Live more, Bank less

CIO Insights 2Q20

Build to Last

Quelling Black Swans

Led by US Fed's 150 bps rate cut and planned fiscal stimulus, central banks and governments across the world responded swiftly to mitigate the economic damage from COVID-19 and oil price collapse.

Mind the Gap

Barring a prolonged pandemic, equities will find support from the significant yield gap vs cash deposits and bonds.

Barbell for Resilience

Adopt Barbell Strategy with secular growth equities and income-generating assets. Favour Technology, Health Care, China for growth; dividend-yielding equities for income. Prefer US, Asia over Europe, Japan.

Value in AT1s, Asia Credit

In a world of ultra-low yields, hold a portfolio of diversified corporate bonds with an average duration of 4 to 5 years. Asia credits and select AT1s offer attractive risk-reward.

Source: Unsplash

Contents

Note: Unless otherwise stated, data is as of 23 March 2020.


Source: Unsplash

Executive Summary

Dear valued clients,

Financial markets have undergone extreme volatility in 1Q20, bringing back memories of 2000's dot-com bust and 2008's Global Financial Crisis.

Confronted with two 'black swan' events, namely the COVID-19 pandemic and the oil price collapse, global stock markets fell some 30% peak to trough, while Treasury bond yields hit historic lows during the quarter. Clearly, this re-pricing of markets is factoring in a heightened risk of a global recession.

We saw global central banks swiftly loosen monetary policies, led by the US Fed with a hefty 150 bps cut to a near-zero Fed Funds target rate. Governments across the world also introduced massive fiscal stimulus plans to mitigate the economic damage from the pandemic.

Where are the markets heading, and how should you position your portfolio?

A lot, of course, hinges on the degree of the spread and persistence of the pandemic. If we see a slowing of infection cases in US and Europe over the next few months through summer, we would expect markets to stabilise and recover. The improved situation in China, which has led to the re-opening of factories, is indeed an encouraging sign, as it means a gradual normalisation of global supply chains.

We continue to advocate a 'barbell' portfolio. Such a portfolio would hold globally diversified securities in two areas of focus. In one area of focus, corporate bonds and dividend-yielding equities act as 'income generators' while secular growth equities act as 'return enhancers' in the other. We also add gold as 'risk diversifier' to the portfolio.

On growth equities, our ongoing conviction calls on Technology, Health Care, and China equities remain, even as they have done well vs underlying market indices. We are convinced such a portfolio construct will last through today's storms, and ride the road to recovery ahead.

I wish you resoluteness in your investing during these times of uncertainty.

Hou Wey Fook
Chief Investment Officer

Asset Allocation | 2Q20

The
road ahead

Macro Outlook

Monetary Policy
Global macro shocks prompted the Fed to slash rates to near zero and to reintroduce QE. Expect other central banks to follow.

Economic Growth
Global growth is hampered by both demand and supply shocks. Failure to deal with COVID-19 would trigger a deep recession.

Geopolitics
The war of words between US and China over COVID-19, and the year-end US Presidential election are medium-term headwinds.

Inflation
Inflation to remain anchored to the lows amid demand shocks and weak energy prices. 5-year break-evens signal weak inflation expectation.

Fiscal Policy
Fiscal spending to take over as policy driver even as monetary easing reaches its limits. Governments across the world to announce massive stimulus.

Market Outlook

Equities
Rising yield gap over bonds and cash to support equities in the medium term. Stay Overweight US and Asia over Europe and Japan.

Currencies
$ € ¥

Convergence of DM rates on the downside will ensure DXY stays in the 94-100 range. USD/JPY unlikely to break 100.

Rates
Bear steepening of yield curves to take place when fiscal policy responses turn more aggressive and G-10 rate cuts get fully priced in.

Credit
BB credit rating segment offers better yield relative to expected default rate. We like Asian HY between 1 to 5 year tenors.

Thematics
Ride the 5G technology and global infrastructure waves for long-term investment opportunities.

Source: Unsplash

Source: Unsplash

Source: AFP Photo

New theme: 5G

The hunger for data and speedy and reliable communications has never been this intense. The 5G communication standard would deliver significantly larger data capacities and enhanced response times. The adoption of 5G technology would offer investors fresh investment opportunities for the better part of the next decade.

New theme: Global Infrastructure

Evolving trends in urbanisation, digitalisation, climate change, and rising inequality are calling for more to be done in the area of global infrastructure. Given the constraints of government spending, we see increasing reliance on private capital to finance public infrastructure. With strong pricing power and limited competition, there are opportunities to seek out attractive and sustainable yield plays.

Ongoing theme: Semiconductors

Semiconductors have massively changed our world. An effective angle to ride the digitalisation wave is to invest in upstream semiconductor ecosystems. As the backbone of digitalisation, upstream technology's future is bright – driven by the rising use of AI, IOT, and 5G.

Asset Allocation

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

Back at the start of 2020, nothing – it seems – could stop the equity bull from grinding higher. Not the US-China trade war, not the US presidential impeachment, and certainly, not the eventual finalisation of Brexit. And then came COVID-19 and the carnage began.

The viral outbreak has single-handedly driven global equities to bear territories in a span of few trading sessions, one of the fastest sell-downs ever in history. While viral fear delivered the first punch for global risk assets, the second punch came from the massive plunge in crude oil as Saudi Arabia commenced on a price war with Russia.

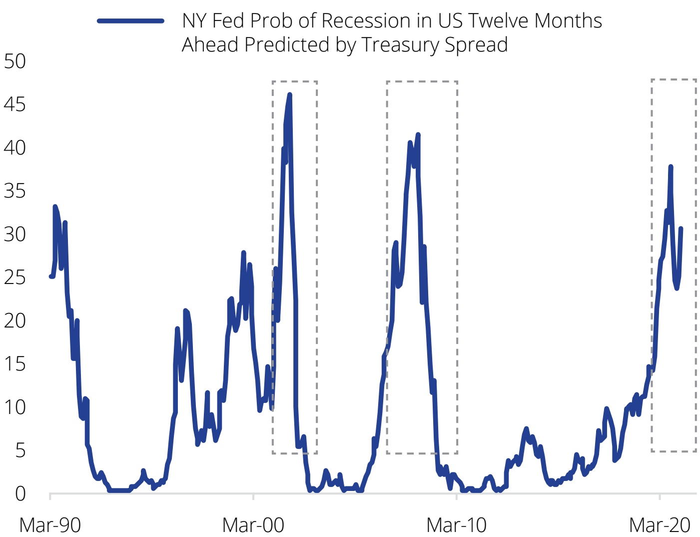
The sense of panic in the markets was plain to see with prices hitting the extremes on both directions: (1) US Treasury 10-year yield hitting an historical low of 0.54%; (2) CBOE Volatility Index hitting the highest point of 75.5 since subprime crisis; (3) S&P 500 registering the highest one-day decline of 9.5% since "Black Monday" in 1987; and (4) Brent crude oil price registering the highest single-day decline of 24.1% since the Gulf War in 1991.

Indeed, given the unknown unknowns surrounding the virus outbreak, markets were swiftly pricing in the twin scenarios of economic and corporate earnings recession. Post recent market capitulation, we sought to answer the following questions:

1) Is a recession on the cards?
2) Have financial markets troughed?
3) Will it be a "U-shaped" or "L-shaped" market rebound?

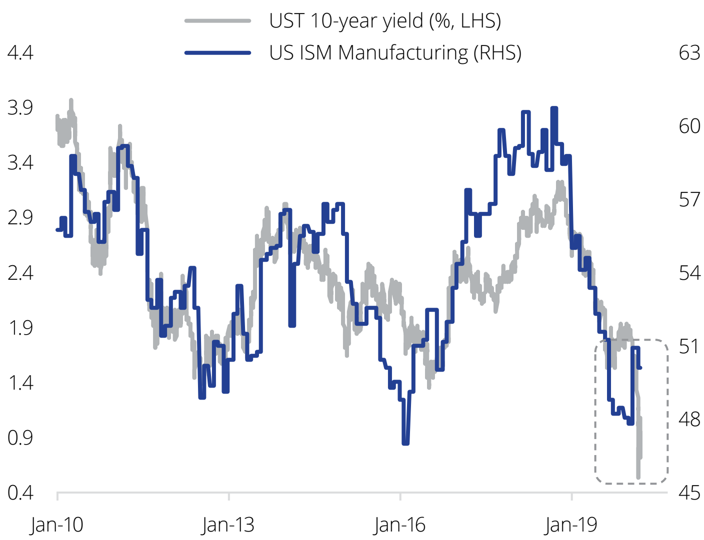
Recession risks on the rise; But impact mitigated by policy response. In a bid to prevent the rapid spread of the virus, several countries have gone into a lockdown mode which impedes the normal functioning of economic activities. Should the lockdown persist, the chance of a recession will increase substantially.

Figure 1: Recession risks have increased significantly as the viral outbreak takes its toll on the broader economy



Source: Bloomberg, DBS

Figure 2: UST 10-year yield pricing-in extreme macro weakness



Source: Bloomberg, DBS

Financial markets have already been pricing in this scenario. According to the US Federal Reserve, market indicators are pricing in 30% probability of a recession and this is broadly similar to levels seen during the dot-com crash and subprime crisis (Figure 1). Equally, the sharp plunge in UST 10-year yield to sub-1% range commensurate with extreme contraction in US manufacturing PMI (Figure 2).

While the situation remains fluid, we believe that the likelihood of recession has increased significantly. But the reassuring news: Overall impact of the slowdown will be mitigated by the following factors:

1. Strong global policy support: Given rapid spread of the virus, governments and central banks around the world have swiftly sprung into action:

  - In the US, the Fed has slashed its policy rate by 150 bps to near zero (Figure 3) as well as commenced "QE Infinity ", which for the first time , will include the purchase of corporate bonds.A new economic stimulus package is also currentlyin the midst of discussion.

  - In Europe, the scope for monetary easing is limited given that rates have already hit a trough. But the governments are stepping up on the fiscal front. Germany, for instance, has pledged unlimited cash for companies that are impacted by the COVID-19 virus.

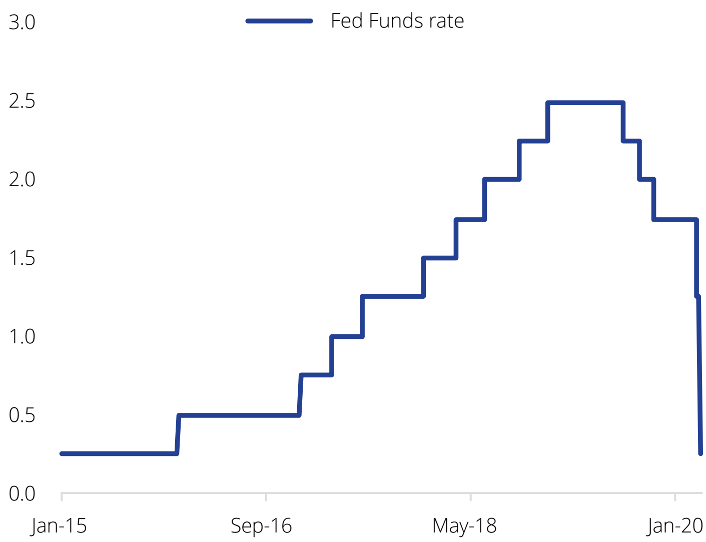
  - In China, the PBOC has cut its 1-year and 5-year loan prime rate to 4.05% and 4.75%, respectively. It has instructed the country's main lenders to provide low interest loans to selected companies affected by the viral crisis.

2. Economics Shocks – Green shoots on the horizon: The COVID-19 outbreak is causing both supply and demand shocks. Stoppages of manufacturing activities in China have put immense strain on the global supply chain. This supply shock will in turn morph into demand shock as consumption falls on the back of weakening business/consumer confidence, notwithstanding the negative feedback loop arising from the financial markets contagion. However, we see green shoots emerging:

  - On the supply side, factories in China are gradually re-opening, with companies chartering buses to bring employees back to work. If China succeeds in bringing its production capacity back to the 70% mark, it will mark the start of a gradual recovery.

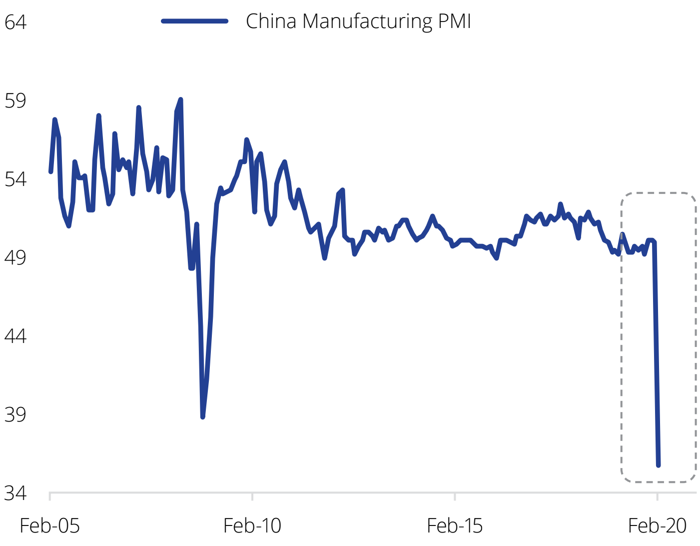
  - On the demand side, we view the viral crisis as predominantly a transitory event that will fade away when the weather gets warmer. While some economic activities are lost during this period of time, the others were merely postponed and macro momentum will eventually rebound during the second half.

Figure 3: The US Federal Reserve has front-loaded its policy response by slashing policy rate close to zero



Source: Bloomberg, DBS

Figure 4: Manufacturing activities in China have plummeted as result of the COVID-19 outbreak



Source: Bloomberg, DBS

Markets close to a trough as sentiments reached panic level; Rebound contingent on new cases hitting a peak. Global equities have undergone a near 30% peak-to-trough correction this year as investors' sentiments reached panic mode given the level of unknown unknowns surrounding the crisis.

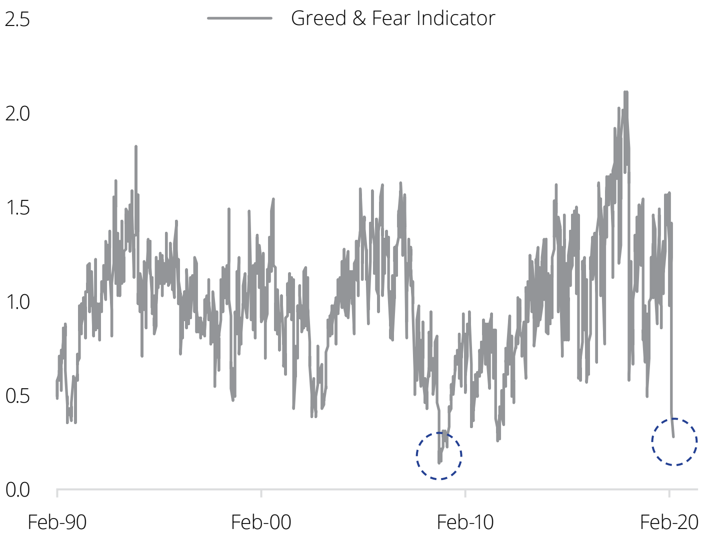
With the meltdown, valuation for global equities has fallen back to 13.2x, which constitutes a 14% discount to the long-term average of 15.4x. Our Greed & Fear indicator suggest that the level of "fear" in financial markets has already reached the equivalence of 2008's subprime crisis (Figure 5). In other words, market sentiment has hit an extreme.

But there is a price for everything. After the massive meltdown, we believe a lot of the negative headwinds have already been substantially "priced in". To validate our view, we have conducted a series of sanity checks on both bonds and equities:

- Sanity Check (1): Bonds – What has been priced in? In fixed income, the UST 10-year yield has hit a trough of 0.5407% (on 9 March) as markets are pricing both recession and deflationary scenarios. A UST 10-year yield of this level commensurate broadly with an ISM Manufacturing of 45, a level which suggests US nominal GDP growth of 3.0%.

- Sanity Check (2): Equities – What has been priced in? In equities, a nominal GDP growth of 3.0% is commensurate with US earnings growth of mid-single digit. Trading at forward P/E of 14.1x, valuation for S&P 500 is looking attractive as this is 17% below the long-term average.

Figure 5: Greed & Fear Indicator: Investors' panic has hit an extreme



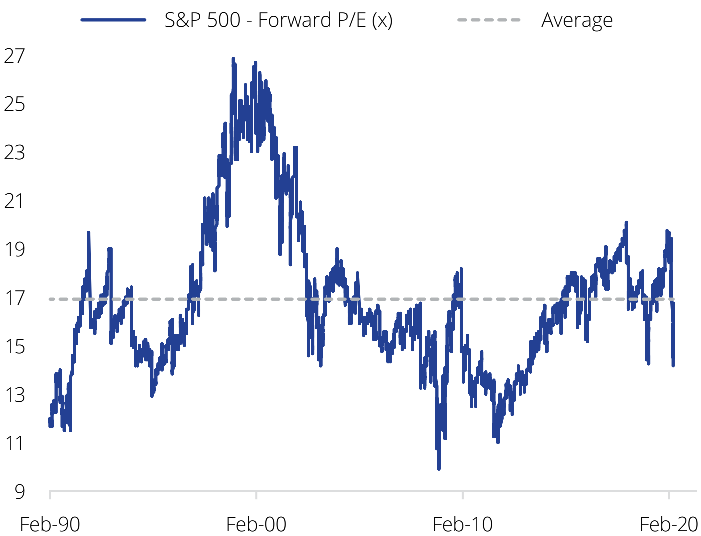
Source: Bloomberg, DBS

However, valuation and extreme portfolio positioning alone may not necessarily mean that investors will return to the market in a huge way. For the latter to happen, we believe the number of global new infections must hit a peak. This is evident from the case of China, whereby the HSCEI started to rebound and outperform DM soon after the number of new cases peaked.

As Figure 7 shows, global (ex-China) infections are still on the rise. Drawing inferences from the China experience, we make the following observations:

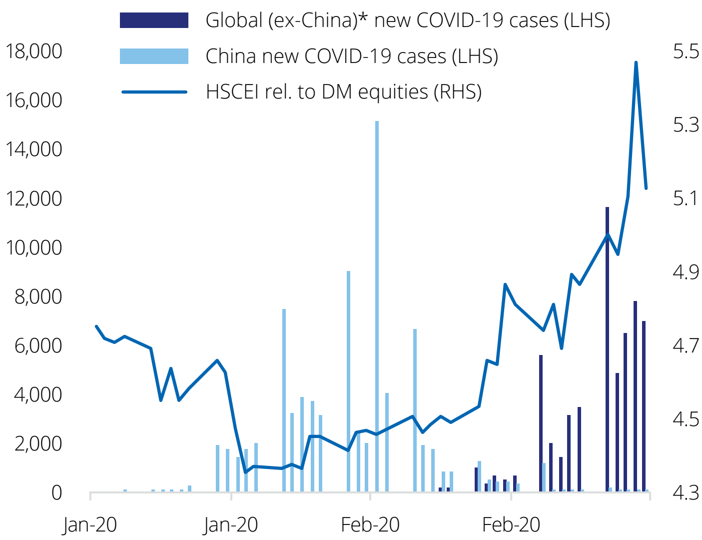
- In China, it took 14 days from the time the number of new cases spiked till the time the number of new cases peaked.
- For global (ex-China), the number of new cases spiked on 2 March and it is now into its tenth day (as of 13 March). But given the apparent lack of comprehensive governmental preparedness in developed economies (in terms of testing and locking down of cities), we can conservatively assume that the peak will only come during late-April to May.

Figure 6: Valuation for S&P 500 has fallen below long-term average



Source: Bloomberg, DBS

Figure 7: The average daily recovery rate has superseded the average daily new confirmed cases in China



Source: Bloomberg, DBS

Until the number of new cases outside of China hits a peak, markets will continue to struggle for direction and display outsized reaction to incoming economic and corporate data.

Higher probability of a "U-shaped" market rebound given non-economic nature of supply shock. There are certainly many moving parts determining whether the eventual market rebound will be a "U-shaped" or "L-shaped" one. Much depends on: (a) How fast the developed economies managed to contain the crisis; and (b) How robust and coordinated the global economic rescue package will be. These are the two major unknowns determining the shape of the recovery.

Without availability of new information, we take a different path and analyse how markets previously reacted to non-economic shocks instead and here are the findings:

Table 1: Impact of past non-economic shocks on equity markets

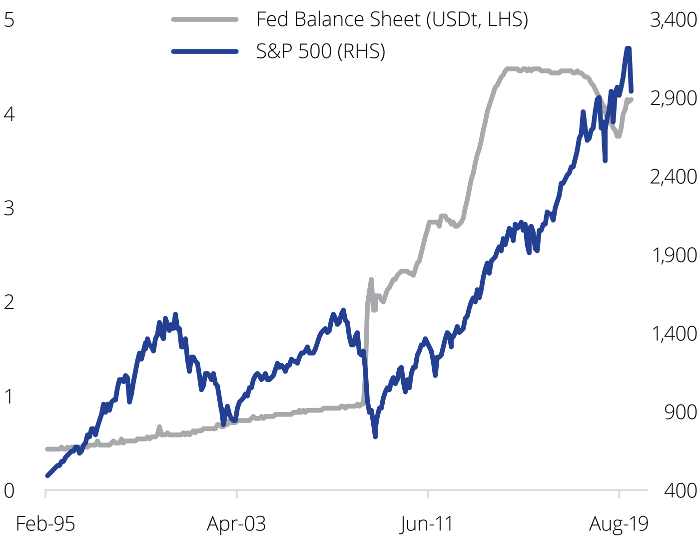
Event	Market Trajectory
September-11 Attacks	Post September-11 attacks, the S&P 500 underwent a correction of 12% before hitting trough. The index went on to rally 17% in subsequent three-month period.
SARS Outbreak	After the outbreak of SARS, the Hang Seng index registered a peak-trough decline of 18% before rallying 32% over a three-month period.
Fukushima Nuclear Accident	The Fukushima nuclear accident in Japan took place in 2011 and then after, the Nikkei 225 underwent a 22% correction before hitting a trough. It rebounded 19% in the subsequent three-month period.

From the above examples, it is evident that markets have, on average, rebounded by 23% over a three-month period after hitting trough. To be conservative, we do not expect the rebound from COVID-19 crisis to be "V-shaped" like the examples quoted above, reasons being that:

1. The scale of this crisis is bigger, affecting many major economies in the world as opposed to more "localised" ones like the Fukushima nuclear accident.
2. Restarting of global supply chains may entail more difficulties than anticipated.

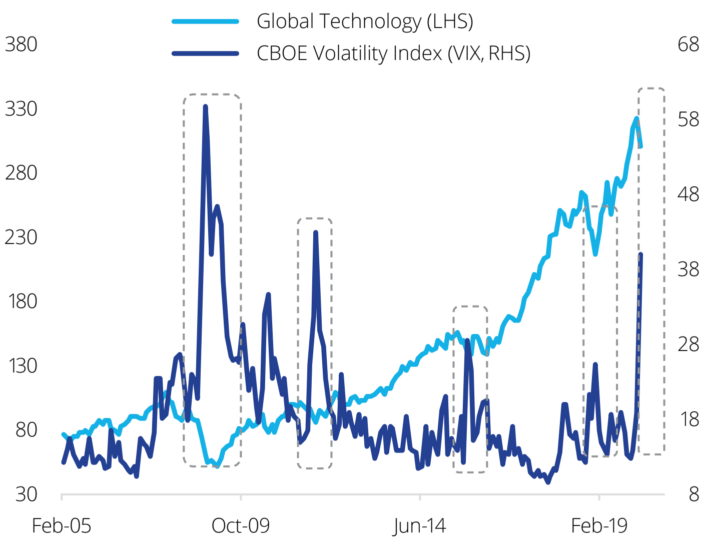
That said, we also do not expect markets to follow a "L-shaped" trajectory as growth will likely be underpinned by strong policy support (Figure 8). Henceforth, a "U-shaped" rebound will be the most likely scenario at this juncture.

Figure 8: Economic growth will continue to be underpinned by policy support



Source: Bloomberg, DBS

Figure 9: Historically, sharp spikes in market volatility only cause momentarily pullback in innovative sectors like Technology



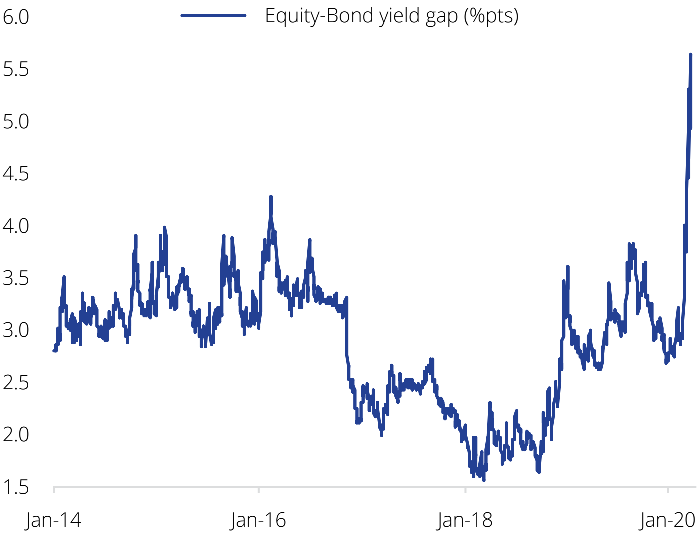
Source: Bloomberg, DBS

Looking beyond the carnage; Focus on structural trends

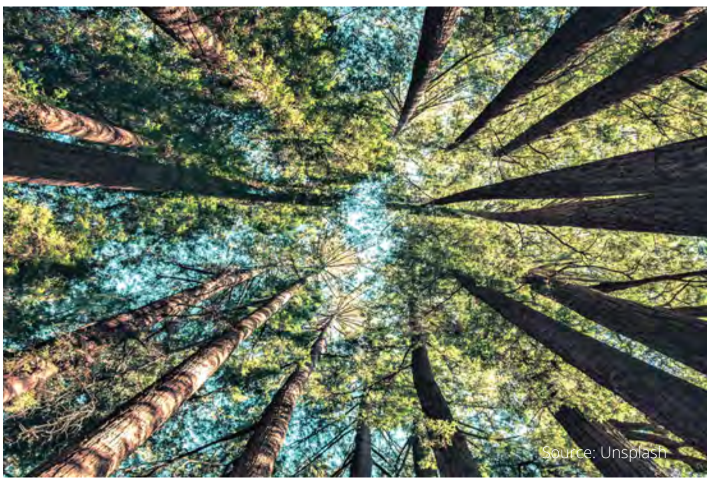
Risk assets will find a bottom in coming months as investors access the real economic damage caused by the COVID-19 outbreak. No doubt, the viral crisis has been disruptive. But it is also a transitory event that has no bearing on long-term structural trends. We believe that the following factors will drive equity markets in the coming quarters and they are:

- Widening bond-equity yield gap
- Prevalence of "TINA"
- The unstoppable Tech engine

Figure 10: The widening yield gap between equities and bonds strengthens the case for future portfolio shifts into equities



Source: Bloomberg, DBS

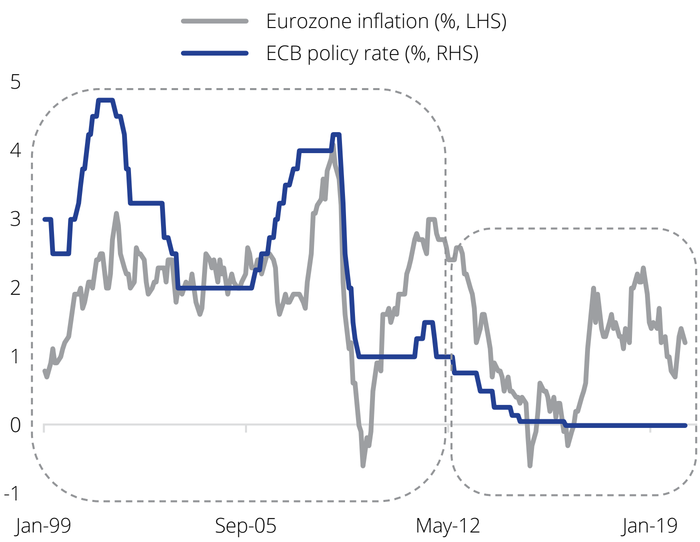


Widening bond-equity yield gap – It is all relative. The simultaneous pullback in equity prices and plunging of UST yields has pushed the Bond/Equity yield gap to a high of 4.9% – a level not seen since 2013 (Figure 10). The wide yield gap suggests that equities as an asset class has become substantially more attractive relative to bonds. We believe that this trend will persist in coming quarters given that global monetary accommodation is here to stay.

Take the Eurozone for instance. Former ECB chief Draghi has infamously proclaimed that the central bank will do "whatever it takes" to preserve the euro. This was followed by a series of rate cuts which saw the ECB policy rate falling from 1% to 0% over a span of 45 months. But the outcome has been far from ideal as inflation continues to languish (Figure 11).

Meanwhile, even the US has jumped onto the bandwagon of extreme monetary easing as result of the COVID-19 crisis. The central bank has slashed its policy rate to near zero while re-starting its quantitative easing programme.

Figure 11: Monetary accommodation is here to stay



Source: Bloomberg, DBS

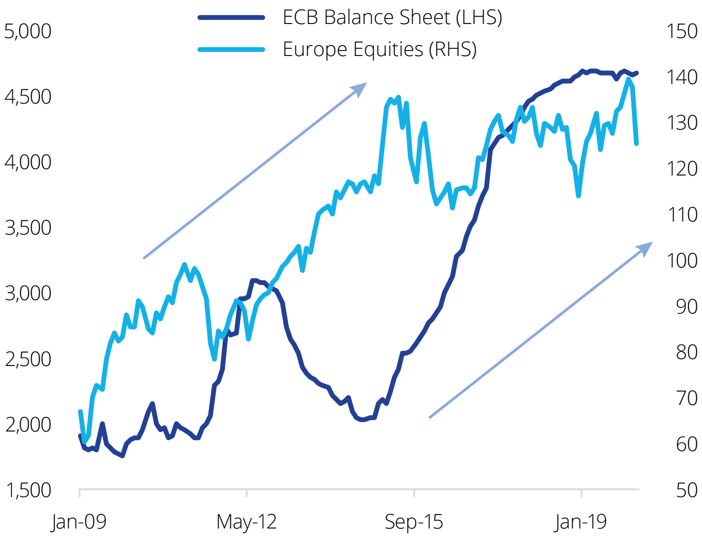
Prevalence of "TINA" – Money needs to find a home. With central banks around the world maintaining a dovish stance given ongoing macro anxieties, the hunt for yield will return to dominate the narratives in the second half of 2020.

The COVID-19 crisis will undoubtedly have a negative impact on corporate earnings. However, we believe the giant wall of liquidity in the global financial system will continue to underpin risk assets. At the end of the day, money needs to find a home.

A clear case in point is Europe. Macro growth momentum and corporate earnings have been underwhelming over the last decade. But domestic equities grinded higher nonetheless, underpinned by rising liquidity support from the ECB (Figure 12). The implementation of negative interest rates has also resulted in the tightening of European corporate bond spreads amid a frenzied search for yield (Figure 13).

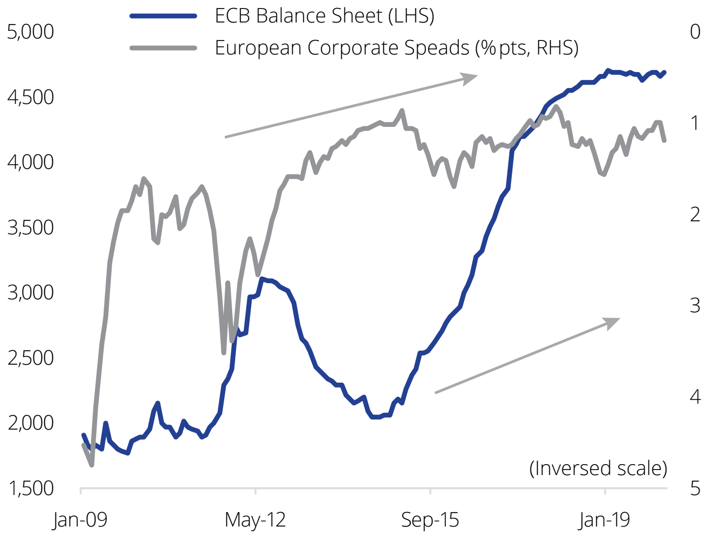
In such environment, the key beneficiaries will be (a) Equities and (b) Higher yielding corporate and EM bonds.

Figure 12: Thanks to ECB liquidity; Europe equities pushed higher despite underwhelming earnings conditions



Source: Bloomberg, DBS

Figure 13: European corporate bond spreads tightened amid a frenzied search for yield



Source: Bloomberg, DBS

The unstoppable Tech engine – Innovation triumphs transitory headwinds. US technology has been a major driver for domestic equities performance in the last six years. On average, the S&P 500 has registered annual gains of 10.4% since 2014. The technology sector, on the other hand, registered average gains of 19.6% and this constitutes an outperformance of 9.3%pts (Figure 14). So, what makes tech earnings so resilient? Two factors:

- Strong pricing power
- Improving operating cost control

As Figure 15 shows, while the GPM for S&P 500 has been largely flat over the past three decades, the GPM for technology tells a different story. Tech GPM has trended south from 48.8% in Feb-1990 before troughing at 33.9% in February 2002 after the dot-com crash. Since then, Tech's GPM has been on the rebound and currently it stands at 47.9%.

This, in our view, is party attributed to rising ASPs over the years as technology companies disrupt traditional industries, gain market share and boost their pricing power along the way with the introduction of new products and services.

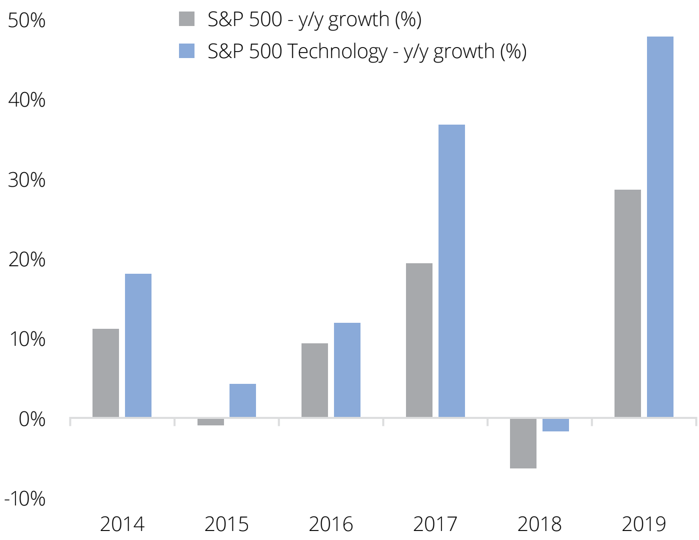
Another interesting development that has taken place is the increasing ability of tech companies to boost their OPM, which has rebounded from a trough of 12.1% in July 2009 to 22.4% currently (Figure 16). Typically , when a company experiences OPM expansion, it can be attributed to either:

- Higher profitability at the gross profit level filtering down to the operating level.
- Improving operating cost control as result of operating leverage, for instance.

To investigate if the OPM expansion is attributed to higher operating efficiency, we look at the differential between OPM and GPM.

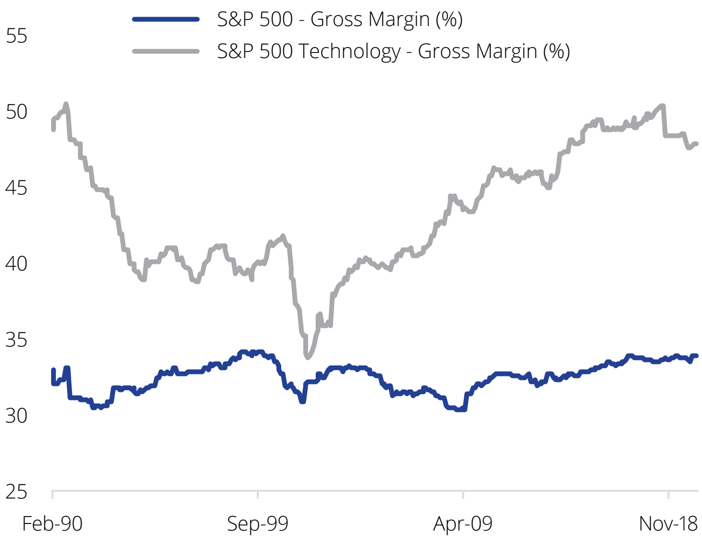
As Figure 17 shows, the OPM-GPM differential for the broader market has been largely flat. But in the case of US technology, the differential has shrunk from -31%pts in July 2009 to -25%pts currently. This suggests that improving operating cost control plays a part in driving OPM expansion among US tech companies.

Figure 14: US Technology has been a consistent driver of US equity performance



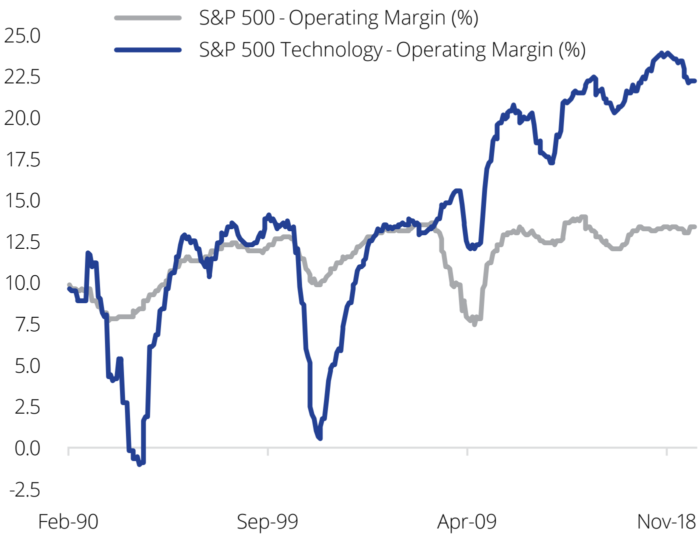
Source: Bloomberg, DBS

Figure 15: The uptrend in Technology's GPM suggests improving pricing power amongst US tech companies



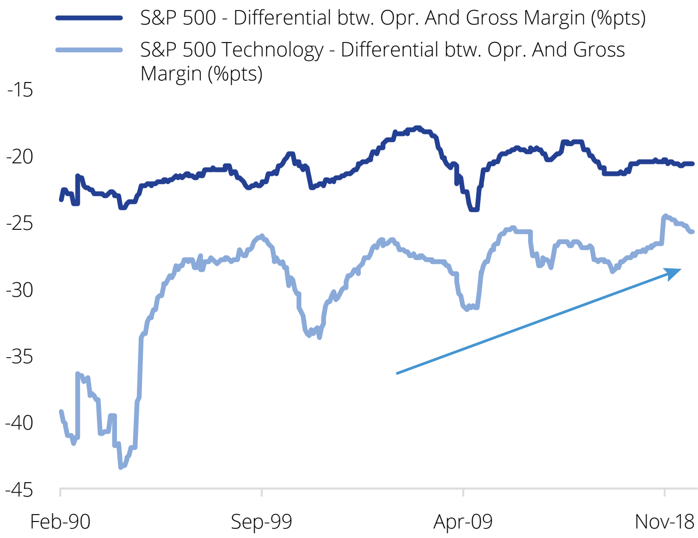
Source: Bloomberg, DBS

Figure 16: US tech companies' OPM has been trending north; But what are the drivers behind it?



Source: Bloomberg, DBS

Figure 17: Our analysis shows that the improving OPM is partly due to higher operating efficiency



Source: Bloomberg, DBS

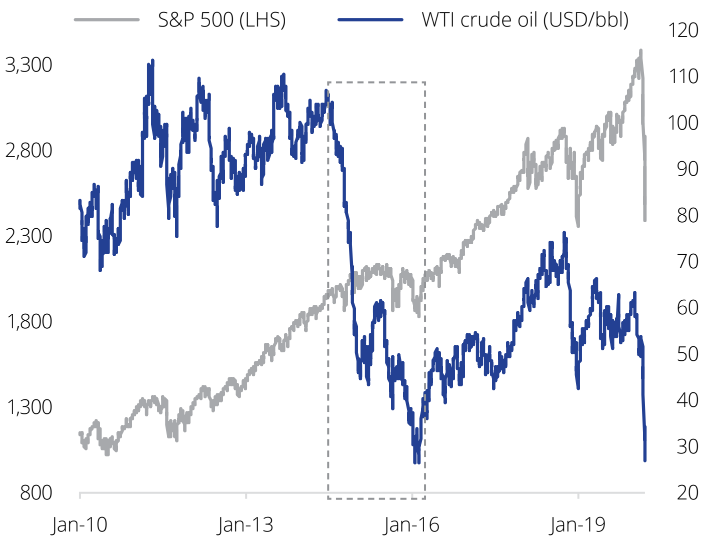
Is weak oil price a major concern?

The panic surrounding plunging oil prices is misplaced, in our view. The typical triggers for previous oil crisis were shortages in production output driving prices higher. But this time round, the reverse is happening. It was excessive production output driving prices lower.

On the earnings front, we do not foresee lasting damages for the S&P 500 as result of weaker oil prices. Firstly, energy companies account for only 2.8% weight on S&P 500. Secondly, lower energy cost reduces the input costs for US manufacturers and this is actually a net positive for the economy.

Without doubt, some were quick to point that weak oil price suggests demand weakness and most important, rising deflationary risks. In our view, such bearish deflationary concerns do not appear to tie-in with recent macro data, such as the robust US jobs numbers, for instance. The latter suggests that, if not for the recent viral outbreak, the US employment outlook remains upbeat.

