SPECIAL REPORT

Double black swan

Economic and market implications of the coronavirus and oil collapse

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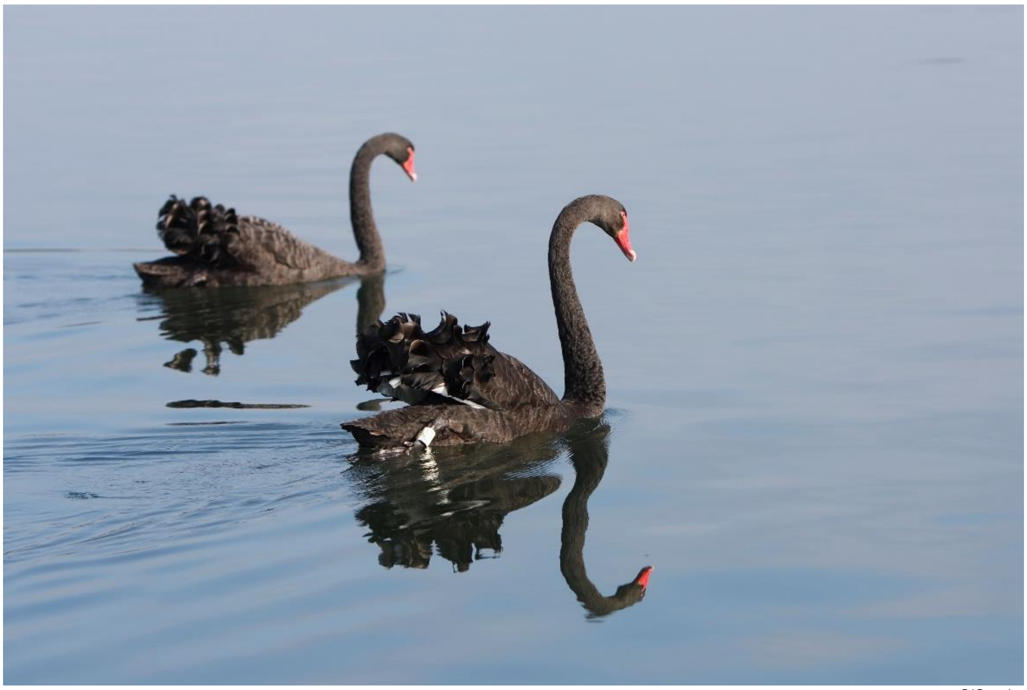

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The global economy and financial markets are being buffeted by two black swan events – a coronavirus-induced growth shock and an unprecedented collapse in oil prices. This double-whammy of tail risks has sent financial markets into crisis mode, evidenced by the collapse in risk assets, extreme volatility, and various dislocations.

In this report we discuss our updated economic and oil price outlooks, our asset market views, and trading strategies. A double-black swan event can provide opportunities to follow the trend in certain markets and position for reversals in others.

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Black Swans

	Economics view	Oil view
	Lower growth with downside risks. The economic growth outlook has sharply deteriorated and we have cut our global growth forecast for 2020 by 0.6pp to 2.4%. Deep contractions in GDP will likely occur in some economies in 1Q20 (e.g. China, S Korea) and in 2Q for others (US, Germany, France, UK, Italy). Still, at the global level we expect a V-shaped recovery, albeit perhaps with a somewhat rounded bottom. However, the risk of a W-shaped cycle cannot be excluded if the virus returns next winter.	**Weaker demand and higher supply lead to lower prices**. We forecast Brent oil to average $30/bbl in 2Q20 with monthly volatility of 60-80%, which means Brent can easily trade at the mid $20/bbl level. Brent prices should remain very low in 3Q20 at $35/bbl and by 4Q20 rise to $40/bbl. In our "oil crisis" scenario, we could see 2Q20 Brent prices averaging $28/bbl and falling to as low as $20/bbl by the end of the year.

