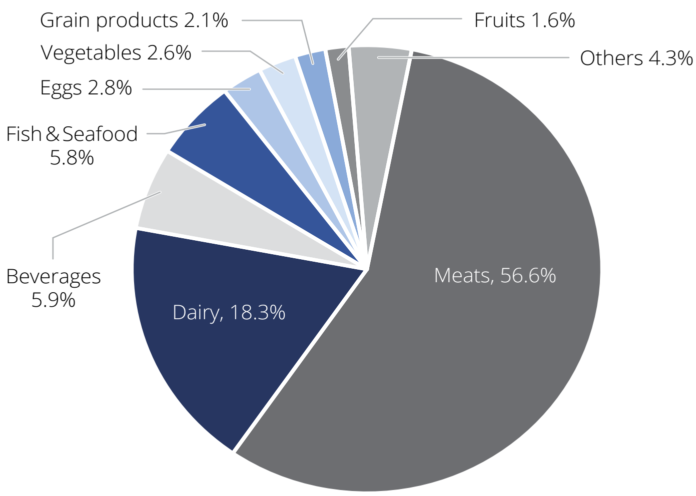
2. Health: Studies show that frequent consumption of red and processed meats will increase health-related risks, such as heart disease, cancer, and diabetes. Hence for consumers who crave the taste of meat, but are concerned about health issues, plant-based meat will be a viable alternative given that it does not contain growth hormones or antibiotics that are usually fed to cows.

Figure 5: Water footprint of selected animal and food crops



Source: UNESCO-IHE Institute for Water Education

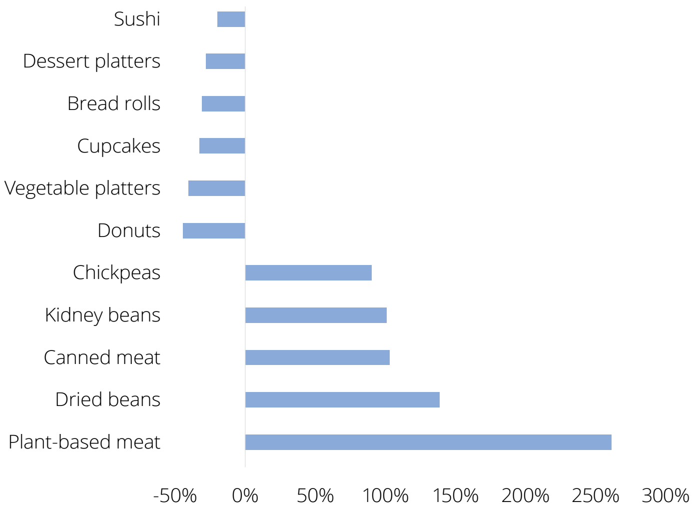
Figure 6: Greenhouse gases contribution by food type in average diet



Source: University of Michigan, Centre for sustainable systems

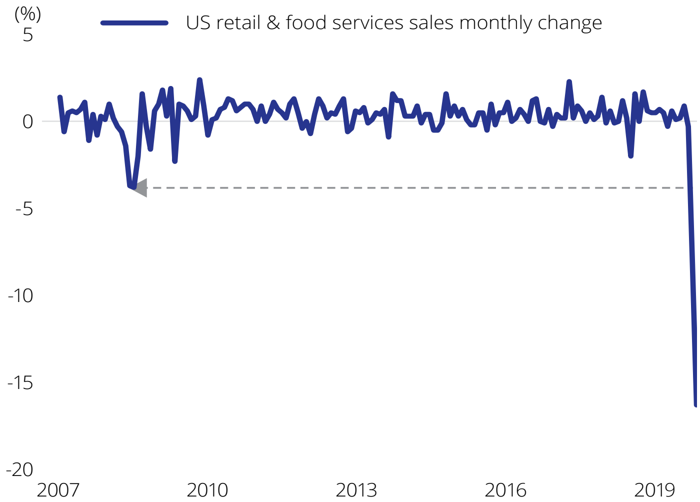
<u>Pandemic Impact</u>: Risk of variety shortage in food sources exposed. With the closure of slaughterhouses during the COVID-19 crisis, plant-based food sales surged as Americans scrambled to look for meat substitutes. According to Nielson, US sales of plant-based meat substitutes jumped over 200% in the week ended 18 April (compared to the same period last year) (Figure 7). Notably, these gains came despite overall spending in retail and food services plummeting to its lowest level since 2008 (Figure 8). This signals that consumers are increasingly accepting plant-based meat as a viable alternative.

Figure 7: Americans boost plant-based meat purchases over 200% during lockdown



Source: Nielson, Bloomberg, DBS

Figure 8: Retail and food services demand in the US has nose-dived during the crisis



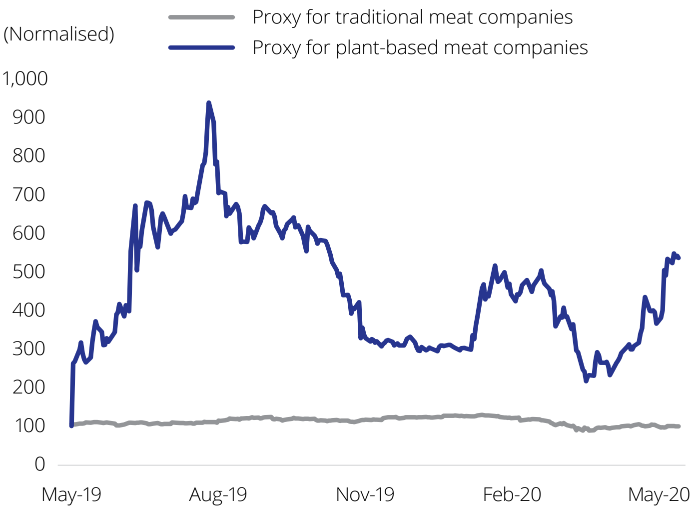
Source: US Census Bureau, Bloomberg, DBS

Going with the flow; traditional meat companies re-inventing themselves to keep up with changing times. Changing times call for changing strategies. To keep up with evolving consumer tastes, incumbent meat companies are also revamping their operations and investing in the alternative meat space to stay relevant.

One of the biggest meat producers in the US, Tyson Foods, has been investing in the alternate meat space over the years. It started with Beyond Meat in 2016, followed by Memphis Meats, and Future Meat Technologies in 2018. Last year, the company announced that they will be launching their own plant-based meat brand known as "Raised and Rooted". Separately, Kellogg's has also jumped onto the bandwagon, launching "Incogmeato", while Nestle is bringing out "Awesome Burger".

Promising outlook: this industry can only get bigger. Based on estimates by JPMorgan, the total addressable market of the plant-based meat market would reach USD100b in 15 years. Given changing dietary trends of global consumers and rising awareness of environmental issues, we believe that the market for alternative meat will only get bigger in the coming years.

Figure 9: Plant-based meat companies have substantially outperformed traditional meat companies



Source: Bloomberg, DBS
Note: Proxy for Plant-based meat companies consist of Beyond Meat. Proxy for traditional meat companies consist of Kellogg's and Tyson Foods

Trend 3: WFH – the new normal

Pre-COVID 19, the concept of WFH was already present, albeit with much lower adoption rate. According to Global Workplace Analytics, only c.4% of the US workforce practise "WFH" half the time or more, even though surveys show that 80% of employees prefer to work from home on occasion. In fact, more than a third are willing to take a pay cut for that option.

But unsurprisingly, their wishes were not granted.

Conservatism and cost control – reasons behind why WFH failed to take off globally. The idea of working from home for employees has never really taken off and moved beyond the conceptual stage. Barring some industries where freelance work is commonplace, requiring workers to report for work in an office environment is still the preferred practice. The apparent fixation of employers having "face time" from their workers can be attributed to the following factors:

- Productivity concerns: The biggest concern employers have about WFH is productivity and output. And this is not surprising. The common train of thought among employers is that the employees' work rate will falter if they are not under the watchful eyes of supervisors, leading to an overall drop in productivity.

- Cost concerns: WFH comes with a cost. It entails equipping employees with portable technology equipment so that they can function as effectively from home. However, not many companies are willing to incur these extra costs.

Pandemic impact: The forced adoption of WFH practice has led to surprising outcomes. With workplace closures, companies around the world scrambled to get the necessary technology infrastructure in place for employees to work from home. According to Boston Consulting Group, up to 300m office workers were working from home in March this year, a massive and unprecedented number.

The results, however, have been surprisingly positive. Based on the feedback of major banks and technology companies, WFH has proved to be feasible and these companies said they will continue to adopt this practice beyond the pandemic (see Table 1). Academic research has drawn the same conclusion. A study by Stanford University in 2015 shows that work productivity actually increased by 13% when employees worked from home.

Working from home becoming the new normal; win-win outcome for both employers and employees. A recent survey by Gartner shows that 74% of companies planned to shift permanently to more "remote work" post-pandemic (Figure 10). Closer to home in Asia, 90% of Singaporeans surveyed wish to continue working from home after the pandemic (Figure 11). The benefits of adopting WFH are two-fold:

- For employees, WFH provides greater work-life flexibility and job satisfaction

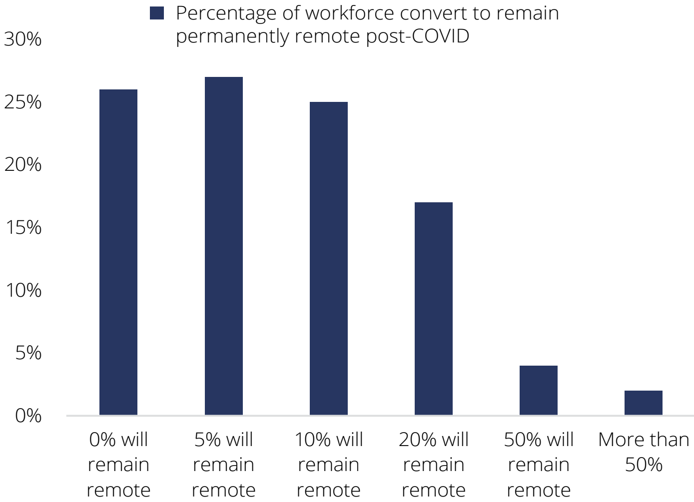
- For employers, WFH can result in cost savings for office rental

Table 1: Companies with positive WFH experiences

Company	Views on WFH
Standard Chartered	After this crisis is over, we may have to rethink our work-from-home practices. The experience so far has been rather good. It may be that going forward you don't need to have 100% of the people in the office, 100% of the time.
Morgan Stanley	We've proven we can operate with no footprint. Can I see a future where part of every week, certainly part of every month, a lot of our employees will be at home? Absolutely.
Twitter	The past few months have proven we can make that work. So, if our employees are in a role and situation that enables them to work from home and they want to continue to do so forever, we will make that happen.
Facebook	It's clear that COVID-19 has changed a lot about our lives, and that certainly includes the way that most of us work. Coming out of this period, I expect that remote work is going to be a growing trend as well.