Figure 18: Previous sell-down in oil has limited impact on US equities



Source: Bloomberg, DBS

2Q20 Asset Allocation: Stay the course

Table 3: 2Q20 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	-1	-1	-1	-1	0	0	0
	Economic surprise	-1 to +1	-1	-1	-1	-1	0	0	0
	Inflation	-1 to +1	1	1	1	1	1	1	1
	Monetary policies	-1 to +1	1	1	1	1	1	1	1
	Forecasted EPS growth	-2 to +2	-1	-1	-1	-1	-	-1	-1
	Earnings surprise	-2 to +2	-1	-1	-1	-1	-	-1	-1
Valuation	Forward P/E	-2 to +2	1	1	1	2	-	-	-
	P/B vs ROE	-2 to +2	1	0	0	1	-	-	-
	Earnings yield - 10Y yield	-2 to +2	2	2	2	2	-2	0	0
	Free cashflow yield	-2 to +2	2	-1	0	1	-	-	-
	Credit spread	-2 to +2	-	-	-	-	-	0	1
Momentum	Fund flows	-2 to +2	0	0	0	1	1	0	1
	Volatility	-1 to +1	-1	-1	-1	-1	0	-	-
	Catalysts	-2 to +2	1	0	0	1	0	0	0
Raw Score			4	-1	0	5	1	0	2
Adjusted Score*			**0.19**	**-0.05**	**0.00**	**0.24**	**0.09**	**0.00**	**0.13**

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

Source: DBS

Cross Assets – Equities have increased its relative attractiveness over bonds. From a cross-assets perspective, we keep our preference for equities over bonds. In our CAA Framework, equities garnered a higher score of 0.10, as compared to 0.07 for bonds.

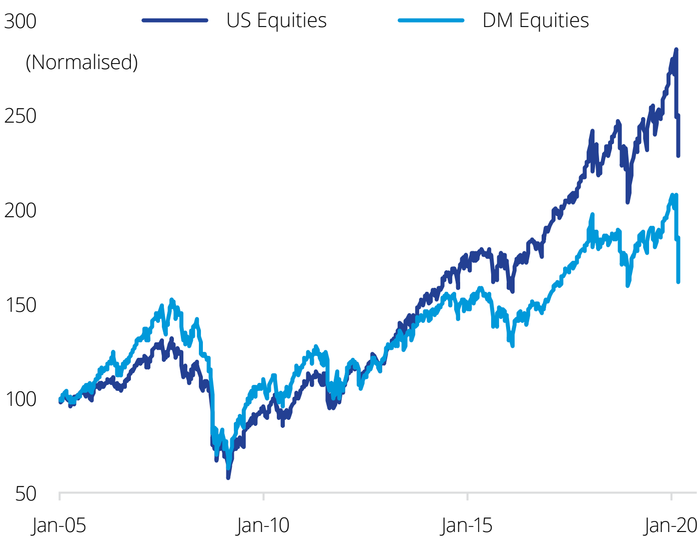
Fundamentals: The coronavirus outbreak in China is expected to be a major drag on global macro momentum given the disruption caused to travel/tourism and the global supply chain, notwithstanding the dent it made on consumer confidence.

Based on our house view, China's GDP growth for 2020 has been revised down to 5.3% while US GDP growth is also expected to moderate from 2.3% in 2019 to 2.0% this year. But that said, despite the overall growth headwinds, we expect the downside impact to be mitigated by monetary and fiscal easing around the world.

Valuation: On a cross-asset basis, the gap between earnings yields and Treasury yields remains substantial at 4.9% and this underpins our preference for equities over bonds.

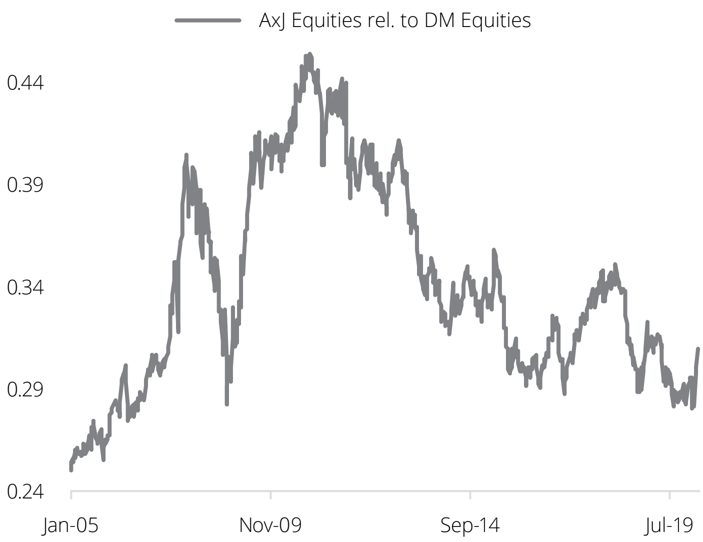
Momentum: On cross-asset flows, the anticipated outflow of funds from equities has been surprisingly muted despite the sharp correction in equity markets. Since the week of 26 February, USD40b has exited from equities funds and this is even lower than the inflows of USD61 registered during the earlier part of the year. Hence on a YTD basis, equities have still seen net inflow of USD13b. Bonds funds, meanwhile, registered net inflow of USD111b on a YTD basis.

Figure 19: US equities maintain outperformance over DM



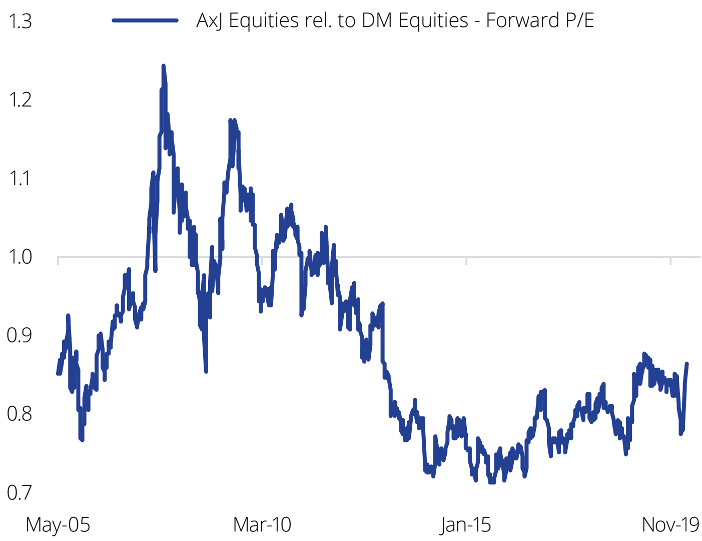
Source: Bloomberg, DBS

Figure 20: Time for Asia ex-Japan to outperform



Source: Bloomberg, DBS

Figure 21: Asia ex-Japan trades at an attractive discount to DM



Source: Bloomberg, DBS

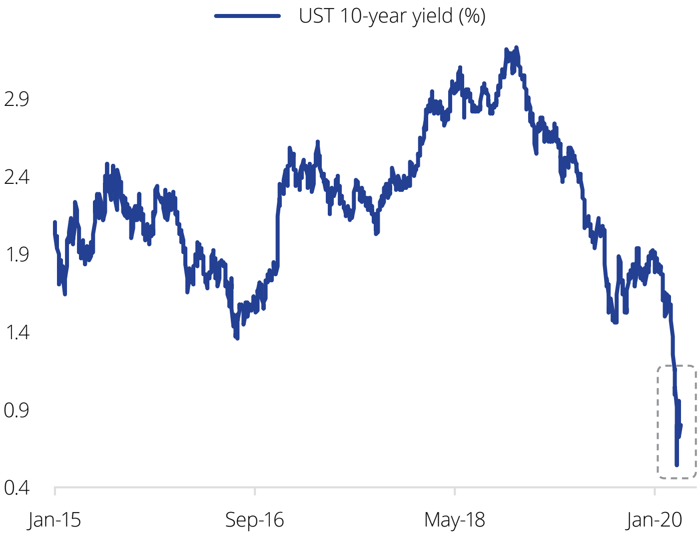
Equities: Coronaviral outbreak a transitory event; Position for Asia ex-Japan outperformance. Our US Overweight call has panned out as expected as the former outperformed the developed markets YTD. Despite the sharp market volatility, US equities has managed to maintain its outperformance due to the underlying resilience of US companies. Given the transitory nature of this crisis, it is unlikely that portfolio allocators will sell down their core holdings of US companies with robust earnings growth outlook.

Meanwhile, Asia ex-Japan equities are poised to outperform developed markets like Europe in the coming months given:

1. Asia is expected to see a peak in COVID-19 cases earlier than the developed economies and this will be a major boost for sentiments.

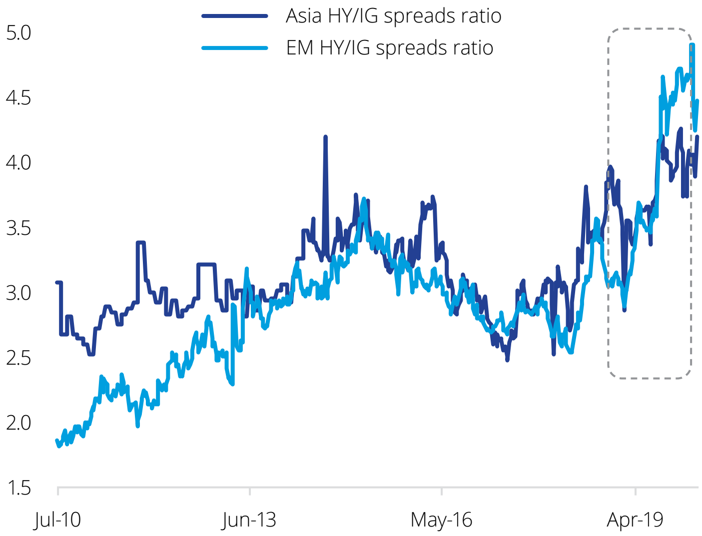
2. Asia continues to trade at an attractive discount to the DM space (Figure 21).

Figure 22: UST yields to stay anchored to the lows as macro anxiety takes centre-stage



Source: Bloomberg, DBS

Figure 23: Valuation for Asia HY looking attractive on a relative basis



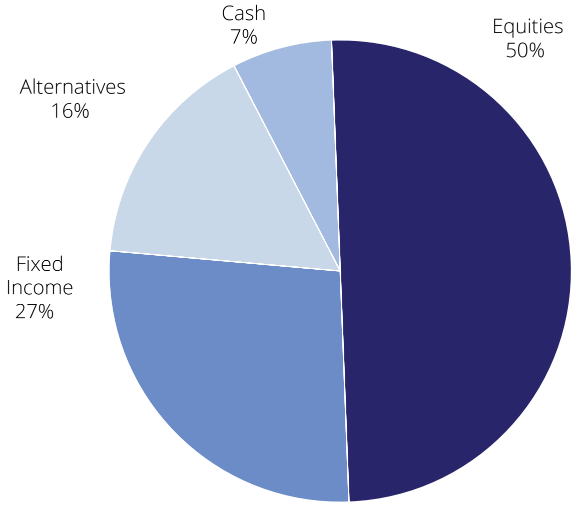
Source: Bloomberg, DBS

__Bonds__: **UST yields to stay anchored to the lows; Opportunities in Asia BB credits.** As financial markets continue to assess the eventual economic fallout arising from the coronaviral outbreak, we expect the flight to safe haven assets to persist over the immediate term, with the UST 10-year yield languishing at the lows (Figure 22).

In the credit space, we maintain an Overweight on EM bonds with a particular preference for Asian high yield. As Figure 23 shows, the HY/IG spreads ratio for Asia has been trending north since early-2018 and this increases the odds of Asia HY bonds garnering positive returns for investors. We favour Asian HY companies with stable operating cash flow and debt serviceability. Asia BB credits are our preferred exposure.

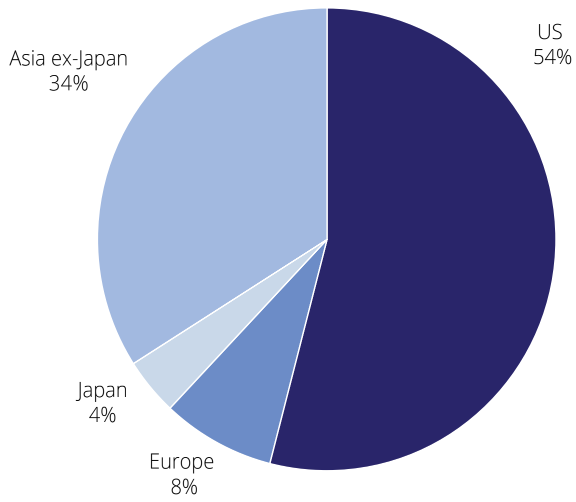
Source: Unsplash

Figure 24: TAA breakdown by asset class (Balanced Profile)



Source: DBS

Figure 25: TAA breakdown by geography within equities (Balanced Profile)



Source: DBS

Table 4: 2Q20 Global Tactical Asset Allocation (TAA)

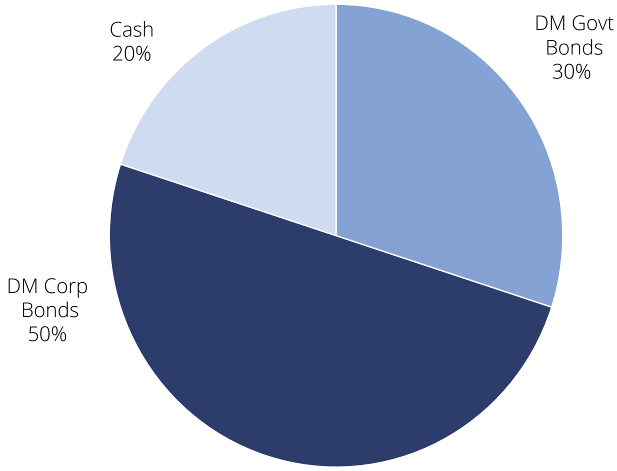
Asset Class		
	3-Month Basis	12-Month Basis
Equities	**Neutral**	**Neutral**
US Equities	Overweight	Overweight
Europe Equities	Underweight	Underweight
Japan Equities	Underweight	Underweight
Asia ex-Japan Equities	Overweight	Overweight
Fixed Income	**Underweight**	**Underweight**
Developed Markets (DM)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

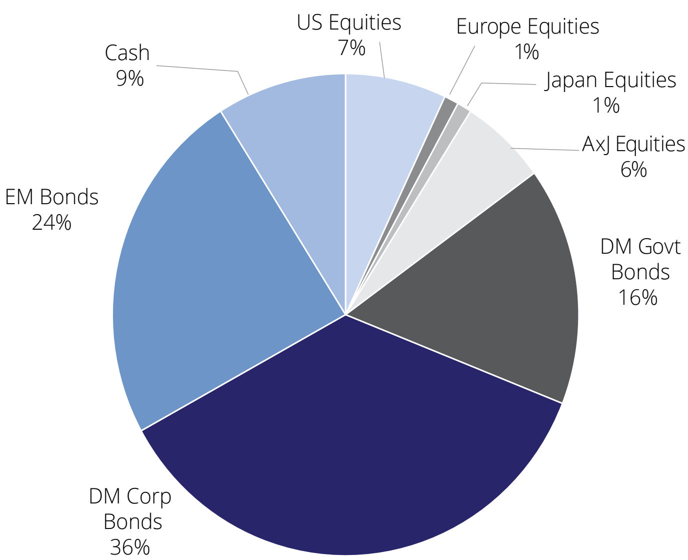


Source: DBS

Moderate

	TAA	SAA	Active
Equities	15.0%	15.0%	
US	7.0%	6.0%	1.0%
Europe	1.0%	4.0%	-3.0%
Japan	1.0%	2.0%	-1.0%
Asia ex-Japan	6.0%	3.0%	3.0%
Fixed Income	76.0%	80.0%	-4.0%
Developed Markets (DM)	52.0%	60.0%	-8.0%
DM Government Bonds	16.0%	20.0%	-4.0%
DM Corporate Bonds	36.0%	40.0%	-4.0%
Emerging Markets (EM)	24.0%	20.0%	4.0%
Alternatives	0.0%	0.0%	
Gold	0.0%	0.0%	
Hedge Funds*	0.0%	0.0%	
Cash	9.0%	5.0%	4.0%

*Only P4 risk rated UCITs Alternatives

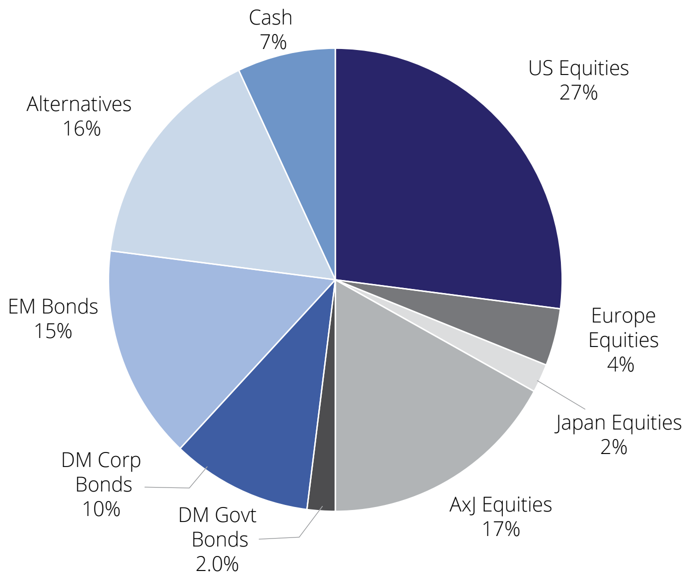


Source: DBS

Balanced

	TAA	SAA	Active
Equities	50.0%	50.0%	
US	27.0%	25.0%	2.0%
Europe	4.0%	10.0%	-6.0%
Japan	2.0%	5.0%	-3.0%
Asia ex-Japan	17.0%	10.0%	7.0%
Fixed Income	27.0%	35.0%	-8.0%
Developed Markets (DM)	12.0%	25.0%	-13.0%
DM Government Bonds	2.0%	10.0%	-8.0%
DM Corporate Bonds	10.0%	15.0%	-5.0%
Emerging Markets (EM)	15.0%	10.0%	5.0%
Alternatives	16.0%	10.0%	6.0%
Gold	9.0%	5.0%	4.0%
Hedge Funds*	7.0%	5.0%	2.0%
Cash	7.0%	5.0%	2.0%

*Only P4 risk rated UCITs Alternatives

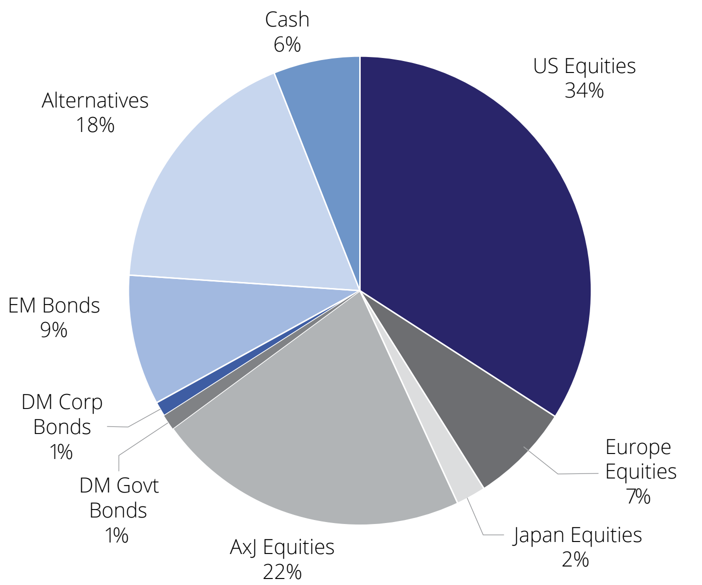


Source: DBS

Aggressive

	TAA	SAA	Active
Equities	65.0%	65.0%	
US	34.0%	30.0%	4.0%
Europe	7.0%	15.0%	-8.0%
Japan	2.0%	5.0%	-3.0%
Asia ex-Japan	22.0%	15.0%	7.0%
Fixed Income	11.0%	15.0%	-4.0%
Developed Markets (DM)	2.0%	11.0%	-9.0%
DM Government Bonds	1.0%	4.0%	-3.0%
DM Corporate Bonds	1.0%	7.0%	-6.0%
Emerging Markets (EM)	9.0%	4.0%	5.0%
Alternatives	18.0%	15.0%	3.0%
Gold	7.0%	5.0%	2.0%
Hedge Funds*	11.0%	10.0%	1.0%
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.

Source: Unsplash

Macroeconomics | 2Q20

Pandemic shock

Global Macroeconomics

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

United States

The US economy was poised to become a distraction-free sideshow this year. Characterised by ample liquidity, low interest rates, record low unemployment, steady rise in wages, strong wealth effect feeding through well supported asset prices, and improving consumer and business sentiments, the economy comfortably tracked 2-2.5% growth in early 1Q. The phase-one trade deal signed between the US and China was seen as calling time, at least for this year, on trade disputes between the world's two largest nations.

In fact, 2020 was supposed to be about political noise. Starting with the impeachment hearing of US President Donald Trump in January and ending with the US presidential election in November, market pricing was set to calibrate toward Trump's re-election chances against the Democratic party nomination. Intrigues around what the president would do to ensure re-election, both on the domestic and foreign policy arena are considerable. Also, the battle between centrists and leftists in the Democratic Party has implications for the markets. This narrative has been entirely upended by the COVID-19 outbreak and an oil production war between Russia and Saudi Arabia, adding considerable gloom to the outlook. US markets spent January and most of February largely oblivious about the potential economic cost of the outbreak, despite mounting evidence of production stoppage and travel disruptions.

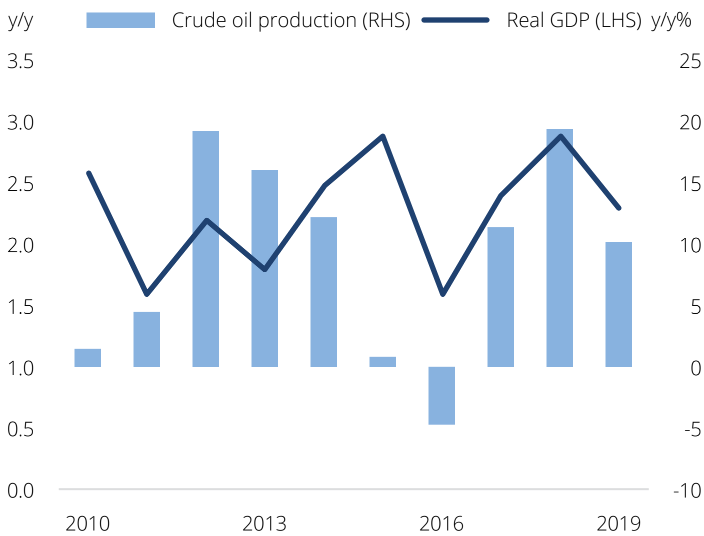
This was particularly the case for equities where the rally was strong. Fixed income markets took a more cautious view, with government debt rallying furiously, reflecting concerns about a likely slowdown. Concerns began to weigh on the credit space, especially to the spreads of companies exposed to travel and supply chain sensitivities. As March dawned, confidence nosedived. The outlook for consumption and investment has darkened considerably.

Among the most impacted has been the commodities sector, especially energy, casting doubts about energy related earnings and investment this year. In recent years, thanks to the shale revolution boosting production, the US has become a net exporter of energy. Oil production and US growth now go hand in hand.

A poor oil price outlook in the past was seen as an unambiguous positive for the US consumers (and hence the overall economy), but today that is offset by the negative implication for shale producers.

Against this background, we are revising down the US 2020

Figure 1: US growth moving with oil production fluctuations

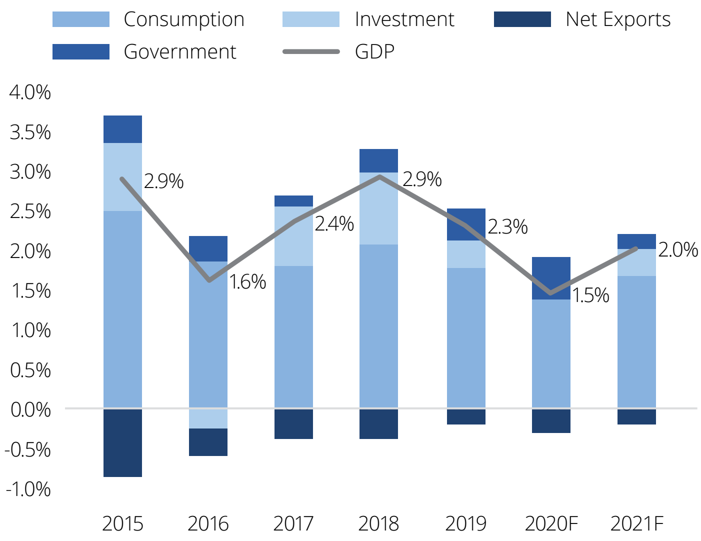


Source: CEIC, DBS

growth forecast to 1.5%. Most of the economic weakness will manifest in 2Q, during which period we expect the GDP to shrink on a q/q basis. Investment will likely suffer the most, but consumption is also likely to be disrupted substantially. We note that the risk to this forecast is asymmetric. A prolonged oil production war and limited success in dealing with COVID-19 are scenarios under which growth could end up being much lower. We cannot think of many scenarios under which growth could be much stronger.

As the global economic slowdown becomes prolonged and disorderly, US policymakers will likely step in to provide support. On the fiscal front, support will be provided to small and medium-sized businesses getting squeezed by work stoppages. On the monetary front, the Federal Reserve will come under increasing pressure to keep easing policy, both through outright rate cuts and by injecting liquidity. QE is on the cards too.

Figure 2: US GDP and components



Source: CEIC, DBS

Source: Unsplash

Eurozone

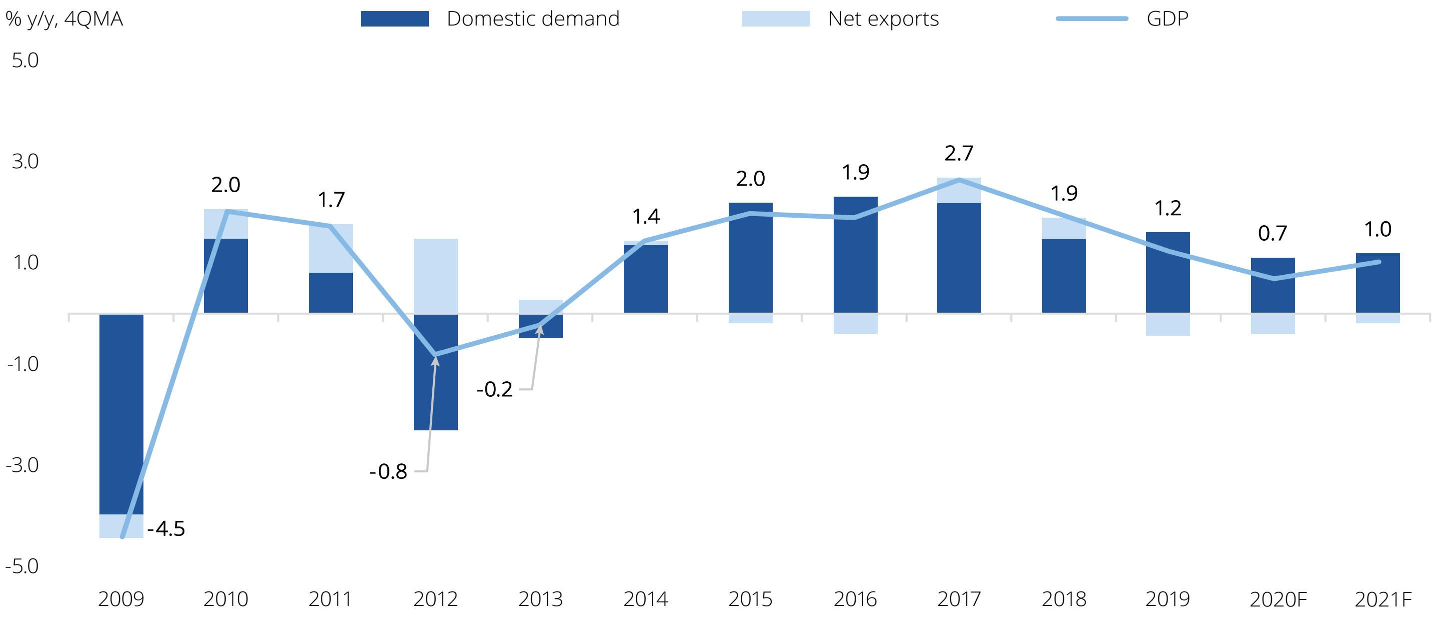
2019 ended on a sombre note, and Eurozone GDP growth slowed to 0.9% y/y in 4Q19, the slowest since late 2013. The full-year average stood at 1.2% y/y, weakest in six years. Among the core-4, Germany came to a standstill with flat growth, while Italy and France contracted on q/q sa basis. It was a weak end to 2019 even before the fresh threat from coronavirus and risks of tariffs by the US surfaced to set 2020 on the backfoot.

A challenging external environment is still the primary risk while domestic demand signals fatigue as the domestic virus outbreak worsens, raising recessionary risks for the currency bloc. In addition to the US's plans to raise import duties on EU aircrafts in March, potential tariffs on cars are the next threat. Germany's exposure to the auto industry and the US markets is highest among member countries. Adding to this is the highly unfavourable fallout of COVID-19 on member countries like Italy, Spain, and Germany, in addition to Mainland China and regional growth and services outlook.

Domestic demand has softened after a tough year for manufacturing and trade sectors, with the virus spread and related lockdowns threatening to hurt consumption significantly. Unemployment remains at the lowest in a decade, even as divergence between countries remains wide. Wage growth is holding up but negotiated wage growth is losing traction. Lending conditions are supportive, even as appetite for credit among non-financial corporates is waning at the margin. Facing recessionary risks for the entire bloc, we dial down 2020 GDP growth to 0.7% y/y (vs 1.1% previously) and 2021 at 1.0% y/y.

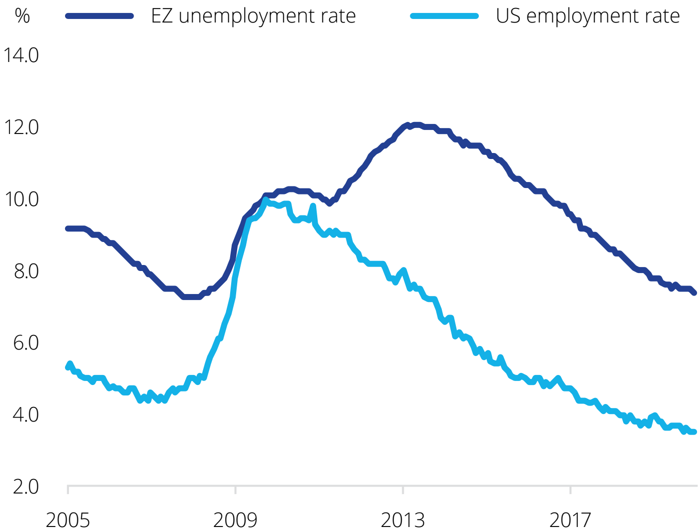
Headline and core inflation diverged at the start of 2020, but that is unlikely to last. With the sharp correction in global energy prices and tepid demand, the headline should catch down and stay below target this year. We lower inflation forecasts to 1.0% this year vs 1.2% previously. Following the US Fed's aggressive easing action and growth risks at home, the ECB has doled out aggressive QE purchases, part of which is referred to as the Pandemic Emergency Purchase Program (PEPP), and might follow up with cuts to the deposit facility rate.

Figure 3: 2019 growth was the weakest in nearly six years



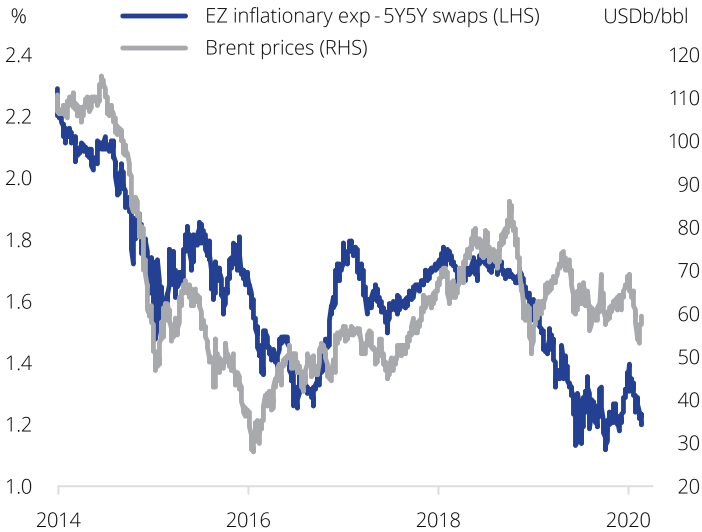
Sources: CEIC, DBS

Figure 4: Unemployment rate continues to fall, but masks underlying divergence



Sources: CEIC, DBS

Figure 5: Weak inflationary expectations



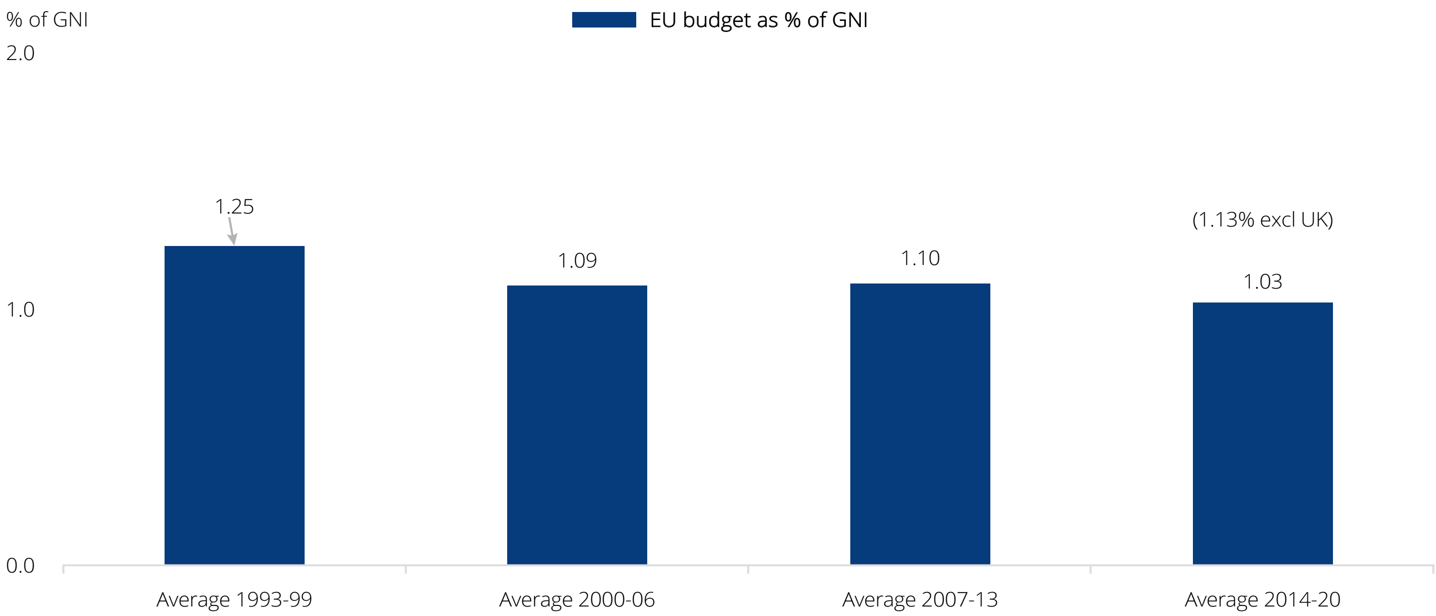
Sources: Bloomberg, DBS

Source: Unsplash

Ongoing strategic review by the ECB involves a relook and assessment of the price stability mandate and policy toolkit among other things. Compared to the prevailing "below but close to 2%" inflation target, it might be tightened to either a straight "2%" target (raising the bar for policy normalisation) or made more flexible via a symmetric inflation target. Either way, there are bound to be fierce debates around these changes.

The EU Budget discussions for 2021-26 will dominate the narrative over the next few months. Negotiations are complicated between the net Budget contributors (call for 1% of GNI) and net recipients, particularly after the UK's exit from the EU. The timing is inopportune as Germany is in the midst of a political leadership crisis after Chancellor Angela Merkel's designated successor resigned as leader of the Christian Democratic Union party. As right-wing parties get a bigger foothold in rest of EU, these budget related talks are likely to be acrimonious.

Figure 6: Size of the EU Budget in the past few cycles



Sources: European Commission, DBS

Japan

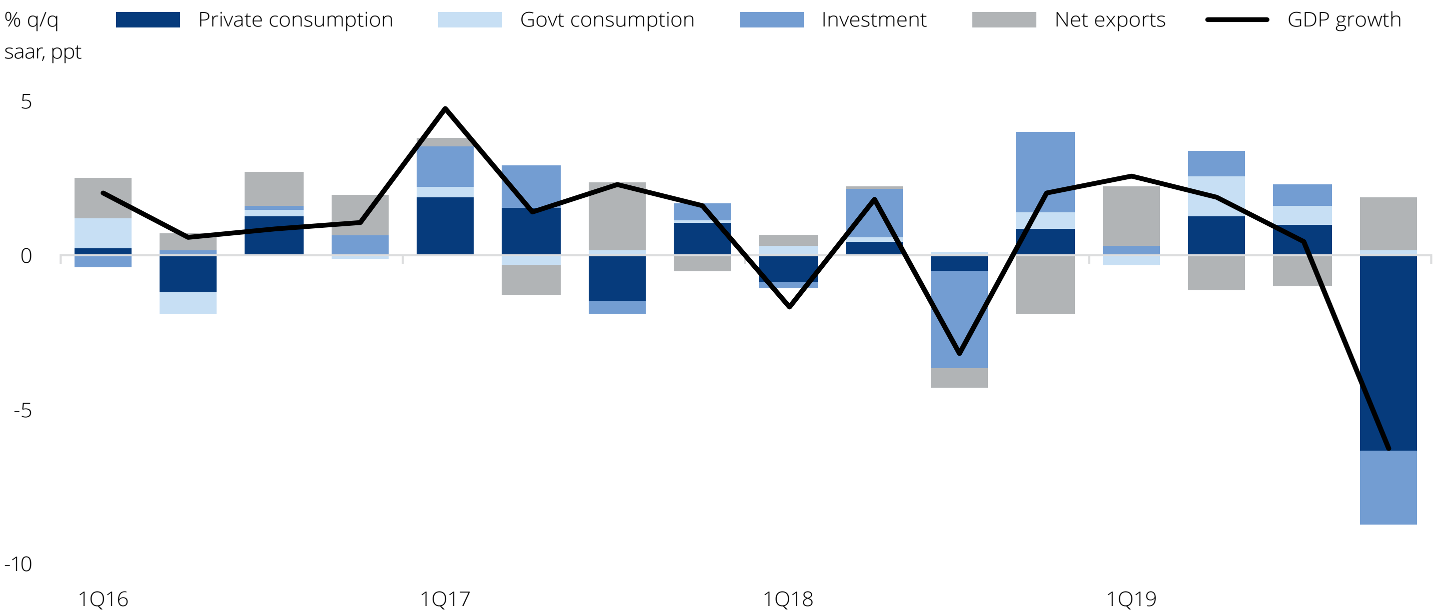
Japan is on the brink of a technical recession. Hit badly by the sales tax hike implemented in October 2019, GDP growth contracted sharply by -7.1% (q/q saar) in 4Q19, with private consumption plunging as much as -11%. With the recent outbreak of COVID-19, one more quarter of growth contraction in 1Q20 becomes possible. To reflect the short-term negative impact from COVID-19, we have revised down the 2020 GDP growth forecast to 0.2% from 0.5%. The 2021 forecast is tweaked to 1.1% from 0.9%.

The expected recovery in private consumption from the sales tax hike is likely to be delayed by at least one quarter, to 2Q20 from 1Q20. There have been hundreds of confirmed COVID-19 cases in Japan as at end-February, one of the highest among the countries outside of Mainland China. This substantially differs from the SARS epidemic in 2003 when no infection cases were reported in the country. It is reasonable to expect domestic consumers to take a relatively cautious approach this time, including reducing shopping, dining, travel, and entertainment activities temporarily in 1Q20.

Meanwhile, inbound tourism will likely take a hit. The Chinese government has started to impose a ban on group travels abroad since end-January in the wake of the COVID-19 outbreak. Tokyo has also begun to restrict Chinese residents from Hubei and Zhejiang provinces to travel to Japan. The decline in Chinese tourists is expected to cut inbound tourism revenues by at least 10-20%, given that Mainland China is Japan's largest source of tourist arrivals, accounting for a share of 30%. More importantly, if the pandemic risk in the region were to remain in the coming months, the number of tourists visiting Japan during the Tokyo Olympics would fall short of expectations.