Financial market outlook

	Comment	Trades
Asset allocation	**Manage portfolio drawdowns:** Markets are quite turbulent in reaction to two black swan events that have hit financial markets. What do we do from an asset allocation standpoint? We believe that managing the portfolio drawdown is at this point important in the short term. Do barbell portfolios still work?	**• OW sovereign bonds, UW equities • Keep an overweight stance on US Treasuries • Global value to protect against equity portfolio drawdowns • Favour JPY, GBP and EUR versus USD • Long EM equities versus Nasdaq 100**
Quant	**Managing risk asset downside scenarios:** We answer two questions that arise from the likelihood of many days with large market falls, volatility rises and rate rallies, and fewer days with strong risk asset recoveries.: (1) what relative value dislocations across assets currently exist in markets? and (2) how can we take advantage of these dislocations through systematic strategies?	**• Rates trend following • Synthetic down variance • Equity put funded by credit • Intra-day trend following**
Equity	**Short term pain but opportunities abound:** The outperformance of China stocks over their Asia peers should last until market conditions stabilise. Japanese stocks have value. S&P could rebound to 3500 by end-2020, but near term avoid tech and be long staples vs discretionary. In Europe, we are starting to see some value in European equities that we haven't seen for a while and on further declines we would build long term exposure. But for now, relative value trades are favoured.	**• Near term: long US staples/ short discretionary stocks. • Medium term: target S&P 3500 end-2020 • Chinese stocks outperform Asian peers until markets stabilise • Long Utilities (SX6P Index) / short Telecom (SXKP index) • Long Banks (SX7P Index) / short Autos (SXAP Index) • Long Oil & Gas (SXEP Index) / short Chemicals (SX4P Index) • long SG Recession Resilient basket (SGEURRLG Index) / short SG Recession Risk (SGEURRSH Index).**
Rates	**Long duration bias:** In the US, yields are likely to decline to new lows before gradually reversing course later this year. Yield curve to bull flatten over the near to medium term and bear steepen later in the year as conditions improve. In Europe, despite yields being at historical lows, we retain our long duration bias until virus fears abate and signs of stability return. We also like trades with a ling inflation bias.	**• Buy USD 6m10y ATMF/A+25/A+50 1x2x1 payer strike fly • Overweight Treasuries vs Bunds, FX-hedged • Overweight the wings in OATs vs the belly • Long HICP 2y2y • Long OATei 2024 breakeven vs. paying Euro HICP 5y**
Credit	**Relative value opportunities**: Corporate credit proved resilient in the early stages of the crisis, but in recent sessions it has suffered much more than equities. European IG is now good value, in our view, while US HY spreads do not yet discount enough defaults.	**• Switch to overweight from underweight on Euro IG credit • Stay underweight US HY, Euro HY and USD IG cash markets • Prefer European issuers to US issuers in Europe**
FX	**The dollar's cycle turns over:** We expect oil prices to remain depressed and have no appetite for buying oil-sensitive currencies but maybe the biggest legacy of the collapse of bond yields will be that US economic outperformance will be blunted for a while, interest rates will converge further and the dollar's 10% trade-weighted gain since the start of 2018 will be reversed.	**• Short USD-JPY • Short CAD-SEK • Short EUR-GBP**
EM	**Weaker FX with differentiation in bonds.** We remain sellers of EM FX and buyers of volatility, especially to end Q2. Selectivity in EM bonds remains necessary to protect against the risks of further market stress. The sovereign credit market has priced in a lot of bad news but not more extreme outcomes that could occur in the coming quarters.	**• FX: Long JPY-KRW, USD-ZAR, USD-TWD, IDR 3x12, USD-SGD, EUR-CZK, USD-BRL, USD-COP • Rates: Underweight (Brazil, Turkey), Overweight (China, Korea, Hungary, Czech Republic, Poland) • Sovereign credits spreads: Underweight. Switch to overweight if spreads rise to 600-650bp.**

Economics

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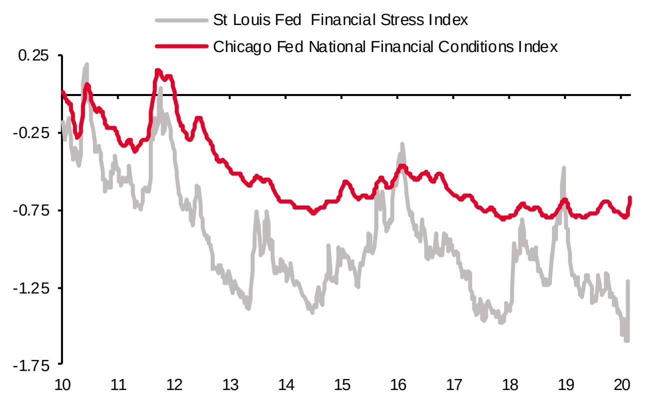
The rapid global spread of COVID-19, the subsequent containment measures, the slump in capital markets and the collapse in oil prices – mean that the economic growth outlook has deteriorated sharply. We have consequently cut our global growth forecast for 2020 by 0.6pp to 2.4%, a rate implying a global recession (<2%) at least for one or more quarters. Deep contractions in GDP will likely occur in some economies in 1Q20 (China, South Korea) and in 2Q for others (US, Germany, France, UK, Italy, Spain). Still, at the global level we expect a V-shaped recovery, albeit perhaps with a somewhat rounded bottom. However, the risk of a W-shaped cycle cannot be excluded if the virus returns next winter.