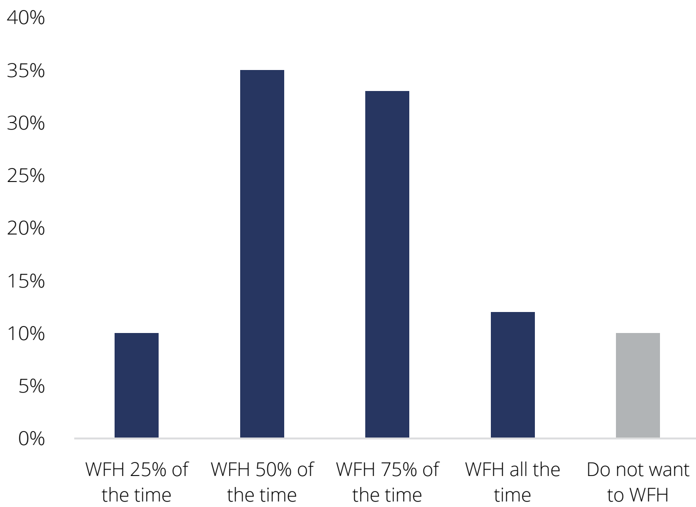
Source: Bloomberg, Twitter, NY Times

Figure 10: 74% of companies plan to permanently shift to more remote work post COVID-19



Source: Gartner

Figure 11: 90% of surveyed Singaporeans wish to continue WFH



Source: Engagerocket, SHRI

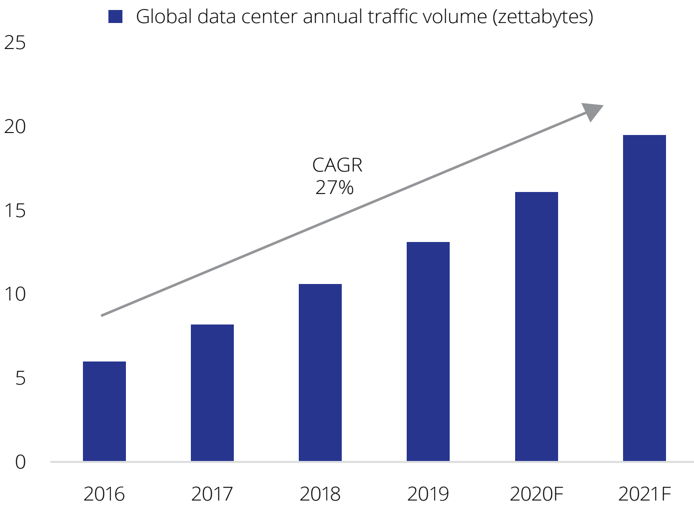
Beneficiaries of WFH trend: Technology companies. The shift to working from home would require a whole host of hardware, software, and services to be made available to employees. As this trend continues to grow, we expect the following industries to be geared beneficiaries:

- **Cloud Computing:** As previously highlighted in our "Cloud Computing" theme in 3Q19's CIO Insights, the global traffic flow for data is anticipated to undergo phenomenal growth in the years ahead (Figure 12) and this will drive the demand for reliable cloud services. The industry has been growing at a spectacular pace, with global public cloud services revenue surging from USD110b in 2012 to USD214b in 2019 (Figure 13).

  In an era where companies are looking to improve accessibility as well as enhance workers' productivity, the shift to cloud is inevitable. Take Alibaba for instance. The company has just announced in April that it will invest USD28b on cloud infrastructure over three years.

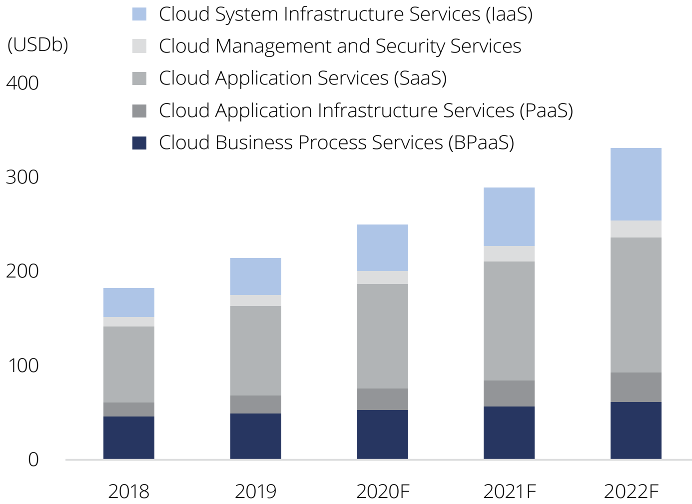
  Meanwhile, the pandemic is also providing tailwinds for the industry. Based on estimates by research firm MarketsandMarkets, the COVID-19 crisis will drive the growth of public cloud demand from USD233b in 2019 to USD295b in 2021, constituting a CAGR of 12.5%.

Figure 12: Global traffic flow at data centres is projected to increase



Source: Cisco

Figure 13: Worldwide public cloud service revenue forecast



Source: Gartner

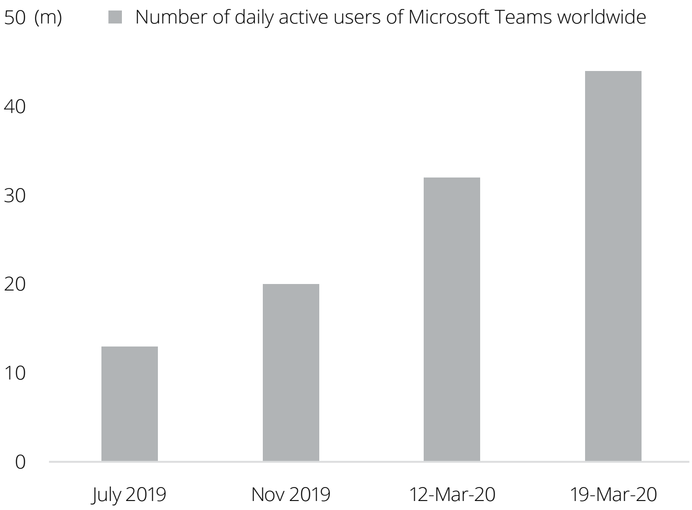
- **<u>Video conferencing and collaboration applications</u>:** If cloud companies are the ones that provide the rails, companies that provide workplace collaboration, communications, and other remote working applications would be the carriages running on those rails. Collaboration applications like Zoom, Slack, and Microsoft Teams have already been popular in the past. But their growth has skyrocketed during the recent lockdowns.

  Microsoft Teams, for instance, reported 44m daily active users on 19 March and this is 12m more than the prior week (Figure 14). In China, enterprise collaboration application downloads have also spiked considerably. According to TechCrunch, for the period 22 January till 20 February, the year-on-year download growth for the following apps are (Figure 15):

  - Alibaba's DingTalk: 1,446%
  - ByteDance's Lark: 6,085%
  - Tencent's WeChat Work: 572%

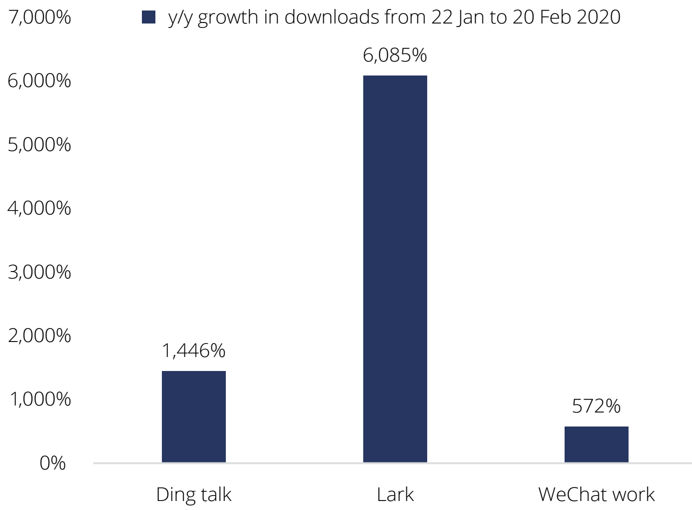
  Make no mistake, video conferencing can never be as effective as face-to-face meetings. It lacks the human touch. But in a post-pandemic world where social distancing measures will likely remain in place, these remote working applications will be a viable alternative.

Figure 14: Number of daily active users of Microsoft Teams worldwide



Source: Microsoft

Figure 15: Main players of China's nationwide WFH practice



Source: Sensor Tower

Source: Unsplash

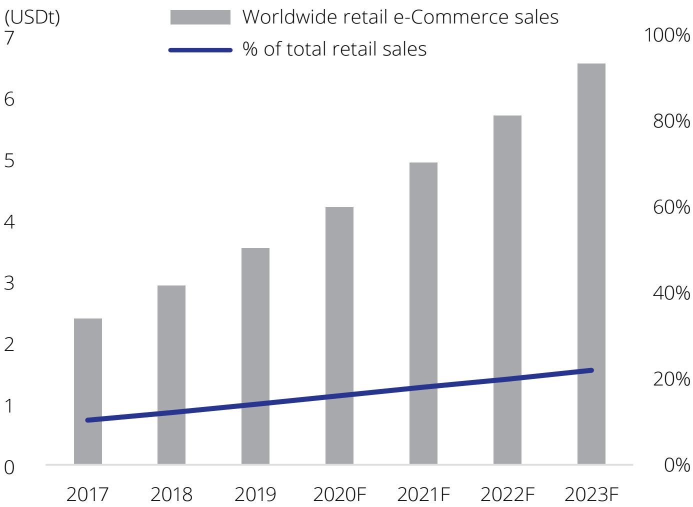
Trend 4: Accentuation of e-Commerce

e-Commerce, a short form for "electronic commerce", refers to any business transaction conducted online. One of the first e-Commerce sites in the world was Amazon, launched in 1995 as an online bookstore. Since then, many more e-Commerce sites have popped up globally, offering a plethora of goods and services.

The global retail market was estimated to top USD25t in 2019 and e-Commerce made up 21% of it (Figure 16). Six of the top 10 fastest e-Commerce countries hailed from the Asia-Pacific region, making it the fastest growing region in sales (Figure 17).

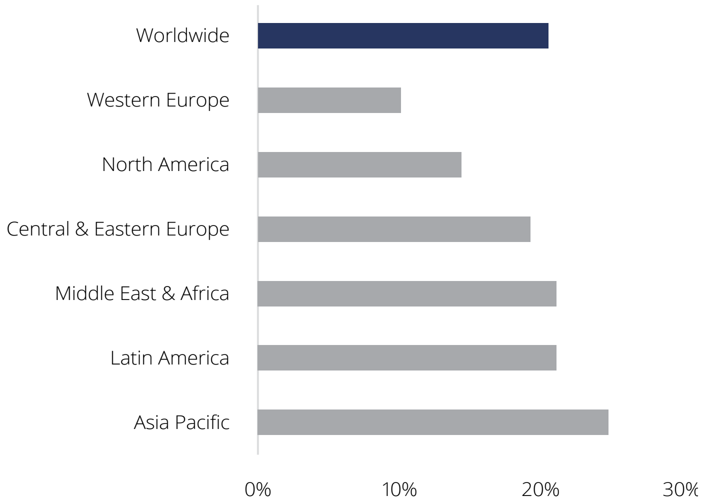
The astronomical growth of this sector has disrupted brick-and-mortar retailers who fail to adapt to changing times. And the diverging fortunes of these segments is well manifested in Figure 18, which shows the vast outperformance of the S&P 500 Internet Retail Index over the S&P 500 Department Stores Index.