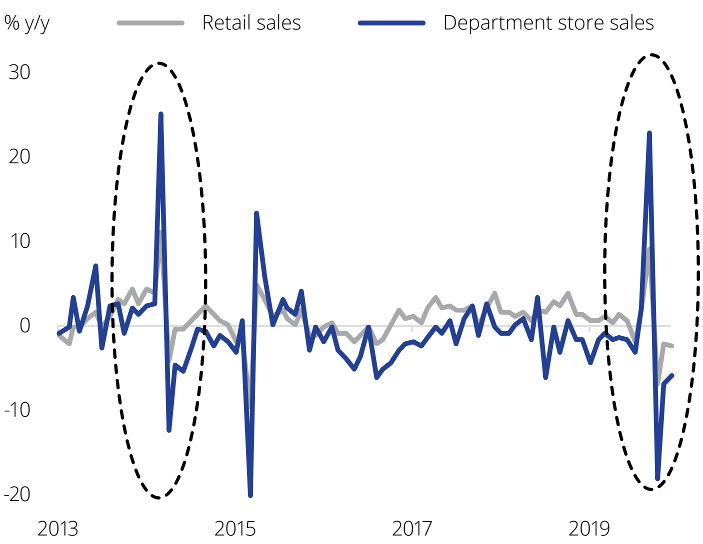
Moreover, the near-term prospect for exports and industrial production is dampened due to disruptions in the Chinese

Figure 7: GDP growth plunged in 4Q19 after the sales tax hike



Sources: CEIC, DBS

Figure 8: Consumption remained fragile as in 2014

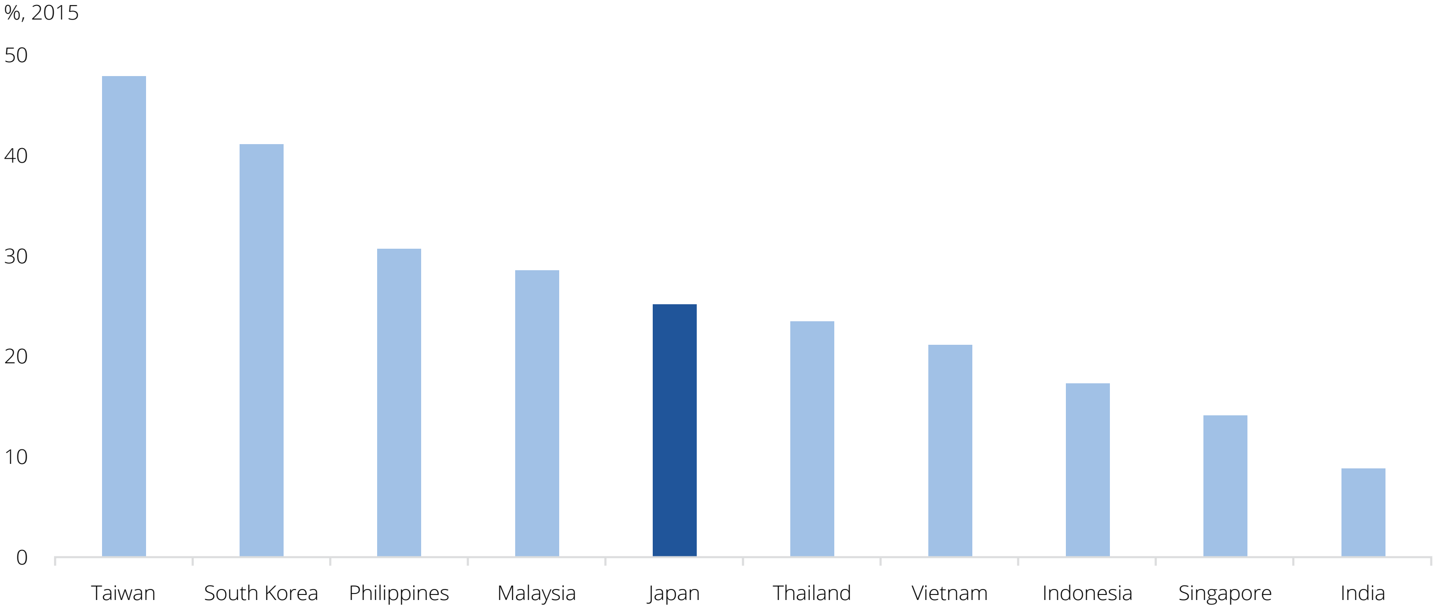


Sources: CEIC, DBS

supply chains, as well as a slowdown in Chinese demand. Although most provinces in Mainland China ended the extended Lunar New Year holidays, many manufacturers there still struggled to resume normal production, in face of travel restrictions, quarantines, and other form of control measures. The ripple effects on Japan through the supply chain channels should be inevitable. This considers that a significant 25% of Japan's intermediate goods exports are destined for the Chinese market, while 19% of its intermediate goods imports are sourced from Mainland China.

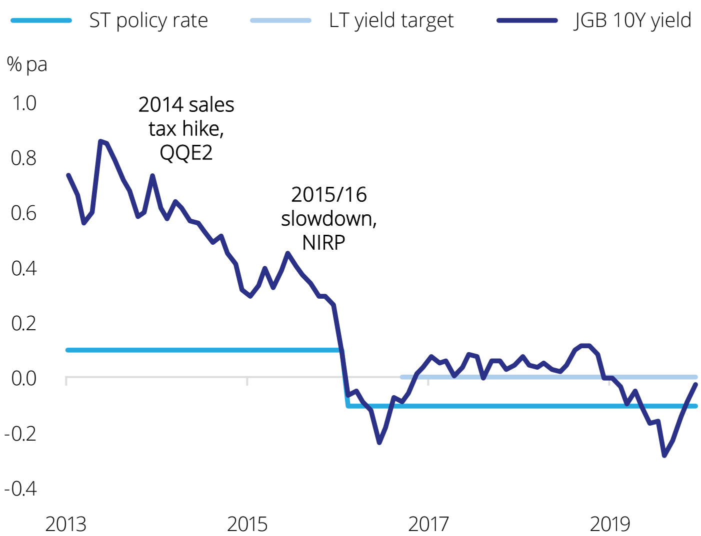
The BOJ reacted to recession risks every time in the past seven years since Abenomics was established, including during the sales tax hike in 2014 and the Mainland China-led global slowdown in 2015. This time, given the double whammy from sales tax increase and pandemic outbreak, the central bank would find it necessary to respond again. We maintain the forecast for the BOJ to cut the short-term policy rate by 10 bps in 1H20.

Figure 9: Share of Mainland China in intermediate goods exports



Sources: OECD, DBS

Figure 10: The BOJ reacted to recession risks in 2014 and 2015/16



Sources: CEIC, DBS

Asia

The procession of outlook downgrades for Asian economies continues. Singapore's economy expanded by 1.0% y/y in 4Q19, bringing 2019 growth to 0.7%. Along with the data release, the official GDP growth forecast for 2020 was lowered to -0.5 to 1.5%. Our 2020 GDP growth forecast at 0.9% is therefore slightly higher than the official midpoint. We recognise mounting downside risk to this forecast, but at the same time we expect a slew of measures from the Singaporean authorities to support jobs and functioning of small and medium-sized enterprises.

For Thailand, we have revised down 2020 growth forecast to 2% (from 3%), but we stand ready to revise downward further as risks stemming from pandemic-related headwinds to production and tourism, as well as a persistent drought and lingering political tension are undermining the outlook considerably.

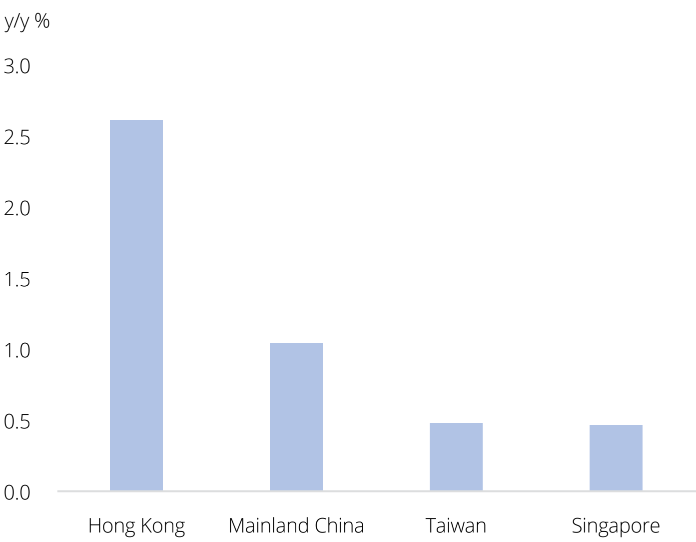
Japan's outlook is darkening by the day. The expected post-tax hike recovery in consumption is likely to be delayed due to the COVID-19 outbreak and likely disruption in production.

Tourist arrivals will likely decline, putting a dampener on the much-anticipated Tokyo Summer Olympics. With near-term prospect for production and exports deteriorating, we are revising down the 2020 GDP growth forecast to 0.2% from 0.5%.

Along similar lines, we have lowered South Korea's growth forecast to 2.2% from 2.4%, but as outbreak numbers in the country rise, this forecast revision may already be at risk. Soaring COVID-19 cases at end-February have alarmed markets, with interest rates rallying furiously.

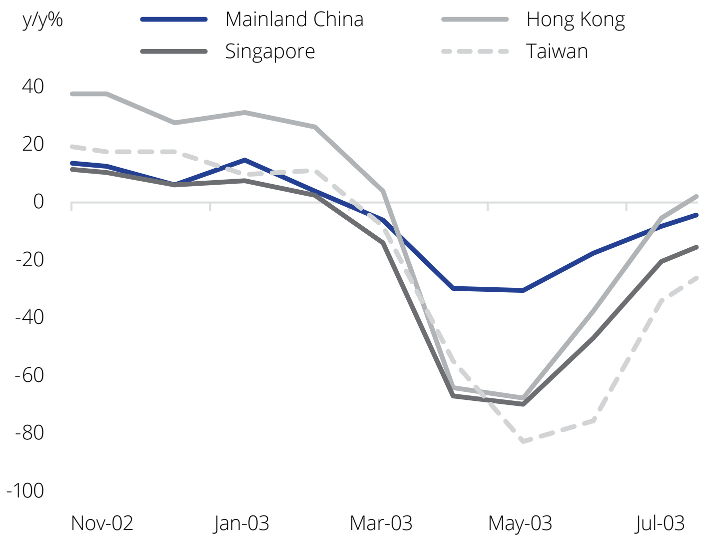
Shifting our focus to Mainland China, even as companies resume operations haltingly with labourers returning to work towards the end of February, disruptions are likely to remain widespread, ranging from production, payments, trade settlement, shipments, travel, transportation, and entertainment. As perishable goods wait too long to be cleared in Chinese ports, conflict over liability will arise between buyers and sellers; as credit worries rise, well-established systems to guarantees and advances in the trade arena could be challenged. Even countries with no COVID-19 cases could soon begin to feel the impact on tourism and trade.

Figure 11: Tourist arrivals in select SARS-affected regions



Source: CEIC, DBS.

Figure 12: Loss of GDP in 2003 due to SARS



Source: CEIC, DBS.

So far, the loss in service sector activity is readily apparent, but considerable decline in durable goods production and consumption have not even begun appearing in the data. An exceptionally sharp rebound in production in March could make up for some loss in activity since the Lunar New Year holidays , but nonetheless , a q/q decline in Mainland China GDP looks inevitable to us.

Recent high frequency data on electricity usage in one of Mainland China's largest provinces suggest that activity in the construction, wholesale and retail, and industrial sectors are nowhere close to recovering to pre-holiday levels. Even if a recovery starts soon, with companies running double shifts, we do not think there is enough time to make up for loss output. The Chinese economy is all but certain to have contracted this quarter, in our view. We expect growth to come back to some extent in 2Q, followed by a strong production-led recovery in 2H. This should help 2020 annual average growth to be in the 4.5% range, in our view.

We have begun seeing monetary policy easing by Asia's central banks and currencies weaken (especially KRW, SGD, and THB). Singapore's 2020 Budget was appreciably counter-cyclical, and we expect just about all Asian policymakers to follow suit.

Oil faces unprecedented demand decimation

Global lockdowns set the stage for a volatile 2Q20. After a strong start to the year amidst geopolitical flare ups in Iran and other parts of the Middle East, Brent crude oil prices have retreated by more than 60% from the early-2020 peak of USD69.00/bbl to around USD27.00/bbl levels (at the time of writing).

The breakdown of the OPEC+ alliance during their meeting in Vienna in the first week of March caused oil prices to crash around 20% on 9 March, the highest single day decline in oil prices since 1991. The prospect of Saudi Arabia and Russia increasing production from April onwards has since been relegated to the background. The COVID-19 outbreak continues to make significant inroads into more countries globally, denting oil demand prospects significantly as cities and countries go into lockdown mode to tackle the virus transmission rates.

With cars off the roads and air travel severely restricted, demand destruction could peak at around 10 mmbpd in April 2020 (-10% y/y) and 2Q20 overall oil demand could decline by 7 mmbpd y/y. Taking this into account, we revise down our overall 2020 oil demand growth projection from +1.0 mmbpd to -3.0 mmbpd.

On the other hand, supply could be up by more than 1.0 mmbpd in 2020, as OPEC production cuts no longer apply after 1Q20 and situation thereafter remains fluid. Thus, we

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

(USD per barrel)	1Q20F	2Q20F	3Q20F	4Q20F	1Q21F	2Q21F	3Q21F	4Q21F
Average Brent crude oil price	47.5	23.0	33.5	36.5	40.5	39.5	44.0	45.0
Average WTI crude oil price	42.0	19.0	29.5	32.5	36.5	35.5	40.0	41.0

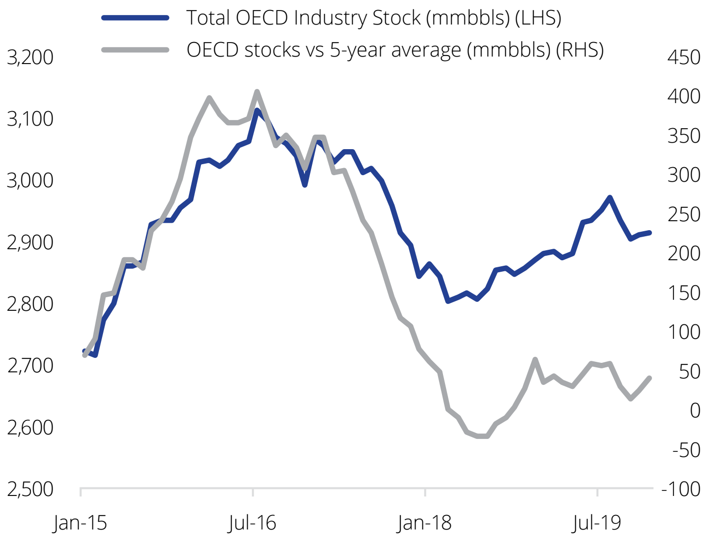
Source: DBS

now expect Brent crude oil price to average between USD32-37.00/bbl in 2020, down almost 50% from 2019 average of USD64.00/bbl. Inventory overhang caused by wide supply-demand gap in 2020 will continue to weigh on oil prices in 2021; we expect Brent to average between USD40-45.00/bbl in 2021.

Oil demand likely to fall off the cliff in the coming weeks. As the COVID-19 case count shows no sign of slowing down on a global basis, and as more countries go into lockdown mode to prevent the spread of the virus, the demand prognosis for oil gets bleaker by the day. We now estimate oil demand could be down at the peak by almost 10% y/y or a whopping 10 mmbpd in the coming weeks (especially the month of April), and overall oil demand in 2Q20 could be down on average by almost 7 mmbpd y/y. These are unprecedented numbers, and this quantum of demand decline for oil has likely never been seen before .

Taking into account the expected 1Q20 dip in demand (likely down by around 5-6 mmbpd y/y) and hoping that the spring/summer season slows down the virus transmission numbers in 3Q20, we now expect global oil demand to decline on average by around 3.0 mmbpd or 3% y/y in 2020, with 4Q20 being the first quarter with likely positive growth in oil demand in 2020. However, if the onset of spring/summer in Western countries does not slow down the rate of transmission of the virus, then expect the strict lockdowns to continue well into the second half of the year and drag down demand estimates and oil prices even further.

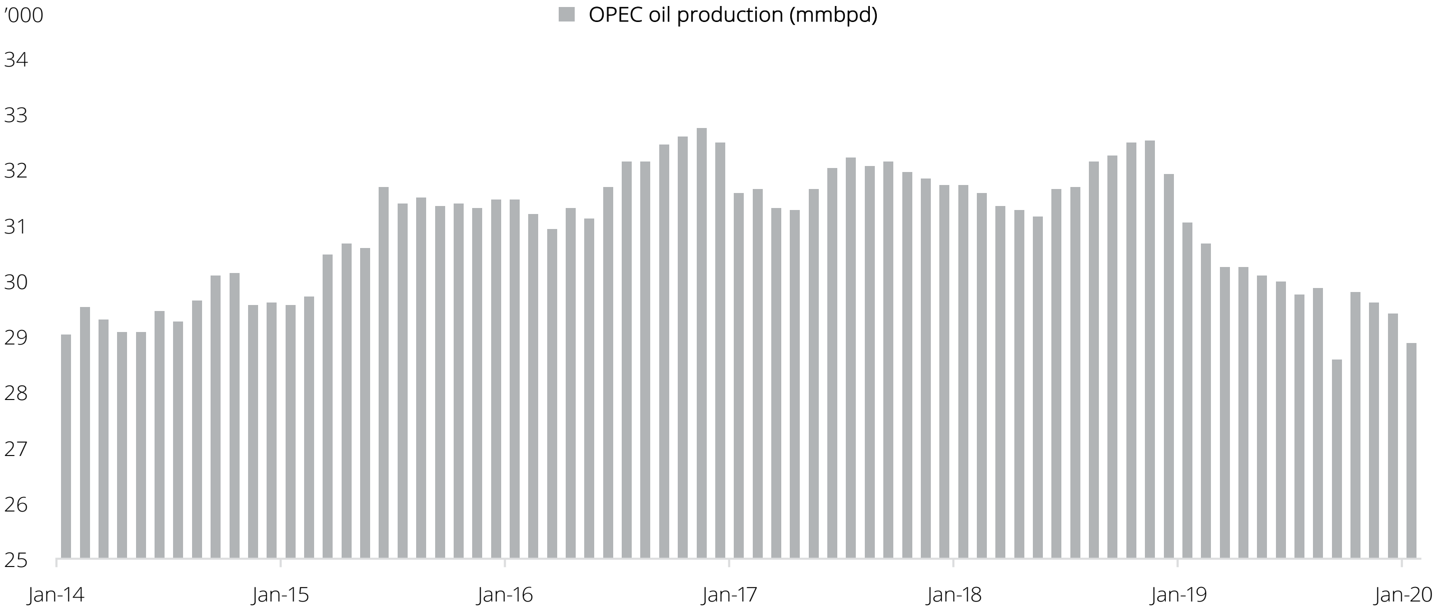
Figure 13: Global oil inventory levels will take on sharp upwards trajectory in near term



Source: IEA, DBS

OPEC+ meltdown and Saudi-Russia faceoff adds unwanted supply dimension. The meeting of OPEC and its non-OPEC allies including Russia on 5-6 March, failed to produce any consensus on further production cuts beyond 31 March 2020, as Russia did not agree to ceding further market share to the US shale patch. Saudi Arabia then retaliated by increasing discounts on oil sales to European customers and hinting at production increase, taking on Russia in a market share war of its own to bring Russia back to the negotiating table.

Figure 14: OPEC oil production discipline could now be in disarray



Source: Bloomberg, DBS

An all-out market share war will have a devastating effect on oil prices, as OPEC and Russia combined have more than 4.0 mmbpd spare capacity at current levels. How long Saudi Arabia and its OPEC allies can retain their aggressive posturing is hard to estimate, especially after the freefall in oil prices. But, suffice to say, Russia can take the pain of lower oil prices longer than most OPEC members.

As of now though, it is anybody's guess when the OPEC+ alliance will reconvene again (a June meeting was unconfirmed), if at all. However, we believe Saudi Arabia's fragile fiscal position erodes its ability to withstand a protracted standoff with Russia and believe that a resolution may be forthcoming in a few months. By then though, it could be too late.

Table 2: GDP growth and CPI inflation forecasts

	GDP growth, % y/y				CPI inflation, % y/y, ave			
	2018	2019f	2020f	2021f	2018	2019f	2020f	2021f
Mainland China	6.6	6.1	4.5	5.6	2.1	2.6	2.3	2.5
Hong Kong	3.0	-1.7	-2.0	1.5	2.4	2.7	2.5	2.5
India	6.8	5.3	5.1	5.4	4.0	3.7	5.1	4.2
India (FY basis)*	7.3	6.2	5.0	5.3	3.6	3.4	4.8	4.2
Indonesia	5.2	5.0	4.4	4.9	3.2	3.1	3.1	3.2
Malaysia	4.7	4.3	4.0	4.6	1.0	0.7	1.6	1.8
Philippines**	6.2	5.9	6.0	6.3	5.2	2.8	3.5	3.3
Singapore	3.1	0.7	0.9	1.8	0.4	0.6	1.1	1.5
South Korea	2.7	2.0	2.2	2.3	1.5	0.4	1.5	1.3
Taiwan	2.7	2.7	2.3	2.2	1.3	0.6	1.0	1.1
Thailand	4.2	2.4	0.5	1.1	1.1	0.8	0.8	1.0
Vietnam	7.1	7.0	6.2	6.7	3.5	2.8	4.4	3.0
Eurozone	1.9	1.2	0.7	1.0	1.8	1.2	1.0	1.2
Japan	0.3	0.7	0.2	1.1	1.0	0.5	0.7	0.6
United States***	2.9	2.3	1.5	2.0	1.9	2.3	1.8	2.1

* refers to year ending March i.e. 2020 represents FY20 - year ending March 2020. ** new CPI series. *** eop for CPI inflation. Source: CEIC, DBS

Table 3: Policy interest rates forecasts, eop

	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Mainland China*	4.00	3.85	3.70	3.55	3.55	3.55	3.55	3.55
India	5.15	4.90	4.65	4.65	4.65	4.65	4.65	4.65
Indonesia	4.50	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Malaysia	2.50	2.25	2.00	2.00	2.00	2.00	2.25	2.50
Philippines	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
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	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
Thailand	0.75	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Vietnam***	6.00	5.50	5.00	5.00	5.00	5.00	5.50	6.00
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


Source: Unsplash

Live more,
Bank less

US Equities | 2Q20

An opportunity arises

US Equities

Dylan Cheang | Strategist

US equities entered capitulation mode during the first quarter of 2020 as initial optimism over the COVID-19 viral outbreak soon morphed into panic. As countries switched into lockdown mode with commercial activities coming to a standstill, risk assets swiftly priced in the worse-case recession scenarios. Given little is known about the severity of this viral outbreak, the S&P 500 registered one of the fastest ever correction in history and the selling was indiscriminate.

Estimating the full economic cost of this outbreak is an academic exercise at best. How swiftly can the world rebound from this will depend on:

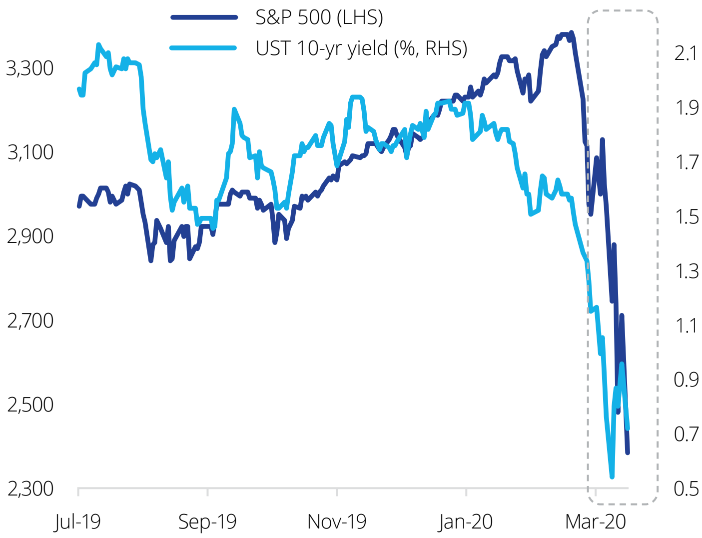
- How coordinated will the global policy response be
- Whether crisis will have a lasting impact on consumer and business confidence

Should confidence rebound swiftly, economic activities during 2H20 will receive a major lift from pent-up demand. However, should the "mood" remain cautious, then macro and corporate earnings downgrades will ensue.

Beyond the volatility, seek opportunities in long-term secular themes. Investors should be clear-headed on what constitutes structural headwinds and what constitutes transitory headwinds. From our perspective, the US-China trade war represents a bigger long-term threat to risk assets given that the former is driven by ideological differences with two global superpowers and finding a common ground is never easy. However, the COVID-19 viral outbreak is something different. It is a natural disaster that, despite inflicting sharp medium-term pain, will eventually fade away.

For investors that can stomach volatility, the prevailing market weakness represents an opportunity for investors seeking to gain exposure to longer-term structural themes like US e-Commerce, Health Care and Millennial Consumption. After all, this outbreak is not going to stop technology companies from innovating and adding new products to the pipeline. Neither is this crisis going to reverse the demographical trend of aging population which inherently raises global healthcare demand.

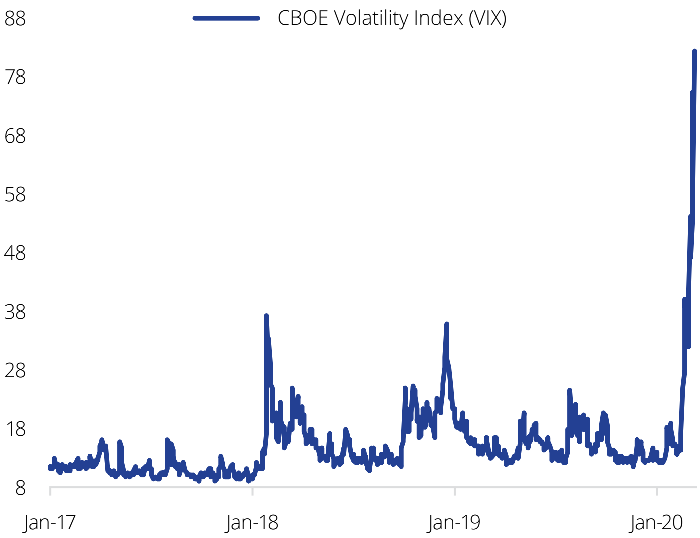
Figure 1: Risk-off – S&P 500 and UST 10-year yield collapsed in tandem



Source: Bloomberg, DBS

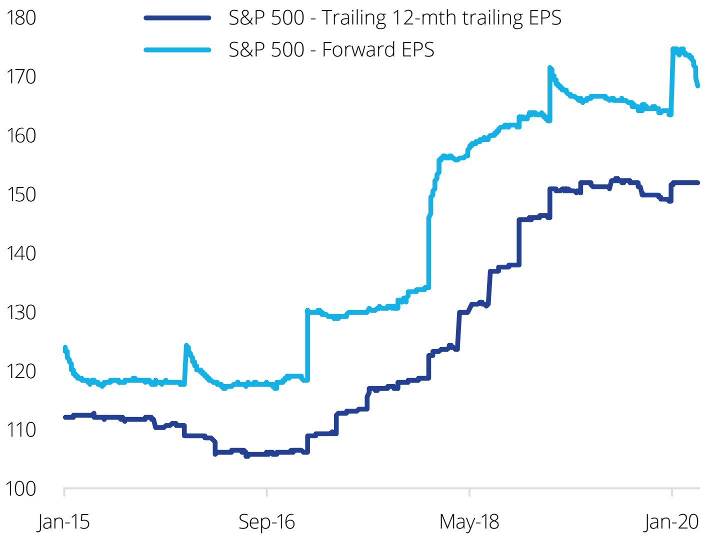
Beyond the crisis: Resilient corporate earnings and cheap valuation. One of the hallmark of US equities lies in its earnings resilience. Two years ago, when the US-China trade war first started, market observers were actively predicting the collapse of US earnings as result of the trade impasse. But in the end, none of this transpired.

Figure 2: Risk off – Spike in volatility



Source: Bloomberg, DBS

Figure 3: US earnings have previously managed to grind higher despite Sino-US trade tension



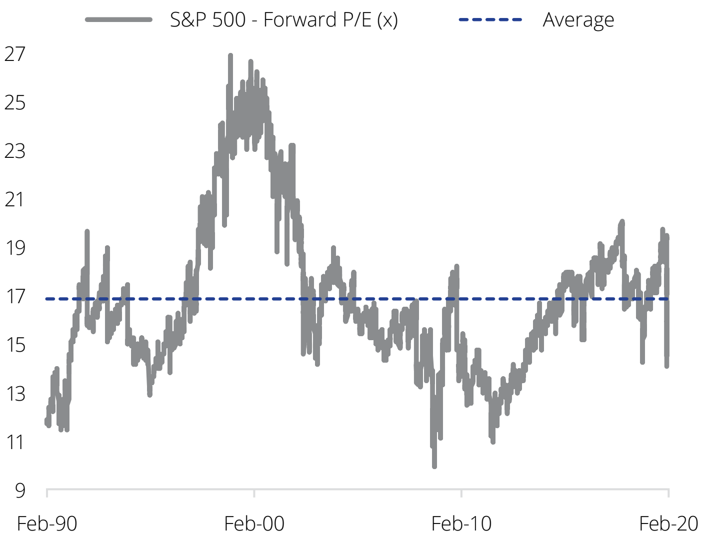
Source: Bloomberg, DBS

Between the start of 2018 and now, US 12-month trailing earnings has actually increased by 28% (Figure 3). Momentum, meanwhile, remains strong and this was evident in the 1Q reporting season, which saw c.75% of the companies registering earnings surprise while c.68% saw earnings growth. This underlines the resilience of US corporate earnings.

Without doubt, as business activities come to a halt as result of the COVID-19 crisis, US corporate earnings forecast will see massive cuts in 2Q. But this weakness will be transitory and we expect earnings to rebound during the second half.

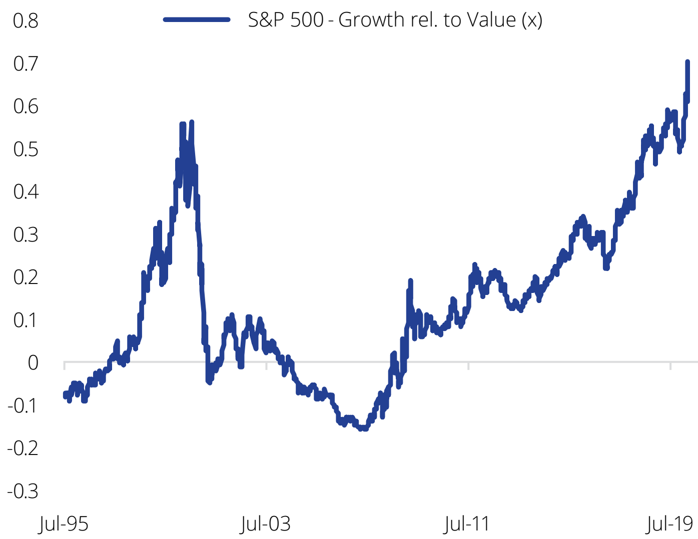
Valuation-wise, the S&P 500 trades at 14.1x forward P/E and

Figure 4: US forward P/E is 17% below long-term average



Source: Bloomberg, DBS

Figure 5: Relative outperformance of US growth over value to persist



Source: Bloomberg, DBS

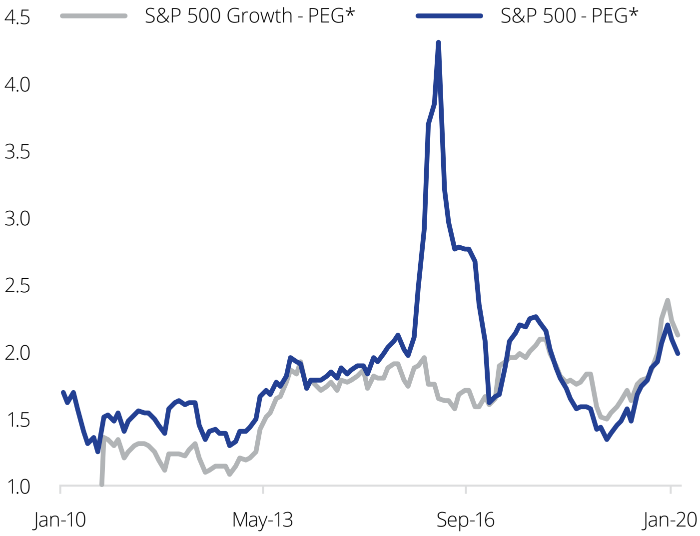
this constitutes a 17% discount to the long-term average (Figure 4). Given that US earnings will be subjected to sharp downward revisions in coming months, the implied P/E will no longer be as attractive as what it seems currently.

But we have a different way of looking at this. Should one adopt the view that the upcoming US earnings weakness as something transitory, then the current valuation level will be an attractive opportunity for longer-term investors to buy in US growth sectors.

Style Analysis – Favour Growth over Value. In terms of investment style, we favour growth stocks over value stocks in the US. Since mid-2007, US growth has outperformed value (Figure 5) and we expect this tend to persist given:

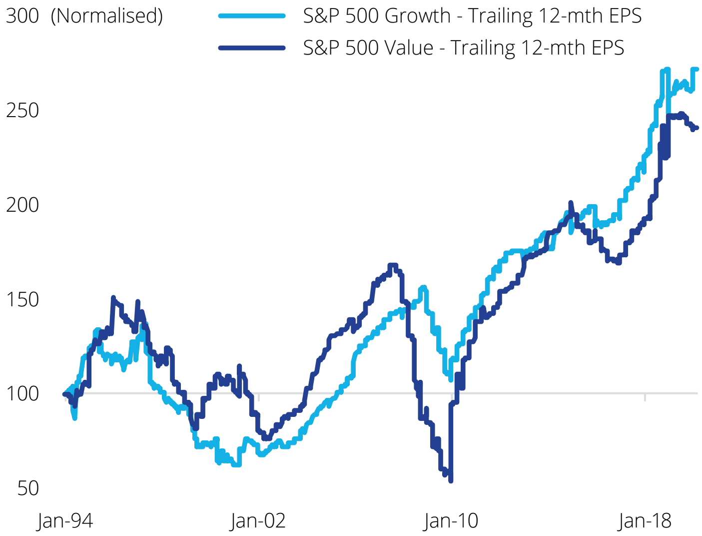
- US growth stocks possess stronger earnings momentum than the value plays
- While growth stocks possess a higher P/E-to-growth (PEG) ratio than value, it is nonetheless broadly in-line with the market as a whole (Figure 6)

Figure 6: PEG of US growth stocks is broadly in-line with market



Source: Bloomberg, DBS
* adjusted

Figure 7: US growth stocks possess stronger earnings momentum than value stocks



Source: Bloomberg, DBS

Source: Unsplash

2Q20 US Sector Strategy

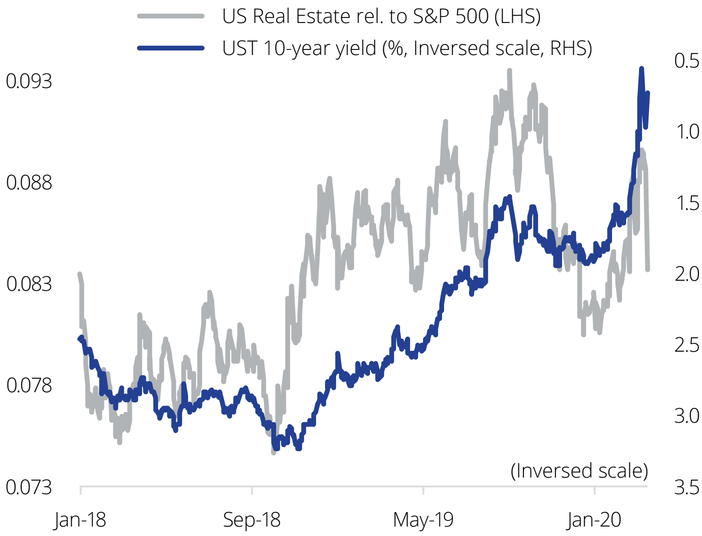
Bond yields to stay low amid macro uncertainties; Stay positive on US real estate sector. No one knows with certainty how the COVID-19 outbreak will evolve from here. But one thing is certain: central banks will maintain an accommodative stance given:

- Ongoing COVID-19 worries
- Ongoing US-China trade uncertainties
- Weak energy prices translating to weak inflation outlook

Our recommended play in such environment is US real estate as the sector has broadly traded inversely with the UST 10-year yield (Figure 8). Essentially, low bond yields benefit the real estate space via two channels:

1. Low interest rates translate to lower financing cost for property purchase and hence enhancing the overall demand
2. With bond yields staying low, it enhances the attractiveness of real estate investment trusts as potential "bond proxies"

Figure 8: Broad-based inverse relationship between US real estate sector and the UST 10-year yield



Source: Bloomberg, DBS,

Meanwhile, in view of recent price actions, we are downgrading Consumer Staples to Neutral while maintaining our Overweight call on Consumer Discretionary.

Table 1: US Sector Allocation - 2Q20

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

Source: DBS

Table 2: US sector key financial ratios

	Forward P/E (x)	P/B (x)	EV/EBITDA (x)	ROE (%)	ROA (%)	OPM (%)
S&P 500 Index	13.9	2.5	10.6	15.8	3.2	13.4
S&P 500 Financials	8.4	0.9	-	12.9	1.4	25.0
S&P 500 Energy	15.2	0.7	6.1	2.1	1.0	2.8
S&P 500 Technology	17.3	5.7	13.7	29.4	10.6	22.4
S&P 500 Materials	13.5	1.7	10.6	7.3	3.0	8.5
S&P 500 Industrials	12.4	3.3	9.3	22.0	5.3	11.5
S&P 500 Cons. Staples	16.5	5.0	14.7	21.8	6.2	8.4
S&P 500 Cons. Discretionary	17.1	5.9	10.3	31.1	6.4	8.8
S&P 500 Comm. Services	14.0	2.6	9.9	14.4	5.6	18.2
S&P 500 Utilities	14.6	1.7	11.4	11.2	2.9	20.1
S&P 500 Real Estate	28.2	2.7	17.4	10.5	4.0	22.7
S&P 500 Health Care	12.6	3.4	12.6	18.0	6.3	9.4

Source: Bloomberg
* data as at 20 March 2020.

Live more,
Bank less


Source: Unsplash

Europe Equities | 2Q20

Downside risk

Europe Equities

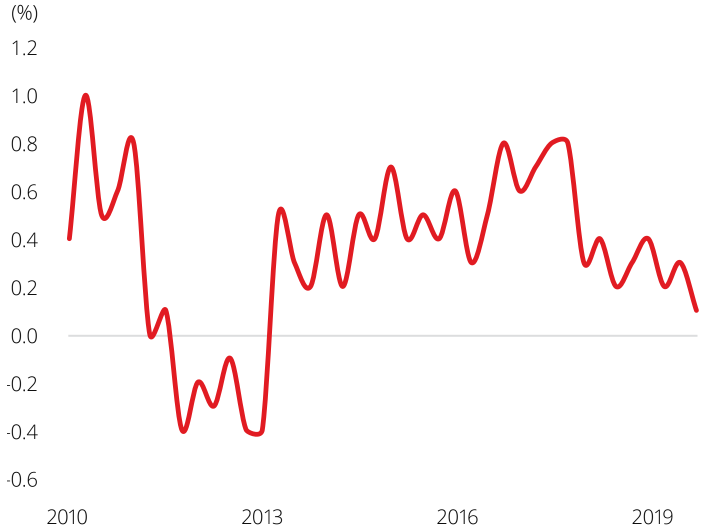
Joanne Goh | Strategist

Europe is the other region which is badly hit by COVID-19. As of writing, the region has close to 50,000 confirmed cases with Italy, the worst hit country recording more than 25000. Further escalation of cases in the region can be expected in the coming weeks as European governments took separate steps to contain the spread of the disease.

Global central banks are now intensely focused on the downside risks to the global economy and more stimulus can be expected. This comes especially as China's manufacturing activities came to a standstill in February and March, oil prices crash, and that now the disease has become a global pandemic.

Meanwhile, European markets joined the global risk aversion selloff as fears of a global slowdown continue to pressure markets. We believe markets have overreacted and that a lot of the negative news flow has been sufficiently priced in. However, we believe European stocks could lag in their rebound compared to other regions for the following reasons.

Figure 1. GDP weakest in six years (q/q GDP growth, annualised, sa)



Source: Bloomberg

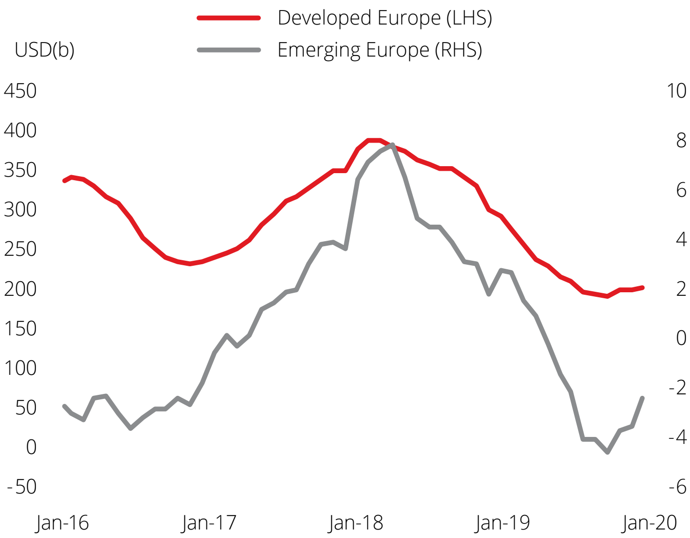
Starting on a weak foot. The Eurozone registered 1.2% GDP growth in 2019 – the lowest in six years. 4Q19 almost came to a standstill for Germany as exports continued to falter under the shadow of the trade war, while France and Italy contracted on a q/q basis. It is almost certain that Italy will enter a technical recession this quarter as it becomes the latest victim of COVID-19. Bold fiscal stimulus will be needed amid threats of possible US tariffs on EU autos, tough post-Brexit talks, and the coronavirus outbreak.

Unreadiness to deal with COVID-19. New cases across Europe are still rising while in China, a stabilisation in new cases is already seen in Wuhan, the epicentre of the virus, after prudent control measures were taken. Growth downgrades to Europe have yet to happen in a big way, in our view. Unlike in Asia where we had the experience of managing the SARS epidemic in 2003, European cities are still not quite ready to control the epidemic. Should the virus threaten to become a pandemic, fighting COVID-19 will be a prolonged battle, hurting European cities more than others.

A politically charged climate. Due to the rise of populism amid low economic growth and mass migration across Europe, politics in Europe continues to evolve in a highly-charged manner. The UK is now bracing for a 10-month difficult negotiation to establish Britain's future relationship with the EU after 31 December. Germany is also facing a political leadership crisis as Chancellor Angela Merkel is facing pressure to step down.