Not quite a global recession but awfully close

The two exogenous shocks, COVID-19 and the oil-induced financial market shock, have hit the global economy at an inopportune moment. Growth in most quantitatively important economies was already feeble and fragile, with monetary policy generally very expansionary. In many places, interest rates were at, or close to, levels that leave little scope for further conventional or even unconventional easing. This growth fragility and relative dearth of policy scope has undoubtedly contributed to the violent market reaction to both shocks, which could cause negative feedback loops for sentiment and threaten the availability of credit.

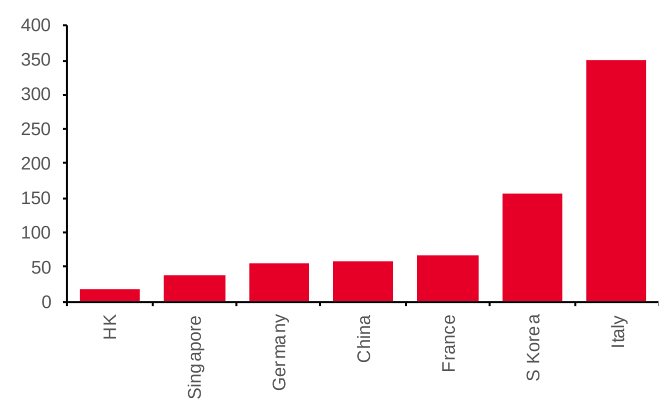
Hence, our global economic outlook from the end of February required comprehensive reassessment within a fortnight of publication. In the case of COVID-19, the speed and breadth of its spread has been a big surprise to us, implying a markedly more severe adverse impact on growth. That has been the case particularly in the euro area, China and export-oriented Asia economies. In addition, the collapse of OPEC-Russia cooperation on oil production has triggered a financial market slump that has taken stock markets deep into correction territory and many to the brink of or into bear market conditions and has given credit markets a nasty jolt. This financial market shock had already caused a sudden tightening of US financial conditions by the end of February (see left-hand chart below), and this will likely have become significantly worse since. This threatens to slow the flow of credit to the economy in addition to creating negative wealth effects that could weigh on household consumption.

US financial market conditions*



Source: St Louis Fed, SG Cross Asset Research * negative numbers indicate looser than normal conditions.

COVID-19 infections per 1m inhabitants on 15 March 2020



Source: Johns Hopkins Center for Systems Science and Engineering, SG Cross Asset Research. Note: the rate in Hubei Province was 1,129.

At the same time, the slump in oil prices, if broadly maintained, is good news for consumers and many businesses the world over. It will, for example, shave around 1pp off headline inflation in the euro area, supporting real disposable income growth. But the effect is not large enough to fully offset the negative shocks to growth from other factors.

The result of our revisions is a global growth forecast of 2.4% for 2020, which would be the lowest growth since 2009 by some distance. This is down by 0.6pp from our previous forecast and 0.9pp below the IMF's updated forecast of January 2020. We can foresee a recession for one or two quarters below the 2% level widely regarded as indicating recession in the global economy. Recovery in 2H results in the global economy escapes recession. Policy reactions and recovery from the virus support growth perhaps unevenly depending on regions in the second half.

Medicine potentially worse than the disease

The negative impact of COVID-19 on growth does not come primarily from the actual incidence of the disease, at least initially, but rather from aggressive containment measures. However, it is worth noting that containment measures are not restricted to those that come by government decree such as the lock-down in Hubei Province, China. Grassroot measures such as consumers staying away from large social, cultural and sporting events, or even shopping malls, and firms implementing various strategies to minimise the risk of infection such as home working, team segregation, suspension of face-to-face meetings and business travel appear as effective, if not more so.