Figure 16: Worldwide retail e-Commerce sales expected to reach USD6.5t by 2023



Source: eMarketer

Figure 17: Worldwide retail e-Commerce sales growth, by region (% change)



Source: eMarketer

<u>Pandemic impact</u>: The major "offline" to "online" shift. Shopping in physical malls was no longer an option during the pandemic as consumers stayed home to avoid infection. Data from Google Mobility Trends show that movement in retail and recreational areas has undergone drastic decline during the crisis (Figure 19). Now, even as countries gradually re-open, the footfall in retail malls will unlikely see significant improvement given that stringent social distancing measures are expected to remain in place.

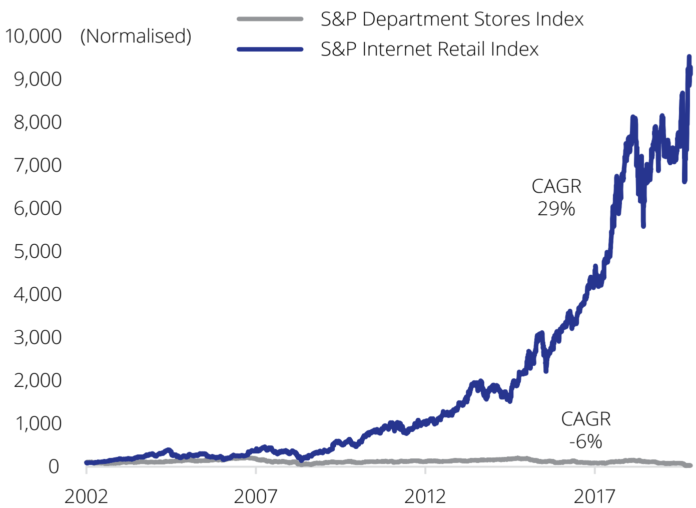
e-Commerce: the evolution from "need" to "necessity". In the past, having online shopping apps was a "good to have". Today, these apps have become "must haves" and this is evident from the following data:

- According to QuantumMetric, US retailers' online revenue has grown 68% y/y (year-to-date, as of mid-April).
- Salesforce's Global Shopping Index shows digital shoppers driving 20% revenue growth in 1Q20, as compared to 12% in 1Q19.

On the other hand, the traditional departmental stores are increasing facing bankruptcies, for instance:

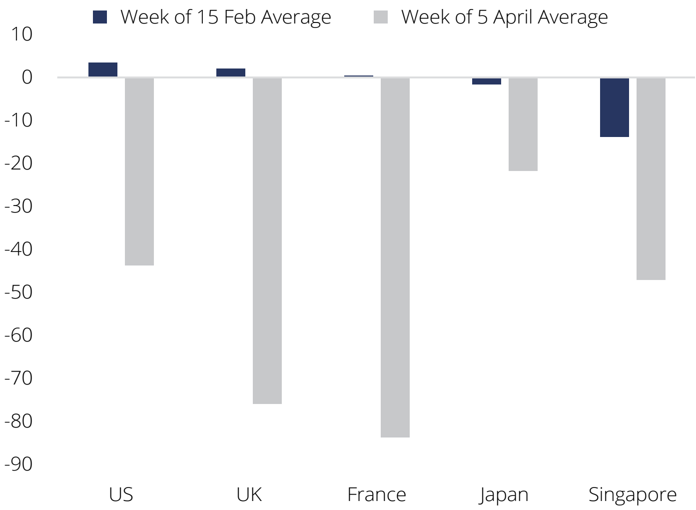
- On 4 May, US retailer J.Crew with 13,000 employees across 500 locations filed for Chapter 11.
- On 7 May, Neiman Marcus, with roughly 13,000 employees across 68 stores, said it was entering Chapter 11.
- On 15 May, J.C. Penny permanently closed nearly 30% of its 846 stores and there are plans to shut another 192 stores by February 2021 and another 50 in 2022 as it filed for bankruptcy reorganisation.

Figure 18: S&P Internet Retail Index substantially outperformed the Department Stores Index



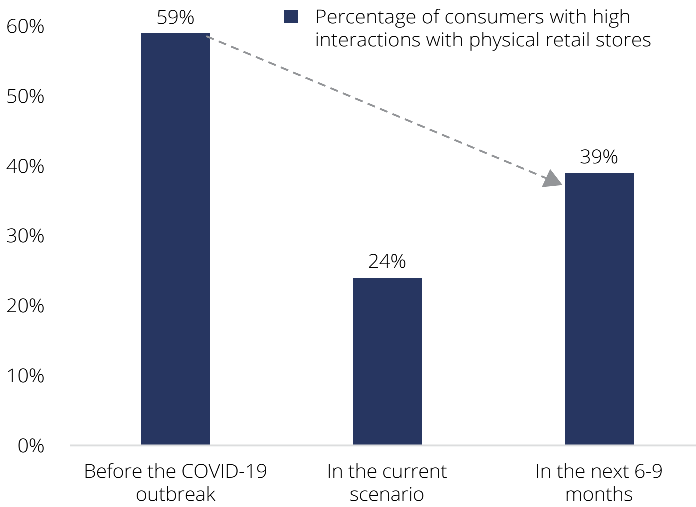
Source: Bloomberg

Figure 19: Sharp drop in Retail and Recreation from baseline in select countries



Source: Google

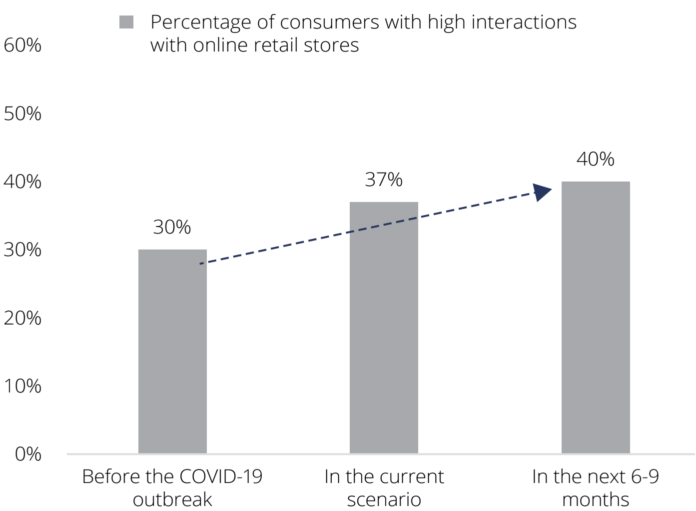
Figure 20: Falling appetite for shopping at physical stores



Source: Capgemini

We believe that retailers with a successful online presence will recover much more quickly from the pandemic as compared to brick-and-mortar stores. And indeed, even as stringent social distancing measures and lockdowns are gradually lifted, research from Capgemini shows that only 24% of consumers expect to have high interactions with physical stores in the next six to nine months (vs 59% pre-outbreak) (Figure 20). On the other hand, 40% see themselves having high interactions with online channels, up from 30% pre-outbreak. This trend is expected to persist as more consumers are exposed to the convenience of online shopping (Figure 21).

Figure 21: Rising appetite for online retail therapy



Source: Capgemini

Source: Unsplash

Source: Unsplash

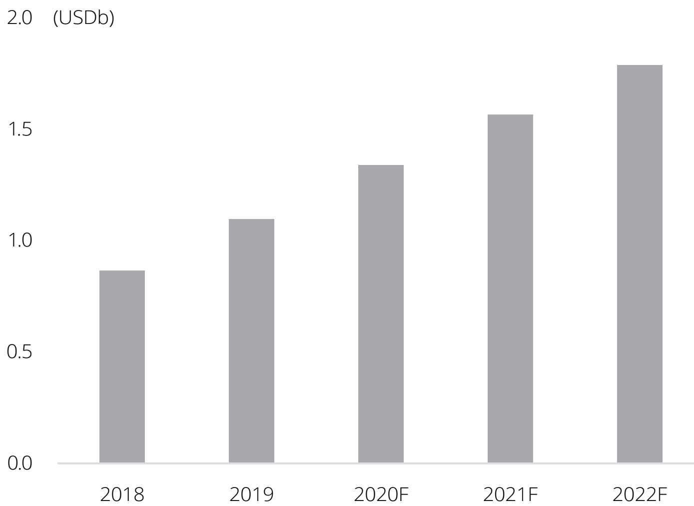
Trend 5: e-Sports – the new alternative

e-Sports, short for “electronic sports”, refers to multiplayer video games played competitively by professional gamers. Previously, it was mainly amateurs who participated in such competitions. Today, e-Sports has seen exponential growth in popularity with the onslaught of live streaming and is now widely perceived as a professional sport.

Riding on the breakthroughs in Internet speed and connectivity, e-Sports has become a global phenomenon generating massive interest from fans, professional players, and game developers. In particular, it is gaining traction among the younger generation. Top teams and gaming personalities garner huge followings on the Internet and unsurprisingly, companies are starting to take notice.

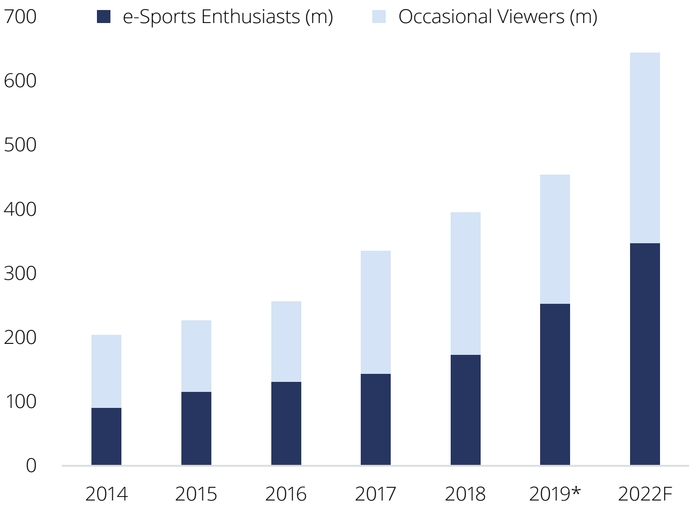
e-Sports is on track to overtake major traditional sports in the coming years. Based on data from Newzoo, the size of the global e-Sports market was USD1.1b in 2019 and it is expected to grow at 9% CAGR to hit USD1.79b by 2022 (Figure 22). They also estimated overall eSports audience size to teach 645m by 2022 (Figure 23) ***.