Political uncertainties have largely been reflected in a wobbly economy, the weak euro and pound, and a half decade of negative interest rates. Cumulative equity flows to the region have stayed flat to negative since 2016 due to the lack of opportunities in Europe.

Figure 2. Cumulative flows to Europe



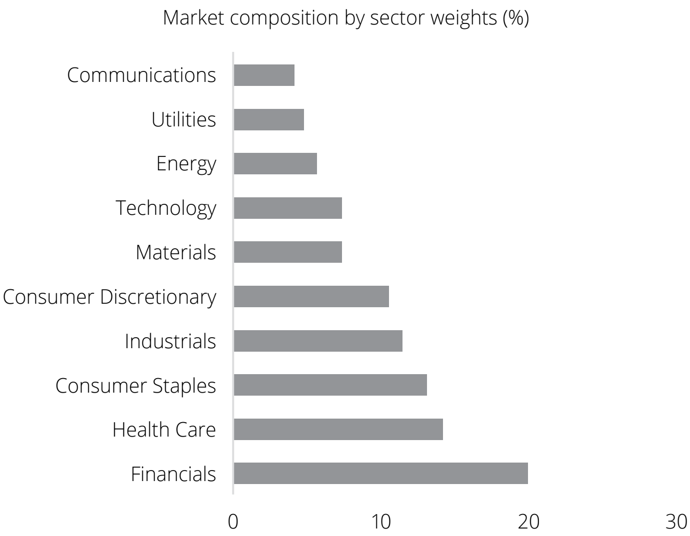
Source: EPFR, DBS

Figure 3. Price to book valuation at +1SD high

Source: Bloomberg

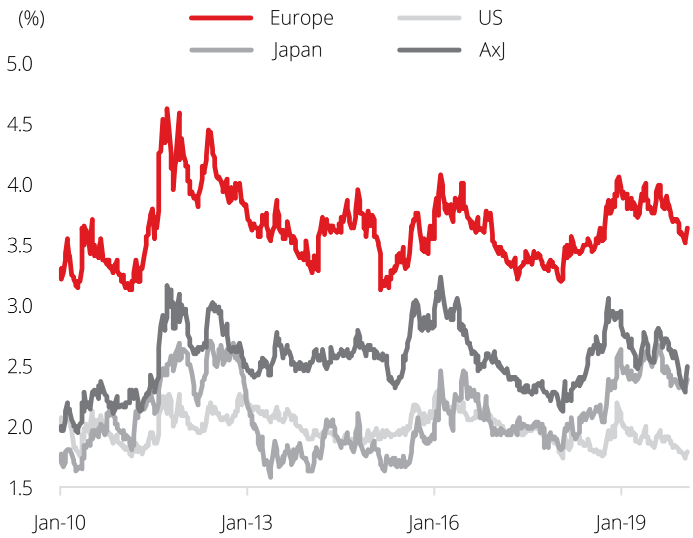
Source: Unsplash

Figure 4. Sector weights of major European Index



Source: DBS, Bloomberg

Figure 5. Europe has the highest proportion of high-yielding stocks



Source: Bloomberg

Valuations are not cheap. In finding support for the market, we look at the P/B ratio, which is still high when compared to its history. This is due to deteriorating ROEs after years of declining interest rates, the Eurozone crisis in mid-2010s, Brexit uncertainties, and the trade war in the past two years.

Market cap composition lacks innovative sectors. Sectors relating to secular growth trends are lacking when compared to the other countries. Europe lacks in innovative sectors such as e-Commerce or Technology; instead, the region is populated with old cyclical economy stocks such as Autos and Financials. Technology stocks constitute only 7% of the overall market as opposed to about 22% for the US market.

Strategy for Europe

Europe stocks trade at a dividend yield of about 4.9% on average, which is the highest globally. Europe now has the lowest negative interest rates globally and high-yielding stocks should have good support from yield-starved pension and income funds. Among the sectors in Europe, Energy, Financials, and Telcos have the highest dividend yield.

In search for high-yielding companies, we look for companies that pay dividends consistently from peak through trough of an economic cycle. This would include companies which can grow their dividends - such as having fixed pay-out ratio policies which would result in dividends growing with their underlying earnings. In this instance, companies that demonstrate the ability to generate free cashflows and a track record of dividend payments are preferred.

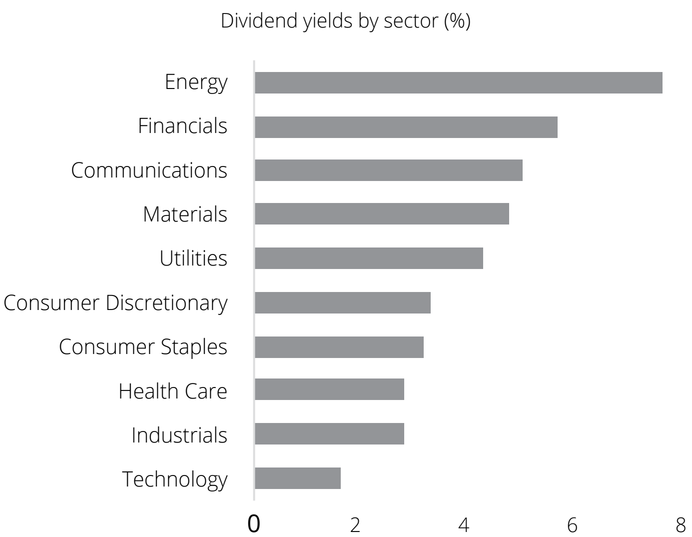
In particular, we like Europe Oil majors which are generating close to 8-9% yields and we believe their dividends are sustainable due to their strong free cashflow and operating framework. And on a USD total return basis, the Europe energy sector has outperformed oil prices. We expect oil prices to range between USD40-70/bbl in the foreseeable future.

Going Green in Europe

Europe has been at the forefront in fighting climate change and is mulling over the goal of eliminating carbon emissions and reach "net zero" by 2050. The Green Deal and its objectives will affect everything from agriculture to trade and energy production, as it changes the way we have been using energy in carbon intensive industries (such as steel, cement, and textiles), as well as the way we consume food, use materials, and travel. We expect R&D in energy efficiency, recycling, electric vehicles, and offshore wind energy to gain traction and materialise in setting the path to "net zero". The investment expression for this theme is through participation in green bonds, as well as through identifying innovative and enabling "climate champions".

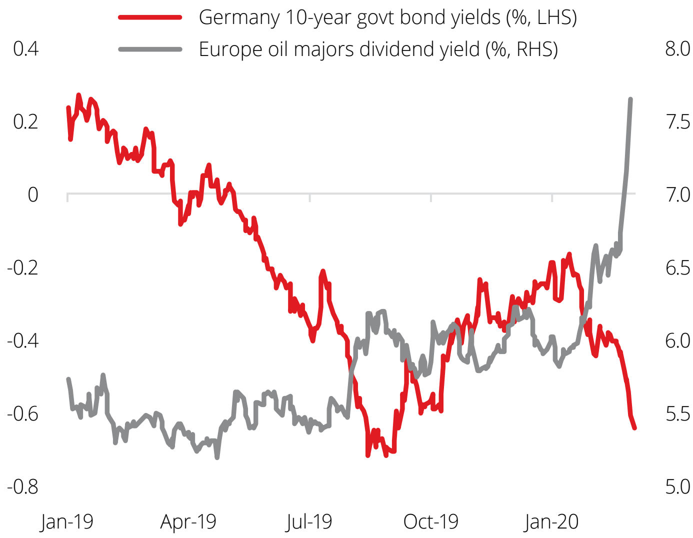
Source: Unsplash

Figure 6. Energy and Financials



Source: Bloomberg

Figure 7. Europe government bond yields vs Europe oil major dividend yields



Source: Bloomberg

DBS Live more, Bank less

Japan Equities | 2Q20

Down but
not out

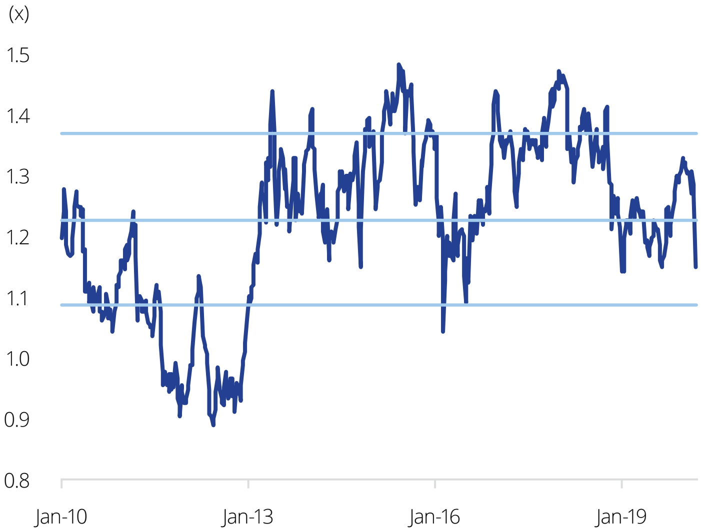
Japan Equities

Joanne Goh | Strategist
Glenn Ng, CFA | Equities

4Q19's recovery seen in Japan's stock market has proven to be short-lived. The nation joined the global markets in a major selloff as global risk appetite waned over concerns of the COVID-19 outbreak and growing recession risks. The sell-down has since accelerated even as global central banks stepped in to calm market fears. In unprecedented moves, the US Federal Reserve cut rates off-cycle twice by a total of 150 bps within 12 days and Fed funds rates is now at GFC-crisis levels. We believe a global concerted response in public health, monetary, and fiscal policies is needed to restore further confidence in the financial markets.

Whether there are further downside risks remains to be seen. We expect Japan to hit a technical recession by 1Q20. Macro data is likely to be very ugly given the spill-over effects on global supply chain and global travel curtailment as a result of the outbreak. At the same time, it is still reeling from consumer slump after the VAT tax hike last October.

Figure 1: Japan's price to book valuations are trading near historical lows



Source: Bloomberg

Too much at stake if Abe government doesn't respond well. We believe that the government will roll out extensive packages to stem the meltdown in confidence with public health, fiscal, and monetary policies. At stake is the 2020 Tokyo Olympics should confidence in the government's ability to control the epidemic is lost. The end of May will be an important point in making a decision.

We expect the BOJ to ramp up stimulus to support the country's economy. Thus far, it has conducted record purchases of the bond market and ETFs, and we expect more of such moves by the government.

Priced in for now

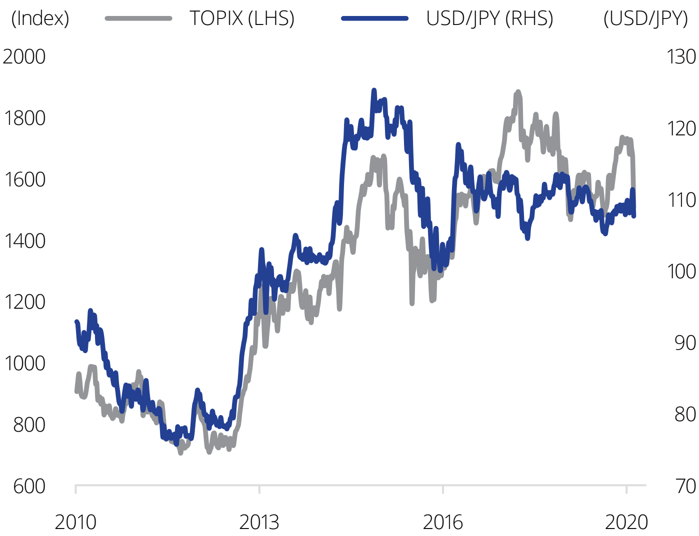
Based on P/B ratio, Japan's valuations look reasonably cheap and we believe there could be bargain-hunting support. In addition, liquidity support from BOJ, actions instigated by corporate governance reforms, could also see the market being supported.

High volatility to persist. Following the surprise 150 bps rate cut by the Fed, BOJ may be tempted to do more monetary easing to stamp the yen's rise. Statistically, a strong JPY has negative relationship with the stock market. As long as safe-haven flows persist, the yen may continue to rise. USD/JPY has been in a range of 100-115 since 2017. We see this as an appropriate range where Topix remains unaffected.

Earnings to stay sluggish

The downside risks to corporate earnings are quite broad based. Macro factors such as a weak global growth environment affecting exports demand, trade war impact on the autos, VAT tax on retailers' margin, negative interest rates on the banks are all negative for the outlook. The outbreak, if prolonged, will accentuate these downside risks, especially on the Tourism sector.

Figure 2: Market could be pressured by the yen (TOPIX vs USD/JPY)



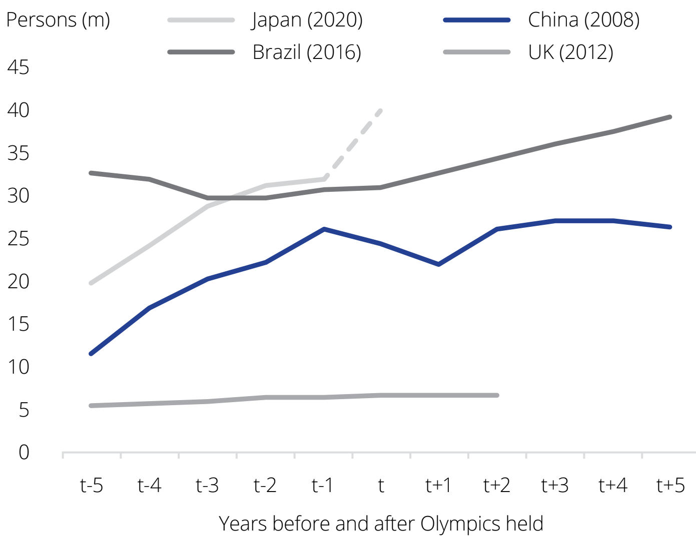
Source: Bloomberg, DBS

Downgrading Tourism, focus on transformative trends

It is worth noting that in 2019, Japan was the fourth most favoured destination among the Chinese tourists outside Hong Kong, Macau, and Thailand. Tourists from China also constitute about 30% of total tourist arrivals to Japan. As long as the diplomatic relationship between China and Japan continues to improve, we see that the return of Chinese tourism is a matter of time. However, on a tactical move we are downgrading the sector until there is more clarity on the impact of the virus outbreak. Our current base case is for the Olympics to be carried out as scheduled. However, depending on the speed of the recovery from the outbreak, the number of tourists visiting Japan during the Tokyo Olympics, supposedly a tourism booster this summer, could fall short of expectations.

We believe Japanese companies that can benefit from transformative trends in the country will still be in play despite the outbreak. These trends include shifts in demographic (ageing population, labour shortages); the global transition in Millennial lifestyles (changes in consumption patterns, the rise of gaming culture, different set of leisure activities); and the IOT (e-Commerce, cloud, automation). Companies that have strategies to adapt to these secular trends will be long-term winners. In particular, Japanese health care and robotics sectors, as well as upstream semiconductor equipment makers should be resilient in this current environment.

Figure 3: Number of tourist arrivals to host countries in recent Olympics



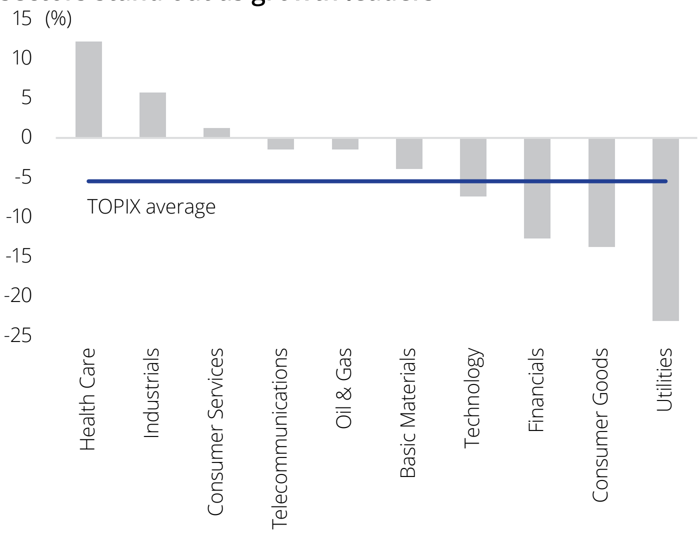
Source: CEIC, DBS

Corporate governance and improving shareholder return as a key source of alpha

Amid the current environment of low growth and downward earnings revisions, one theme that continues to play out in Japan, independent of macro or market sentiment, is that of improving corporate governance and its positive impact on shareholder returns.

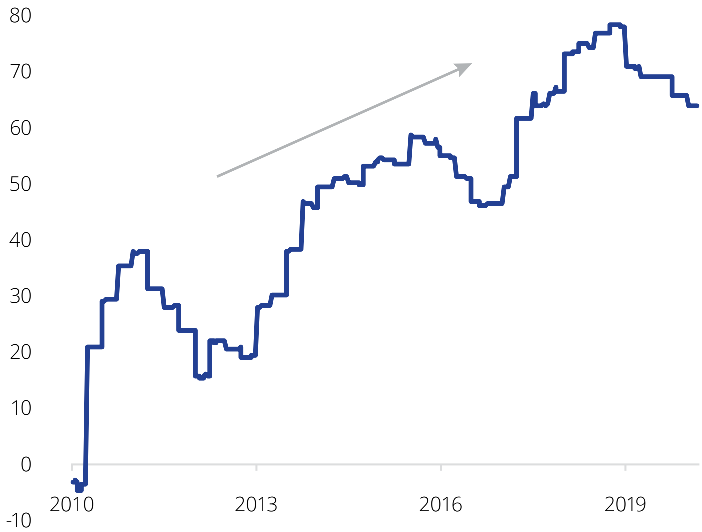
This is especially important for Japan because of the largely inefficient balance sheets of Japan's listed companies as a

Figure 4: Japan TOPIX Index: 2019 Earnings growth breakdown by sectors — Health Care and Industrials sectors stand out as growth leaders



Source: Bloomberg

Figure 5: Rising EPS and a deflationary environment are oxymoron (Trailing 12-month earnings per share)

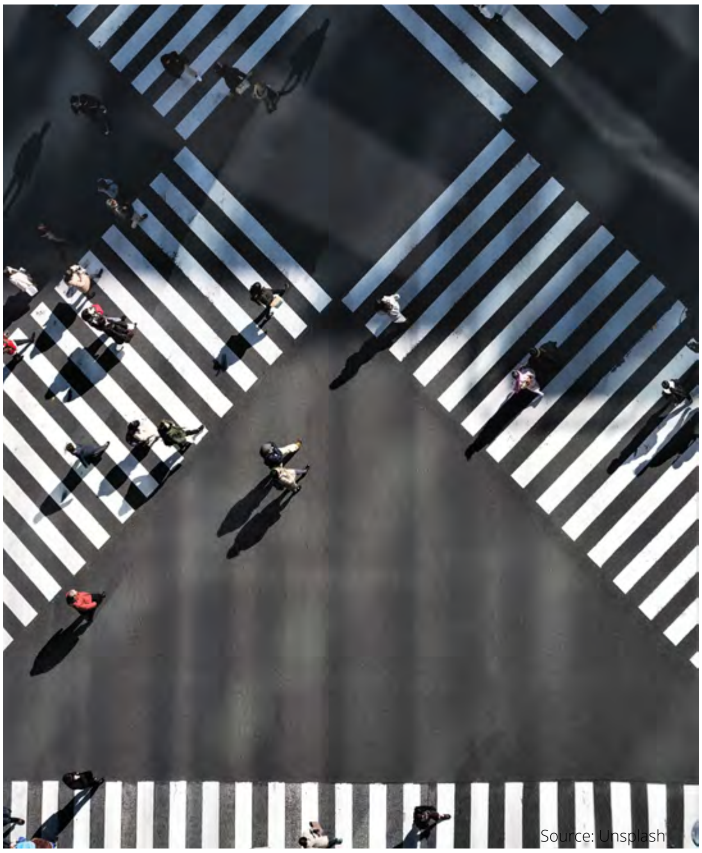


Source: Bloomberg

result of the deflationary-era mindsets among management. These mindsets still persist until today despite a strong rebound in corporate earnings since 2012, after Abenomics.

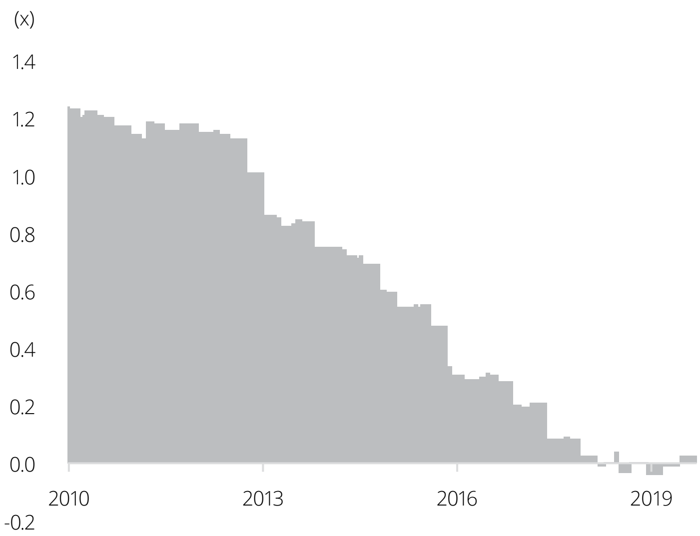
Between 2010-2013, the average Net Debt to Equity of listed companies in the Topix Index was range-bound between 1.0x-1.4x. However, since 2013, that ratio has consistently trended downwards owing to the rise in earnings, cash flows, and retained equity. Today the average number is negative. While there is some merit to balance sheet prudency, that trend has gone too far in Japan and is now depressing returns on equity (ROE) and therefore, valuations.

Improvements in corporate governance has been one fix to this problem, particularly in companies with inefficient balance sheets, as it generally entails management taking value-unlocking steps for shareholders. Corporate actions such as raising buybacks and dividends, spin-offs, and sale of cross-shareholdings could serve as positive share price catalyst.



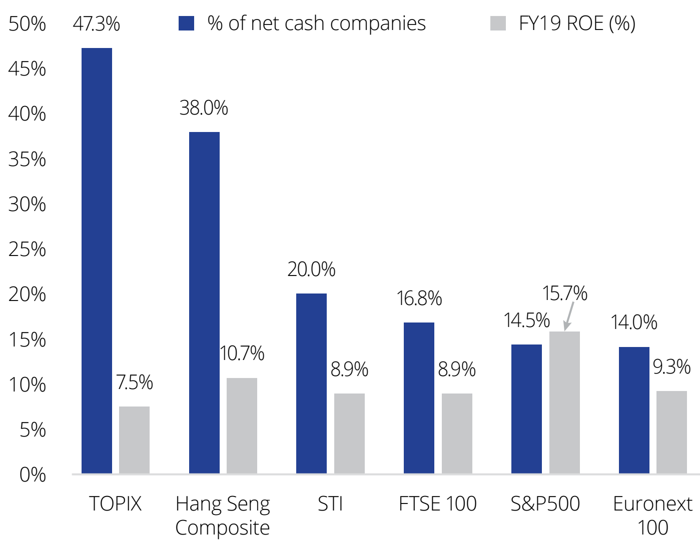
Source: Unsplash

Figure 6: Average Net D/E is now close to zero in Japan



Source: Bloomberg

Figure 7: High cash levels have depressed ROEs in Japan



Source: Bloomberg

Table 1: Key themes in Japan

Themes	Beneficiaries
Ageing Population	Pharmaceuticals
	Medical Devices
	Healthcare Services
Labour Shortage	IT Services
	HR Services / Recruitment
Technology	IT Services
	e-commerce
	FinTech
	Automation
	e-Gaming
	Semiconductors
Corporate governance	Stock specific

Source: DBS

DBS Live more, Bank less

Asia ex-Japan Equities | 2Q20

To outperform

Asia ex-Japan Equities

Yeang Cheng Ling | Strategist
Joanne Goh | Strategist

The year of the rat started with the US and China agreeing on a partial trade deal, bringing relief to the markets. However, the emergence of COVID-19 soon after prompted the WHO to declare the outbreak as a public health emergency of international concern on 30 January.

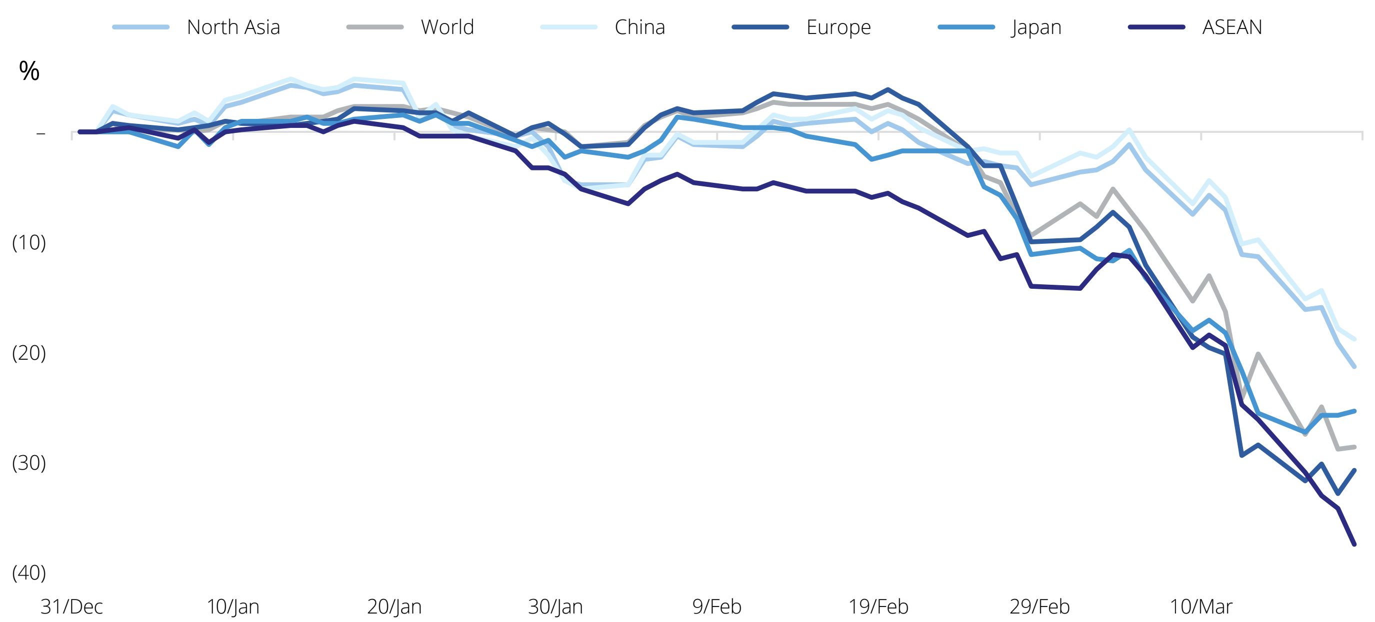
The immediate impact was a hit on domestic consumption, service industries, and broader economic growth. To counter the headwinds and manage the downside to the domestic economy, governments have been proactively stepping up policy supports to help businesses and restore confidence.

As such, we expect sectors such as e-Commerce and upstream semiconductors to be more resilient than the typical frontline commercial retail sector during this period. Another sector to benefit in the mid-to-long term will be large state-owned banks – entities the government will use to execute its expansionary policies to turn the economy around

Equity indices have come under selling pressure (Figure 1) since the start of the year. For example, North Asia was down some 20% YTD as investors took a risk -off stance, while ASEAN plummeted close to 40%. Going forward , we believe sectors that possess better structural fundamentals will experience a sharper recovery.

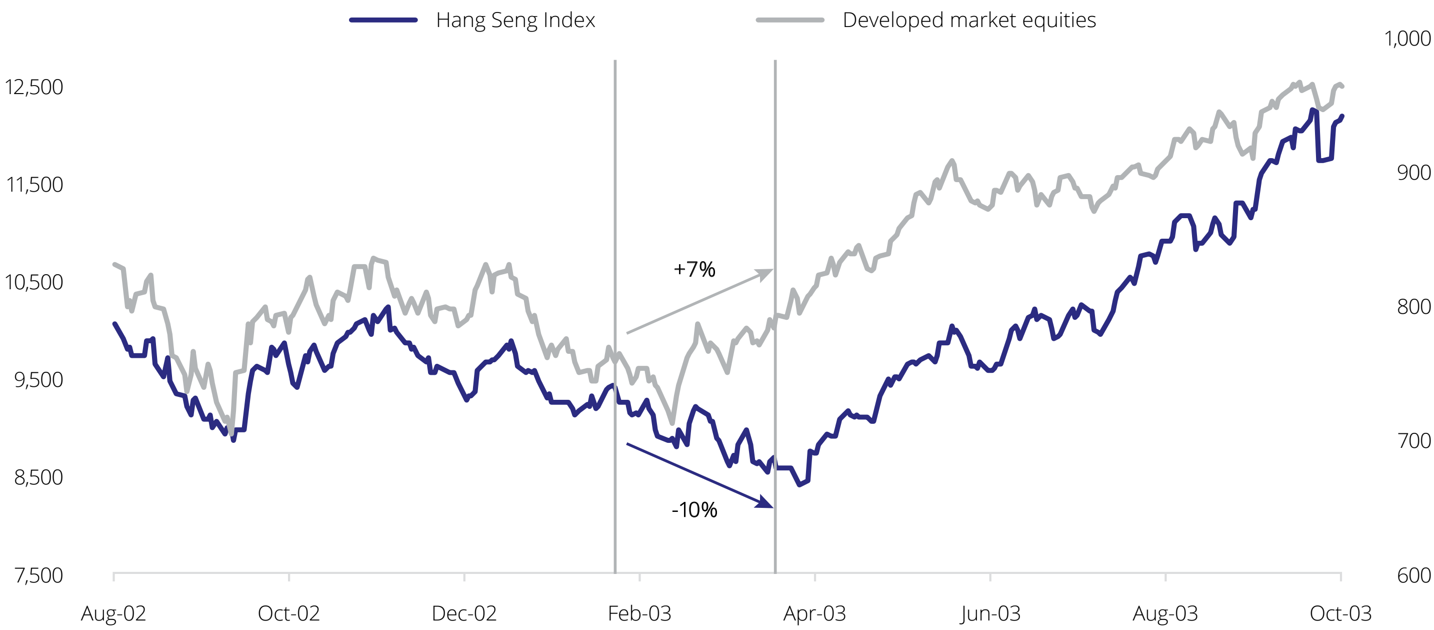
Looking back, the 2003 SARS incident led to short-term disruptions in the markets. Hong Kong for example, first

Figure 1: Asia equities are not spared



Source: Bloomberg, DBS

Figure 2: Market movements during SARS



Source: Bloomberg, DBS

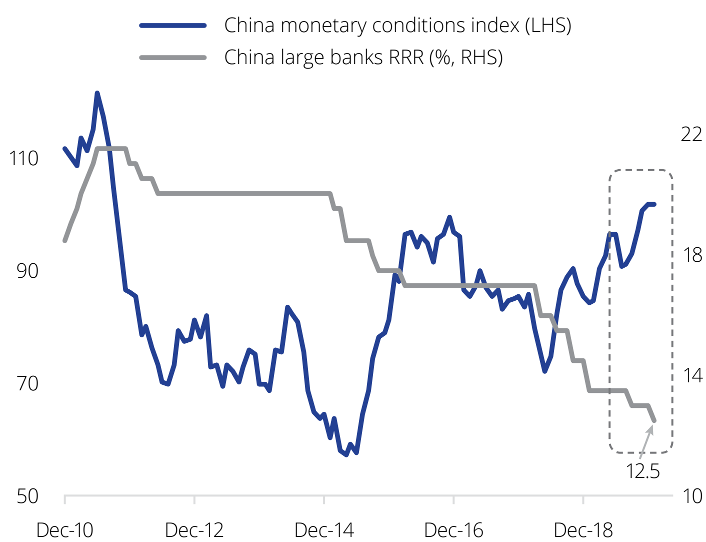
corrected some 10% but subsequently recovered. We believe the roadmap, albeit the magnitude of the fall will not be dissimilar once this coronavirus situation stabilises.

With the RRR rate at 12.5%, the PBOC has further monetary policy room to supply liquidity to broader corporate and consumer sectors (Figure 3).

China's corporate sector demonstrates a free cashflow yield of 8%, having improved considerably from negative levels since the start of the decade, and corporate balance sheets have stayed healthy with gross debt to equity maintained at 120% over the past five years (Figure 4).

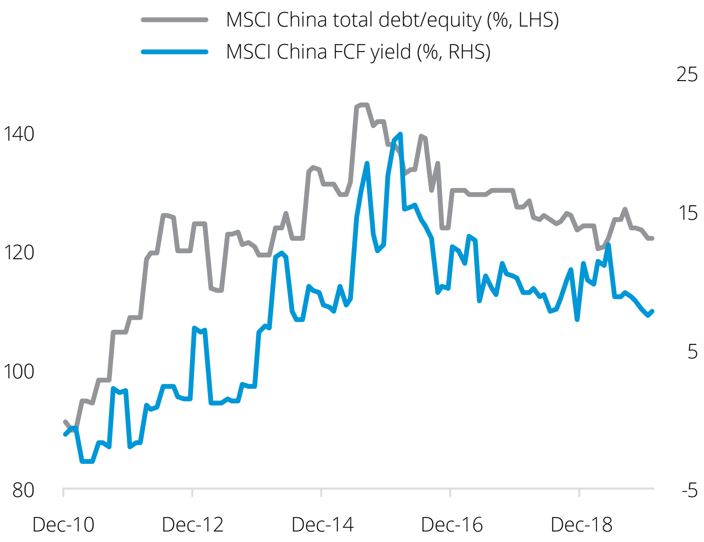
Such improvements, together with the easing stance by the PBOC, are reasons why we remain constructive on China equities.

Figure 3: Supportive policy in play



Source: Bloomberg, DBS

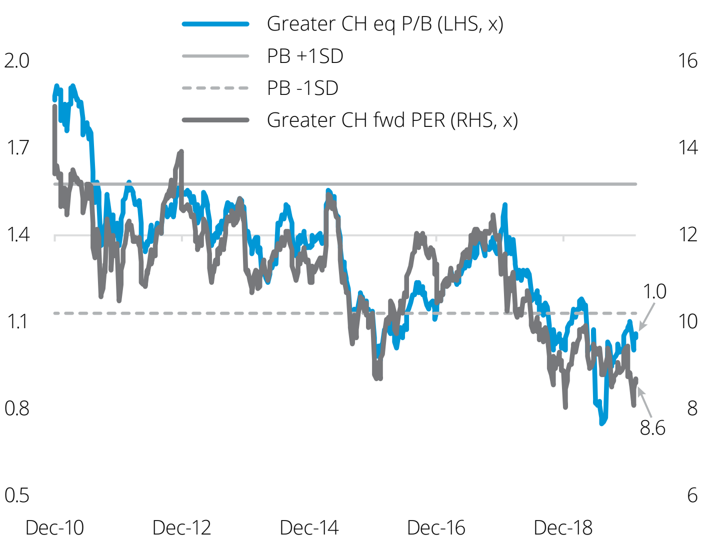
Figure 4: Stable balance sheet conditions



Source: Bloomberg, DBS

The projected earnings for Greater China equites are expected to increase from the low teens, while forward earnings multiples remain attractive at 8-9x (Figure 5). The PEG ratio of less than 1x is also appealing. These equities currently trade at -1SD of historical P/B average, thus offering investors an attractive risk-reward. Correspondingly, China onshore equities – Shanghai A-shares – are likewise trading at the low-end of their historical valuation ranges (Figure 6).

Figure 5: Greater China equities – compelling valuations



Source: Bloomberg, DBS

Figure 6: China onshore equities

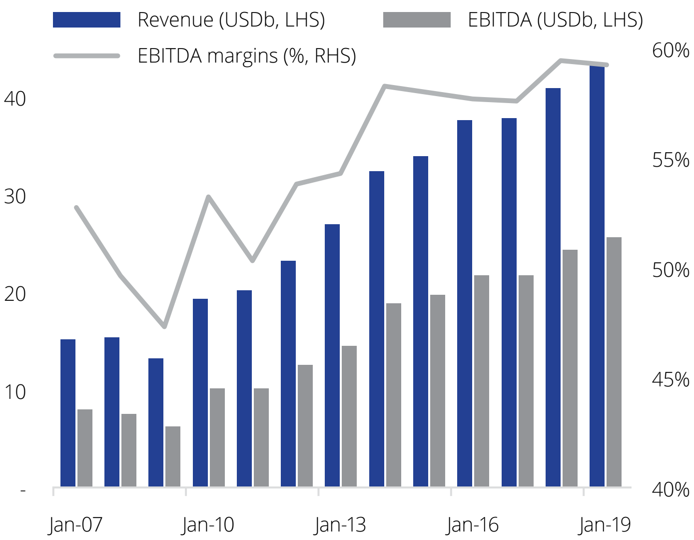
Source: Bloomberg, DBS

Asia semiconductors – riding the digitalisation trend

The Asia Technology sector is well-positioned to ride the wave of secular digitalisation and cyber-connectivity due to their presence in the technology supply chain. Notably, Asian technology players stand out in areas across wafer foundries, logic IC design, memory (DRAM, NAND), semiconductor backend packaging, and testing. Other areas include the downstream works of assembly such as printed circuit boards, casings, display panels, acoustics, touch sensors, smartphone cameras, and other passive components.

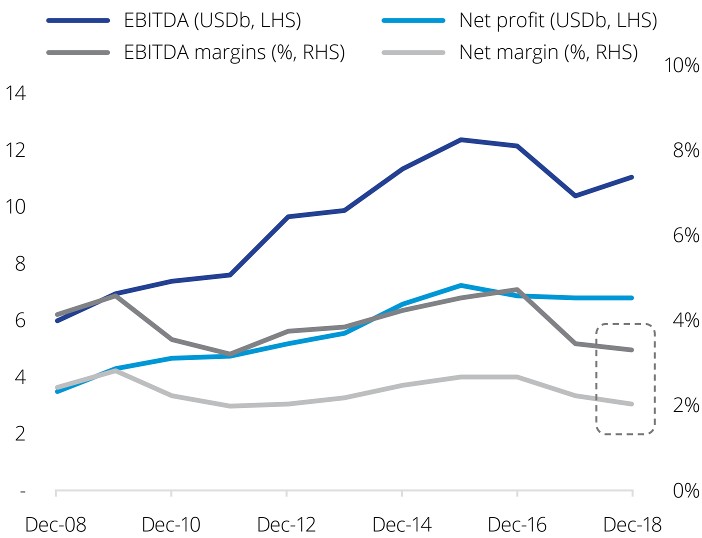
We prefer upstream semiconductor and IC design firms as these segments of the supply chain command better pricing power and hence, better profitability. For example, the EBITDA margin among Asia's leading wafer foundries has edged above the 50% mark since the Global Financial Crisis (Figure 7) thanks to emergence of new technology (such as smartphones, cloud computing, and high-performance computing). On the contrary, profitability in the downstream component supply chain has been stuck in the low single digits (Figure 8), with no clear signs of turning around.

Figure 7: Asia semiconductor supply chain profitability



Source: Bloomberg, DBS

Figure 8: Asia tech downstream – low profitability



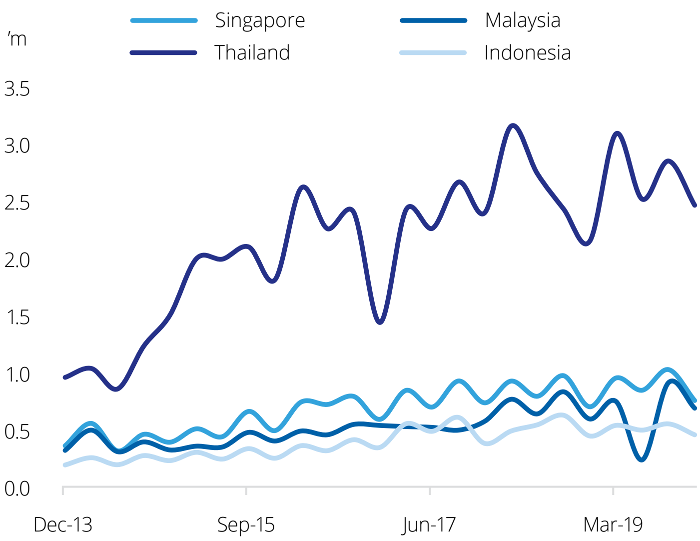
Source: Bloomberg, DBS

For 2Q20, we remain overweight AxJ equities in the context of a global portfolio. Sectors within Asia that demonstrate secular growth prospects and have attractive dividend yields are our areas of focus.

ASEAN – Recovery hijacked by COVID-19

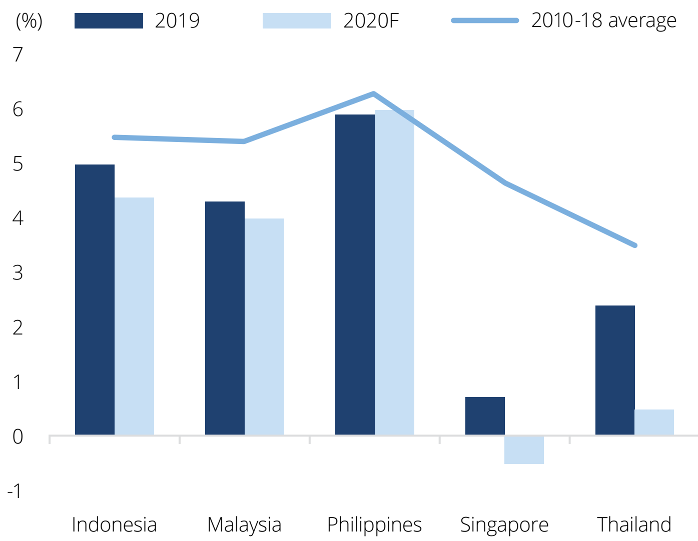
As a region highly dependent on Mainland China tourists, ASEAN has been hit hard by the coronavirus outbreak. In 2019, the whole of ASEAN hosted more than 20m Chinese tourists, constituting about 25% of total visitors to the region. Together with travel curtailment globally, we estimated that the region's tourism receipts equivalent to 1.5% of GDP will be lost in 1Q20. Exports and industrial production were also affected as a result of value chain and demand disruption. Risk appetite for local currency-denominated ASEAN assets including property, equities, and bonds are likely to wane as a result of the depreciating currencies. ASEAN lost 33% in USD terms during the quarter with Thailand being the biggest loser, and Singapore, although holding up better than the rest, lost 27% in USD terms during the quarter.