Comparisons of rates of infections scaled to population size illustrates this (see chart above): per one million inhabitants, the infection rate has so far risen to 1,129 in Hubei province, but in all of mainland China it is only 58. Yet containment was also highly effective in Hong Kong and Singapore, where infection rates were 16 and 29, respectively, without draconian state-imposed measures.

The advantage of an early introduction of severe containment measures is obviously that they minimise the rate of infection and thus allow production to return to normal relatively rapidly, hence enabling a v-shaped recovery when restrictions are lifted. But the strategy comes with a heavy cost in terms of short-term output loss. China is the star example of this strategy, but based on current evidence, South Korea has also successfully pursued it. On the thin evidence there is, it appears that from the time accelerated transmission occurs to the peak rate of increase is 10-30 days, and some 4-6 weeks until the number of cases roughly stabilises.

The other option is for governments to either focus on minimising the short-term economic impact and just let the outbreak play itself out in a fairly short period of time or trying to minimise infection rates. At the first sight, considering infection rates (which would be higher even than Wuhan), and the fatality rate (now at 3.4-3.5% of reported cases over the past two weeks), plus the fact that for most people the symptoms are mild, there may be an economic case for this. However, the serious complication rate – the share of cases that require medical attention – looks to be 10-20%. To prevent a total exhaustion of medical system's capacity, the government may not be able to stick to the path of disease minimisation rather than economic damage minimisation.

Economic policy response – rate cuts may help but more needed

Once again, intense market emphasis is being placed on monetary policy, and many central banks are reacting. We expect more to come, with further rate cuts across many jurisdictions (see table). Rate cuts aren't likely to do any damage, and may be helpful at the margin, at least where policy rates remain positive. They may, for example, help to stabilise financial markets, reducing the additional shock from this source, although the early evidence from market reactions to actions taken by Fed, ECB, Bank of England and a number of other central banks does not suggest significant effects on that front.

Moreover, the long and variable lags of policy rate changes and their universal (i.e. untargeted) nature make them a sub-optimal tool in the fight against the economic fallout from COVID-19. That said, there is clearly a role for monetary policy, for example in supporting the flow of credit with specific tools and/or loosening macroprudential measures. It can also be argued that cutting interest rates now will help boost the recovery when it comes.

In our view, policy measures need to come primarily from governments and should focus on two issues. One, self-evidently, boost health systems' ability to identify cases and cope with the surge in patients requiring hospitalisation as well as boost efforts to find a vaccine (which is likely to be ready for global rollout only in 12-18 months). Two, implement measures to boost household incomes and business's cash flows where these are affected.

The precise shape will differ from one jurisdiction to another, but in general extensions of sick pay to those not yet entitled, supported short-time working arrangements, temporary suspensions/cuts in corporate taxes and social security contributions, as well as perhaps direct aid to specific sectors especially hard hit. In addition, regulatory measures to encourage the financial sector to provide credit, especially to small and medium-sized companies, stand to make a material difference to avoiding bankruptcies to otherwise going concerns. In contrast, across-the-board measures such as corporate, income and payroll tax cuts will be less effective and unnecessarily raise the cost.

Markets are likely to favour economies where effective, targeted measures are implemented to support growth during what is still likely to be a relatively short-lived, if potentially hugely damaging, event.

Only one thing is certain – yet more debt

The economic outlook is once again dominated by serious and deep-seated uncertainty. But one thing is practically certain, and that is that debt levels will again push higher. As regards government debt, it is certain that even a temporary slowdown will blow a hole in any budget, and governments know that any attempt to contain the virus will cost money. For companies, high rates of absenteeism and supply-chain disruptions cannot help but affect profitability negatively and will also lead to higher debt.

We are quite sceptical as to how meaningful gross debt loads are in many circumstances. In our view, an analysis of debt sustainability should also take into account the assets on the other side of the balance sheet. However, at the current junction the problem is that the prices of the assets are also under serious downward pressure. At the same time, the secular decline in bond yields improves debt sustainability.

A global slump for sure, but depth unknowable

It is impossible to predict with any degree of certainty or accuracy what course the spread of COVID-19 will take, the severity of which will also strongly depend on the measures taken to contain it and hence the severity of the slowdown. But what is clear is that output will be hit severely in practically all economies we cover, albeit to differing degrees. China, South Korea, and Italy will be hardest hit owing to severe COVID-19 outbreaks as well as a high degree of interdependence with the rest of the world. Germany and Spain, despite relatively small COVID-19 numbers (so far), look like they will also be hit hard, the former because of its export dependency, the latter because of a high share of tourism. In contrast, India, for example, is less exposed on both counts.