Figure 22: Size of global e-Sports market



Source: Newzoo

Figure 23: Global e-Sports audience growth

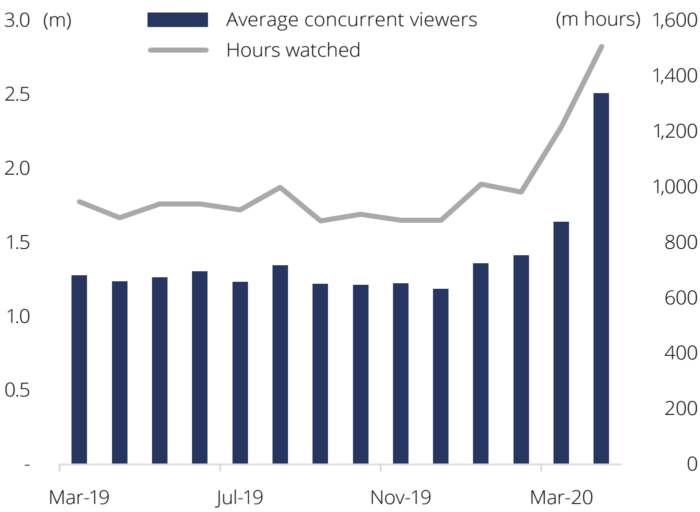


Source: Newzoo
* forecasts

__Pandemic impact:__ **Virtual gaming replacing traditional sports.** The pandemic has led to the stoppage of traditional sporting events and the Japan 2020 Summer Olympics is one such casualty. With mandatory "stay-home" notices imposed upon societies, consumers began the search for alternatives and one such beneficiary is e-Sports. The recent trends are telling:

- Viewership on Twitch, one of the biggest streaming platforms, is up 53% in April with a total of 1.5b hours of content consumed (Figure 24).

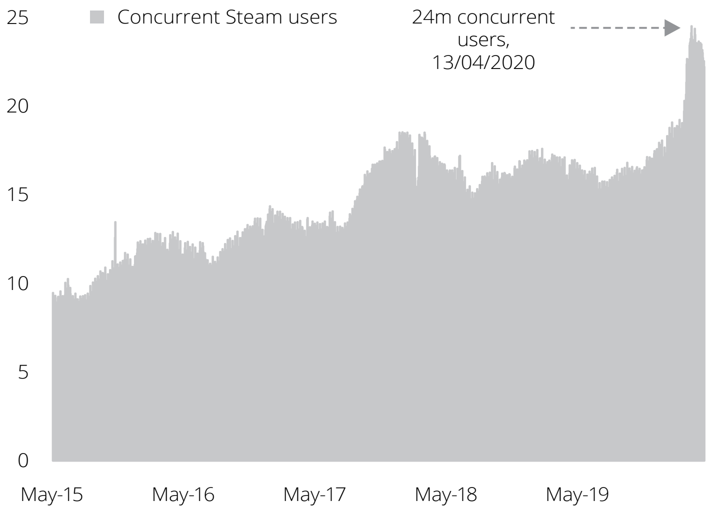
Figure 24: Sharp spike in Twitch viewership since the outbreak



Source: Newzoo

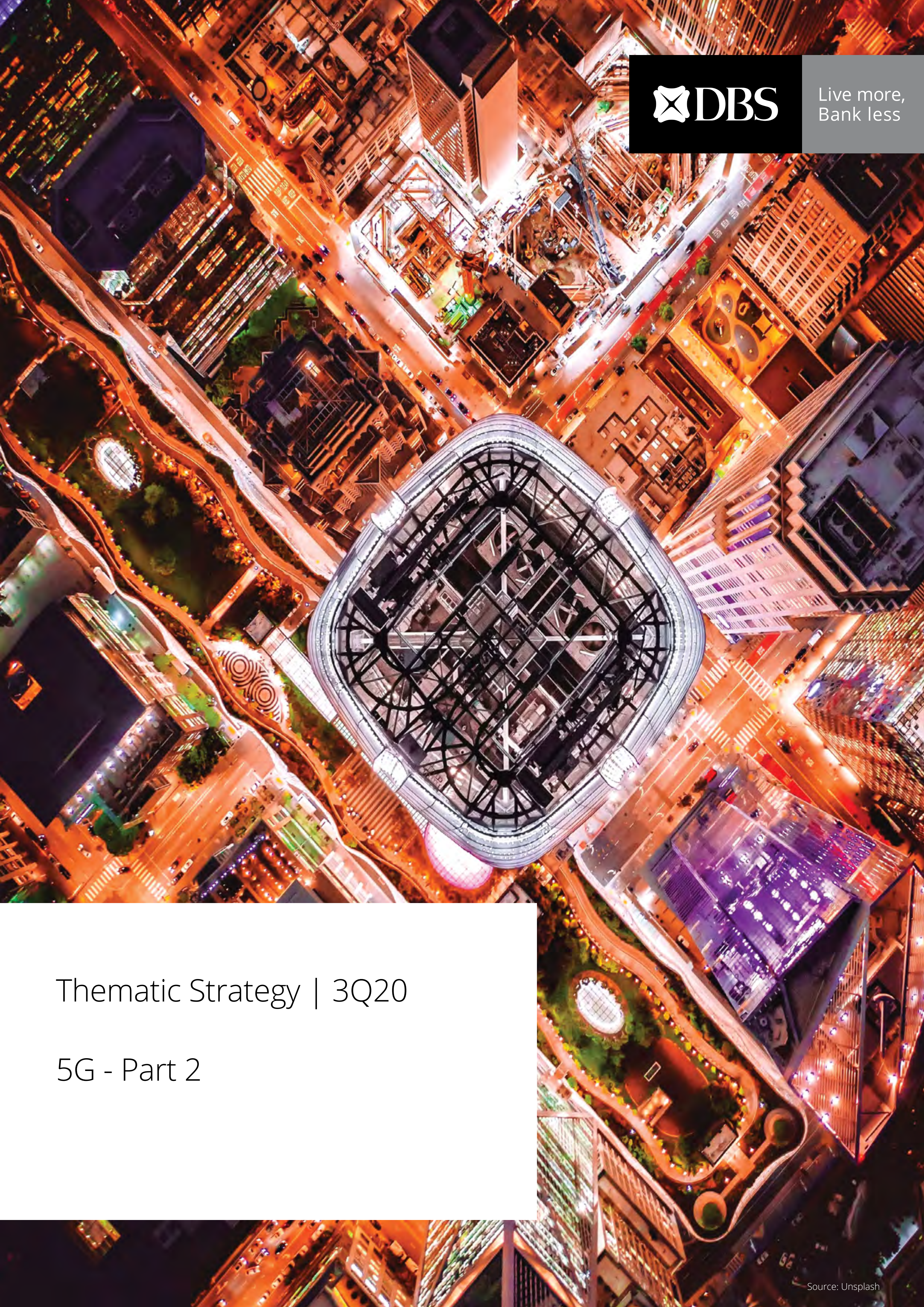
- Steam, a major PC digital game distribution platform, recorded its highest number of concurrent users, 24m, during the week of 30 March (Figure 25).

Figure 25: Steam recorded highest number of concurrent users during lockdowns



Source: Newzoo

We believe that global interest in e-Sports will grow from strength to strength given its innate advantage: unlike traditional sports, Internet connectivity is all e-Sports needs and this underlies the latter's resilience (especially in such a time as a pandemic). This point is well understood by sporting bodies and corporate sponsors and this explains why e-Sports will be an important complement to traditional sports in the years to come.



Live more, Bank less

Thematic Strategy | 3Q20

5G - Part 2

Source: Unsplash

Theme II: 5G - Part 2

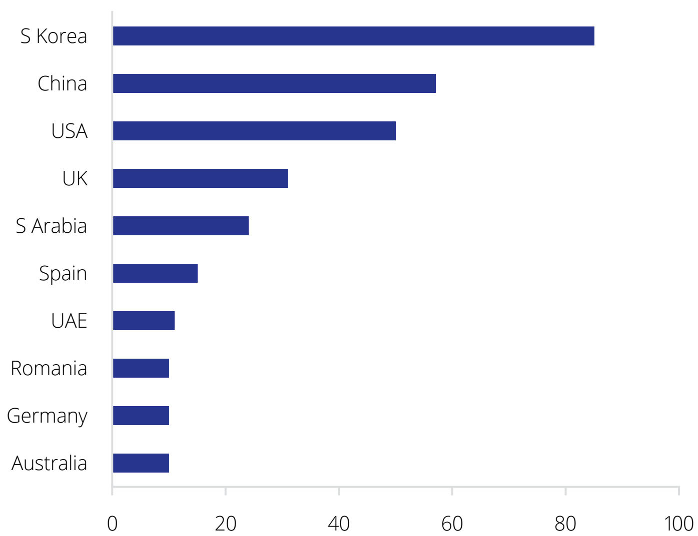
Yeang Cheng Ling | Strategist

Having control over technology equates to having control over the world. The race for technological dominance has expanded to digital supremacy and next-generation communication networks, which have become the core of technology development. The adoption of and reliance on technological devices due to convenience are only at infancy stages of multi-year trends; the COVID-19 crisis has expedited the process.

The 5G communication standard will spur new demand for an entirely new wireless experience, user interface, ecosystem and more importantly, the development of new technology. The establishment of 5G infrastructures, devices, and new technology standards presents new investment opportunities in semiconductor and upstream integrated chipset design in the process of redefining broad ranges of connected services. 5G-connected cities have become a reality as countries step up their efforts to join the bandwagon. At the end of 2019, 85 cities in South Korea, 57 cities in China, and 50 cities in the USA were already connected with 5G networks (Figure 1), and the number will continue to snowball.

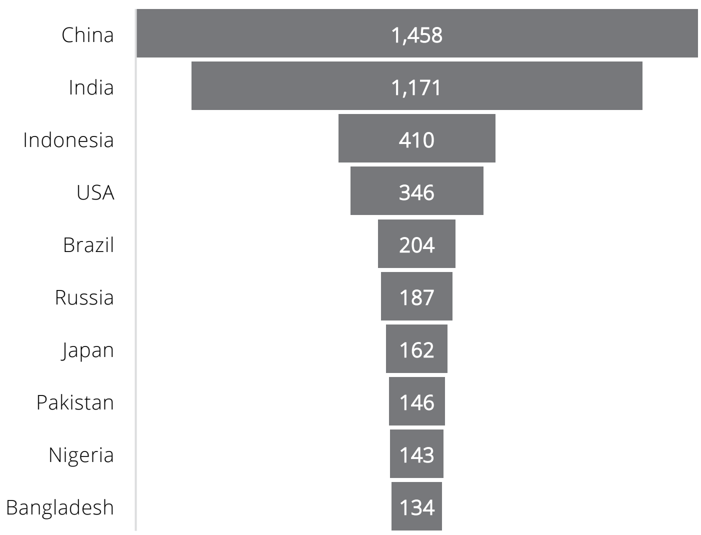
5G is one of the factors that will determine who wins and loses the next phase of technological dominance. It is a crucial element in shaping the world of hyper-connectivity, facilitating the interlinkages for everything with everyone anytime, and anywhere. The GSM Association (Global System for Mobile Communications) forecasts the 10 countries with the largest number of smartphone connections would have a combined total of 4.4b users by 2025 (Figure 2). With WFH now a new paradigm, the need for a new communication standard has thus become a reality. The role of advanced communication technology can only become bigger and exceedingly irreplaceable.