Figure 9: Mainland China tourists to ASEAN more than tripled in the past six years



Source: Bloomberg, DBS

Figure 10: ASEAN GDP growth and forecasts — unlikely to return to the glorious past



Source: DBS forecasts

The reactions in financial markets to the outbreak were strong thus far, especially for ASEAN. The growth shock came at a time when the region had barely recovered from the US-China trade war, and was only showing some nascent signs of recovery and stability. Asian central banks are quick to respond with policy tools to cushion the economy from the near-term negative shock. Indonesia, Malaysia, Thailand, and the Philippines have all cut policy rates in their last policy meeting and Singapore's 2020 budget is a projection of a record fiscal deficit of 2.1% of nominal GDP.

Consensus forecast for earnings growth of 7% for the region bears downside risks in the face of a global growth slowdown and volatility in macro variables such as oil prices, currencies, and interest rates. Indeed, our economists have downgraded oil price, currencies, and GDP growth forecasts for this year. Growth sectors are scant in ASEAN with the absence of innovative sectors such as IT and e-Commerce. Rather, the region is populated with old cyclical economy stocks such as commodities, autos, and banks which are highly sensitive to changes in the economic climate.

Nonetheless, ASEAN markets demonstrate value in its P/E valuations where long- term value investors would be ready to bargain hunt once they get excessively cheap.

We believe investors can look into the following sectors as safe havens in this volatile trading environment:

Figure 11: ASEAN markets – P/E valuation near historical low

Source: DBS, Thomson Reuters

- Strong USD beneficiaries

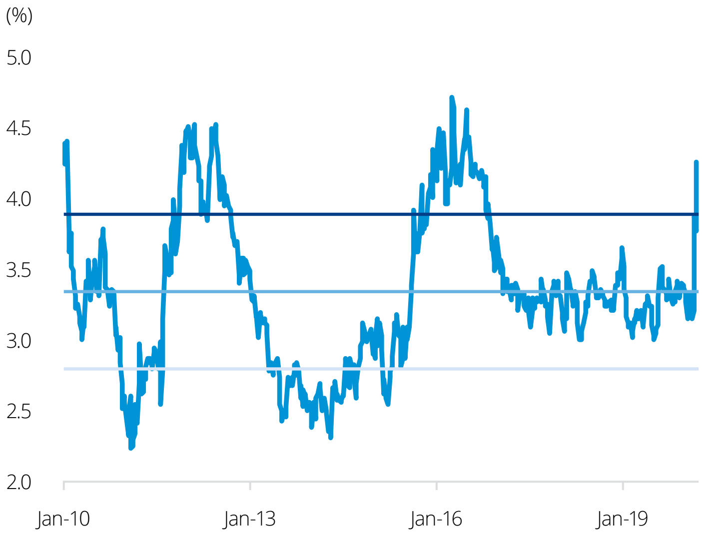
ASEAN currencies have weakened by 3% YTD and the outlook are for them to continue to weaken. USD earners such as exporters may find themselves in a better competitive position with weaker domestic currencies.

- High yielding stocks should benefit from the low interest environment

The ASEAN market on average yields 4.3%. High dividend-yielding stocks stand to benefit from lower bond yields, which can be expected in this environment. At 5.6%, the Singapore market offers one of the best dividends yields in the region and should serve investors well in this volatile trading environment. Singapore REITS and banks pay out more than 5% dividend yield and we believe the payouts are sustainable.

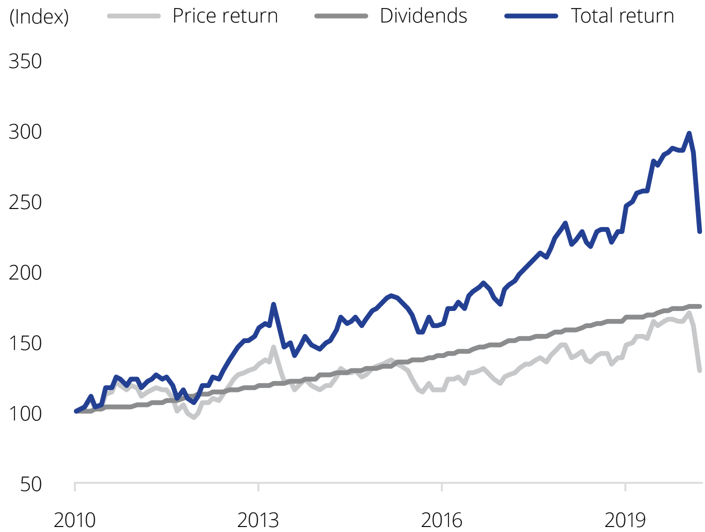
The rally in Singapore REITS should resume once normalcy returns to the market. The dividend yield gap vs bond yields has widened further and the current dividends offered by the sector of 6% on average are very attractive. Among them, we prefer Industrial REITS, especially those with business parks exposure. They still pay high dividends while riding on secular growth trend of e-Commerce and logistics. Armed with cash and low debt levels, the strong fundamentals allow them to make yield accretive acquisitions and grow dividend payout. Hospitality and retail REITS are suffering from the virus outbreak. However, we think the impact on DPUs should be limited to about 5% for retail REITS and about 20% for hospitality REITS due to the structure and diversified nature of the underlying assets.

Figure 12: Singapore REITS vs Singapore 10-year government bond yields - strong value has emerged



Source: Bloomberg, DBS

Figure 13: Singapore REITS price return vs dividend return, re-invested – attractive long-term return

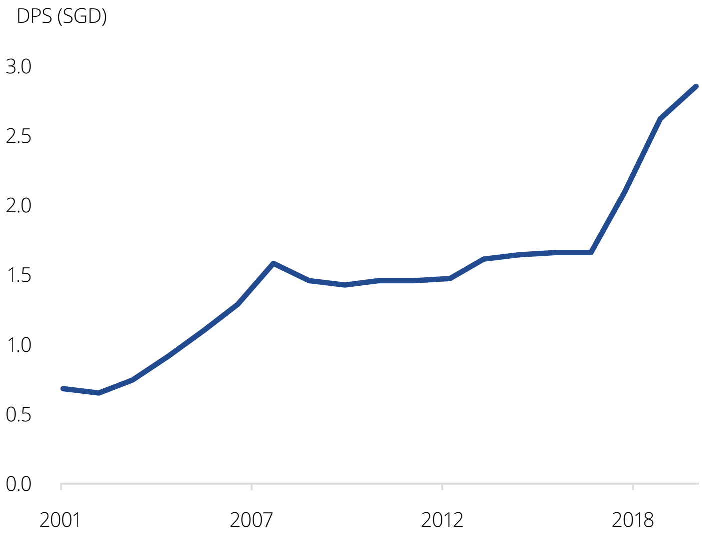


Source: Bloomberg, DBS

- Domestic consumption

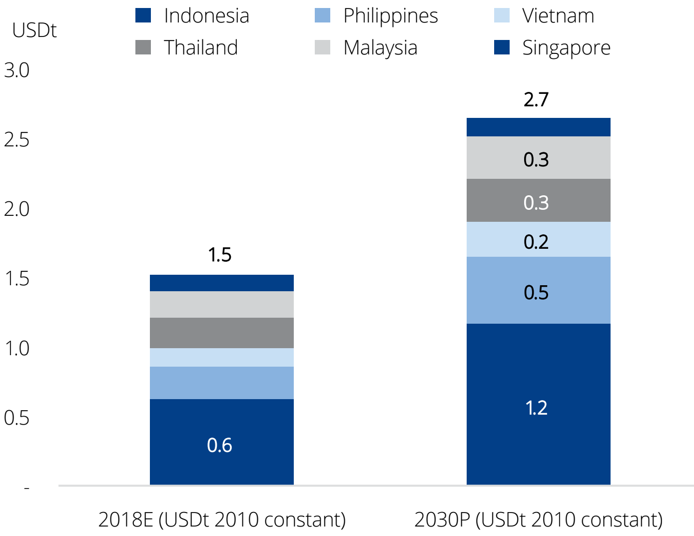
We prefer ASEAN domestic consumption plays. In a longer term, the sector is supported by favourable demographics and structural change in lifestyle. In the near term, the sector should be supported by government stimulus to cushion the negative impact of the virus outbreak.

Figure 14: Singapore banks have been paying stable dividends



Source: Bloomberg, DBS.
Note: Aggregate of three banks

Figure 15: ASEAN consumption poised to double by 2030



Source: CEIC, DBS estimates

ASEAN transforming for new digital age

ASEAN stock markets still lack counters of innovative companies. This, in our view, has inhibited the growth of the stock exchanges and diverted investor interest away from the market. However, the future landscape holds well for stock markets, with the development in digital banking in Singapore and flourishing of start-ups in Indonesia.

Singapore digital banking license

Singapore will be handing out its digital banking licences in June and that should speed up the digital transformation landscape for Singapore and the region. Bidders for the licences include Mainland China's super-apps, non-bank firms, fintech, and e-Commerce firms – many of which have extensive regional presence. Other than reaching out to the under-banked sectors, we believe the licenses will fast track the digital banking experience in ASEAN countries with innovative banking and payment solutions.

Disruption to Singapore banks are likely to be minimal as most of them have already embarked on the digital route.

Indonesia – Unicorns

Indonesia has always been a hotbed for start-ups. Investors are attracted to the consumption potential derived from its favourable demographics, and it is touted as the largest e-Commerce marketplace and biggest digital economy in Southeast Asia. Included in the investors' lists are many of the prominent private equity investors such as Softbank, Alibaba, Tencent, and Google. Currently there are five tech unicorns (start-ups with more than USD1b valuation), including the one in ride-hailing, e-Commerce firms, online travel agent, and fintech payment. We believe their IPO listings are a matter of time and that should add to the breadth of the market. Other promising start-ups could come from the health care and education sectors as the government is emphasising and spending there. Local media and telecommunications companies are also actively partnering these companies to tap on the USD130b digital economy.

Figure 16: Insatiable funding for Indonesia e-commerce start-ups

Source: SEA Internet Economy Report 2019 by Google, Temasek and Bain & Co

Table 1: Summary of key Asia investment themes

Themes	Beneficiaries
5G, semiconductor, cloud	North Asia foundries, IC design
e-Sports	Game platforms
Ageing population	Insurance
Dividends play	Singapore banks
	China large banks
	Singapore REITS
Asia domestic consumption	China e-Commerce
	Indonesia consumption
Government stimulus	China banks
Market reform	China A-shares
	Vietnam

Source: DBS

Source: Unsplash

Global Rates | 2Q20

Growth shock

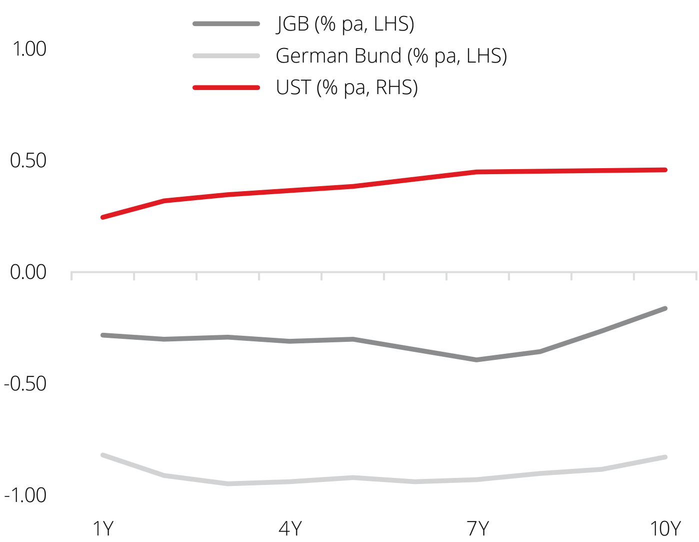
Global Rates

Eugene Leow | Strategist
Duncan Tan | Strategist

COVID-19 is now threatening a global growth shock as the repercussions start to get felt. The nascent recovery in the global electronics/manufacturing sector has now been delayed to 2Q20. More importantly, the drag from the services sector (especially tourism and retail-related) is expected to persist well into mid-2020. The supply and demand dislocations are likely to be acute as infections outside China rises rapidly at a time when the recovery in the Mainland China industries remain painfully slow. The Federal Reserve has already cut to the zero bound and announced quantitative easing (of at least USD700b). We do not think negative interest rates are needed at this point.

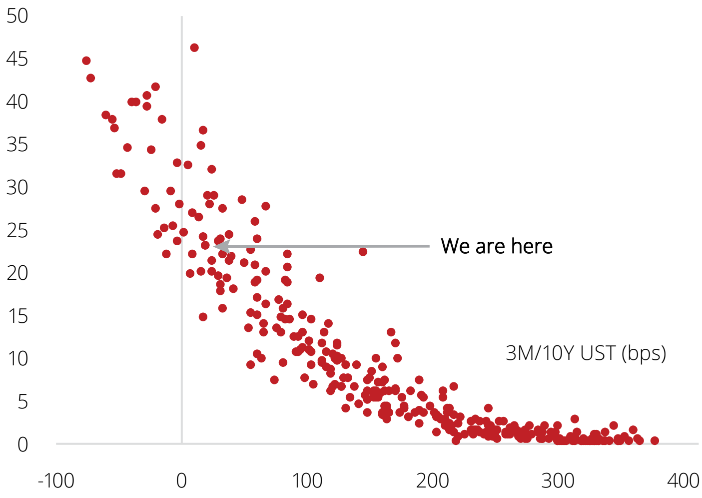
DM central banks will take the cue to support the global economy, either via rate cuts or asset purchases. The RBA and RBC have both embarked on easing. The ECB and BOJ will face pressure to ease policy. However, we would note that within the G-3 economies, only the Fed has leeway to cut rates meaningfully. Policy rates in the Eurozone and Japan are already in negative territory and the unintended consequences on the financial system would prompt policymakers in the two regions to be much more cautious. We think that the ECB may do a token cut if needed while the BOJ is likely to stay on hold.

Figure 1: Flat G-3 curves on COVID-19 fears



Source: Bloomberg, DBS

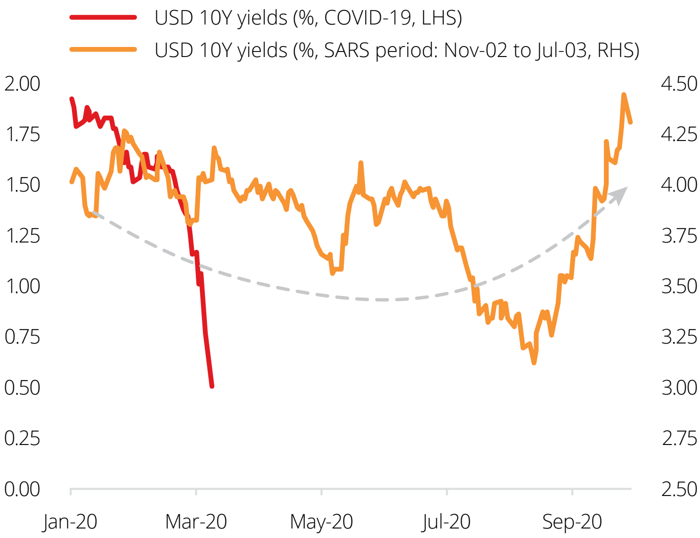
Figure 2: Can Fed cuts avert a recession?



Source: Bloomberg, DBS

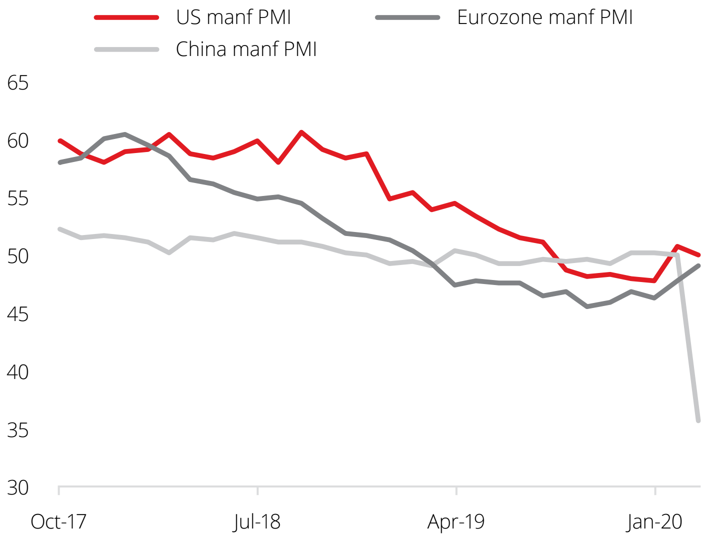
Overall, following the SARS playbook, we think that global economic activity will pick up in 2H20 and this could eventually drag G-3 yields higher. Ultimately, this would depend on how fast global authorities get the virus under control and whether the warmer weather in 2Q20 would stymie the virus as widely expected. Aggressive fiscal policy, which are probably much more effective than monetary policy, would also go a long way toward cushioning the economy from a few months of economic stress. We are encouraged that policymakers are no longer complacent on COVID-19 risks. Containment policies, while painful, will shorten the economic drag. Curve bear steepening will take place when fiscal responses get more aggressive and G-10 rate cuts get fully priced in.

Figure 3: Worse than SARS



Source: Bloomberg, DBS

Figure 4: Recovery delayed to 2H20



Source: Bloomberg, DBS

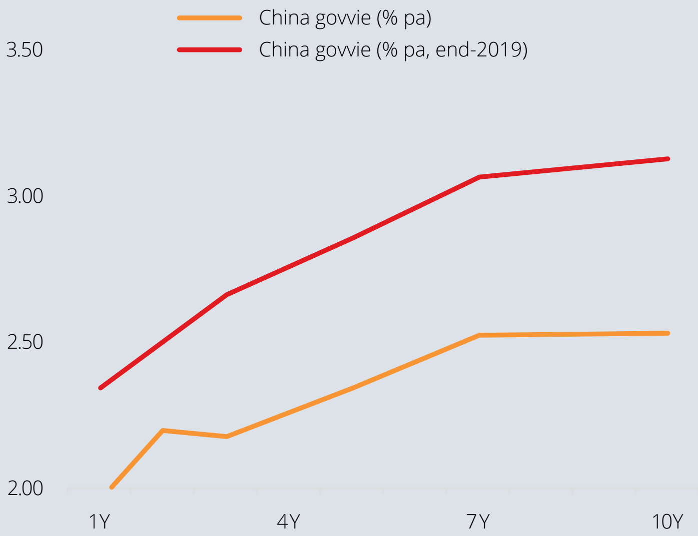
Source: Unsplash

Asia Rates

CNY rates: Battling COVID-19

COVID-19 fears have subsided in Mainland China but we expect the authorities to maintain supportive measures for the economy. The China govvie curve bull steepened when the market re-opened post the Lunar New Year holidays. While some of this reflects growth concerns, we note that the PBOC has been active in providing liquidity into the system. The 7D repo rate and the 3M Shibor have been key beneficiaries of the improved liquidity conditions. Notably, the 3M Shibor has dipped below 2.60%. Current levels of short-term rates are marginally lower than that seen in 2015/16 when China hard landing fears were acute. Beyond the short-term, we think that fiscal worries could keep the longer tenors somewhat elevated. However, this has got to be balanced against index inflows from foreign buyers. We suspect investors will be enticed to buy China govvies given the lack of yield in the developed world.

Figure 5: Mainland China yields have shifted lower on growth fears

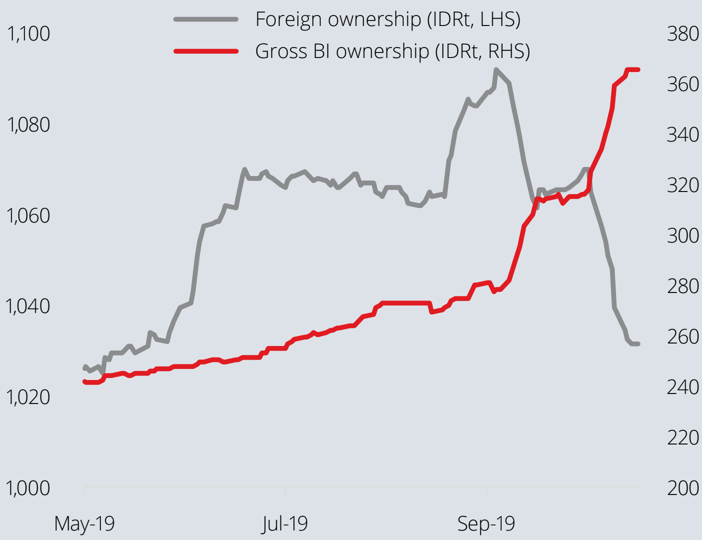


Source: Bloomberg, DBS

IDR rates: BI as a reassuring presence

BI presence in the DNDF and government bond market is proving to be a reassuring presence. We expect Indo govvies to exhibit some volatility through the current COVID-19 worries. While there was a wobble in bond prices amid foreign selling, the ramp up in BI purchases should help to cushion price falls. Moreover, BI has been active in the spot and DNDF markets to try to contain IDR volatility. A full-blown global risk aversion suggests that Asia assets including Indonesia's will not be spared. Beyond the short term, conditions are supportive for Indo govvies. DM rates are likely to stay low for the foreseeable future with markets pricing in further Fed dovishness. BI has also been dovish. While we may be closer to the end of the BI monetary easing cycle, we do not expect short-term rates to head up anytime soon.

Figure 6: Indo govvies get support from BI

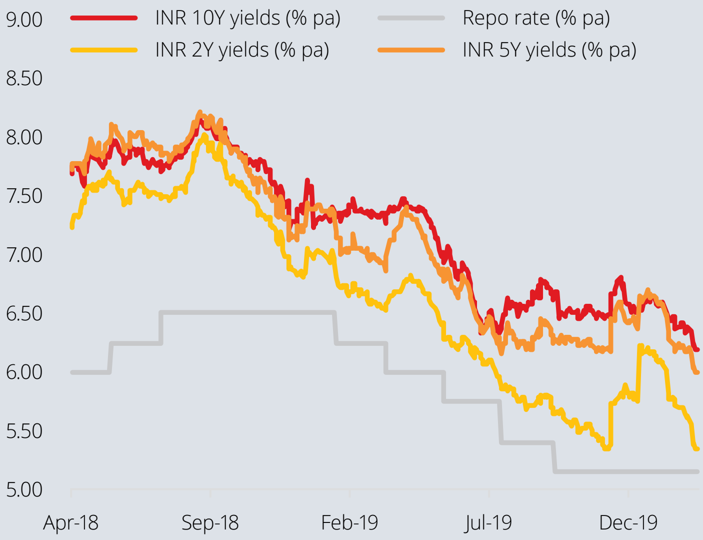


Source: Bloomberg, DBS

INR rates: Counting on policy support

India government bonds have rallied significantly over the past few months amid considerable support from the RBI. Ostensibly, the RBI has been on pause, with the reverse repo rate kept at 4.90% since October. Caution on the policy rate appears to be the sharp rise in headline inflation to 7.8% y/y in January (levels not seen since 2014) as food prices stayed elevated. However, unconventional policies such as Operation Twist in late-2019 (the buying of longer-dated bonds and selling of shorter-dated ones) and the injection of liquidity via long-term repo operations in February suggest that the easing bias remains. With global interest rates and oil prices still at depressed levels due to COVID-19 fears, conditions are generally still supportive of India govvies. Once inflation starts to come off, speculation on further RBI easing could return, providing another tailwind to bonds. On balance we like belly of the curve, noting that the yield pickup out to the 5Y tenor is sizable.

Figure 7: Belly of India govvie curve is attractive

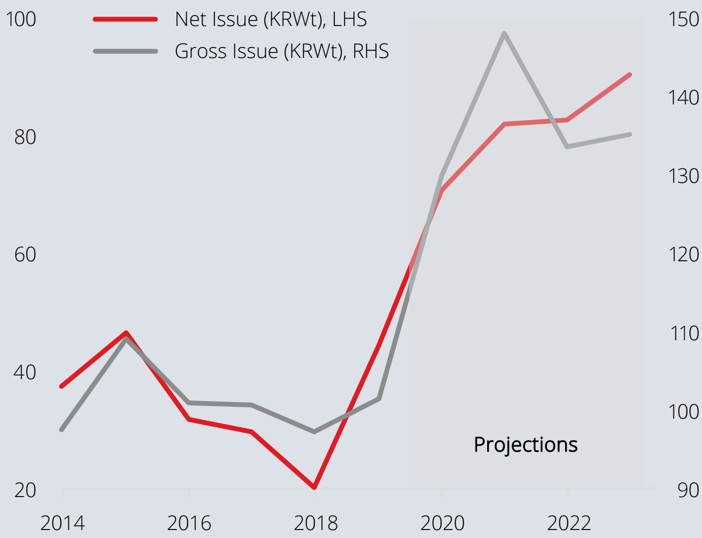


Source: Bloomberg, DBS

KRW rates: Steepening has more room to run

In our view, the extent and mix of potential monetary easing and expected fiscal expansion ahead is being underappreciated. In terms of timing, we expect the BOK to cut rates in response to the economic shock from COVID-19. There is certainly scope for market pricing to increase beyond one cut, considering the likely material impact of supply chain disruptions and demand slowdown in Mainland China on South Korea's manufacturing and exports sectors. In the next few years, fiscal policy is expected to turn more expansionary to support growth, but that also means larger bond issuances. The Ministry of Economy and Finance's 2020 KTB Issuance Plan shows a significant increase in projected gross supply from KRW102t to KRW131t, and net supply from KRW45t to KRW71t. Hence, KRW rates are likely to steepen further, relative to USD rates.

Figure 8: Issuances are projected to rise in Korea

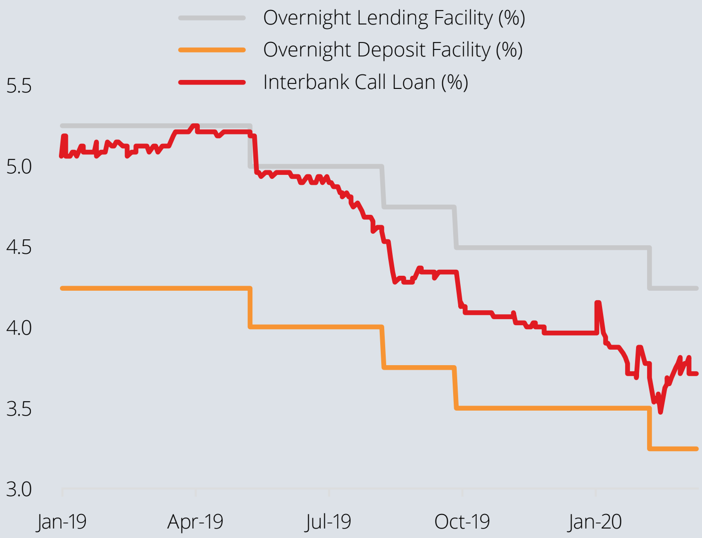


Source: Bloomberg, DBS

MYR rates: Biased lower across the curve

Recent developments across Malaysia's economic and political landscape have prompted us to remove our bullish duration bias on Malaysian government securities (MGS). Political uncertainties could stay elevated for a while. With falling oil prices expected to reduce petroleum-related revenues and weak economic activity likely to lower tax receipts, the risks of further fiscal slippages and greater bond issuances need to be monitored. There are also technical headwinds in the form of index-based bond outflows that will continue to weigh. By our estimates, there would be c.USD2.0-2.5b of outflows from GBI-EM weight reduction (confirmed) and c.USD4.0-8.0b from exclusion from the World Government Bond Index (potential). Pressure will build for BNM to do more to support the economy. We think investors need to be positioned at the front-end of the swap curve, in 1y1y or 2y1y rates, to maximise exposure to monetary easing and minimize exposures to fiscal and political uncertainties.

Figure 9: Foreign demand for Malaysia bonds could slow ahead

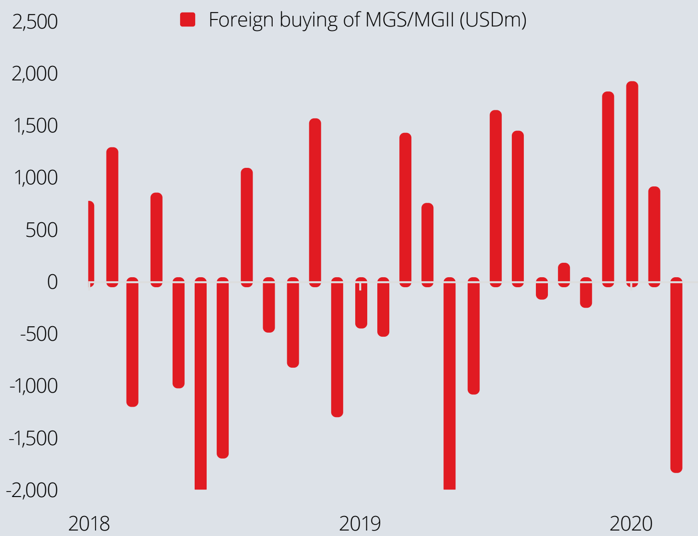


Source: Bloomberg, DBS

PHP rates: Likely to stay rich

In our view, valuations for PHP interest rates are quite rich. Spread between hard currency government bonds and USTs are close to historic lows. Corresponding spread for local currency bonds does not look as tight, but we think that is commensurate with the higher currency risk this year. The large compression in inflation risk premium, which drove most of 2019's duration gains, is also near its end. Despite rich valuations, we do not see any near-term triggers for rates to cheapen. The Philippines's economic outlook appears less challenging relative to Asian peers due to lower exposure to COVID-19 fallout, and a rebound in government infrastructure spending is expected to underpin growth this year. Inflation should remain well behaved within BSP's target range. In particular, flush onshore liquidity, due to BSP's ongoing RRR cuts, continue to dampen any upward pressures on rates.

Figure 10: Interbank rates have been moving lower within BSP's corridor



Source: Bloomberg, DBS

SGD Rates: SARS-redux

SGD interest rates will stay somewhat elevated relative to USD rates until COVID-19 runs its course. As fears over the virus outbreak intensified, the SGD NEER is estimated to have fallen to the bottom half of its trading band. FX weakness was also accompanied by spikes in short-term SGD swaps as market participants extrapolate that SGD weakness will persist. We argue that the market is broadly tracking the SARS playbook in 2003 and FX weakness (and MAS easing via flattening and/or recentering) have also been priced into the rates space. Beyond the immediate term, as virus fears fade in the coming few months, we suspect that a rebound in the SGD would translate into outperformance for SGD rates vis-a-vis USD rates. Meanwhile, expect Sibor/SOR to fall as Fed cuts get priced in.

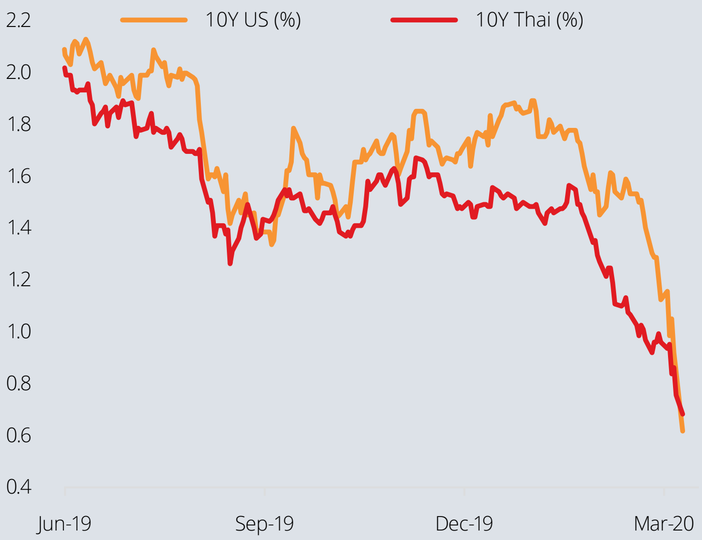
Figure 11: SGD rates reflect Fed cut expectations

Source: Bloomberg, DBS

THB rates: Low starting levels prevent bullish bias

Thailand's economic outlook was already soft coming into 2020 and the COVID-19 outbreak has further increased downside risks. In view of the country's high dependence on Mainland China tourism, we have downgraded our 2020 growth forecast from 3% to 1% y/y. Despite significant growth concerns, we do not favour a bullish Thai rates bias due to quite low starting levels. Compared to other Asian peers economically exposed to COVID-19 fallout (e.g. Singapore and South Korea), Thai swaps and bonds have moved the most in terms of pricing for rate cuts and the weaker regional growth backdrop. Scope for sizable duration gains are limited considering that 10Y bond yields have fallen below 1% and the policy rate likely close to, if not already at BOT's lower bound. From a total returns perspective, THB appear to be hardest hit by the virus outbreak and thus, can no longer be relied on to drive outperformance.

Figure 12: Thai rates have rallied alongside US



Source: Bloomberg, DBS

Table 1: Rates forecasts

		2020				2021			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
US	3m Libor	0.60	0.45	0.35	0.35	0.35	0.35	0.35	0.35
	2Y	0.40	0.40	0.40	0.45	0.50	0.50	0.60	0.70
	10Y	0.60	0.80	1.00	1.25	1.35	1.45	1.50	1.60
	10Y-2Y	20	40	60	80	85	95	90	90
Japan	3m Tibor	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	2Y	-0.25	-0.20	-0.15	-0.13	-0.13	-0.10	-0.13	-0.10
	10Y	-0.10	-0.10	-0.05	-0.05	0.00	0.00	0.00	0.00
	10Y-2Y	15	10	10	8	13	10	13	10
Eurozone	3m Euribor	-0.50	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60
	2Y	-0.85	-0.80	-0.75	-0.65	-0.60	-0.55	-0.55	-0.55
	10Y	-0.50	-0.40	-0.30	-0.20	-0.15	-0.10	-0.10	-0.10
	10Y-2Y	35	40	45	45	45	45	45	45
Indonesia	3m Jibor	5.10	4.90	4.90	4.90	4.90	4.90	4.90	4.90
	2Y	6.00	5.80	5.60	5.50	5.50	5.50	5.50	5.50
	10Y	8.00	7.80	7.60	7.40	7.20	7.00	7.00	7.00
	10Y-2Y	200	200	200	190	170	150	150	150
Malaysia	3m Klibor	2.80	2.50	2.25	2.25	2.25	2.25	2.50	2.75
	3Y	3.00	2.70	2.45	2.45	2.45	2.45	2.70	2.95
	10Y	3.25	3.50	3.50	3.75	3.60	3.70	3.50	3.60
	10Y-3Y	25	80	105	130	115	125	80	65
Philippines	3m PHP ref rate	3.50	3.25	3.10	3.05	3.00	2.95	2.90	2.90
	2Y	4.10	3.95	3.85	3.85	3.80	3.80	3.80	3.85
	10Y	4.60	4.50	4.30	4.20	4.25	4.35	4.40	4.50
	10Y-2Y	50	55	45	35	45	55	60	65
Singapore	3m Sibor	0.80	0.65	0.50	0.50	0.50	0.50	0.50	0.50
	2Y	1.10	1.05	0.80	0.80	0.80	0.80	0.90	1.00
	10Y	1.50	1.50	1.60	1.75	1.75	1.75	1.80	1.80
	10Y-2Y	40	45	80	95	95	95	90	80
Thailand	3m Bibor	0.87	0.62	0.37	0.37	0.37	0.37	0.37	0.37
	2Y	0.87	0.62	0.37	0.37	0.37	0.37	0.37	0.37
	10Y	1.50	1.40	1.30	1.25	1.35	1.45	1.50	1.60
	10Y-2Y	63	78	93	88	98	108	113	123
Mainland China	1Y Lending rate	4.00	3.85	3.70	3.55	3.55	3.55	3.55	3.55
	3Y	2.10	2.20	2.25	2.30	2.35	2.40	2.40	2.40
	10Y	2.60	2.60	2.60	2.60	2.60	2.70	2.80	2.80
	10Y-3Y	50	40	35	30	25	30	40	40
Hong Kong	3m Hibor	1.10	0.75	0.55	0.55	0.55	0.55	0.55	0.55
	2Y	0.70	0.60	0.60	0.65	0.70	0.70	0.80	0.90
	10Y	0.80	1.00	1.20	1.45	1.55	1.65	1.70	1.80
	10Y-2Y	10	40	60	80	85	95	90	90

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

Source: CEIC, Bloomberg, DBS

		2020				2021			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
South Korea	3M CD	1.00	0.70	0.65	0.65	0.65	0.65	0.65	0.90
	3Y	0.85	0.70	0.55	0.50	0.50	0.50	0.50	0.75
	10Y	1.40	1.20	1.10	0.90	0.95	1.00	1.00	1.20
	10Y-3Y	55	50	55	40	45	50	50	45
India	3M Mibor	5.80	5.55	5.30	5.30	5.30	5.30	5.30	5.30
	2Y	5.20	5.20	5.30	5.40	5.40	5.40	5.40	5.40
	10Y	6.00	6.00	6.15	6.30	6.40	6.40	6.40	6.40
	10Y-2Y	80	80	85	90	100	100	100	100

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

Source: CEIC, Bloomberg, DBS

Global Credit | 2Q20

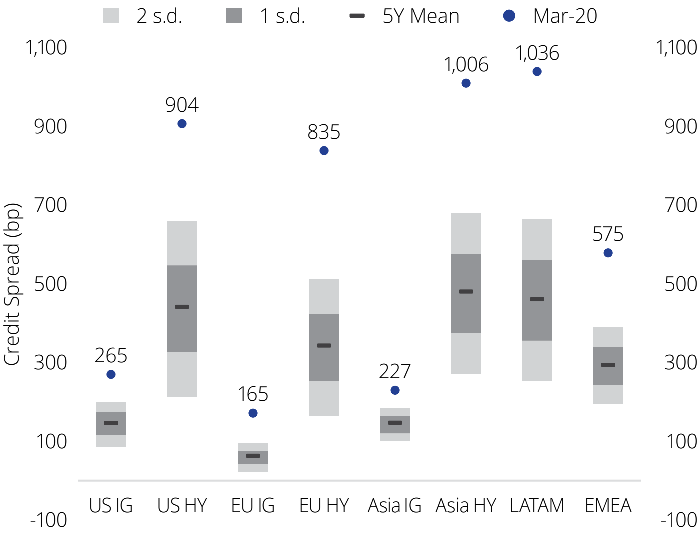
Favour AT1s and Asia Credit

Global Credit

Daryl Ho, CFA | Strategist

What a difference a new year makes. While 2019 was the year bond market returns exceeded their respective long-term averages, 2020 is quickly shaping up to be the year of mean-reversion. The markets were hit with a double barrel of black swan events – firstly with a demand shock stemming from the COVID-19 global pandemic stoking fears of economic "sudden-stops", followed by a supply shock in the form of rising oil production as Russia's disagreement with its OPEC allies on levels of output has led to an all-out price war.

Figure 1: Global credit spreads trading at multi standard deviation wides

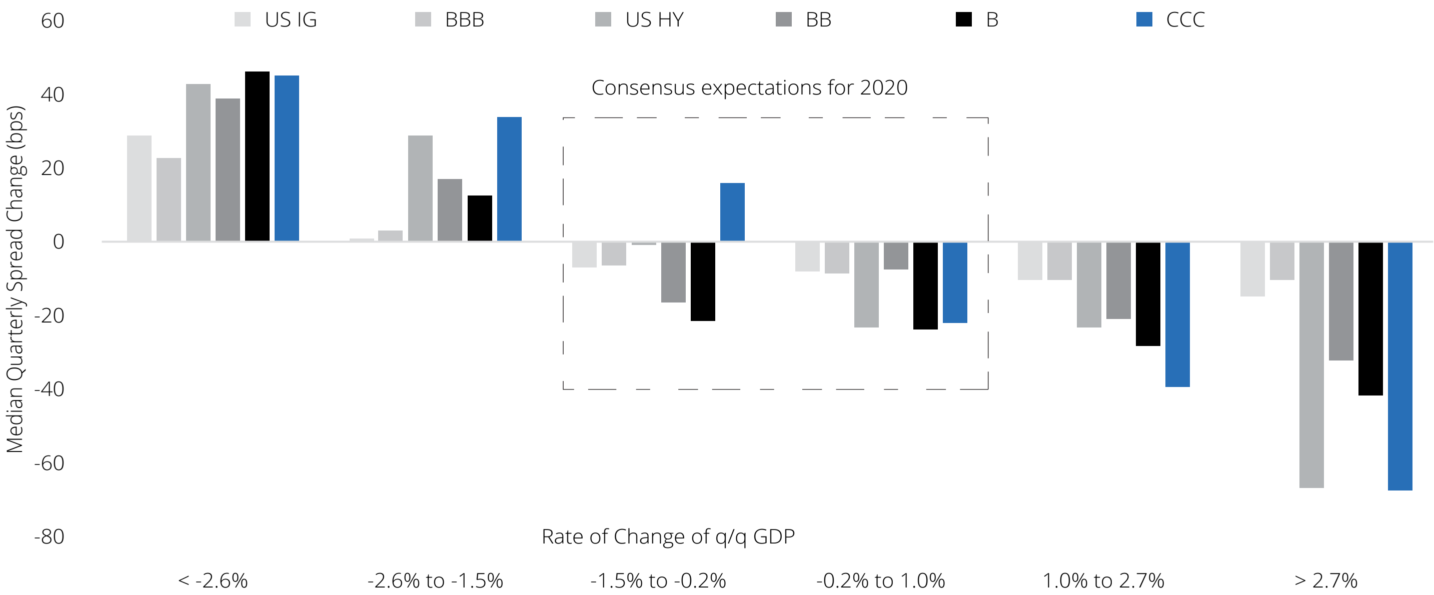


Source: Bloomberg, DBS

Markets have priced in crisis levels of fear. Credit spreads shifted from historical tights to historical wides in a matter of months, amplified by UST yields relentlessly pushing their boundaries of all-time lows. Certainly, we do acknowledge that there is cause for concern regarding default risk of over-leveraged sectors, should access to liquidity be restricted in a prolonged economic slowdown. However, with a broad-based widening of spreads, it also means that there are pockets of opportunity to pick up decent credits with strong balance sheets to weather the volatility, at fairly good prices. As the recency bias is notorious for clouding the judgement of even the most astute of investors, we need to take a step back to observe some of the macro trends of credit to better evaluate investment decisions with the big picture in mind.