The hits to growth will be desynchronised. In some, it will be concentrated in 1Q20, e.g. China, where we expect declines in GDP of 5.5% (20% annualised). And the risks are probably skewed to the downside. For most western advanced economies both survey and hard data suggest little adverse effects during the first two months of 2020, and in most first-quarter growth is likely to have remained resilient. But the hit to growth in 2Q20 is likely to be powerful in the US, euro area, and UK, albeit more in the 0.5-1% qoq range (2-5% annualised). Similarly, Brazil and Mexico will probably experience their nadir in growth in 2Q. For global growth this implies substantial knocks in both quarters.

V-shaped recovery likely, but incomplete and not everywhere

We believe that most economies will experience V-shaped recoveries, where output rebounds in the quarter following the drop. This certainly appears the most likely scenario in China, where after extensive shutdowns during February production is being ramped up quickly and should be back to nearly normal by April. At the same time the government will probably step up infrastructure investment and roll out consumption-supporting measures soon, even though it has shown little appetite for at-all-cost stimulus like that in 2009 or 2016. The normalisation of factory activity and potentially a reacceleration in tech investment in China will reverberate through the region where many are closely knit into the production supply chains, supporting a rebound for example in Korea, Taiwan, Vietnam etc.

More generally, given that COVID-19 is a flu-like virus, it should be seasonal and so the outbreak should run its course by late spring or summer at the latest. As people return to work a rebound in production consequently seems by far the most likely scenario. However, the rebound is likely to be incomplete, and lost output is not expected to be recouped in the short term, especially services consumption such as tourism.

But we predict that there will be important exceptions to the V-shaped rebound, including the US, Germany, and Italy. In the US, we have long been pointing to weakness in corporate profits and have been predicting a recession around mid-2020 for some time. Covid-19 now is the trigger for the current recession with a much deeper decline early on, but with greater policy reactions than anticipated to offer economic support later in 2020. We expect a quite deep dip in 2Q growth of 2.5% annualised, followed by another, milder drop in 3Q and only a sub-trend expansion in 4Q. In short, sub-par growth in the US will not be a short-lived phenomenon, in our view.

Germany has been stuck in the slow lane for at least 18 months, owing to weakness in exports, especially in its automobile sector. These will not go away in the short term, and we expect GDP contractions in all but the first quarter of 2020, leaving annual growth at zero. Similarly, Italy's economy was already contracting at the end of 2019, and now it has been hit hard by the world's second-largest outbreak of COVID-19. We expect a series of four quarterly GDP contractions. The result is that euro area growth will in our view be -0.1%yoy in 2020.

Lastly, Japan is as so often *sui generis*, and after a drastic slump in 4Q19 (-7.1% annualised) following the consumption tax hike and yet more natural disasters, another decline looks unlikely. However, hopes of a powerful rebound have been dashed by external developments and also a substantial number of COVID-19 cases.

The above illustrates what is our new baseline scenario. However, we judge the risks to the scenario to be squarely biased to the downside. An even faster spread of the virus through various countries' populations would most likely result in exponential proliferation of restrictions on movement, assembly and economic activity, leading to materially worse economic outcomes.

The question of "how bad can it get" is nigh impossible to answer, and we resort to again quoting from an article published by the IMF in 2014 which suggested that "[a] 4.8 percent drop in global GDP is a realistic outcome in a severe flu pandemic" – meaning effect on a full-year GDP number

SG growth and inflation outlook (% yoy)