Figure 1: Number of 5G connected cities at end 2019



Source: Viavi

Figure 2: Smartphones connections by 2025 (m users)



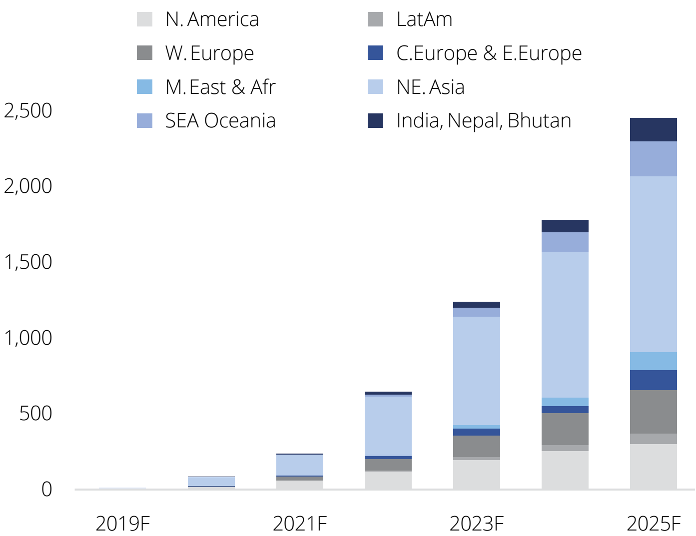
Source: GSMA

The growth of 5G penetration is aided by the escalating number of devices. Ericsson projects that, in the first five years, the uptake for 5G subscription will be much faster than that of 4G LTE, its predecessor which was first launched in 2009. Ericsson forecasts the world will have 2.5b people with 5G subscriptions (Figure 3) mainly driven by strong demand from North Asia by 2025.

While global mobile phone connections are peaking (Figure 4), 5G will replace and displace the current wireless standard to become the mainstream standard where the migration will happen within the existing subscriber base.

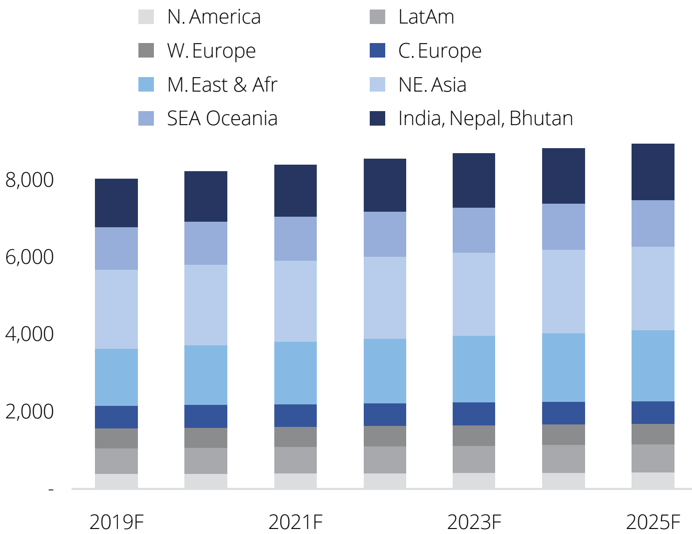
The 5G network and the devices linked to it can simultaneously manage, interact with, and regulate multiple tasks and devices with highly reliable efficiency. The network can interconnect with machines, data, devices, and execute tasks at the same time, without compromising the reliability.

Figure 3: Fast-growing mobile 5G penetration (m users)



Source: Ericsson

Figure 4: Global subscription remains flat (m subscribers)



Source: Ericsson, DBS

IC design and semiconductor sectors are the main beneficiaries

5G presents new investment opportunities on application processor (AP) manufacturers, communication integrated circuit design firms, and semiconductor supply chains. The market size for radio frequency (RF) alone will grow to USD26.2b by 2025, from USD17.4b currently (Ericsson), at a compound annual growth rate of 8.5% riding on the new demand for 5G and peripheral chipsets. In the larger scheme of things, global semiconductor market value is projected to reach USD730b by 2026 (Fortune Business Insights), driven by semiconductor usage in wireless communications, consumer electronics, smart devices, data storage and analytics, IOT, artificial intelligence, health care, automotive and industrial automation.

5G Part II: System on chip

13.2t USD
Est. economic benefit from 5G by 2035

22.3m jobs
Est. no. of jobs from 5G mobile value chain by 2035

2.1t USD
Est. total contribution of 5G to Real Global GDP

A13 Bionic

Snapdragon 865

Exynos 990

Helio G90T

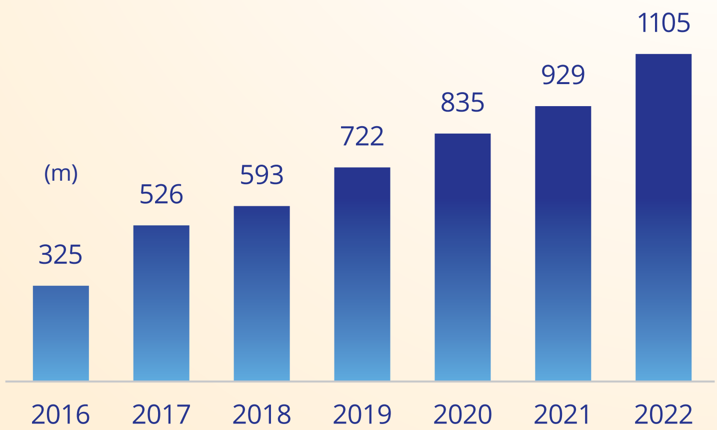
Dimensity 1000

Tegra K1

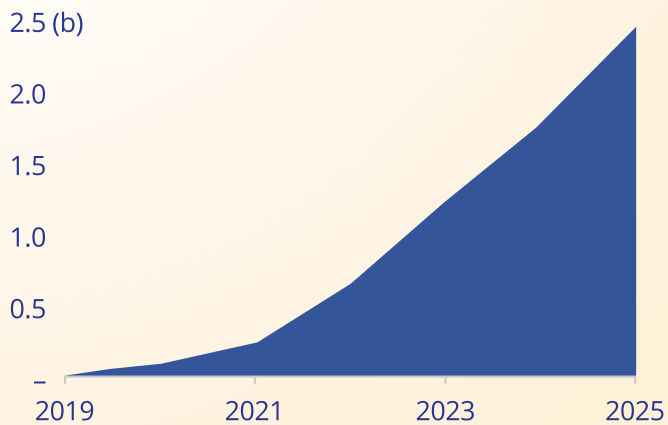
Kirin 990

A10 Fusion

Number of connected wearable devices globally to reach 1.1b by 2022



Global 5G subscribers to hit 2.4b by 2050



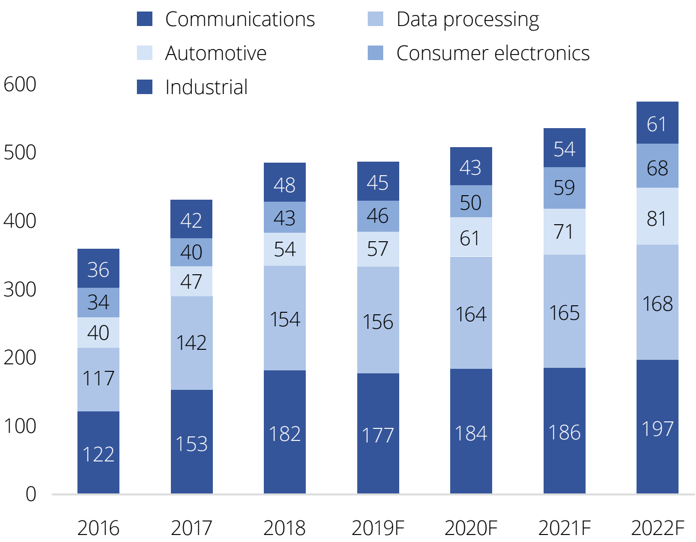
5G becoming mainstream wireless communication standard

Telcos facing enormous costs on spectrum fees and network capex

Investment catalysts are plentiful for IC Design and Semiconductor sectors

In wireless communication architecture, the new trend is to have a multifunctional single chipset programmable and logic applications integrated with modem functions. In essence, this blends the smartphone AP with wireless baseband capability into a single wafer chip or a combination of system on chip (SOC), which in turn interconnects with other semiconductor components. The SOC solutions provide unmatched technical capabilities which include processing, connectivity, data analytics, graphic imaging, and content searching. This new development is further enhanced with the invention of sub-10 nanometre (nm) circuitry wafer chips.

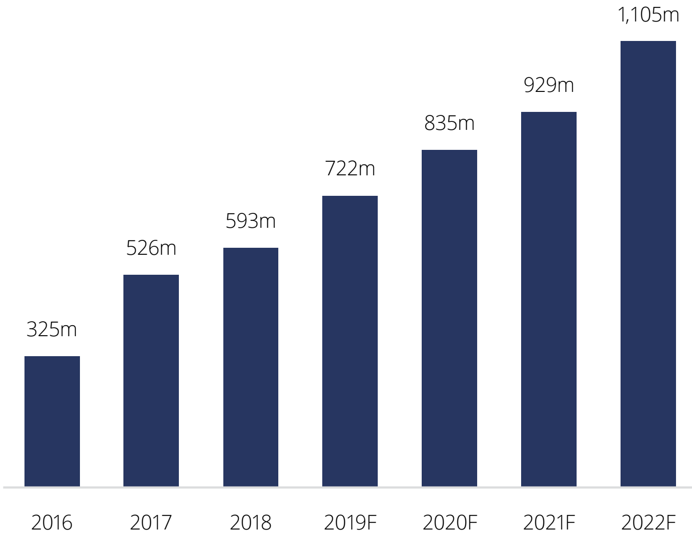
Figure 5: Communication and data processing chips total addressable market (USDb)



Source: PWC

With SOC taking centre stage, communication and data processing semiconductors will be among the main beneficiaries with annual total addressable market expanding to more than USD350b by 2022 (PWC) (Figure 5). Wireless mobile networks, long controlled by specialised hardware, will increasingly emphasise functions run on chipsets embedded with programmable software. Meanwhile, the rising popularity of wearable devices globally will further boost the demand for communication chips (Figure 6).