Credits have exhibited resilience in a moderate growth environment. Firstly, despite the rise in the odds of a recession, US economic growth is expected to still register positive increments in the second half of the year, according to Bloomberg forecasts. This implies that even if growth were to suffer contraction for one to two quarters, forecasters view sequential recovery as a matter of "when" and not "if" – the world economies should eventually learn to recover from the virus shock. As shown in Figure 2, credit spreads exhibit a track record of tightening even when growth is moderately contractionary, with the exception being CCC-rated credits at the lower end of the quality spectrum.

Figure 2: Credit spread sensitivity to rate of change in q/q GDP growth (since 2003)

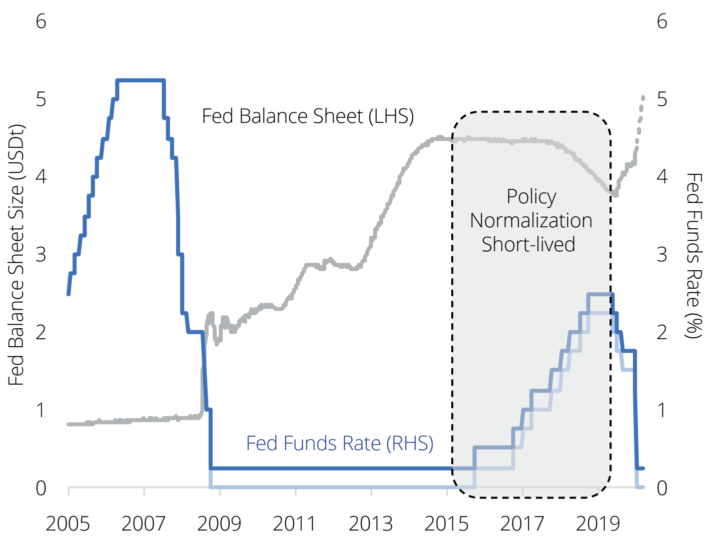


Source: Bloomberg, DBS

With YTD mean spread widening of c.150bps for IG bonds and c.600bps for HY bonds, it does appear that the quarters of contraction have been more or less priced in. The same could not be said of the quarters of recovery.

Monetary policy is supportive of the credit environment. Secondly, US monetary policy is at its most supportive since post-2008 crisis levels. The Fed surprised the markets by cutting rates by 150bps to the lower bound of 0% - 0.25% in March 2020, and communicated that they would increase purchases of US treasuries and mortgage-backed securities by at least USD500b and USD200b respectively in the next few months; emergency moves to insure against a deteriorating outlook caused by the global COVID-19 outbreak and declining oil prices. More significantly, this will increase the size of the Fed's balance sheet to USD5t, exceeding the USD4.5t reached in the previous era of QE.

Figure 3: US monetary policy normalization proved to be short-lived



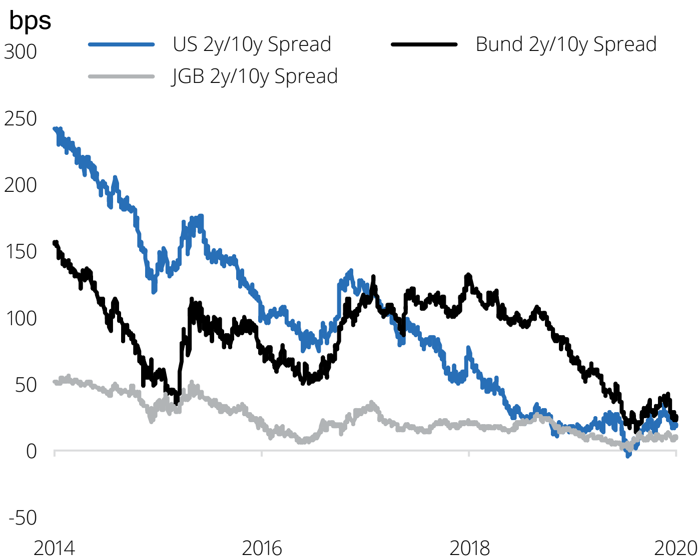
Source: Bloomberg, DBS

With the policy rate held close to zero – significantly below the Fed's projected long-run neutral rate of interest (2.50%) – we can expect easier monetary policy to prevail which will be supportive of risk assets in general. Despite the volatility in markets, the conventional playbook of modest growth and easy monetary policy dictate that higher-yielding assets would be well supported in this situation.

Should investors seek higher-yields from duration risk or credit risk? There are broadly two main categories of risks that investors take to get that incremental yield – duration risk and credit risk. In isolation, it does appear that taking one of those risks is more favourable than the other from a macro perspective.

The basis for caution with Duration risk. Long-duration (generally classified as those with maturities 10 years or longer) rates were the clear outperformers with the flight-to-quality trades that characterised the price action following the risk-off turn in the markets. Looking at present valuations, the UST curve – the basis by which most USD credits are priced off – are at some of their flattest levels in 10 years.

Figure 4: 2y/10y yield curve spreads languishing close to zero

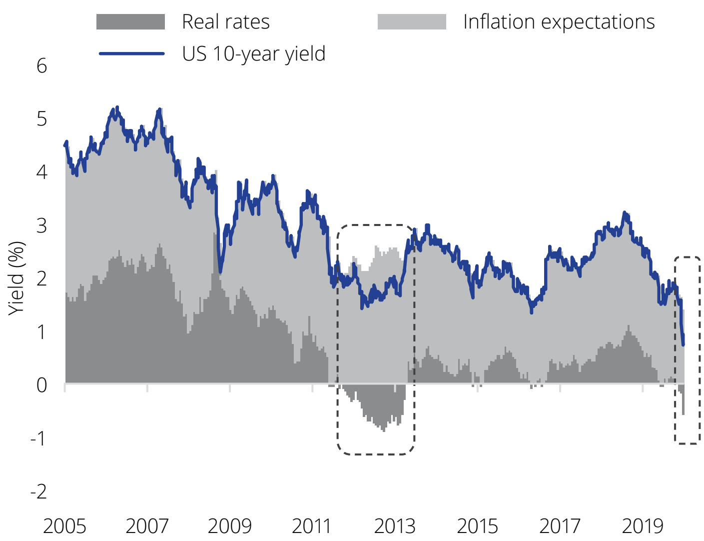


Source: Bloomberg, DBS

Where investors were once compensated close to 250bps taking 10-year duration risk vs two-year, this spread has since compressed to around 70bps in March 2020 (Figure 4).

No real returns. With longer-dated UST yields continuing to touch record lows, it is increasingly difficult to justify that investors take duration risk. Most notably, the entire spectrum of UST yields – all the way up to the 30-year tenor – is trading considerably under the 2% inflation target that remains as the Fed's objective. The implication is that the returns from buying and holding the longest dated risk-free treasury bond to maturity would be insufficient to sustain the purchasing power of an investor's dollar if the Fed achieves their inflation target. No one puts it quite as succinctly as legendary investor Warren Buffet, who mentions that it "makes no sense" to lend money to the federal government at a rate lower than that which the same government is trying to devalue that money.

Figure 5: Composition of US 10-year yields



Source: Bloomberg, DBS

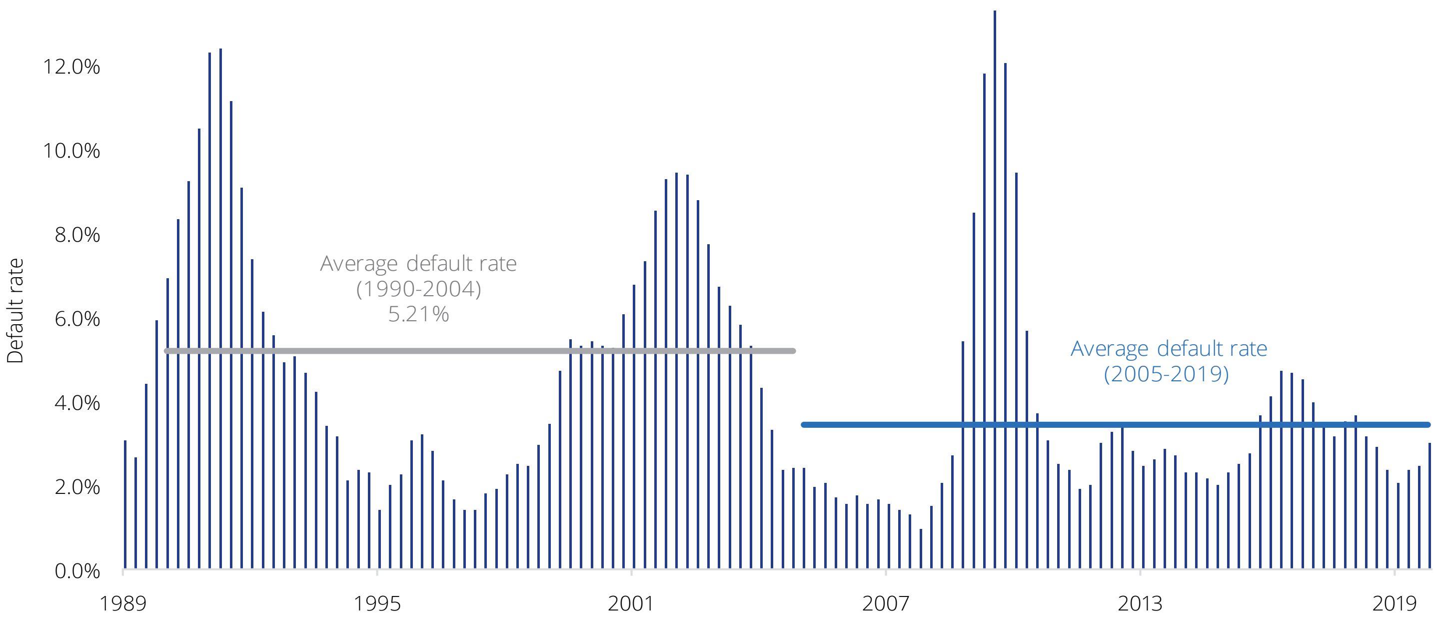
By breaking down the nominal 10-year UST yield into the real rate and inflation expectations components, we can more clearly discern that negative real rates were the main driver for the recent move lower in yields (Figure 5). This is similar to the period between 2011-2013 with the European debt crisis and subsequent announcement of a bond-buying programme that saw term premiums first touch negative territory. With long duration rates driven more by policy action than fundamentals, investors should remain duration cautious, especially when monetary policy appears to be progressively stretched beyond its viable limits.

The case for selectively taking Credit risk exposure. As with the case of chasing yields by going down the credit quality spectrum (from IG to HY), investors generally fear either negative ratings migration, or worse, issuer default. This is all the more pertinent now, with the rising odds of recession in 2020. However, there are several structural factors that lend credence to selectively increasing credit risk exposure over the longer term.

A broader migration towards a structurally lower default world. Looking at default trends of global speculative-grade bonds over a longer horizon, it is notable that there has been a step-change in default rates lower by close to 2%pts in the 15-year period between 2005 -2019, as compared to the prior 15-year period between 1990-2004 (Figure 6).

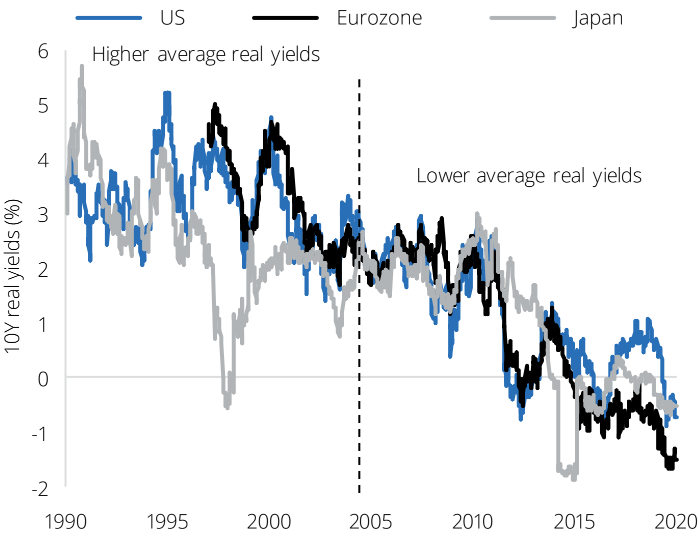
There are compelling reasons to believe that this step change is more structural than cyclical in nature, because of how the levels of global real yields have declined over time, drifting into negative territory across the largest economies around the world since 2016. This implies that the real value of debt is declining with time which would improve debt serviceability, ceteris paribus, for credit markets as a whole. This however, does not mean that investors are absolved from country/ sector level strain; case in point would be the energy-related US, LATAM, and EMEA HY issuers who will certainly see defaults rise if the collapse in Brent oil prices in March 2020 to around USD30.00/barrel were to be sustained for the longer run.

Figure 6: Annual default rates of global speculative-grade bonds from 1989 to 2019



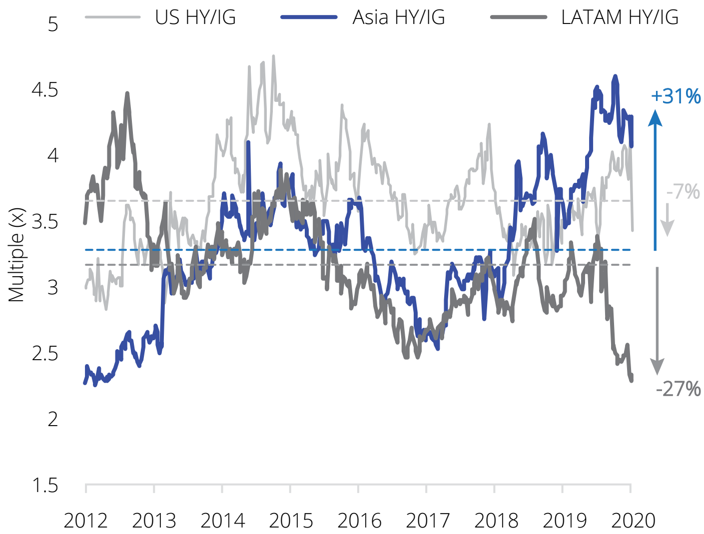
Source: Moody's Investors Service, DBS

Figure 7: 10-year Real Yields since 1990



Source: Bloomberg, DBS

Figure 8: HY/IG spread ratios against their respective long-term averages



Source: Bloomberg, DBS

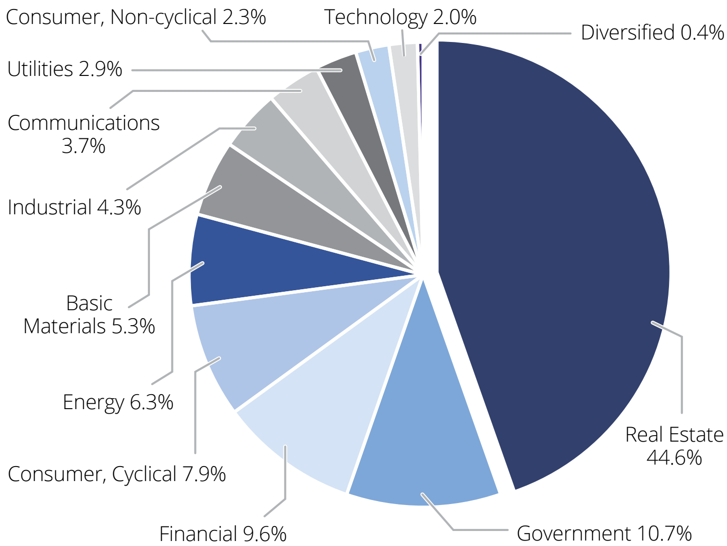
Given the historically high debt burden the world currently faces (which as a point to note, is skewed more towards public debt than corporate debt in most parts of the world), we believe policymakers will have a tendency to keep real yields low for the observable future in order to avert systemic strain. As such, default rates would broadly see a 'new normal' at lower levels, barring the obvious periodic spikes due to recession.

Pockets of undemanding valuations for credits remain. If speculative-grade defaults were structurally lower, it is coherent to consider a convergence of HY spreads closer to IG spreads over a longer period of time. We measure relative valuations of HY vs IG, by using spread ratios (where we divide the credit spread of HY bonds by the spread of IG bonds) and we observe that only one region – Asia HY – stands out in terms of wider deviations from (a) US/LATAM as well as (b) from its own longer-term average, likely due to the rising US-China trade tensions since 2018 (Figure 8).

Assessing if Asia HY valuations are warranted. With the trade tensions largely in the rear-view mirror, it is reasonable to assess if the current risks warrant the spread multiples that Asia HY is currently trading above Asia IG. Looking at the sector composition of the USD Asia HY universe, we note that the majority (around 45%) of the issuers are in the real estate sector (Figure 9), which is relatively insulated from lower oil prices. Only about 6% of the index, being in the energy sector, is directly exposed to oil prices. Moreover, as Asian economies are broadly net importers of oil, lower crude prices are actually more positive for Asia at the margin.

The main risk for Asia now is that a prolonged outbreak of the virus will hamper economic recovery. However, the region currently exhibits the best track record in terms of declining new cases and rising recoveries, due to measures of rapid containment, isolation, and detection that the Asian countries have both the political will and institutional capability to effectively execute.

Figure 9: Sector composition of the Asia HY credit market



Source: Bloomberg, DBS

Looking at the bigger picture for 2020, Asia remains a viably attractive destination for fund flows. The dovish inclination of DM central banks, on top of uncertainty around the containment of COVID-19 in the west, lends to the attractiveness of Asian debt from a macro perspective. Specifically for Asia Ex-Japan, the growth outlook for 2020 remains attractive at around 4.8%, especially when juxtaposed against the 1-2% projections made for DM economies.

As a region, Asia continues to demonstrate sufficiency in fiscal and monetary policy room in tiding over the downturn, and there is currently little to suggest risks of widespread systemic defaults given the depth of the Asian bond markets. With an indiscriminate selloff in global credit, we believe that there are pockets of value in Asia that investors can uncover with decent credit analysis to provide a fair return in this brave new world of lower-for-longer yields.

We consider Asia HY credits in the BB ratings bucket and 1 to 5 year tenor, and Asia A/BBB credits in the 10-year tenor to offer value to investors. Select European/Asian AT1s also look attractive following the selloff. These credits, currently yielding 4-7%, are strong contenders for the income portion of our Barbell Strategy, providing good returns on a risk-adjusted basis. However, in the pursuit of carry assets, we reiterate that investors should not be carried away by high yields alone, sound credit fundamentals remain a necessary protection for downside risk.

Source: AFP Photo

Global Currencies | 2Q20

Consolidation mode

Global Currencies

Philip Wee | Strategist

The global outlook has changed dramatically in the first quarter of 2020. Initial optimism for a global recovery from a US-China trade truce gave way to recession fears after COVID-19 spread from Mainland China into the rest of the world. The Federal Reserve shocked with an emergency rate cut on 3 March after major US stock indices fell more than 10% in a little more than a week. USD fell alongside the UST 10-year bond yield which hit new lifetime lows below 1% on bets that the Fed would lower rates to zero. Oil prices nosedived some 30% on 9 March and triggered a global equity meltdown and a flight-to-safety into JPY and CHF.

DXY has appreciated above its trade war price channel on COVID-19 turning pandemic and a shortage of USD liquidity. The rally is likely to stall around its 2016 high. The Fed last surprised with inter-meeting cuts in 2001 and 2008. In both cases, the cuts did not set the DXY on a depreciation path but into consolidation first. What came after was different for both experiences.

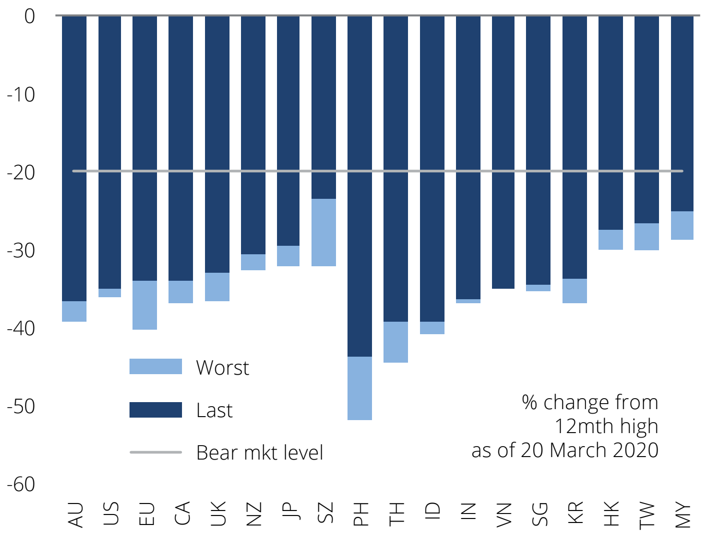
The greenback lost its credibility in 2002 on US corporate accounting scandals after the Y2K recession. Conversely, USD was strong because of the GFC, between Lehman Brothers's bankruptcy in September 2008 and the Fed's first QE in March 2009. The Fed has led other DM central banks in lowering rates to 0-0.25% which together with swap lines it has extended, should help stabilise DXY and its key components.

The euro is correctly positioned in the weaker half of its 1.05-1.15 QE range. Apart from the Fed's emergency rate cuts in March, the US is still relatively stronger than the Eurozone. COVID-19 has infected significantly more Europeans than Americans, which in turn, has drawn the large EU economies – Italy, Germany, and France – closer to recession. The ECB has announced a EUR750b Pandemic Emergency Purchase Programme to buy government and corporate bonds. EU governments are also working on fiscal stimulus to counter the economic fallout from the coronavirus.

Figure 1: The US dollar

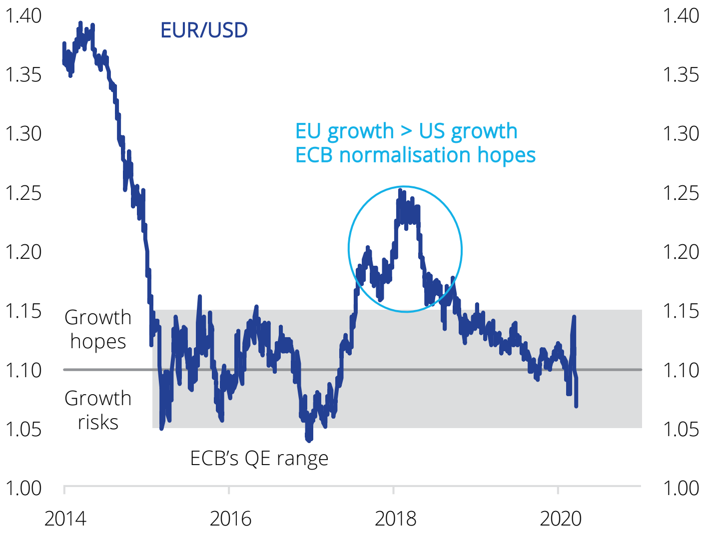
Source: Bloomberg, DBS

Figure 2: Global equity selloff on COVID-19



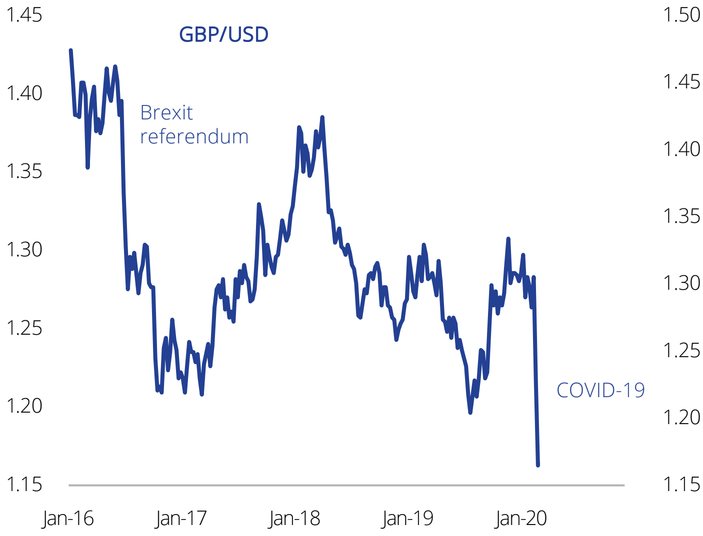
Source: Bloomberg, DBS

Figure 3: The euro



Source: Bloomberg, DBS

Figure 4: The British pound



Source: Bloomberg, DBS

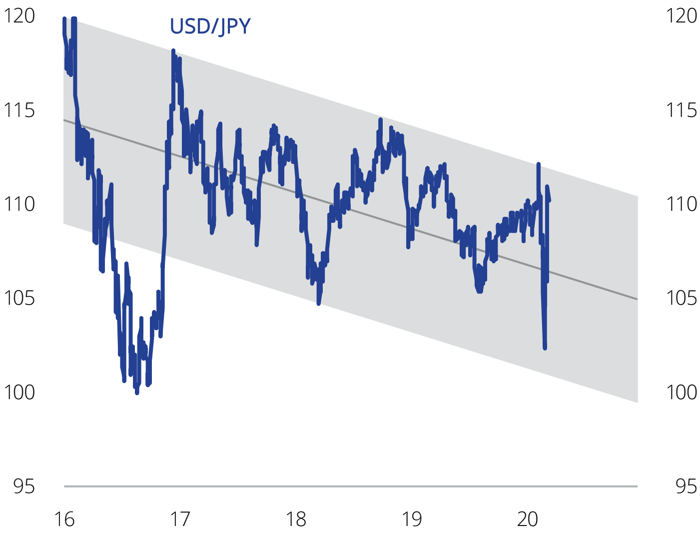
The coronavirus has hammered the British pound as hard as the Brexit referendum. COVID-19 has overtaken Brexit as the primary short-term risk to the fragile UK economy. UK retailers have reported supply chain disruptions while UK businesses warned that up to a fifth of the workforce could be made absent. The BOE delivered an emergency rate cut on 11 March before its next meeting on 26 March. The bank rate was lowered by a larger-than-expected 50 bps to a record low of 0.25%. The door is open for the BOE to restart QE to stimulate growth. On the same day, Chancellor Rishi Sunak announced the largest fiscal stimulus since 1992 and set the post-Brexit budget on a wider deficit path. Talks have started over the UK's future relationship with the EU. Without the assurance of a meaningful post-Brexit trade deal with the EU, UK businesses have not dismissed the possibility of a hard Brexit at the end of the transition period on 31 December.

The Japanese yen had a wild ride in 1Q20 but we do not see it breaking 100. The safe-haven status of JPY was briefly questioned when it depreciated past 110 during 19 to 26 February. Technical recession fears heightened in Japan after COVID-19 disrupted a post-VAT economic rebound in 1Q20 from the deep 7.1% q/q saar contraction on last October's sales tax hike and Typhoon Hagibis. The greenback was considered an alternative until US equities shed more than 10% in about a week followed by an emergency Fed cut on 3 March. Barring another GFC, Japan may have resorted to stealth intervention via the Government Pension Investment Fund to keep USD/JPY above 100.

The coronavirus tried and failed to take Swiss franc out of its trade war range between 0.96 and 1.02. The US Treasury Department in mid-January added Switzerland back into its monitor list for currency manipulation. This is unlikely to deter the SNB to respond to the surprise Fed cut on 3 March with rate cuts and interventions to discourage safe-haven flows into CHF. The central bank is looking at tiering to minimise the side-effects of negative rates in the event rate cuts are needed again. Repos have been reintroduced in late January to inject liquidity into the banking system. The export-reliant Swiss economy is vulnerable to the growth risks posed by COVID-19 to its major trading partners in Europe and Asia.

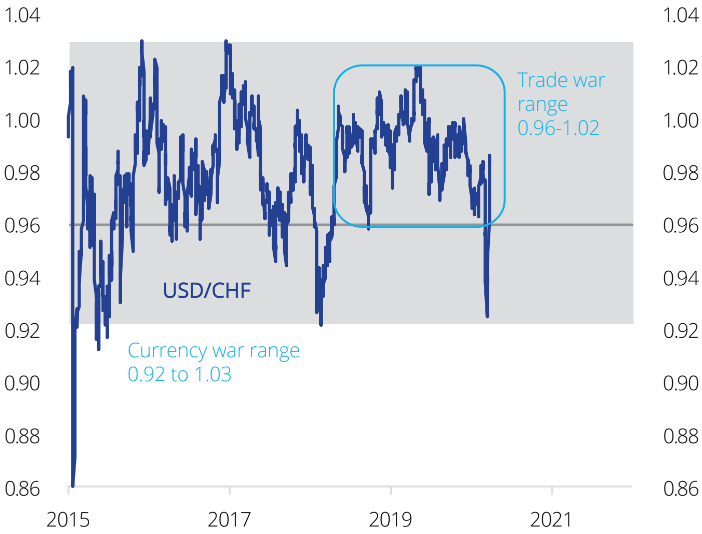
The Australian dollar may stabilise after having weakened below 0.60 on COVID-19. Australia is coordinating with the US to steer its monetary and fiscal power to combat the coronavirus. RBA and Fed policy rates have converged around 0.25%; both are also running QE. The government

Figure 5: The Japanese yen



Source: Bloomberg, DBS

Figure 6: The Swiss franc



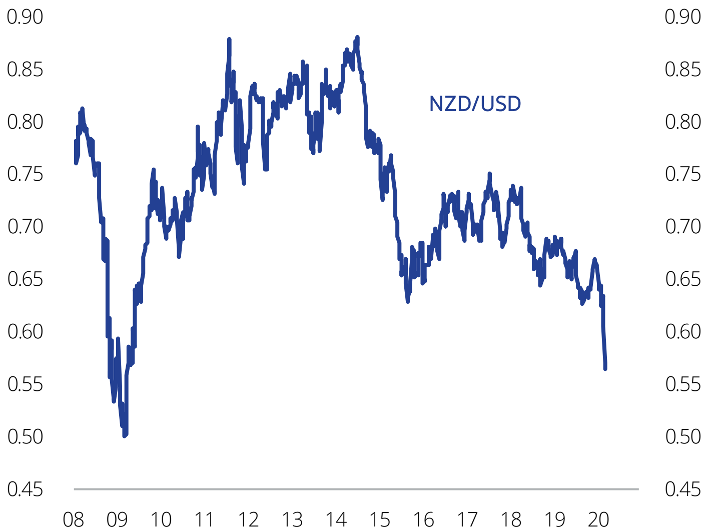
Source: Bloomberg, DBS

Source: AFP Photo

Figure 7: The Australian dollar

Source: Bloomberg, DBS

Figure 8: The New Zealand dollar



Source: Bloomberg, DBS

has pushed for massive stimulus packages to support an economy being pushed towards recession by COVID-19 and earlier by the Black Summer bush fires. But not everything is bleak. The country which is heavily dependent on Mainland China for tourism, students, and demand for its commodities could benefit from China's expected rebound in 2Q.

The weak New Zealand dollar, like AUD, may find support below 0.60. Like Australia, New Zealand is also caught between a natural disaster and a pandemic. Farmers have been hit by one of the longest droughts that is also widespread across Northland, Auckland, and northern Waikato. COVID-19 will hit its goods and services exports via a slowing Mainland China and the travel ban. The Treasury will need to lower its growth and budget deficit projections again after last December's downgrades. The government has announced a large infrastructure spending in late January ahead of the elections on 19 September. This is likely to keep the Current Account deficit wide at more than 3% of GDP.

Asia Currencies

CNY

The Chinese yuan has weakened into a weaker 6.85-7.20 range from 6.70-7.00 after the second tariff war with the US. The new range has been intact because the phase-one trade deal signed on 15 January has only cancelled or partially rolled back tariffs from the second round of retaliations. To move below 6.80, USD/CNY would require another mini trade deal to rollback more tariffs especially those from 2018. Unfortunately, a phase-two deal will be hard to come by this year because of the COVID-19 outbreak and the US presidential election in November. Over the next couple of quarters, China's priority will be to contain the epidemic and its fallout on the economy by ensuring ample liquidity, lower borrowing costs and "targeted and phased" fiscal measures that will add pressure its already wide budget deficit. Until COVID-19 peaks, the prospect for China to first tolerate a weaker exchange rate past 7 cannot be discounted.

Figure 9: The Chinese yuan

Source: Bloomberg, DBS

HKD

The Hong Kong dollar peg to USD is likely to remain resilient to growth risks from protests and the COVID-19 outbreak. HKD has appreciated to a three-year high from rising Hibor on tight liquidity; lower US interest rates after three Fed cuts last year and an easing of US-China trade tensions formalised in mid-January. Hong Kong is likely to report its first ever back-to-back recession in 2020 on COVID-19. To cushion the "tsunami-like" shocks to the economy, Hong Kong has announced its first budget deficit in 15 years. It reported the only recession in East Asia in 2019. Activities were disrupted by prolonged protests which are likely to return into the Legislative Council election scheduled for September 2020. The protests have led Moody's to downgrade Hong Kong's sovereign debt rating on 20 January. Overall, no change is seen to the convertibility band of 7.75-7.85 but USD/HKD has room to return to 7.80 or the midpoint.

Figure 10: The Hong Kong dollar

Source: Bloomberg, DBS

KRW

The South Korean won was not spared by COVID-19 but its weakness may be limited to 1,300. Earlier recovery hopes from the phase-one trade deal were disrupted by South Korea becoming the second worst Asian country affected by COVID-19. During the SARS epidemic, the economy slowed to 2.9% in 2003 from 7.4% in 2002 on a collapse in private consumption expenditure. On 27 February, the BOK downgraded its 2020 GDP growth forecast to 2.1%, from 2.3% previously. With the economy falling short of its official 2.5-2.6% potential growth rate for a second straight year, the door remains open for rate cuts. Meanwhile, the government on 4 March announced a supplementary stimulus package of KRW11.7t to cushion the economy. If approved by parliament, government debt is projected to increase to 41.2% of GDP, from 39.8% planned earlier. While this has not threatened the stability of the country's sovereign debt ratings, the same cannot be said for Korean companies.

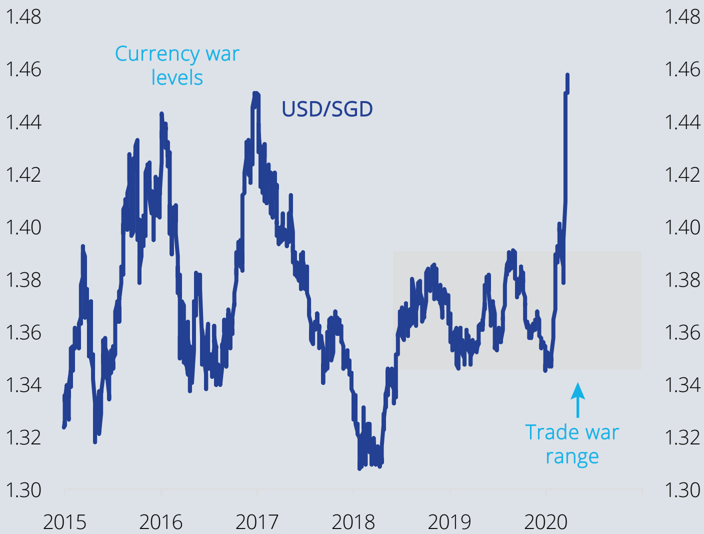
Figure 11: The South Korean won

Source: Bloomberg, DBS

SGD

Recession risks have weakened the Singapore dollar but support may be around 1.45. COVID-19 has achieved what the US-China trade war did not. In February, the epidemic has led the SGD NEER into the weaker half of its policy band and a possible recession in 2020. This year's official growth forecast was downgraded on 17 February to between -0.5% and 1.5%, from 0.5-2.5% previously. Earlier hopes for a recovery from a US-China trade truce has been upended by COVID-19, which the government expects will hit the economy harder than SARS in 2002-03. The government is planning a second stimulus package to cushion the economy from the coronavirus and may tap reserves to fund it. The SGD NEER policy band is likely to end its appreciation path and re-centre lower at or before its April policy review. That said, the SGD can bottom if China leads the recovery from COVID-19 in 2Q.

Figure 12: The Singapore dollar



Source: Bloomberg, DBS

INR

The Indian rupee has depreciated to a new record low against USD. The underlying weakness of INR was evident when it did not appreciate into the phase-one trade deal on 15 January and the surprise Fed cut on 3 March. Stagflation risks have emerged for India. Between March 2018 and December 2019, real GDP growth has fallen steadily from 8.1% y/y to 4.7%, a six-year low. Conversely, CPI inflation has been rising every month in 2019, from 2.0% to 7.6% in January 2020. With inflation above its official target of 2-6%, the RBI will be forced to stay on the side lines after lowering repo rate to 5.15%, from 6.50% in 2019. Moody's and the IMF have been paying close attention to fiscal slippages especially from the government's struggle to improve revenue amidst its borrowing binge. Fitch is monitoring for systemic risks from the government's takeover of Yes Bank. It did not help that the India stock market has sold off on global growth fears on COVID-19.

Figure 13: The Indian rupee

Source: Bloomberg, DBS

IDR

Like the GFC, the Indonesian rupiah's depreciation could peter out as quickly as it started. BI has announced five measures to stabilise IDR from capital outflows driven by COVID-19. First, the USD reserve requirement ratio would be halved to 4% from 16 March. Second, the RRR for IDR would be lowered by 50 bps from 11 April. Third, BI would continue triple interventions in the domestic non-deliverable forward and spot markets and government bond purchases in the secondary market. Fourth, foreign investors of IDR bonds can place their proceeds in local banks. Lastly, foreign investors will be encouraged to use domestic banks for investment activities. Externally, the Fed's surprise rate cut on 3 March should help to reduce the safe-haven allure of the greenback. The stability of IDR will also depend on its economy's resilience. Mainland China is still the country's largest trading partner, and could provide IDR support when China recovers from the coronavirus.

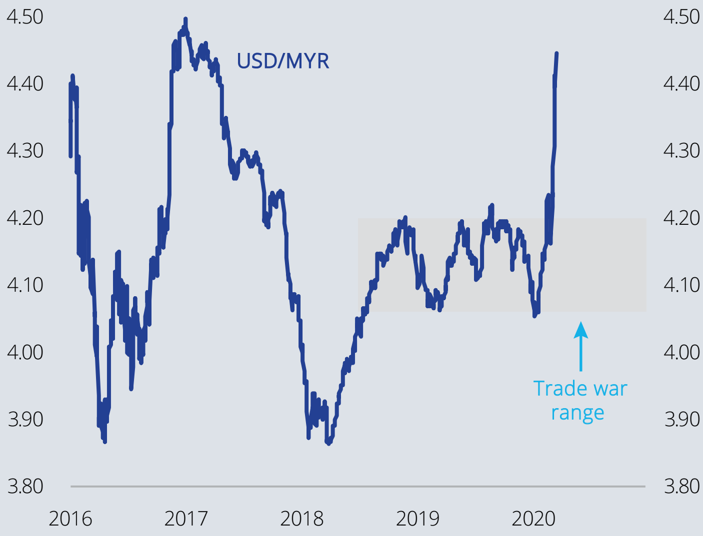
Figure 14: The Indonesian rupiah

Source: Bloomberg, DBS

MYR

The Malaysian ringgit may find support around 4.50 after having broken out of its 4.05-4.20 trade war range. Real GDP growth, which has already fallen below 5% y/y during the US-China trade war, is set to further slow below 4% on COVID-19. Growth did not improve into the phase-one trade deal on 15 January and fell to a decade low of 3.6% in 4Q19. The government has lowered its 2020 growth target to 3.2-4.2%, from 4.8% previously. To cushion the economy from the epidemic, the government has announced a fiscal package of MYR20b. BNM has also stepped forward with two surprise rate cuts on 22 January and 3 March and left the door open for more easing. CPI inflation languished for a second year at its post-GFC low of 0.7% in 2019. Domestic politics remain a concern for investors. The king appointed Muhyiddin Yassin as prime minister after the resignation of Mahathir Mohamad. It remains to be seen if it could mitigate the political crisis before the next election in 2023.

Figure 15: The Malaysian ringgit



Source: Bloomberg, DBS

THB

The Thai baht has returned most of its trade war gains. USD/THB has returned above its pre-trade war low around 31 after a failed attempt to punch below 30 into the US-China trade truce concluded in mid-January. Real GDP growth has slumped to a five-year low of 1.6% y/y in 4Q19 on a strong THB hurting trade and tourism. The government is no longer looking for growth to improve from 2.4% last year to 2.7-3.7% in 2020 on the US-China trade truce. Instead, the state planning agency has projected 2020 growth at 2.5% if the COVID-19 epidemic is contained in 1Q20, or markedly lower at 1.5% if it extends into 2Q20. The BOT has lowered rates by 50 bps to 0.75% in 1Q20 and kept the door open to narrow its differential with its US counterpart. Fiscal support has been slow from a coalition government with a slim majority and struggling with internal strife, party defections, and an opposition blocking legislation.