	Real GDP							Potential growth	CPI						
	2018	2019f	2020f	2021f	2022f	2023f	2024f	per annum	2018	2019f	2020f	2021f	2022f	2023f	2024f
World (Mkt FX weights)	3.2	2.6	1.8	2.9	3.1	3.2	3.2		3.0	2.8	2.7	2.3	2.7	2.7	2.6
World (PPP weights)	3.6	3.0	2.4	3.5	3.6	3.7	3.7		3.8	3.7	3.7	3.1	3.3	3.3	3.1
Developed countries (PPP)	2.2	1.7	0.5	1.6	2.2	2.2	2.2		1.9	1.4	1.2	1.2	1.7	1.8	1.8
Emerging countries (PPP)	4.6	3.9	3.6	4.7	4.5	4.6	4.5		5.0	5.2	5.3	4.3	4.3	4.1	3.9
North America															
US	2.9	2.3	0.7	1.8	2.7	2.9	2.8	1.7	2.4	1.8	1.7	1.1	1.8	1.9	1.9
Europe															
Euro area	1.9	1.2	-0.7	1.2	1.7	1.8	1.8	1.3	1.8	1.2	0.4	1.2	1.3	1.4	1.5
Germany (nsa)	1.5	0.6	-0.7	1.1	1.8	1.4	1.4	1.2	-	-	-	-	-	-	-
Germany	1.5	0.6	-1.0	1.1	1.8	1.6	1.4		1.9	1.3	0.5	1.1	1.5	1.4	1.4
France	1.7	1.3	-0.8	1.4	1.6	1.8	1.9	1.2	2.1	1.3	0.6	1.2	1.4	1.4	1.6
Italy	0.7	0.3	-1.4	0.5	1.0	1.3	1.6	0.7	1.2	0.7	0.2	1.2	0.8	1.2	1.5
Spain	2.4	2.0	-0.4	0.8	1.4	1.5	1.7	1.1	1.7	0.8	-0.2	1.2	1.1	1.2	1.4
Slovakia	4.0	2.3	1.2	2.6	3.9	3.4	3.0	2.5	2.5	2.8	2.0	1.7	1.8	1.6	1.8
UK	1.3	1.4	0.3	1.1	1.9	1.8	1.9	1.5	2.5	1.8	1.3	1.9	2.2	2.4	2.5
Switzerland	2.7	0.9	-0.3	1.0	1.7	1.8	1.8	1.9	0.9	0.4	-0.3	0.1	0.8	1.2	1.3
Asia															
China	6.6	6.1	4.5	6.4	5.4	5.2	5.0	5.5	2.1	2.9	3.4	1.9	2.3	2.0	1.8
Japan	0.3	0.7	0.2	1.6	1.5	1.4	1.3	1.0	1.0	0.5	0.4	1.3	1.9	2.0	1.8
Australia	2.7	1.8	1.5	2.8	2.8	2.9	2.8	2.8	1.9	1.6	1.7	1.8	2.4	2.5	2.4
South Korea	2.7	2.0	0.5	3.0	2.7	2.3	2.0	2.3	1.5	0.4	1.0	1.4	1.3	1.4	1.5
Taiwan	2.7	2.7	1.5	3.1	2.7	2.6	2.3	2.5	1.0	0.8	0.1	0.8	1.2	1.5	1.4
India	6.6	5.3	4.7	6.3	6.3	6.7	6.6	5.5	4.0	3.4	4.4	4.0	3.7	4.4	3.9
Indonesia	5.2	5.0	4.4	5.1	5.4	5.4	5.6	5.4	3.2	3.0	2.9	3.0	3.2	3.1	3.1
Latin America															
Brazil	1.3	1.1	0.7	1.6	2.1	2.3	2.4	1.5	3.7	3.7	3.8	3.5	3.6	3.5	3.3
Mexico	2.1	-0.1	-0.4	1.5	2.1	2.4	2.5	2.5	4.9	3.6	3.4	3.0	3.1	3.1	3.0
Chile	4.0	1.2	1.0	2.4	2.7	3.0	3.0	2.7	2.7	2.3	3.8	2.7	2.8	2.9	3.0
Colombia	2.5	3.3	1.9	2.9	2.9	3.3	3.4	2.8	3.2	3.5	3.7	3.4	3.4	3.4	3.4
Argentina	-2.5	-2.1	-2.2	-0.4	1.0	1.3	1.8	1.3	34.3	53.5	41.5	31.6	29.5	21.8	18.3
Russia & Eastern Europe															
Russia	2.5	1.3	1.3	1.9	2.0	2.1	2.3	1.5	3.1	4.2	3.1	4.3	3.9	4.0	4.0
Czech Republic	2.8	2.4	1.3	2.3	2.6	2.6	2.4	2.5	2.1	2.8	3.2	2.0	2.1	1.5	2.2

Source: SG Cross Asset Research/ Economics

SG growth outlook vs. previous and vs. consensus (% yoy)