Figure 6: Number of connected wearable devices globally



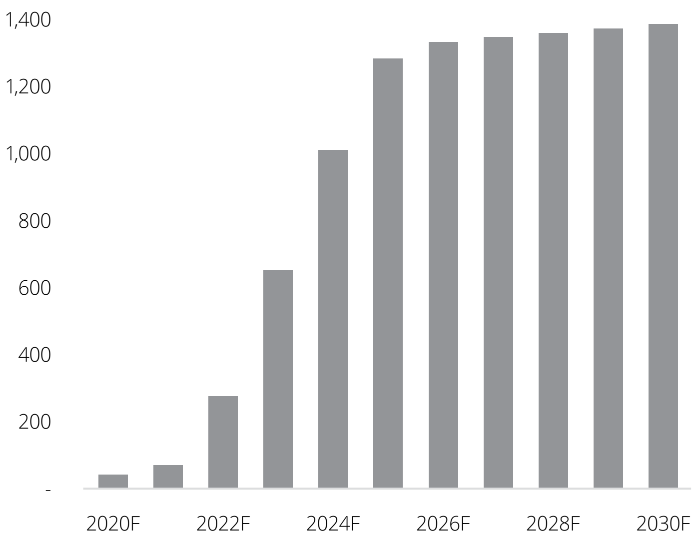
Source: Cisco

The eventual rollout of Industrial IOT and the growing push for autonomous cars are driving the need for higher bandwidth and more sophisticated data networks. As such, demand for mmWave band chipset and equipment will likewise increase massively.

Race for technology leadership

Being the world's single largest mobile phone market (Figure 7), China has great motivation to develop its own ecosystem

Figure 7: China to lead the world in 5G users (m)



Source: China Mobile, iResearch

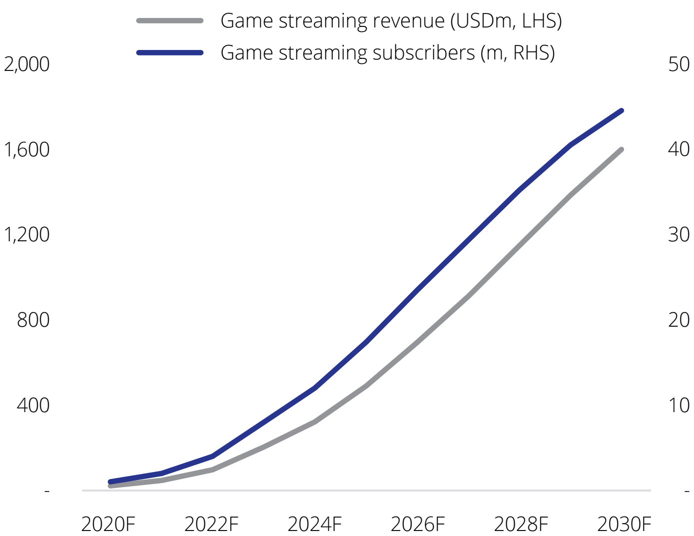
Table 1: Semiconductor components in the 5G ecosystem

Semiconductors sector	Equipment sector
5G embedded SOC CPU/AP	Radio Frequency IC (RFIC)
Application-specific IC (ASIC)	Frequency switching IC (analogue/digital)
Power management IC (PMIC)	Frequency booster and filter
Power amplifier for 5G mmWave	Transceiver
Advanced algorithm processor	Baseband processor (mixed signal)
Memory and memory driver IC	Wi-fi IC
Graphic processors	Bluetooth IC
CMOS sensors (complementary metal oxide semiconductor)	NFC chip (near field communication)
Flash storage	5G-enabled GPS (global positioning system)
	Field programmable gate array (FPGA)

for 5G and semiconductors in order to be self-reliant. Furthermore, China can capitalise on its highly popular domestic online e-Sports arena and expand its reach to benefit from the massive global e-Sports market (Figure 8), riding on its new leading-edge technology capability.

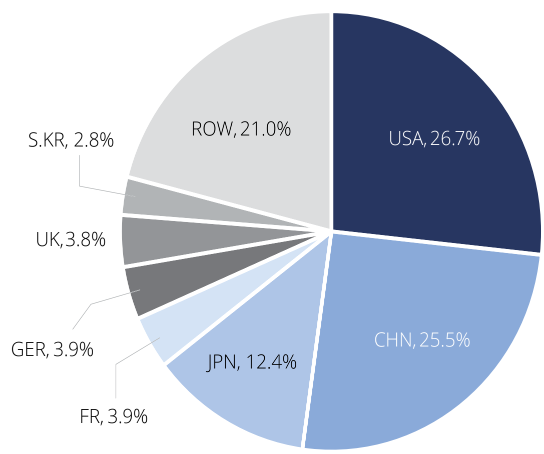
Knowing the importance and its potential, the world's two largest economies are competing neck and neck in the 5G technology race, propelling new developments in wafer nodes, semiconductor chips, logic and memory integrated circuits, and mammoth supply chains (Figure 9), sparing no effort in reshaping and controlling the innovations of tomorrow's world.

Figure 8: Game streaming addressable market



Source: Bloomberg, DBS

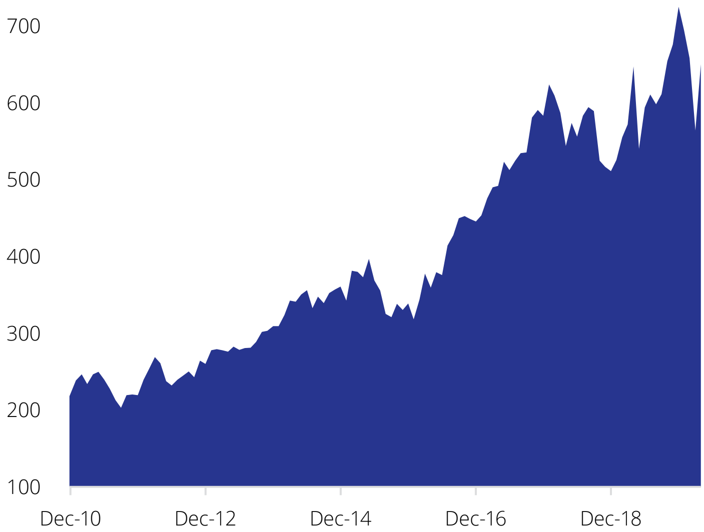
Figure 9: Average annual share of wireless communication R&D and capex by country, 2020-2035



Source: IHS Markit

Against this backdrop, investment catalysts are plentiful for listed IC design and wafer foundry firms. The combined market value of communication IC design firms and wafer foundries has risen to more than USD650b (Figure 10), as they become attractive investments for investors.

Figure 10: Rising market value of communication IC design firms (USDb)



Source: Bloomberg, DBS

Source: Unsplash

From the perspectives of telco operators

A major distinction between 5G and its preceding wireless standards will be the larger spectrum bandwidth required by the former. Spectrum is a core component for wireless connections and telco operators need to obtain the legal access rights to occupy dedicated bandwidth from their respective authorities, through intensely competitive biddings.

There are three major spectrum ranges with specific functionalities:

1. Low bandwidth (below 1GHz) – large area coverage, suitable for low data usage
2. Mid bandwidth (between 1GHz and 6GHz) – suitable for urban coverage, for moderate data usage
3. High bandwidth (above 6GHz) – ideal for 5G-specific millimetre mm Wave for large data rates, ultra-low latency, and large capacity for simultaneous multiple connections. The ideal operating frequency for full-fledged 5G effects is on 26GHz and above

In order to roll out 5G, telco operators are pressed to acquire additional high bandwidth spectrum capacity from their respective authorities, at sky-high prices (Table 2). Operators will then rollout 5G networks which are independent of existing mobile networks, further adding to the start-up costs in providing 5G services.

Such requirements will dilute returns on investments at the early stages of network rollout owing to:

1. High spectrum fees paid
2. Fresh rounds of high capex to install the 5G network
3. New cycle of massive handset subsidies
4. Content provision to attract bundled subscriptions
5. Marketing activities to convince existing users to switch to 5G

Table 2: Spectrums do not come cheap for telco operators

Geography	Total 5G spectrum fees paid by telco sector (USDm)
Japan	14,400
Germany	7,400
US	7,200
Taiwan	4,700
South Korea	3,300
Thailand	3,200
UK	1,800
Australia	540
Hong Kong	244

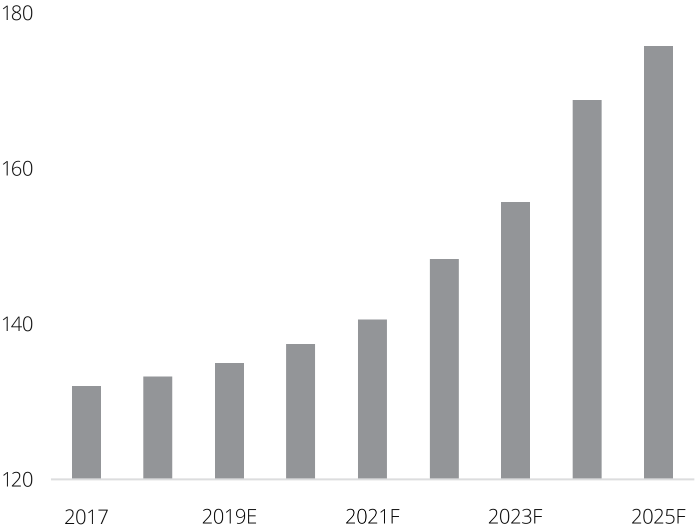
Source: Government bodies, corporate announcements, public media, DBS

Capex burden on telco operators

5G works well on high spectrum where the increase in frequency facilitates higher transmission speed and larger capacity for data, but the area the signals can cover will correspondingly shrink. This means a larger number of base transmission stations will be required – good news for the semiconductor industry but not so for the telco operators.

Besides incurring enormous upfront spectrum fees, telco operators will be saddled with multi-year escalating general mobile capex (Figure 11) and 5G-specific capex (Figure 12).

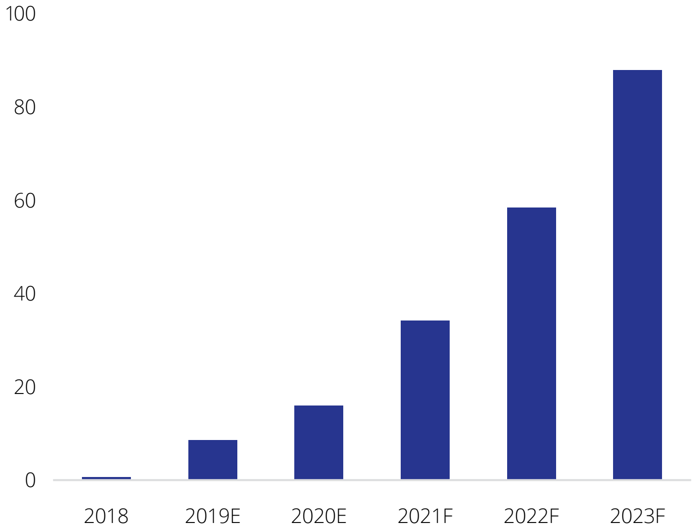
Figure 11: Global mobile capex (USDb)



Source: EY

Source: Unsplash

Figure 12: Global 5G capex spending (USDb)



Source: Heavy Readings

Absence of pricing power

Average revenue per user (ARPU) has seen consistent decline even with the introduction of 4G-LTE services since the start of the decade (Figure 13). Industry players may struggle to reverse the structural headwinds, as they continue to be burdened by sustained and sizeable capital expenditure outlay (Figure 14), persistently high operating costs, and severe lack of pricing power.