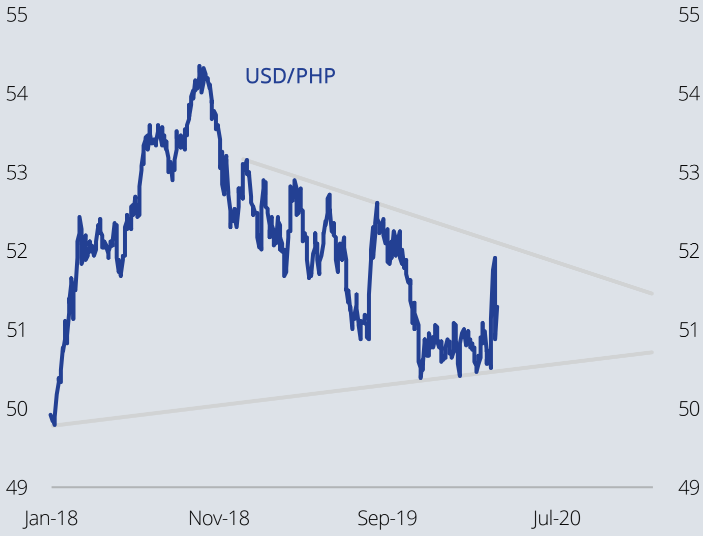
Figure 16: The Thai baht

Source: Bloomberg, DBS

PHP

The Philippine peso will not be immune to COVID-19. We expect USD/PHP to break above the 50.3-51.1 range established since late October. Initial optimism for the government's goal to lift growth 6.5-7.5% in 2020 from an eight-year low of 5.9% in 2019 has waned. The pipeline of large infrastructure projects cannot buffer the economy from the headwinds of COVID-19 and the Taal Volcano eruption. Tourism will be hurt by fewer arrivals, not only from Mainland China but also South Korea, Japan, and Taiwan. On 6 February, BSP responded with a 25 bps rate cut to 3.75% to cushion the economy. Although the country has, as of 22 February, reported three confirmed cases and one death from the epidemic, overseas foreign workers (OFW) have been infected onboard the Diamond Princess cruise ship and Hong Kong. Repatriation of OFWs could lead to more cases in the future and lesser remittances needed to offset wide trade deficits and contain the Current Account deficit.

Figure 17: The Philippine peso



Source: Bloomberg, DBS

VND

The Vietnamese dong will closely track Asian currencies lower and higher this year. Unlike the US-China trade war, Vietnam will not become a beneficiary but a victim of the COVID-19 outbreak. Exports plunged by 14.3% y/y in January on supply disruptions from the epidemic in Mainland China, the country's largest trading partner. Production may also be hampered by a shortage of Chinese workers and enterprises needed by FDI enterprises. Vietnam is unlikely to meet its official growth target of 6.8% for 2020. The Ministry of Planning and Investment expects lower growth of 6.27% if the epidemic is contained by 1Q, or 6.09% by 2Q. The SBV is under pressure to ease monetary policy but faces two obstacles. First, CPI inflation has surged to a six-year high of 6.43% y/y in January, from 1.98% last September, and surpassed the official ceiling of 4%. Second, Vietnam is still on the US's currency manipulation watchlist.

Figure 18: The Vietnamese dong

Source: Bloomberg, DBS

Table 1: DBS currency forecasts

Exchange rates, eop	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Mainland China	7.05	7.00	6.95	6.90	6.85	6.80	6.75
Hong Kong	7.80	7.78	7.77	7.76	7.76	7.75	7.75
India	75.5	75.5	75.0	75.0	74.5	74.5	74.0
Indonesia	14,200	14,100	14,000	13,900	13,800	13,700	13,600
Malaysia	4.30	4.25	4.20	4.18	4.16	4.14	4.10
The Philippines	51.9	51.3	50.7	50.5	50.3	50.1	49.9
Singapore	1.41	1.39	1.37	1.36	1.35	1.34	1.33
South Korea	1220	1200	1180	1160	1140	1120	1100
Thailand	32.3	31.8	31.2	31.0	30.8	30.6	30.4
Vietnam	23,300	23,250	23,200	23,170	23,170	23,170	23,170
Australia	0.65	0.65	0.66	0.66	0.67	0.67	0.68
Eurozone	1.09	1.10	1.11	1.12	1.13	1.14	1.15
Japan	109	107	105	104	104	104	103
New Zealand	0.62	0.63	0.66	0.66	0.67	0.67	0.68
Switzerland	0.94	0.94	0.94	0.94	0.94	0.94	0.94
United Kingdom	1.25	1.26	1.27	1.28	1.29	1.30	1.31

Australia, Eurozone, and United Kingdom are direct quotes.

Source: Bloomberg, DBS

DBS Live more, Bank less

Source: Unsplash

Alternatives: Gold | 2Q20

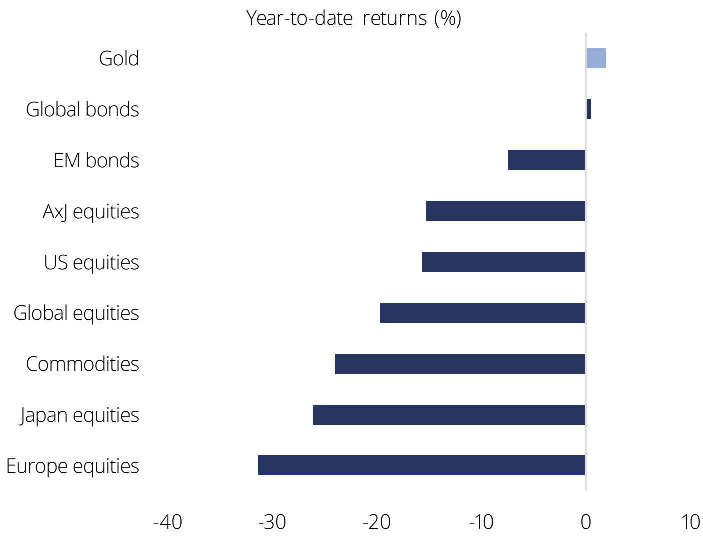
Resilience

Alternatives: Gold

Joanne Goh | Strategist

Gold was in the spotlight in 1Q20 as the US-Iran crisis escalated and the unexpected COVID-19 virus outbreak greatly affected sentiment. Gold returned 2% over the past three months, and outperformed all asset classes and currencies, living up to its name as an effective portfolio hedge. This is especially so when interest rates are yielding lower and carry costs for holding gold is close to zero.

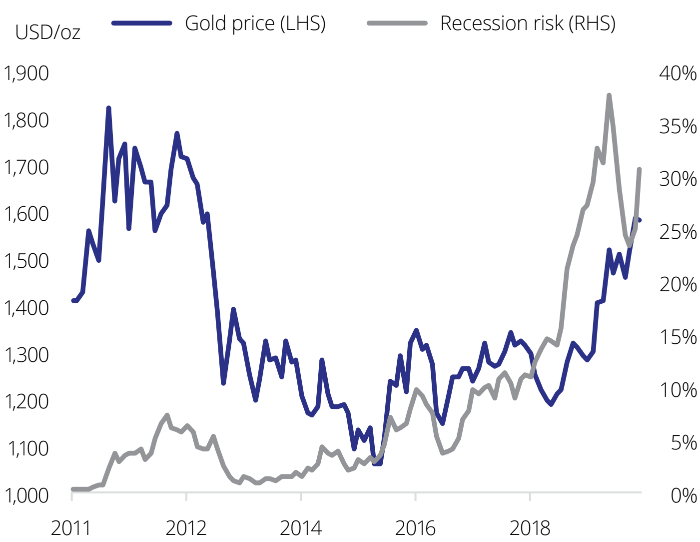
Figure 1: Gold outperformed major asset classes year to date



Source: Bloomberg, DBS

Gold price surged to USD1,680/oz on COVID-19 fears. This was largely due to the fear of a China-led global slowdown. Meanwhile, DBS has downgraded China's GDP growth from 5.8% this year to 5.3%, and growth may fall to 4.7% in 1Q20 before recovering to 5% in 2Q20. Gold price's sensitivity to recession probability is high, as seen in Figure 2. We believe

Figure 2: Gold price rises with recession risk

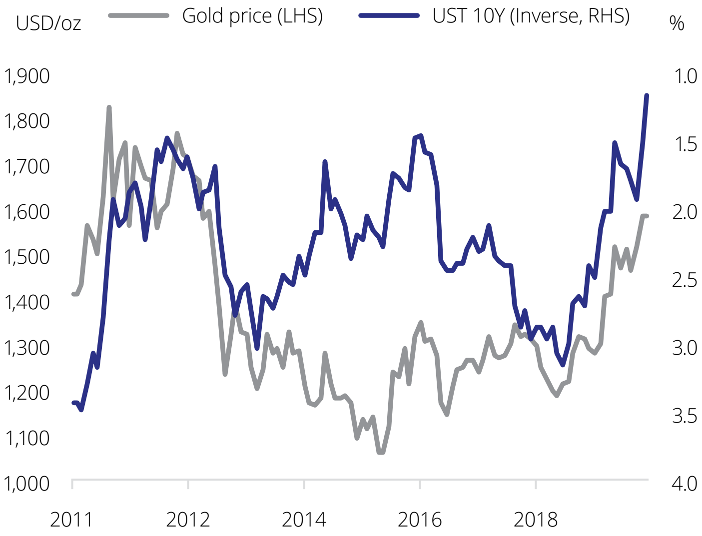


Source: Bloomberg, DBS

recession talks will resume as soon as economic data show the impact of the outbreak. Gold price should then prove its worth once again.

Bond yields dropped further on the onset of the outbreak, on the notion that central banks will do more to help. The US's and Asia's central banks have started to cut rates, and we expect Japan to cut rates deeper into negative territory. Meanwhile, the Fed has expanded its QE programme, and we expect the BOJ and ECB to follow suit, thus flushing the system with liquidity to keep interest rates low. We believe gold will continue to be supported as persistently low interest rates reduce the opportunity cost of holding gold and thus, appeal to a wide range of investors as a store of genuine wealth (Figure 3).

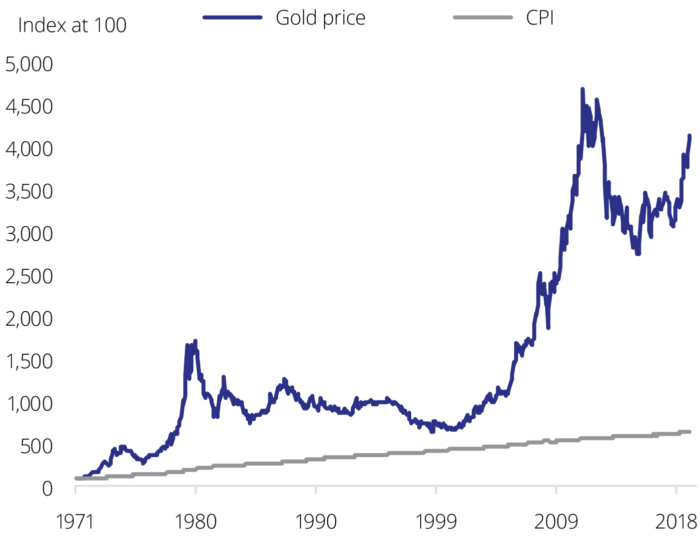
Figure 3: Inverse relationship holds between gold and interest rates



Source: Bloomberg, DBS

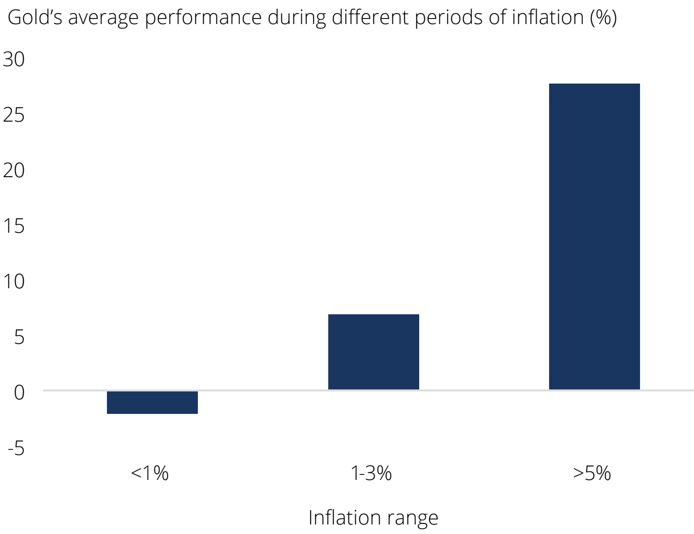
Gold is a hedge for both inflation and deflation. As a hard asset, gold has long been considered as a hedge for inflation and protects even better during periods of hyperinflation (Figures 4 and 5).

Figure 4: Gold price outperforms inflation any time ... (Gold price vs CPI, indexed at 100 since 1971)



Source: Bloomberg, DBS

Figure 5: ... and especially so during periods of high inflation



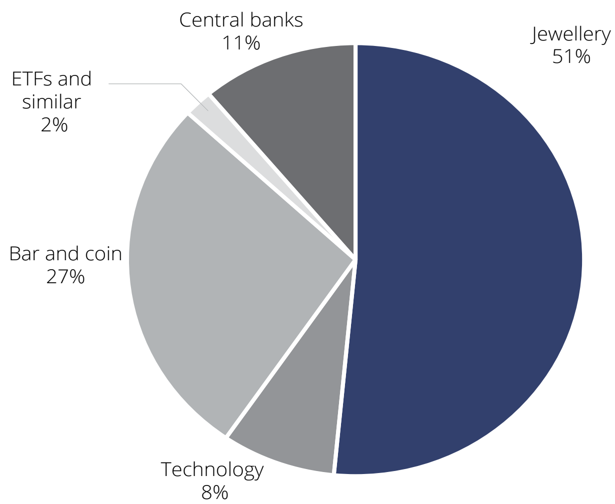
Source: Bloomberg, DBS

Statistically, gold may not serve its purpose as a portfolio hedge during periods of deflation. This is not intuitively wrong as typically, such periods are characterised by reduced consumption and investment, all of which tend to reduce demand for gold as jewellery. Afterall, 51% of gold are bought for luxury purposes (Figure 6).

However, in recent years, there has been an increase in demand for gold especially from central banks. Reserve managers have been net buyers of gold since 2010 and more recently, they have used the asset to diversify their foreign reserves. We believe this is because gold has outperformed most currencies and volatility jumps in financial markets are happening more frequently.

Central banks are long-term holders and geographically diversified. We believe they will add to the stability of gold's long-term price trend.

Figure 6: Gold demand breakdown by purpose



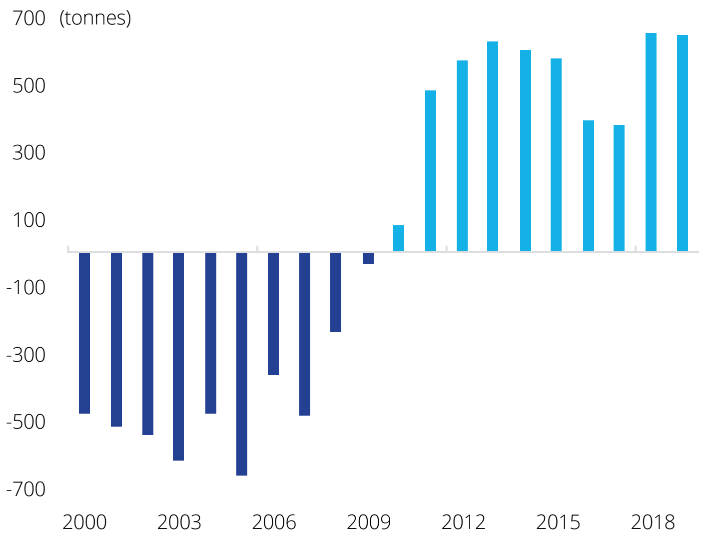
Source: World Gold Council

Table 1: Gold price forecast range (USD/oz)

	2Q20	3Q20	4Q20	1Q21
End	1,647	1,663	1,679	1,695
High	1,874	1,890	1,906	1,921
Low	1,421	1,437	1,453	1,469

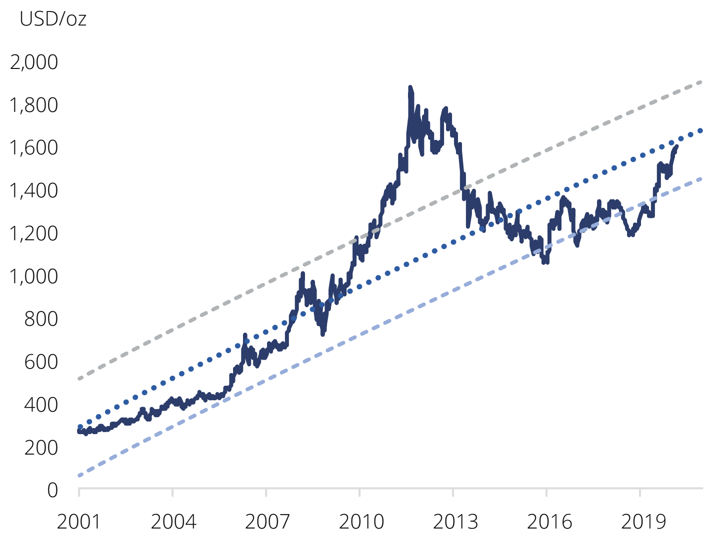
Source: DBS

Figure 7: Net purchase by central banks has been a steady source of new gold demand



Source: World Gold Council

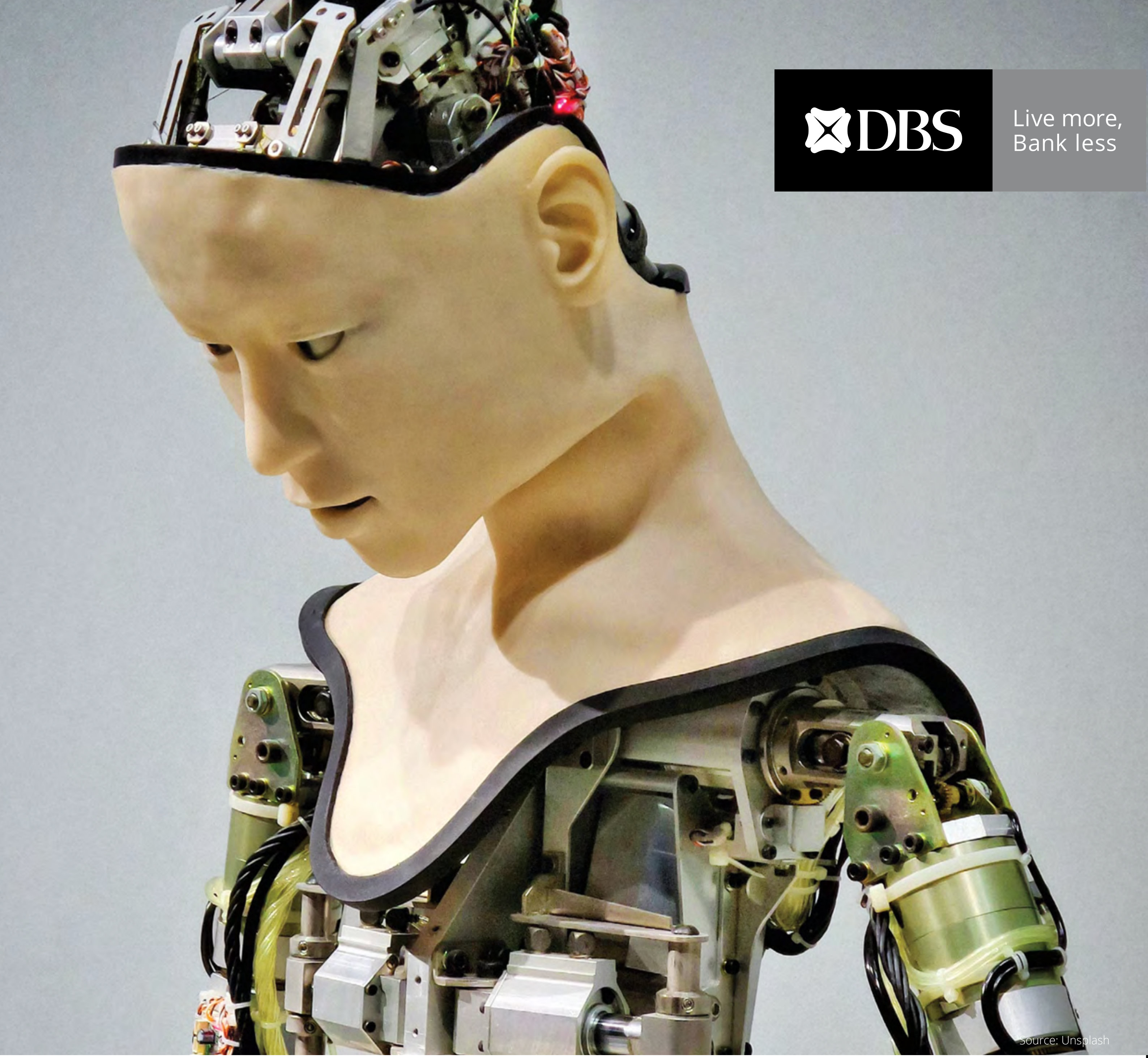
Figure 8: Gold price model



Source: DBS
*Bands are +/- 0.5 SD.

We believe the long-term trend should be positive as long-term stable demand is in place. Primarily, our model for gold prices suggests its sensitivity to the movement of bond yields (negative correlation), DXY (negative correlation), and the probability of recession (positive correlation).

In the near term, recession risks could be heightened as a result of the virus outbreak – China's economic activities are at a standstill, and Japan is likely to enter a technical recession. Bond yields will also likely go lower as global central banks rush to cut rates to support growth. We forecast Japan to cut rates to a further - 0.2% in the March-April meeting. Investors should also be watchful of opportunities in the near term should the dollar turn weaker as it has surpassed the psychological 100 level for DXY. To be sure, the extreme price spike in gold during 2009-13 coincided with dollar weakness.



Alternatives: Private Equity | 2Q20

AI
investing

Alternatives: Private Equity

Andrew Yeo | PE Access
Xavier Toh | PE Access

Artificial Intelligence

Artificial intelligence, or AI, emphasises the creation of intelligent machines, programmes, and app engines to learn and solve problems that would normally require human intelligence. These include visual perception, speech recognition, decision making, and natural language processing. Over the years, the development of AI has progressed significantly, and its applications are now ubiquitous in many areas of our lives. Some examples include:

- Using Google Maps to relay real-time traffic information to millions of users and creating efficient routes through dynamic data flow
- Using our smartphones to perform a task through facial or speech recognition (unlocking your phones, enabling wallet payment, or utilising a virtual bot assistant)
- Using robotic automation in warehouses to enable efficient order processing

According to Preqin, total venture capital investment in the AI sector in Asia has grown seven times in the past three years, reaching USD6.1b, with 223 deals recorded in 2018. China has been a strong force in this market and it accounted for 93% of the total value of deals with an aggregate value of USD5.6b in 2018 .

In China, investments have been going into facial recognition and surveillance, as well as natural language processing. Given the sector's estimated value in ten years and the amount of investment going in, it does not take much to recognise that some investors are going to realise AI's huge potential. This is especially so in China and the US. But what are the main factors driving private equity to move such huge investments into the AI sector?

<u>Three main drivers of capital into AI investing</u>

- In AI, it has been found that investors are more than twice as likely to invest through private equity as compared to public markets. This is because AI trends tend to be super secular and long-term in nature; this can be better captured through domain specialist investing rather than through broad-based beta exposure in public markets. Investing earlier in Series B/C rounds allows investors to come in at better valuations than in publicly-listed companies, if they are willing to stomach more risk.

- Investors also believe that private companies will be the primary innovators. In the early stages, it is typical that the founder or the employees will still own a large percentage of the company. This strong alignment of vision within founder-driven companies results in them being highly innovative.

- Finally, investors strongly believe in AI as the dominant technology trend that will define tech investing in the coming decades. According to a survey from asset manager Investcorp, Mercury Capital Advisors, IMD Business School, and communications advisory firm ICR, 69% of investors said AI and machine learning is the most significant trend that will affect how they invest over the next three decades .

<u>Exits and valuation trends in AI investing</u>

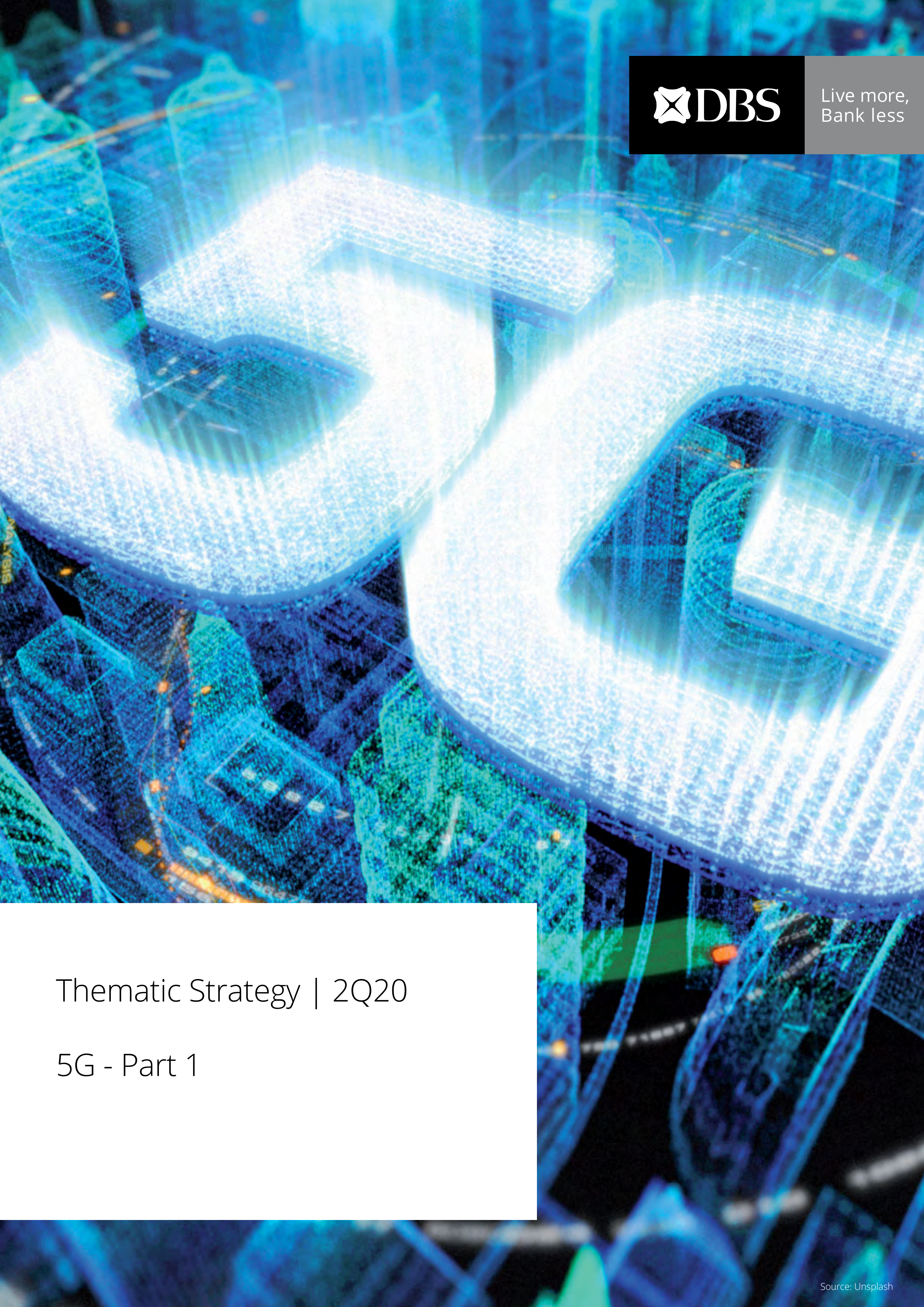
Using the amount of time it takes to reach unicorn status as a measure of momentum, as well as demand for AI private assets, we see that compared to other unicorns, successful AI companies generally achieve unicorn status much faster. The average time taken for a company to reach unicorn status since inception is around seven years. However, as seen from the table below , 19 companies made the race to USD1b in less than a year, and majority of these companies are in the technology/AI sector and/or have applied AI algorithms in their businesses.

Using the above as a gauge, while we are still early in the AI investing cycle, it is a good guess that exits for AI companies would be faster in the coming years. This could take place in emerging company indices other than USA's NASDAQ, such as Japan's Mothers Board and China's STAR market. These are indeed exciting times for private investing into AI.

Sector	Company	Valuation (USDb)	Founded	Reached USD1b	Years to USD1b
Coffee	Luckin Coffee	1	2017	2018	0
Technology/Hardware	Xiaomi	46	2010	2011	1
Technology/AI	Illumio	1	2013	2014	1
Technology/AI	Uptake	2.3	2014	2015	1
Technology/AI	APUS Group	1	2014	2015	1
e-Commerce	BeiBei	1	2014	2015	1
Online Education	Dada	1	2014	2015	1
Technology/AI	Weiying	2	2014	2015	1
e-Commerce	Global Fashion Group	1.1	2014	2015	1
Technology/AI	iCarbonX	1	2015	2016	1
e-Commerce	Pinduoduo	15	2015	2016	1
Agri Tech	Indigo Agriculture	1.4	2016	2017	1
Health Care (Cancer discovery)	GRAIL	2.46	2016	2017	1
Real Estate	e-shang Redwood	2.8	2016	2017	1
Online Movie Ticketing	Maoyan-Weiying	3	2016	2017	1
AI Chips	Cambricon	2	2016	2017	1
Ride-hailing	Manbang Group	6	2017	2018	1
Micromobility	Bird Rides	1	2017	2018	1

Source: Comparethemarket, DBS

DBS Live more, Bank less



Thematic Strategy | 2Q20

5G - Part 1

Source: Unsplash

Theme I: 5G - Part 1

Yeang Cheng Ling | Strategist

I.DE.A. – Innovator, Enabler

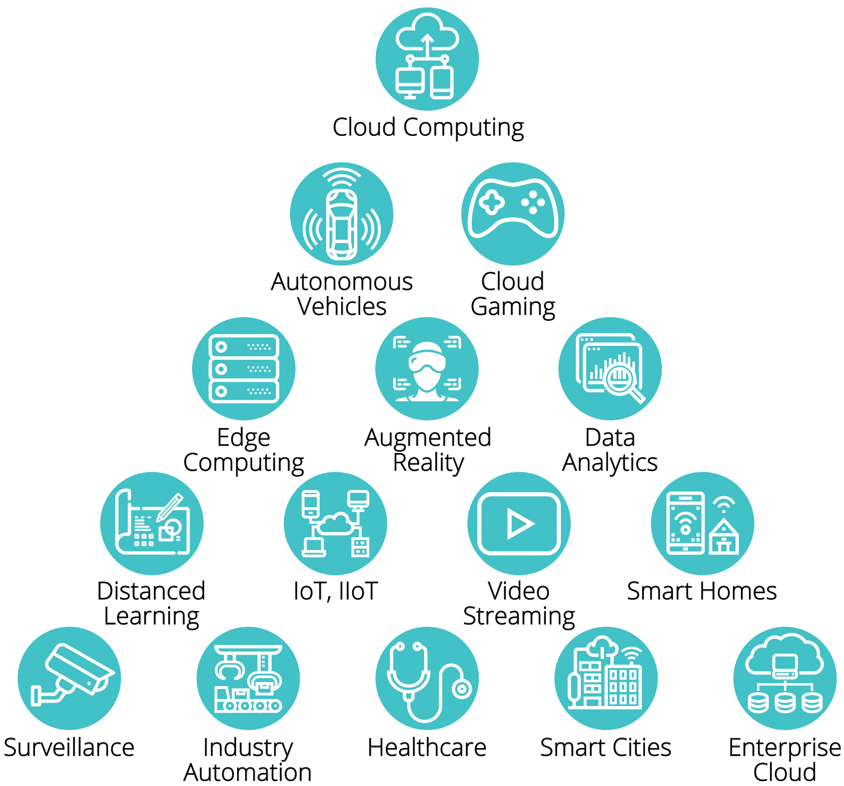
The hunger for data, speedy communications, and reliable connectivity – across the web of the physical and ubiquitous virtual networks – has never been this intense. And it will only get more voracious. Mounting needs for wide area networks, multi-functional communications, Internet of Things (IOT), information access/exchange, and efficient connectivity are constantly pushing the envelope for new communication architectures.

The Fifth Generation (5G) mobile wireless standard is an ensuing phase of communication evolution beyond the present 4G Long-Term Evolution (LTE) standard, establishing paradigm shift for Mobile Network Operators (MNOs) globally by means of a new and robust operating platform.

After the successful and revolutionary deployment of 4G LTE nearly a decade ago, the world started transitioning into something more. In essence, the 5G communication standard delivers significantly larger data capacities and enhanced response times that are anticipated to revolutionise the communication industries.

Global 5G adoption is projected to take off from 2020, against the backdrop of the availability of 5G-compatible devices. Emergence of this new wireless communication standard is now becoming a reality. Hence, investors should position for investment opportunities with the rise of 5G and its ecosystem (Figure 1).

Figure 1: 5G ecosystem



Source: CCS Insight, DBS

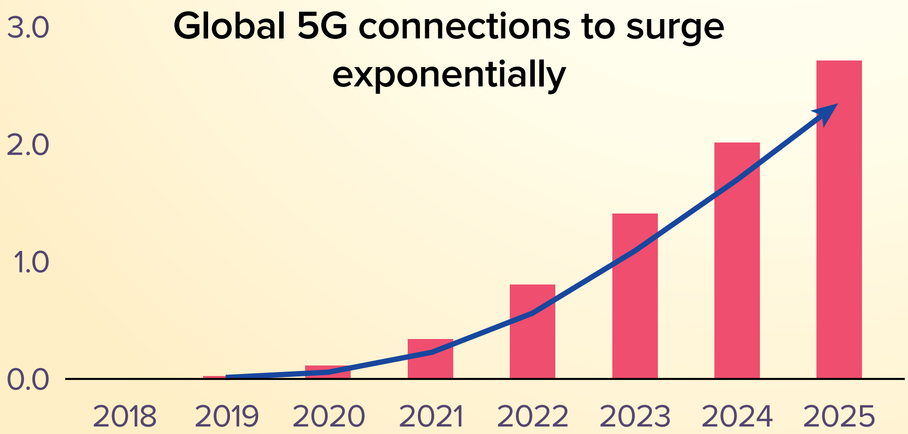
5G The Next Gen Connectivity

1G	2G	3G	4G	5G
1980s	1990s	2000s	2010s	2020s

A Connected World is...

Productive **Borderless** **Interactive**

Global 5G connections to surge exponentially



Downloading a 2-hour movie:

3G	26 hours
4G	6 minutes
5G	3.6 seconds

♦5G will drive the development of semiconductors

♦The migration to 5G creates new investment opportunities

♦By 2015, 50% of world populations would have 5G connections

Evolution of wireless communication standards

Having survived various stages of evolution and technology innovations, the wireless communication standards have come a long way since its inception.

5G is ideal for the following:

- Superior download and upload speed
- Seamless streaming
- Better voice and video call quality
- Dependable mobile connections
- Large capacity for simultaneous IOT connections
- Platform for new technology developments

These capabilities provide support for the following:

- Creation of and surging reliance on data: The volume of data creation and usage will remain on the uptrend in the coming years. 5G provides better network management, connectivity, and reliability.
- Need for simultaneous connections: The burgeoning of IOT will drive the need for 5G in order to sustain the constant end-to-end connections between devices and networks.
- Need for accurate connectivity: 5G connection is directional, meaning it is specifically connected with dedicated devices without interference.
- Need for speed: Speedy access and capacity to retrieve a humongous amount of data efficiently will further amplify 5G viability.
- Need for low latency rate: This is particularly important for long distance and mission critical functions.

A technology enabler

A series of evolutions in communications technology have drastically transformed our lives. The first wave of change started some 40 years ago and since then, each communication standard – measured in "G" which stands for Generation – would progress every decade (Table 1).

The advancement in communication standards has given rise to the creation of new services. For example, 5G will support the use of enhanced augmented reality, ultra-reliable cloud computing, smart factory/robotics, autonomous vehicles, and critical telehealth – all at higher speed with better data quality.

1G – Analog cellular system. The first generation of wireless cellular communications on analog standards. Provided voice-only communications and was exposed to interference.

2G – First digital cellular system. The voice signal was digitally encrypted for better quality, larger spectrum capacity to cater for more simultaneous connections and represented the start of SMS text messages. It reduces network congestion and offered caller ID.

3G – Faster data transfer speed and capacity. It offers additional features like mobile Internet access, video calls, and data roaming.

4G – LTE. Provides additional features of mobile web access, mobile gaming, video streaming and downloads, and mobile video conference. It can switch between 4G and Wi-Fi seamlessly and concurrently.

5G – High speed, multiple connections for multi-tasking. Devices are connected seamlessly and literally evolves smartphones to an IOT equipment in our hands. It also provides superior connectivity on M2M (machine-to-machine), D2D (device-to-device), and H2H (human-to-human).

Table 1: Evolution of communication standards

	1G	2G	3G	4G	5G
Commercialisation	1980s	1990s	2000s	2010s	2020s
Applications	Voice calls	Voice calls, SMS, MMS, browsing (limited)	High-speed browsing, applications	Video conferencing, mobile TV	Multipurpose (Internet of Things, AR/VR, others)
Typical speed	14.4 kbps	56-115 kbps	5.8-14.4 Mbps	100-300 Mbps	100-5,000 Mbps

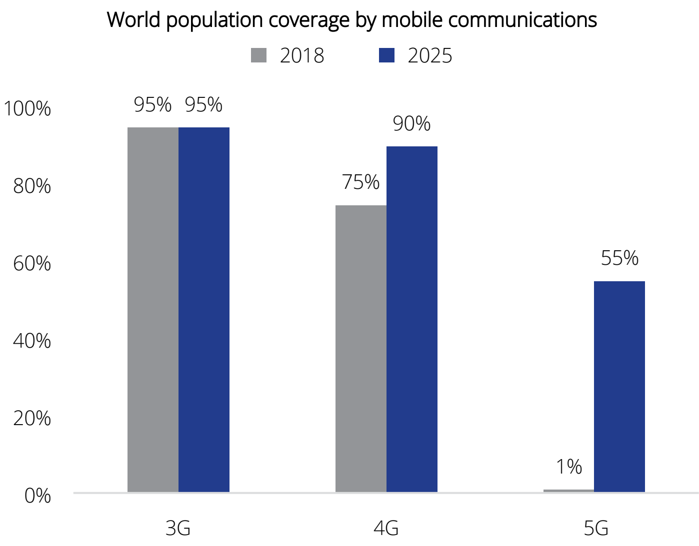
Source: GSMA, DBS

Rising cellular penetration

Cellular, or mobile, communications have long intertwined with our daily lives and we increasingly depend on them. More than 90% of the world's population today would have access to basic 3G mobile connections and 75% of the world population already have access to the more advanced 4G technology (Figure 2).

By 2025, more than half of the world's population will be connected on 5G platforms. For example, 188m or half of the US mobile connections will be 5G (Figure 3); and in China, although 5G penetration is lower at 36% of total mobile connections, the number of users will reach a mammoth 600m, equivalent to the combined population size of US and Indonesia today.

Figure 2: World population's mobile communication coverage

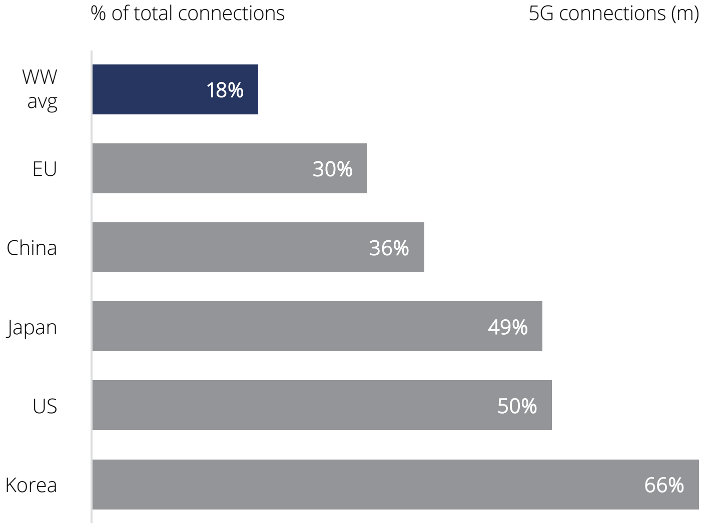


Source: Ericsson, DBS

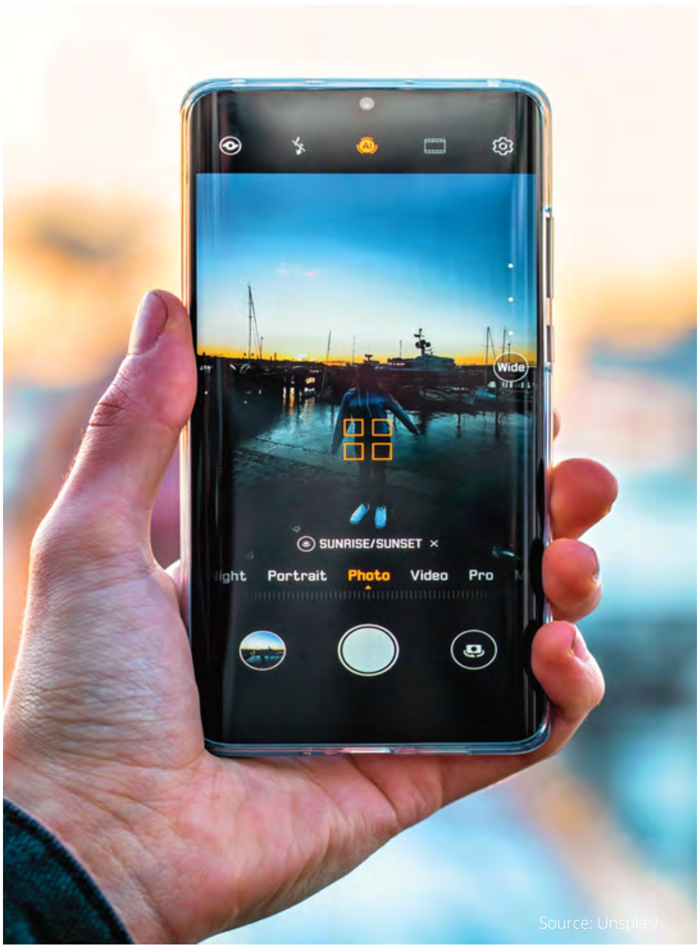
5G – The new Enabler

The connections will experience an exponential growth (Figure 4) upon the continuous rollout of 5G services among telecommunication operators globally, backed by the availability of more (on the supply side) sophisticated communication chipsets, devices and network; and on the demand side, new content, need for speed, increasing data dependence, and demand for seamless connectivity. Inherently, these new developments will enable rising adoptions of the new normal in mobile IOT (Figure 5).