	SG 2020	SG P*	SG 2021	SG P*	Consensus 2020	Consensus 2021	IMF 2020	IMF 2021	SG Potential Growth per annum
World (Mkt FX weights)	1.8	*2.3*	2.9	*2.8*	--	--	--	--	
World (PPP weights)	2.4	*3.0*	3.5	*3.4*	--	--	3.3	3.4	
US	0.7	*0.9*	1.8	*1.9*	1.6	2.0	2.0	1.7	1.7
Euro area	-0.7	*0.8*	1.2	*0.6*	0.6	1.3	1.3	1.4	1.3
Germany (nsa)	-0.7	*0.7*	1.1	*0.4*	0.5	1.2	1.1	1.4	1.2
France	-0.8	*1.0*	1.4	*0.7*	0.8	1.3	1.3	1.3	1.2
Italy	-1.4	*0.2*	0.5	*0.3*	-0.8	0.8	0.5	0.7	0.7
Spain	-0.4	*1.3*	0.8	*1.1*	1.5	1.6	1.6	1.6	0.9
Slovakia	1.2	*2.3*	2.6	*2.5*	2.2	2.6	2.7	2.7	2.5
UK	0.3	*0.9*	1.1	*0.8*	0.8	1.3	1.4	1.5	1.5
Switzerland	-0.3	*0.7*	1.0	*0.7*	1.0	1.4	1.3	1.6	1.9
China	4.5	*5.5*	6.4	*6.0*	5.2	6.1	6.0	5.8	5.5
Japan	0.2	*0.7*	1.6	*1.4*	-0.7	1.1	0.7	0.5	1.0
Australia	1.5	*2.2*	2.8	*2.5*	1.5	2.6	2.3	2.6	2.8
South Korea	0.5	*2.2*	3.0	*2.4*	1.7	2.5	2.2	2.7	2.3
Taiwan	1.5	*2.1*	3.1	*2.7*	2.1	2.6	1.9	2.1	2.5
India*	4.7	*5.3*	6.3	*5.8*	5.0	5.7	5.8	6.5	5.5
Indonesia	4.4	*5.1*	5.1	*5.3*	4.8	5.3	5.1	5.2	5.4
Brazil	0.7	*1.8*	1.6	*2.4*	2.1	2.6	2.2	2.3	1.5
Mexico	-0.4	*0.0*	1.5	*1.5*	1.0	1.7	1.0	1.6	2.5
Chile	1.0	*1.8*	2.4	*2.8*	1.3	2.4	3.0	3.2	2.7
Colombia	1.9	*2.6*	2.9	*3.1*	3.2	3.3	3.6	3.7	2.8
Argentina	-2.2	*-1.8*	-0.4	*-0.4*	-1.2	1.7	-1.3	1.4	1.3
Russia	1.3	*1.9*	1.9	*1.9*	1.9	1.9	1.8	1.6	1.5
Czech Republic	1.3	*2.0*	2.3	*1.9*	2.1	2.4	3.5	2.6	2.5

Colours: Dark red -0.4bp away from Consensus, light red between -0.4 and -0.2 away from Consensus; light blue between 0.2 and 0.4 away from Consensus, dark blue; +0.4 away from Consensus.
Source: SG Cross Asset Research/Economics, Consensus = February 2020, IMF = January 2020, P*= February 2020 GEO. Germany - NSA.