The telco operator fraternity will find itself trapped with deteriorating profitability over the next few years, unless they are able to find new avenues to monetise their services by capturing subscriber base, usage volume, and value-add services.

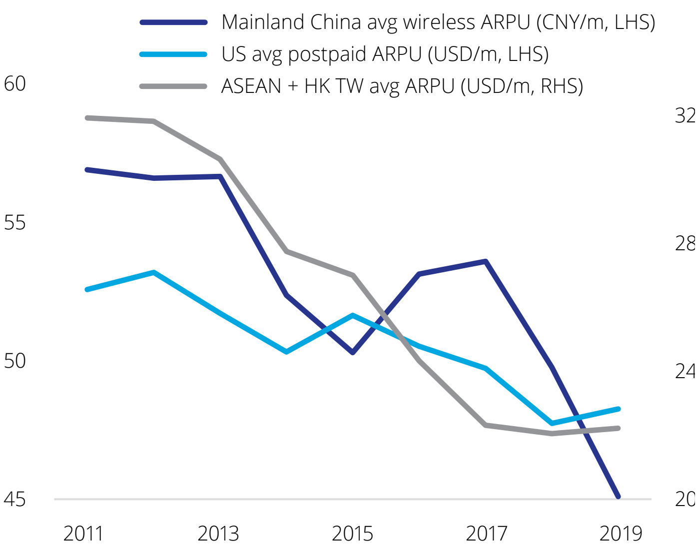
Conclusion

The cycles of industrialisation and technology development have long proven that an unrivalled ecosystem and in-depth supply chains are the fundamental elements for any innovation to sustain its success and dominance.

In the second of this two-part 5G thematic report, we conclude that the progression of 5G will hinge upon the complementary existence of and symbiotic relationship with:

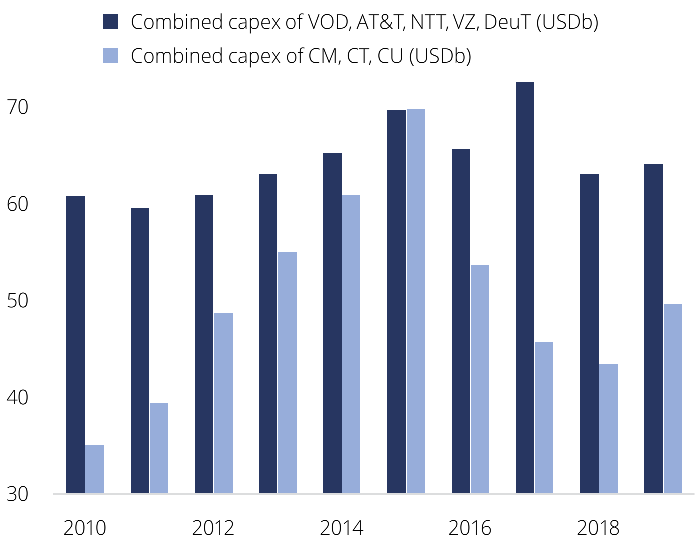
1. Integrated circuit development
2. Semiconductor development
3. New mobile devices
4. Content providers
5. Internet of Things
6. Cloud computing

Figure 13: Declining monthly ARPU trend ...



Source: Company data, Bloomberg, DBS

Figure 14: ... despite high capex spending (USDb)



Source: Bloomberg, DBS

Investment Themes initiated by the DBS Chief Investment Office

On-going themes	3Q20 initiation	Past exclusions
Income BBB/BB USD corporate bonds Singapore REITs China large banks Europe integrated oil majors		
Growth 5G Cloud Computing Industrial Automation Semiconductor, IC Design e-Commerce Millennials: e-Sports Millennials: Athleisure Global Health Care China A-Shares	**Growth** Alternative Meat Work From Home	Asian Tourism

Special Feature | 3Q20

Sustainable Investing: More alpha than altruism

DBS

Live more, Bank less

Source: Unsplash

Special Feature: Sustainable investing

Daryl Ho, CFA | Strategist

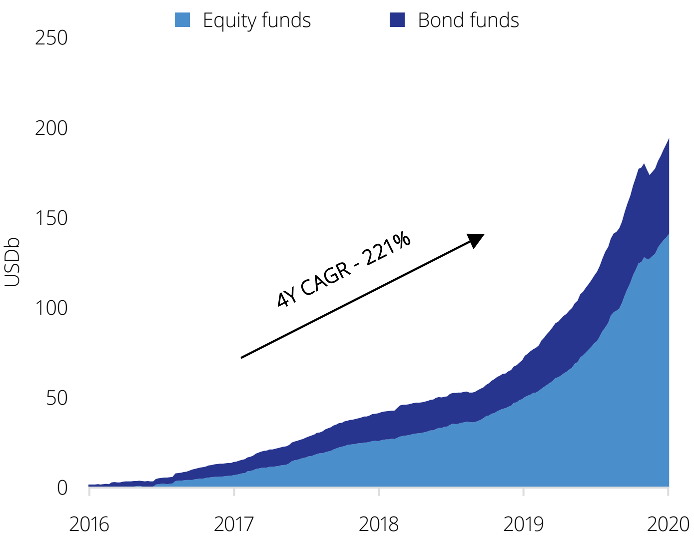
The times they are a-changin'. Where once phrases like "sustainable investing" and "ESG integration" may have seemed to investors like unnecessarily enthusiastic proselytising from a splinter group of market participants, these have evolved very rapidly to dominate mainstream investors' considerations in a relatively short amount of time.

Novelty becoming normative. In all likelihood, such trends will become more fixed than fad, seeing how activists like Greta Thunberg and politicians like Alexandria Ocasio-Cortez continue to strike a chord with the next generation on environmental climate change. These issues, along with other social and governance ills, have unfortunately dragged many unbecoming business practices into the very punishing spotlight of social media, and share prices of otherwise profitable companies have suffered as a result of one too many public relations disasters. Investors are increasingly cognizant, and therefore correspondingly intolerant, of such risks in their portfolios.

When in doubt, follow the money. Knowing that investors vote with their dollars, it is not difficult to see the building confidence in the ESG wave. Cumulative global inflows into sustainability-themed funds have risen at a four-year CAGR of 221%; the more exponential lift coming just within the last year or so. The momentum may have only just begun.

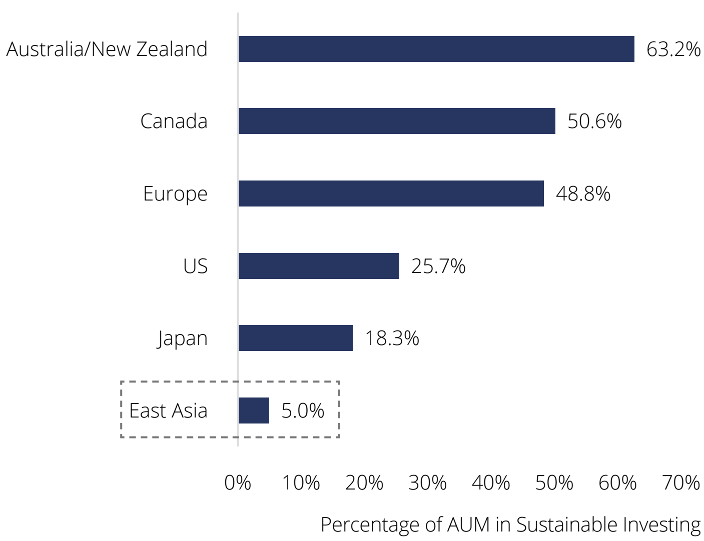
It is better to be on the right side of history, geographically speaking. While Asia may be the driver of global economic growth today, it has surprisingly lagged the west in one critical regard – the commitment to ESG investment. East Asia in particular, lags the rest of the developed world with only c.5% of AUM in sustainable investing, comparing with 20-50% seen in the US and Europe (Figure 2). The region had prioritised economic growth in the last four decades, which had seen the elevation of living standards for billions of people at the expense of growing pollution and social inequality. Asian investors, who were the main benefactors of such growth, are now endowed with the wealth and responsibility to play a critical role in expanding sustainable investments in the region.

Figure 1: Rising cumulative inflows into sustainability-themed funds



Source: EPFR Global, DBS

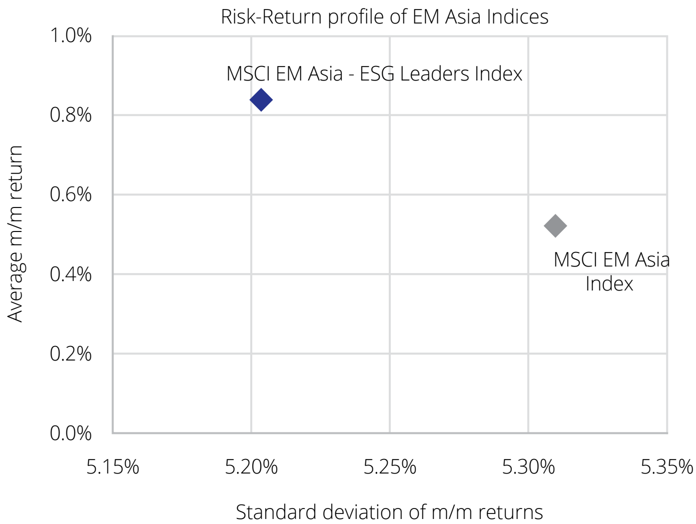
Figure 2: East Asia still lags developed economies in sustainable investing



Source: Global Sustainable Investment Alliance (GSIA), Financial Times, DBS

There is a false dichotomy in having to choose between sustainable investing and higher returns. The lack of flows in East Asia might be attributable to one of the greatest misconceptions about sustainable investing – that it amounts to little more than charity and detracts from returns. While it cannot be argued that altruism and branding could be possible motivations, the surprising twist is that the ESG overlay does positively impact long-term performance and risk-adjusted returns, even in EM Asia (Figure 3) which has likely not seen the same supportive effects of fund flows into sustainable investing as compared to the other developed economies. Mindfulness towards environmental, social, and governance factors – not just corporate profitability alone – has led to better returns in the long run.