Figure 3: 5G penetration by 2025

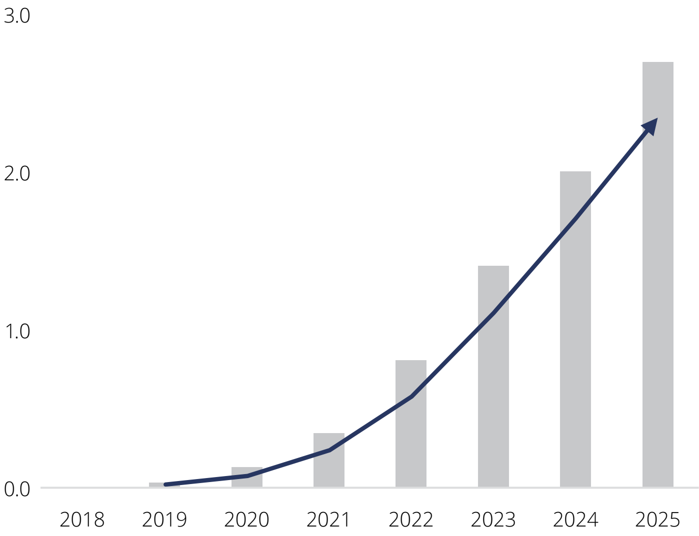


Source: GSMA, DBS



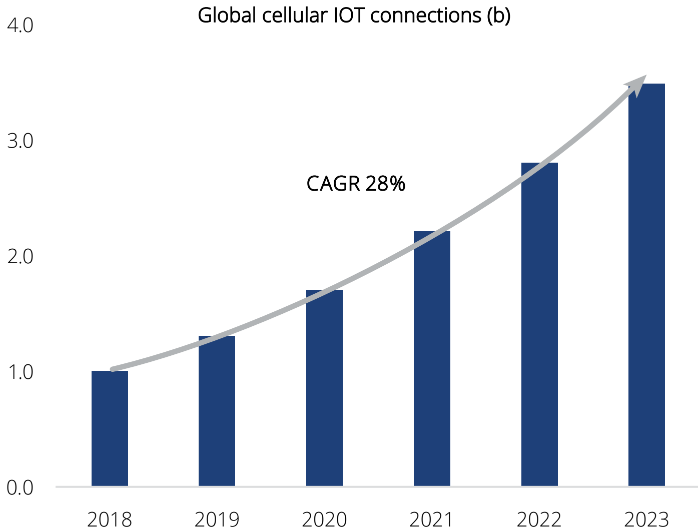
Source: Unsplash

Figure 4: Global 5G connections to surge exponentially...



Source: CCS Insight, DBS

Figure 5: ... so will cellular IOT connections (b)



Source: Ericsson, Bloomberg, DBS

Sectors benefitting from 5G

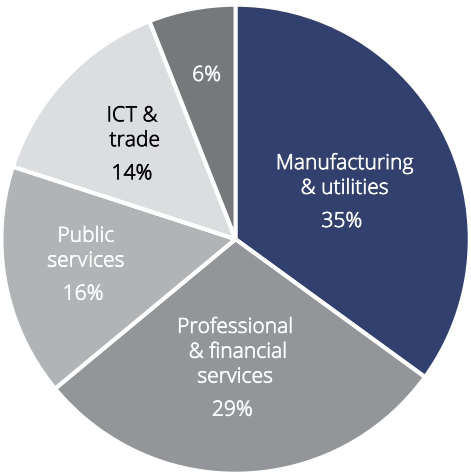
5G will drive the development of semiconductors, communication equipment, and associated services (Table 2). According to GSMA estimates, the 5G rollout will contribute some USD2.2t to the global economy over the next 15 years (Figure 6).

5G, with its widening usage, will play a vital role to enable the mounting dataflow globally (Figure 7) and data density on each device (Figure 8). This, therefore, presents new investment angles for investors who are constantly on the lookout for themes that spearhead the future of innovations.

Table 2

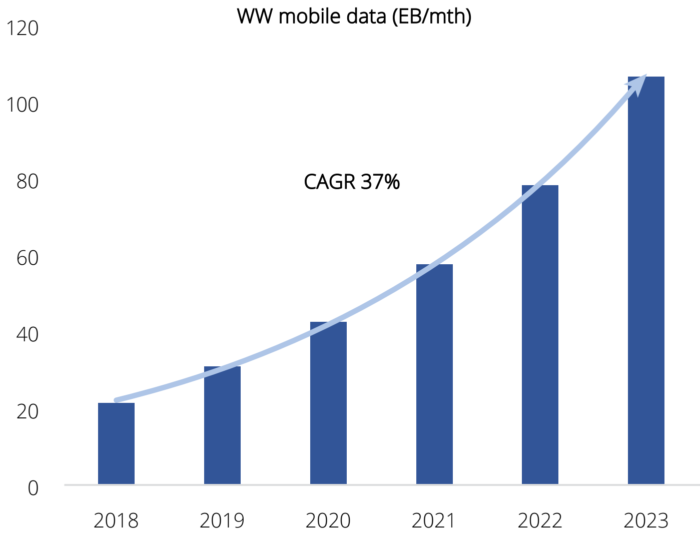
Semiconductors sector	Equipment sector	Associated services
Communication chipset	Communication network	Network sharing
Power management IC	Base transmission stations	Industrial automation
Analog IC	New smartphones	Artificial Intelligence
Memory chips	Autonomous equipment	Entertainment content
Multi-access computing	Drone control	Remote education
	Tele-health care	Cloud network
	High speed routers	Smart agriculture
		Utilities smart grid
		Data analytics

Figure 6: Economic impact of 5G deployment over the next 15 years



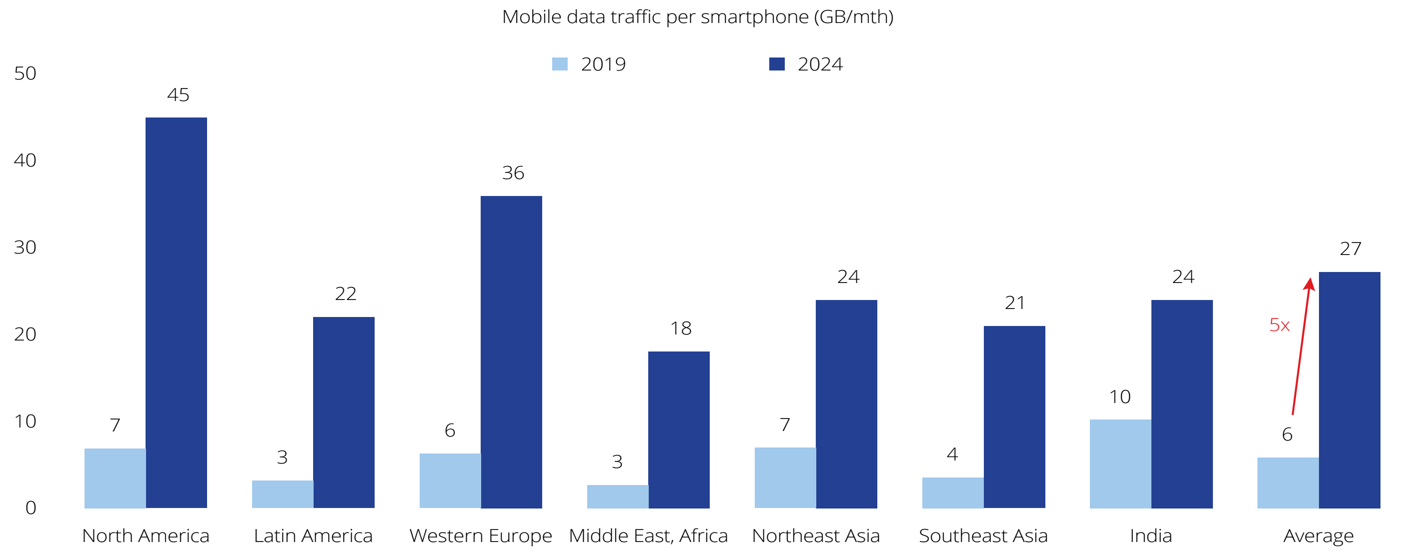
Source: GSMA, DBS

Figure 7: Worldwide mobile data consumption projected to expand exponentially over the next four years (EB/mth)



Source: Ericsson, Bloomberg, DBS

Figure 8: Data traffic per handset to multiply



Source: Ericsson, DBS

5G winners – IC makers and semiconductor manufacturers

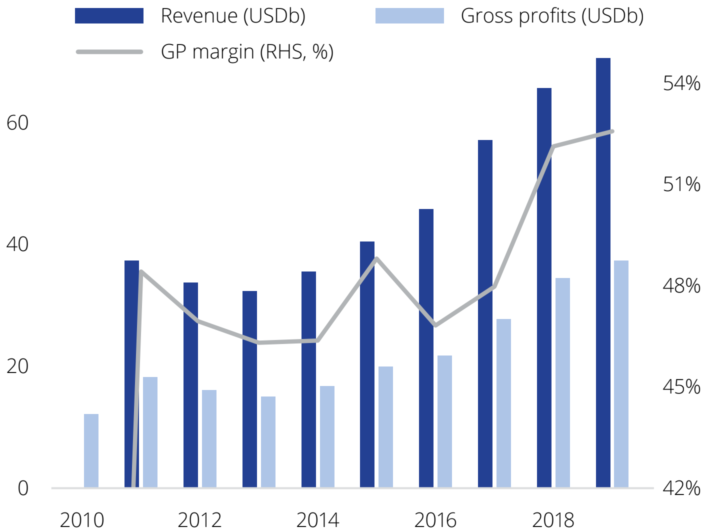
Every new generation of communications standard has opened an entirely new technology ecosystem and investment opportunities. Every successful innovation has a strong supply chain surrounding it. It is no different for 5G. This 5G development is revolutionised with the sprouting of new communication IC, advanced wafer manufacturing, and countless types of interlinked chipsets.

The design and production of these technology components of RF mixed signal, field programmable gate array, analog frequency converter, application processors, baseband chips, radio frequency booster and filter, power amplifier and memory drivers, just to name a few, are instrumental on the successful adoption of this new communication standard. To enhance the viability of this ecosystem, these advanced communication chipsets are getting smaller, lighter, more multi-directional, more durable, can be mass produced and importantly, can impeccably interlink with other functional chips.

While 5G standard has yet to be rolled out globally in a big commercial fashion , the inductions of it and the developments of 5G-enabled networks , equipment , devices , and contents are already boosting the semiconductor and IC design fraternities into a high-octane atmosphere.

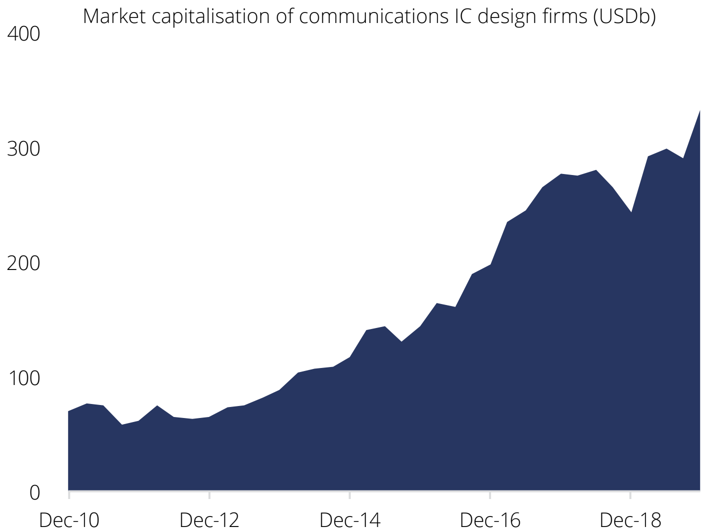
Over the past decade, the revenue and profitability (Figure 9) among global leading communication IC design firms have grown in multiples during the technology migration cycle to 4G from 3G. This is evidenced on the multiplying market capitalisation to more than USD300b from less than USD100b (Figure 10). It will be no different as 5G is the next big leap in wireless communications and will create fresh investment opportunities.

Figure 9: Consistent expansion in revenue and profitability



Source: Bloomberg, DBS

Figure 10: A class of its own, at USD300b market capitalisation



Source: Bloomberg, DBS

Live more,
Bank less

Thematic Strategy | 2Q20

Global infrastructure

Source: Unsplash

Theme II: Global infrastructure

Daryl Ho, CFA | Strategist

Legendary investor George Soros once said, "I think there's a lot of merit in an international economy and global markets, but they're not sufficient because markets don't look after social needs." Perhaps time has proven him wise. Whether it is through social media, at the ballot box, or protests on the streets, most of us are well acquainted with the voices of unmet societal needs that have characterised 2019, almost as much as the record-breaking stock market performance has. To name a few:

- Chile – Civil protests against inequality began as a response to a raise in the subway fare.
- Haiti – Protesters called for the resignation of the President on rising fuel prices and power shortages.
- Lebanon – Initially triggered by a 'WhatsApp' tax, protests evolved to include government failure to provide basic services such as electricity, water, and sanitation.

All roads lead to Infrastructure. Amid the noise and violence, it is easy to miss an underlying common theme that unifies many of these protests – Infrastructure, or its lack thereof. Although disillusionment could have developed from various other underlying fractures, governments around the world are becoming increasingly aware that the inability of existing infrastructure to provide for basic necessities is the spark that can trigger these episodes of social unrest, leading into disarray if left unchecked. These voices, along with many other evolving trends, are joining in the same chorus calling for more to be done in the area of global infrastructure.

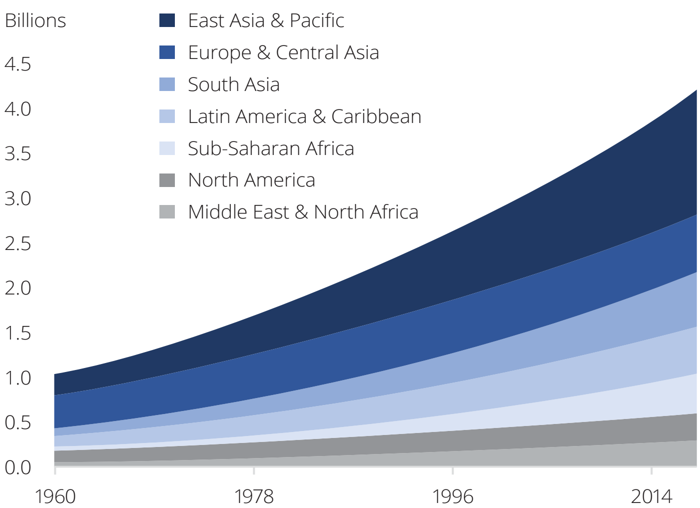
We highlight some of these trends in more detail below.

Trend 1 – Urbanisation of the world

One megatrend that continues to find momentum is the sustained urbanisation of the world. According to the World Bank, the world's urban population percentage rose from 34% in 1960 to 55% in 2018, and is projected to double in size by 2050 where nearly 7 of 10 people in the world will live in cities (Figure 1).

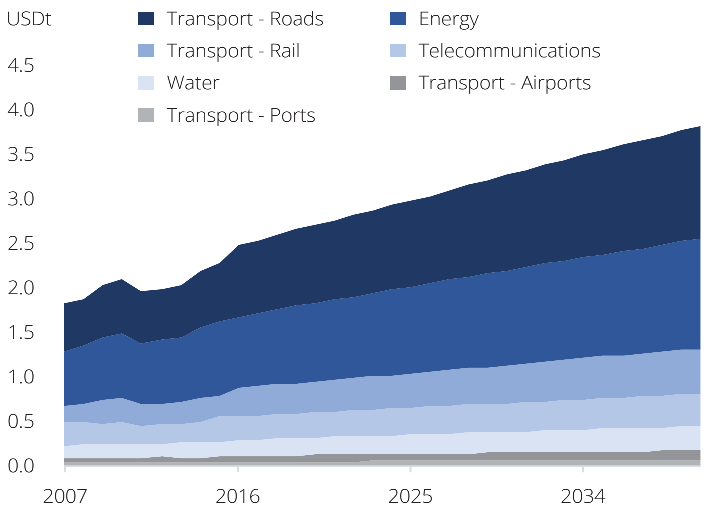
It is not difficult to connect the dots that rising urbanisation begets rising infrastructure needs. Echoing the trend, the Global Infrastructure Hub estimates that the world will face a cumulative USD15t investment gap in providing adequate global infrastructure by 2040. The rising voices of discontent are perhaps the canary in the coalmine that such investment gaps do not go unnoticed for long. (Figure 2)

Figure 1: Exponential growth of the world's urban population



Source: World Bank, DBS

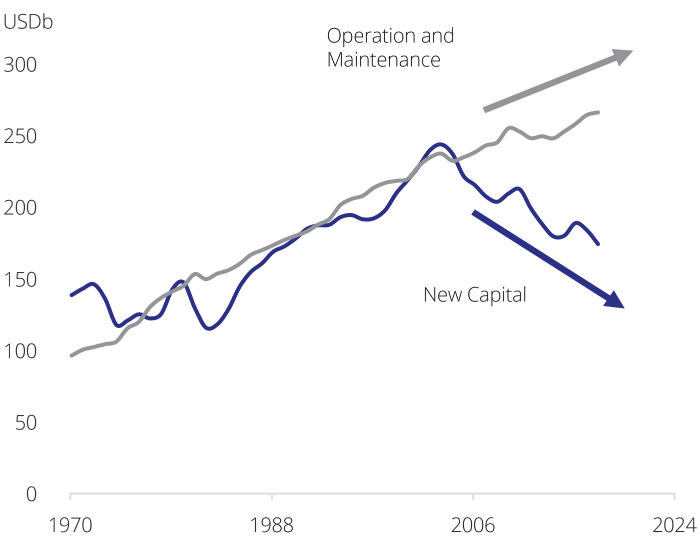
Figure 2: Projected annual global infrastructure investment needs



Source: Global Infrastructure Hub, DBS

Trend 2 – Digitalisation and climate change disruptions
In 2017, the American Society of Civil Engineers gave a dismal grade (D+) on the condition and performance of American infrastructure. It was not difficult to see why. Public infrastructure spending showed a clearly diverging trend, with more dollars spent on maintenance than new investment since 2004 (Figure 3).

Figure 3: US public infrastructure spending



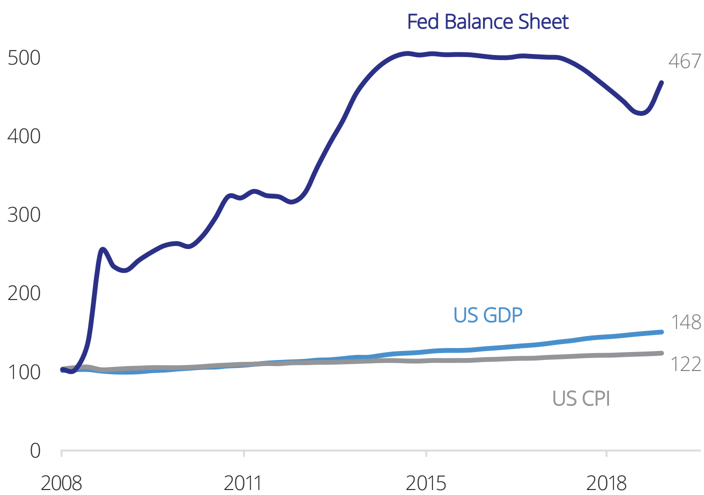
Source: US Congressional Budget Office, DBS

It is becoming increasingly non-viable for infrastructure to survive purely on conservation, as it is not spared from some of the two largest disruptive agents impacting global economies – digitalisation and climate change.

- **Digitalisation –** The vision of smart cities necessitates that new infrastructure incorporates similar 'smart' technologies to stay relevant. The applications are vast, ranging from smart roads that enable data collection, analysis, and planning, to digitally-enabled electricity networks that facilitate distributed generation. Purely maintaining the structures of roads and networks of the old era will guarantee its eventual obsolescence.

- **Climate change –** Infrastructure assets are increasingly vulnerable to climate-related forces such as rising sea levels, earthquakes, drought, storms, and the like. Yet, governments and infrastructure owners around the globe continue to underinvest in infrastructure adaptations that would mitigate the predictable effects of climate change, according to research from McKinsey & Co. Separately, climate change will also continue to drive the shift towards more renewable sources of power generation and therefore, maintaining environmentally detrimental infrastructure will increasingly come under scrutiny.

Figure 4: Nominal changes in price terms (Indexed to 2008)



Source: Bloomberg, DBS

Such disruptions require new capital investment to ensure that infrastructure remains up to date with these evolving trends. As these disruptive agents are geographically agnostic, the implications are pertinent not just to American infrastructure, but the rest of the world as well.

Trend 3 – Diminishing efficacy of monetary policy

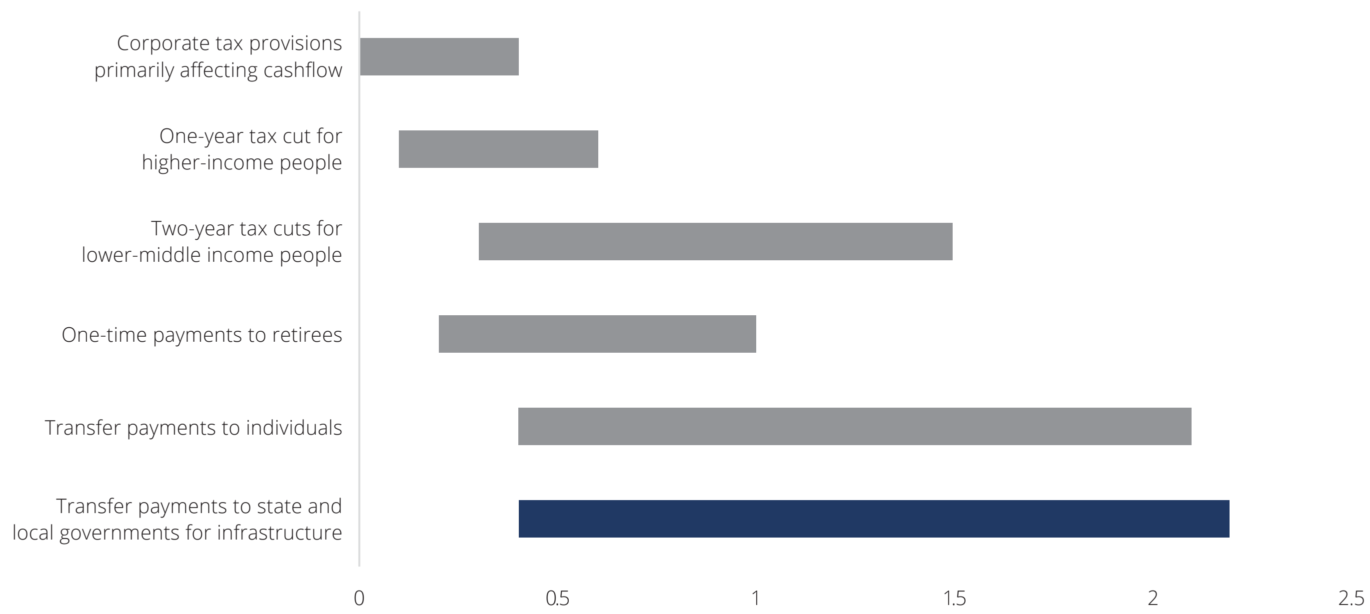
The hallmark of the last decade for financial markets was undoubtedly the rise of QE as the de-facto policy tool for central banks to drive the economy through pockets of weakness. By measures of asset prices alone, one might find it difficult to give a poor appraisal of the policy outcome – stocks and bonds saw some of their best returns in a decade in the 2010s. That said, cracks have started to emerge in the real economy – the Fed's balance sheet has increased by more than four times since the great recession, while growth and inflation have remained persistently below target levels (Figure 4).

There is growing consensus that rate cuts and QE have done for the real economy all but a fraction of what it did for asset prices. More recently, central bank governors have also encouraged the use of fiscal levers to drive economies forward, noting the limitations of monetary policy with rates close to their lower bounds and balance sheets already in excess.

Such fiscal levers find support in the form of infrastructure spending. With interest rates near zero, the fiscal multiplier (the amount of growth resulting from every dollar of fiscal spending) is likely to be higher as the "crowding out" effect is diminished.

Based on estimates by the US Congressional Budget Office, transfer payments for infrastructure spending have some of the highest multiplier estimates, giving it much legitimacy as the fiscal lever to take some weight off monetary policy in stabilising a languishing economy (Figure 5).

Figure 5: Ranges for US Fiscal Multipliers

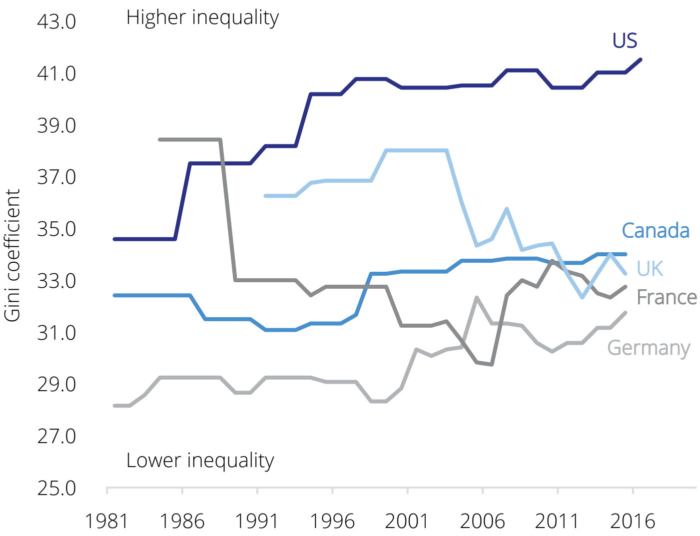


Source: US Congressional Budget Office, DBS

Trend 4 – Rising inequality

One detriment of higher asset prices came in the form of rising inequality, which was also a feature in the recent protests around the world. This is all the more compounded in the US, where the Tax Cuts and Jobs Act of 2017 is perceived to have benefitted the wealthy at the expense of the lower and middle-class. It is no coincidence that the Gini coefficient in the US, which measures inequality, is at some of the highest levels in history (Figure 6).

Figure 6: DM Gini indices



Source: Bloomberg, DBS

Infrastructure spending, in the form of education, health, sanitation, transport etc remains an important mechanism by which wealth can be redistributed across society. This works in the form of facilitating social mobility, connecting labour to core economic activities, and easing information flow to disadvantaged individuals. For governments concerned with the rising waves of populism, the need for productive infrastructure cannot come sooner, knowing that such benefits accrue over longer periods of time.

Evolving trends bring new opportunities. We have come to an interesting disequilibrium, where infrastructure needs are rapidly exceeding the means by which many governments are able to finance them. Given the difficulties faced by many governments and municipalities in balancing their budgets, public indebtedness is on the rise, and there will inevitably be an increasing reliance on private capital to finance public infrastructure. This is not to say that footing the bill is a purely philanthropic gesture; there are several attractive qualities in infrastructure investment from a private capital standpoint that we believe favour investors who give them a proper evaluation.

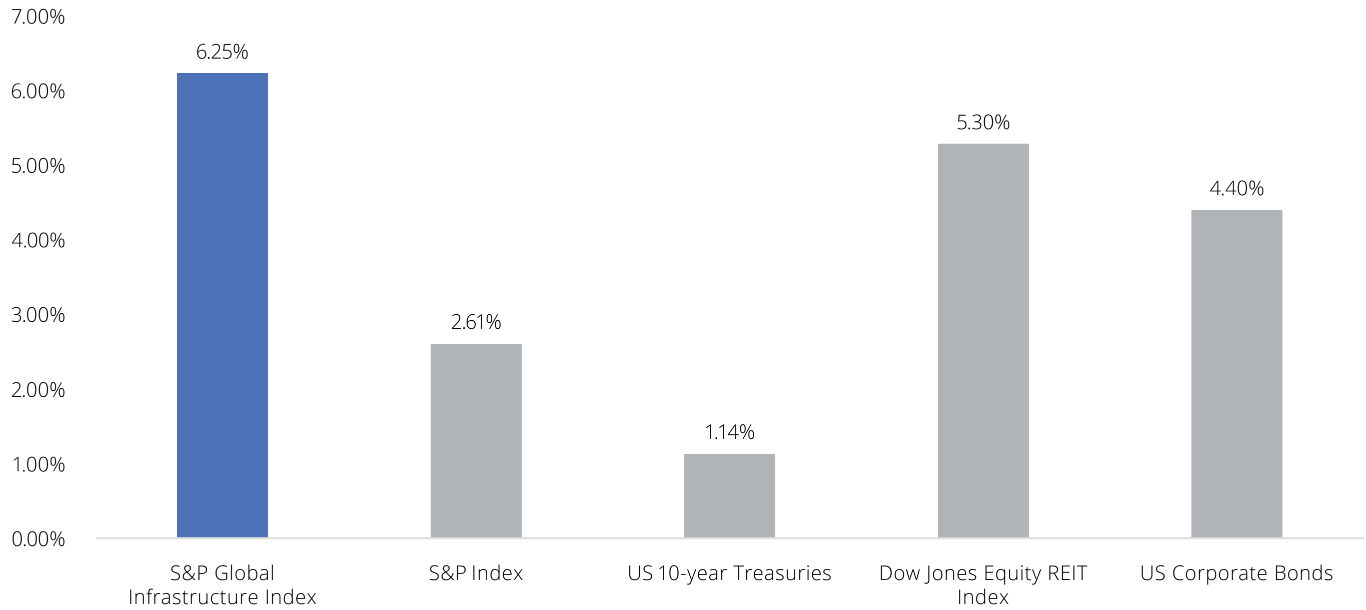
Source: Unsplash

Value propositions of infrastructure assets

High and sustainable dividend payouts. We have spoken at length regarding the attractiveness of bond proxies in this new world of lower-for-longer yields, and infrastructure assets are more than well suited for this role. They command a high level of cashflow visibility and certainty due to its ubiquitous utilisation, long-term contracts, regulated returns, limited cyclicality, and lack of commodity price exposure. As such, they can incorporate higher levels of debt without compromising on credit quality. Listed infrastructure in particular, generates respectable yields in comparison with other asset classes, validating its candidacy for income generation in the investor's portfolio (Figure 7).

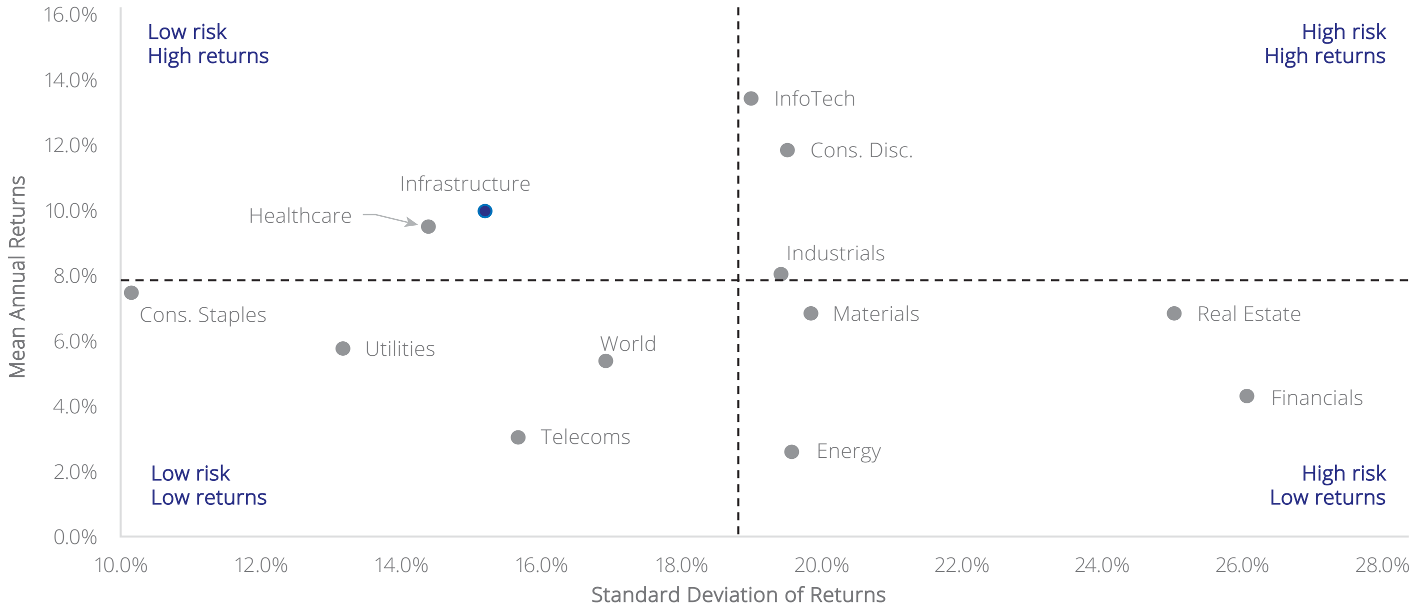
Strong pricing power due to cost pass-through structures and limited competition. Infrastructure assets can increase prices of their services with consistency due to several factors such as inflation-indexed prices (particularly in Europe and Australia), high barriers to entry, and regulatory safeguards which make competition difficult. This gives an added advantage over vanilla bonds, which often face price pressure in an inflationary environment. The stability of real cashflow streams from infrastructure is a unique feature that elevates the asset class above and beyond; one could call it a bond proxy with benefits.

Figure 7: Yield comparison of various asset classes



Source: Bloomberg, DBS

Figure 8: Risk-Return profile of various sub-sectors



Source: Bloomberg, DBS

Good risk-adjusted return profile. Looking over longer-term average returns and volatility of returns across various sub-sectors, infrastructure assets stand out as a class of its own. Few sectors can distinguish themselves by providing better-than-average mean returns while concurrently also seeing lower-than-average volatility over a longer horizon (Figure 8).

Diversification benefits due to low correlations with other asset classes. Another key benefit of infrastructure investment is the ability to generate total returns that have low correlations to other traditional asset classes including equities, bonds, and real estate (Table 1).

Allocating a portion of investments into infrastructure will have the effect of reducing overall portfolio volatility while bolstering overall returns.

Risk factors in infrastructure investment

Infrastructure assets are often said to be natural monopolies, but it does not make them devoid of risks. While there are always several forces at play, the risks that are more germane to infrastructure are namely political risk and technology risk.

- **Political risk** – The shift in the political balance of power can see regime changes and new policies that could alter the viability of infrastructure projects. Case in point would be China's infrastructure projects in Malaysia as part of its Belt and Road Initiative. Post the electoral victory of the Pakatan Harapan coalition over the incumbent Barisan Nasional, Dr Mahathir Mohamad returned to office as prime minister in 2018, and suspended the projects pending further review. It is worth noting that invested capital can be very quickly put at risk in jurisdictions that are inherently unstable.

Table 1: Correlation Matrix of various asset classes

	S&P Global Infrastructure Index	S&P Index	MSCI World	iShares US Real Estate Index	Bloomberg Barclays Global Treasuries	Bloomberg Barclays Global Aggregate Bonds
S&P Global Infrastructure Index	1					
S&P Index	0.77	1				
MSCI World	0.79	0.97	1			
iShares US Real Estate Index	0.57	0.32	0.20	1		
Bloomberg Barclays Global Treasuries	0.29	-0.01	0.04	0.20	1	
Bloomberg Barclays Global Aggregate Bonds	0.44	0.12	0.17	0.29	0.98	1

Source: Bloomberg, DBS

- **Technology risk** – The pursuit of innovation would inevitably lead to outmoded structures, and infrastructure is not exempt from disruption. The segments most at-risk would be energy and transport infrastructure. The former has been briefly touched on – rising price competitiveness of renewables such as wind and solar energy would shift economic viability away from fossil fuel reliance. The latter lies on the precipice of significant change with the move towards electric vehicles and driverless cars. The necessity of vehicle-infrastructure integration may require significant reimagination of transportation structures.

The opportunity to invest in the foundations of our new world. If the markets had taken care of investors in the last decade, perhaps the buck could be passed to investors to care for society in the next. Infrastructure investment is perhaps the closest thing to having your cake and eating it too; not only does it offer investors the opportunity to lay the bedrock upon which the new world is built, the investment offers both yield and diversification benefits sufficient to justify an allocation within any portfolio. Investment expressions are also varied, ranging from infrastructure-related mutual funds to private equity funds, and even direct investment in infrastructure projects.

Divide and conquer. We recommend that investors split their focus. For EM infrastructure, investors can target basic transportation, networks, and water to capture the trend of growth and modernisation. As for DM infrastructure, investors can seek opportunities in renewables and digitalisation to take part in the innovative transformations that would shape the direction of global infrastructure for the future.

Investment Themes initiated by the CIO Office

On-going themes	New inclusion in 2Q20	Exclusion in 2Q20
Income BBB/BB USD corporate bonds Singapore REITs China large banks Europe integrated oil majors		
Growth Cloud computing Industrial Automation Semiconductor, IC Design E-commerce Millennials: E-sports Millennials: Athleisure Global Healthcare China A-shares	**Growth** 5G	**Growth** Tourism

Disclaimers and Important Notes

This information herein is published by DBS Bank Ltd. ("DBS Bank") and is for information only. This publication is intended for DBS Bank and its subsidiaries or affiliates (collectively "DBS") and clients to whom it has been delivered and may not be reproduced, transmitted or communicated to any other person without the prior written permission of DBS Bank.

This publication is not and does not constitute or form part of any offer, recommendation, invitation or solicitation to you to subscribe to or to enter into any transaction as described, nor is it calculated to invite or permit the making of offers to the public to subscribe to or enter into any transaction for cash or other consideration and should not be viewed as such.

The information herein may be incomplete or condensed and it may not include a number of terms and provisions nor does it identify or define all or any of the risks associated to any actual transaction. Any terms, conditions and opinions contained herein may have been obtained from various sources and neither DBS nor any of their respective directors or employees (collectively the "DBS Group") make any warranty, expressed or implied, as to its accuracy or completeness and thus assume no responsibility of it. The information herein may be subject to further revision, verification and updating and DBS Group undertakes no responsibility thereof.

All figures and amounts stated are for illustration purposes only and shall not bind DBS Group. This publication does not have regard to the specific investment objectives, financial situation or particular needs of any specific person. Before entering into any transaction to purchase any product mentioned in this publication, you should take steps to ensure that you understand the transaction and has made an independent assessment of the appropriateness of the transaction in light of your own objectives and circumstances. In particular, you should read all the relevant documentation pertaining to the product and may wish to seek advice from a financial or other professional adviser or make such independent investigations as you consider necessary or appropriate for such purposes. If you choose not to do so, you should consider carefully whether any product mentioned in this publication is suitable for you. DBS Group does not act as an adviser and assumes no fiduciary responsibility or liability for any consequences, financial or otherwise, arising from any arrangement or entrance into any transaction in reliance on the information contained herein. In order to build your own independent analysis of any transaction and its consequences, you should consult your own independent financial, accounting, tax, legal or other competent professional advisors as you deem appropriate to ensure that any assessment you make is suitable for you in light of your own financial, accounting, tax, and legal constraints and objectives without relying in any way on DBS Group or any position which DBS Group might have expressed in this document or orally to you in the discussion.

If this publication has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of the Information, which may arise as a result of electronic transmission. If verification is required, please request for a hard-copy version.

This publication is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.

If you have received this communication by email, please do not distribute or copy this email. If you believe that you have received this e-mail in error, please inform the sender or contact us immediately. DBS Group reserves the right to monitor and record electronic and telephone communications made by or to its personnel for regulatory or operational purposes. The security, accuracy and timeliness of electronic communications cannot be assured.

Dubai Financial International Centre: This publication is distributed by the branch of DBS Bank Ltd operating in the Dubai International Financial Centre (the "DIFC") under the trading name "DBS Vickers Securities (DIFC Branch)" ("DBS DIFC"), registered with the DIFC Registrar of Companies under number 156 and having its registered office at units 608 - 610, 6th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates. DBS DIFC is regulated by the Dubai Financial Services Authority (the "DFSA") with a DFSA reference number F000164. For more information on DBS DIFC and its affiliates, please see http://www.dbs.com/ae/our--network/default.page.

This publication is provided to you as a Professional Client or Market Counterparty as defined in the DFSA Rulebook Conduct of Business Module (the "COB Module"), and should not be relied upon by any client which does not meet the criteria to be classified as a Professional Client or Market Counterparty under the DFSA rules.

Hong Kong: This publication is distributed by DBS Bank (Hong Kong) Limited (CE Number: AAL664) ("DBSHK") which is regulated by the Hong Kong Monetary Authority (the "HKMA") and the Securities and Futures Commission. In Hong Kong, DBS Private Bank is the private banking division of DBS Bank (Hong Kong) Limited.

DBSHK is not the issuer of the research report unless otherwise stated therein. Such research report is distributed on the express understanding that, whilst the information contained within is believed to be reliable, the information has not been independently verified by DBSHK.

Singapore: This publication is distributed by DBS Bank Ltd (Company Regn. No. 196800306E) ("DBS") which is an Exempt Financial Adviser as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore (the "MAS").

Thailand: This publication is distributed by DBS Vickers Securities (Thailand) Co., Ltd. ("DBSVT").

United Kingdom: This publication is distributed by DBS Vickers Securities (UK) Ltd of Paternoster House, 4th Floor, 65 St Paul's Churchyard, London EC4M 8AB. ("DBS Vickers UK") which is authorised and regulated by the Financial Conduct Authority (the "FCA").

Produced by:
DBS Chief Investment Office

DBS Bank (Hong Kong) Limited