Figure 3: ESG leaders in EM Asia have outperformed the broader index



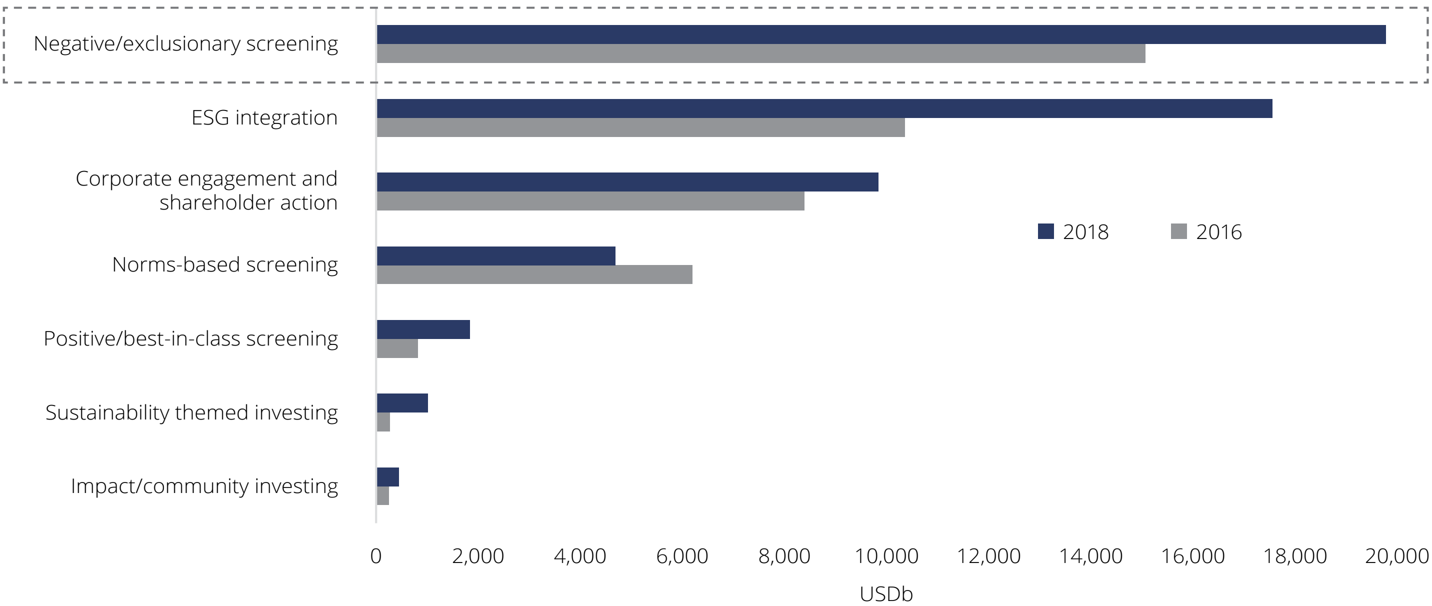
Source: Bloomberg, DBS

Negative screening of companies/funds a likely contributor to excess returns. According to the GSIA, the largest sub-category of sustainable investing strategies involves negative/exclusionary screening, a category that continues to grow and has been a main driver of excess returns due to successes in screening out more controversial sectors that have scored poorly under the ESG framework. Investors under this strategy are able to outperform by avoiding the pitfalls of investing in at-risk names and thus limiting downside risk from unanticipated losses.

Inadequate governance often catches investors by surprise. Such strategies could not be timelier for Asia as a region. Extended booms, especially the one spanning multiple decades in Asia, tend to conceal a multitude of disreputable behaviour under the guise of growth. With the onset of the COVID-19 crisis, years of profligate spending and accounting shenanigans may now come to light. The most noteworthy scandals in Asia have recently come in quick succession, with Luckin Coffee (the Starbucks equivalent in China) and Hin Leong (a Singaporean energy trader that had concealed huge losses) revealing underlying issues of fraud in a matter of weeks after the downturn.


Source: Unsplash

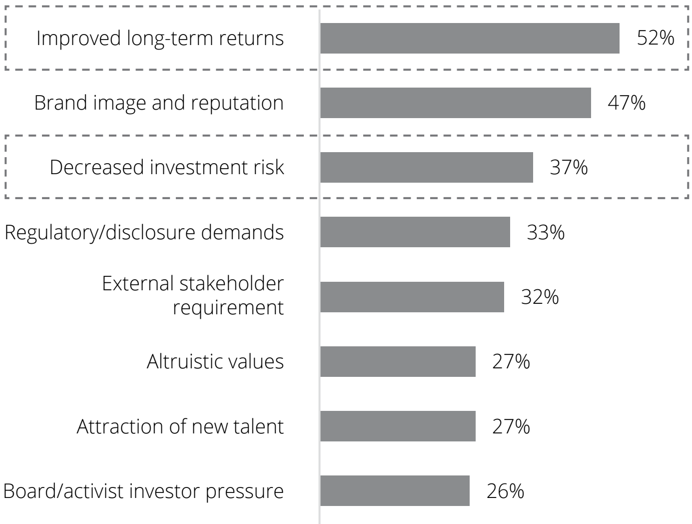
Figure 4: Negative/exclusionary screening strategies seeing strong growth



Source: Global Sustainable Investment Alliance (GSIA), DBS

Investor attitudes are progressively being shaped in the direction of sustainability. With an increasing amount of performance data pointing in favour of sustainable investing, incorporating ESG considerations into investment decision-making has become a major factor in assessing portfolio risk and return (Figure 5). Simply paying lip service to the cause would soon become an outmoded posture of laxity, betraying one's ignorance of the rapidly transforming investment landscape before them. Investors would do well to recognise the paradigm shifts and be on the right side of flows when sustainability eventually becomes the indispensable norm.

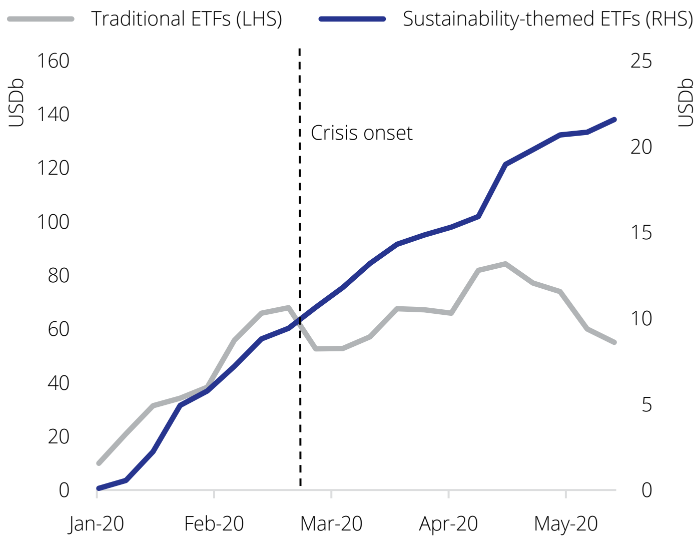
Figure 5: Investment performance at the forefront of investors' minds when incorporating ESG into decision-making



Respondents across 347 asset managers and owners in 16 countries in Asia Pacific, Europe, and North America. Investors were asked to rank (1-3) reasons for incorporating ESG into investment decision-making.

Source: BNP ESG Global Survey 2019, DBS

Figure 6: Sustainable investment flows have shown resilience in the face of the COVID-19 market downturn



Source: EPFR Global, DBS

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Glossary of Terms:

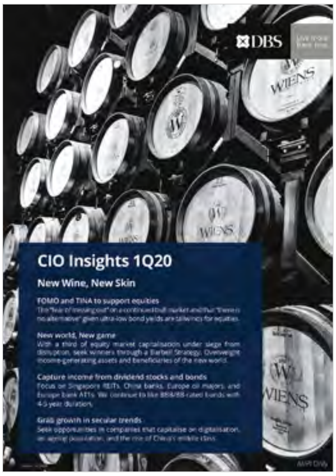
Acronym	Definition
ASEAN	Association of Southeast Asian Nations
AUM	assets under management
AxJ	Asia ex-Japan
bbl	barrel
BI	Bank Indonesia
BNM	Bank Negara Malaysia
BOE	Bank of England
boepd	barrels of oil equivalent per day
BOJ	Bank of Japan
BOK	Bank of Korea
BOT	Bank of Thailand
bpd	barrels per day
BSP	Bangko Sentral ng Pilipinas
CAGR	compound annual growth rate
capex	capital expenditure
CAR	capital adequacy ratio
CET1	common equity tier 1
CLO	collateralised loan obligation
CPI	consumer price index
CPU	central processing unit
DM	Developed Markets
DPS	dividend per share
DPU	distribution per unit
DXY	US Dollar Index
EBITDA	earnings before interest, tax, depreciation, and amortisation
EC	European Commission
ECB	European Central Bank
EM	Emerging Markets
eop	end of period
EPF	Employees Provident Fund
EPFR	Emerging Portfolio Fund Research
EPS	earnings per share
ESG	Environmental, Social, and Governance
e-Sports	electronic sports
ETF	exchange-traded fund
EU	European Union
FCF	free cashflow
FX	foreign exchange

Acronym	Definition
GDP	gross domestic product
GFC	Global Financial Crisis
GSIA	Global Sustainable Investment Alliance
HIBOR	Hong Kong Interbank Offered Rate
HY	high yield
IC	integrated circuit
IEA	International Energy Agency
IG	investment grade
IMF	International Monetary Fund
IOT	Internet of Things
IP	intellectual property
ISM	Institute for Supply Management
IT	Information Technology
JGB	Japanese Government Bond
KTB	Korea Treasury Bonds
MAS	Monetary Authority of Singapore
MGII	Malaysia Government Investment Issue
MGS	Malaysia Government Securities
MLF	medium-term lending facility
mmbbl	million barrels
mmbpd	million barrels per day
NBA	National Basketball Association
NEER	nominal effective exchange rate
NIM	net interest margin
OPEC	Organization of the Petroleum Exporting Countries
P/B	price-to-book
P/E	price-to-earnings
PBOC	People's Bank of China
PCE	personal consumption expenditures
PM	portfolio manager
PMI	purchasing managers' index
QE	quantitative easing
RBA	Reserve Bank of Australia
RBI	Reserve Bank of India
REIT	real estate investment trust
RM	relationship manager
ROA	return on asset
ROE	return on equity

Acronym	Definition
RPGB	Philippine local government bonds
RRR	reserve requirement ratio
SAA	Strategic Asset Allocation
saar	seasonally adjusted annual rate
SBV	State Bank of Vietnam
SD	standard deviation
SGD NEER	Singapore dollar nominal effective exchange rate
SGS	Singapore Government Securities
SHIBOR	Shanghai Interbank Offered Rate
SIBOR	Singapore Interbank Offered Rate
SNB	Swiss National Bank

Acronym	Definition
SOE	state-owned enterprise
SOR	swap offer rate
TAA	Tactical Asset Allocation
TLTRO	Targeted Longer-Term Refinancing Operations
UCITS	Undertakings for Collective Investment in Transferable Securities
UST	US Treasury
WHO	World Health Organization
WTI	West Texas Intermediate
YTD	year-to-date
YTW	yield to worst
VAT	value-added tax

CIO Collection



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New Wine, New Skin
December 2019

2Q20 CIO INSIGHTS
Build to Last
March 2020

1Q19 CIO INSIGHTS
Tug of War
December 2018

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Lift to Win
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