SG monetary policy outlook – Key rates

	Mar 16	Jun 2020	Sep 2020	Dec 2020	Mar 2021	Neutral rate	2019	2020	2021	2022	2023	2024
North America												
US	0.13	0.13	0.13	0.13	0.13	**2.50**	2.13	0.25	0.13	0.75	1.94	2.88
Europe												
Euro area	0.00	0.00	0.00	0.00	0.00	**1.50**	0.00	0.00	0.00	0.00	0.15	0.94
UK	0.25	0.25	0.25	0.25	0.25	**2.50**	0.75	0.29	0.29	0.60	0.85	1.33
Switzerland	-0.75	-0.85	-0.85	-0.85	-0.85	**1.75**	-0.73	-0.82	-0.78	-0.75	-0.54	-0.04
Asia												
China	2.40	2.20	2.10	2.10	2.10	**3.00**	2.54	2.21	2.16	2.40	2.50	2.50
Japan	-0.07	-0.10	-0.10	-0.10	-0.10	**1.00**	-0.10	-0.10	-0.10	-0.08	0.09	0.46
Australia	0.50	0.25	0.25	0.25	0.25	**2.50**	1.13	0.29	0.54	1.79	2.48	2.50
South Korea	0.75	0.25	0.25	0.25	0.25	**2.00**	1.60	0.46	0.29	1.04	1.90	2.00
Taiwan	1.38	1.13	1.13	1.13	1.13	**2.50**	1.38	1.18	1.20	1.54	1.74	1.85
India	5.15	4.65	4.50	4.50	4.50	**5.50**	5.75	4.75	4.50	4.50	4.50	4.50
Indonesia	4.75	4.00	4.00	4.00	4.00	**5.00**	5.65	4.21	4.00	4.27	4.50	4.50
Latin America												
Brazil	4.25	3.75	3.75	3.75	3.75	**8.25**	5.92	3.81	3.79	4.54	5.54	6.54
Mexico	7.00	5.25	4.50	4.00	4.00	**5.75**	7.96	5.27	4.00	4.54	5.54	6.40
Chile	1.00	1.75	1.50	1.00	1.00	**3.75**	2.40	1.56	1.04	1.79	2.79	3.79
Colombia	4.25	4.25	4.25	4.25	4.25	**5.25**	4.25	4.25	4.56	5.54	6.54	7.21
Argentina	40.00	39.00	37.50	35.00	34.00	**42.00**	66.41	39.54	32.83	29.46	27.42	25.42
Eastern Europe												
Russia	6.00	6.00	6.00	6.00	5.50	**6.50**	7.25	6.02	5.54	5.50	5.50	5.50
Czech Republic	1.75	2.00	2.00	2.00	1.75	**2.50**	1.92	2.00	1.85	1.75	2.13	1.98

Source: SG Cross Asset Research/Economics.

OIL OUTLOOK

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SG oil crisis simulations

2Q20

Brent average prices: $28/bbl

(-$2/bbl compared to last forecast)

Monthly realised volatility: 60 - 80%

3Q20

Brent average prices: $20/bbl

(-$15/bbl compared to last forecast)

Monthly realised volatility: 50 - 60%

4Q20

Brent average prices: $20/bbl

(-$20/bbl compared to last forecast)

Monthly realised volatility: 40 - 50%

The failure of OPEC+ to agree on cuts beyond the end of this month opened the door to collapsing oil prices and a frantic scramble for market share. As we described on 9 March in our Oil Special, the catalyst was an expectation that oil demand would contract by up to 4 mb/d on the back of the coronavirus, the first quarterly demand decline in a decade. To counteract such a gigantic contraction, OPEC+ met in an attempt to reach agreement on future production cuts after more than three years of coordinated activity. Oil prices plummeted 30% in just a few days and have remained low since. At the time of writing, we evaluated the lower oil demand would last two months and then slowly recover. And that OPEC+ would reverse their cuts. On the back of these two developments and outlooks, we forecasted 2Q20 Brent to average $30/bbl and gradually to rise to $40/bbl by year end.

However, in the two days since our report was published, the World Health Organization (WHO) has declared COVID-19 a pandemic, which could dent oil demand further, and for longer. Saudi Arabia and Russia and other OPEC members declared even greater production targets, and we developed a better understanding of how US shale might respond to these few quick developments over the next year. Given these changes, we are updating our models with these new developments and running a simulation on what can only be described as an oil crisis. Prices could fall much further in this situation. Moreover, volatility is expected to increase even further. If this crisis is realized, we could see 2Q20 Brent prices averaging $28/bbl, falling to as low as $20/bbl by year end. For now, we stand by our original forecasts (i.e. Brent averaging $30/bbl and gradually rising to $40/bbl by the end of the year). Our crisis simulation forecast is our downside risk but we do not yet adopt this simulation as our forecasts.

Update on the oil price war now that there is a pandemic

Pandemic: On 11 March, the World Health Organization (WHO) declared COVID-19 a pandemic. Implications for oil? Oil consumption will take a harder and longer demand hit than previously forecasted. Accordingly, we update our models. We also updated for recent expectations of OPEC+ boosting production and the negative impact of prices at current levels for US shale production capacities.

Demand: Originally, we had accounted for a demand destruction of 4.0mb/d over March and April compared with our pre-coronavirus base case, a gradual normalisation toward August and then a partial catch-up due to some purchases being deferred. As the virus' spread seems to have scaled up dramatically since our last forecast update published 9 March, we significantly reduce our expectation for oil demand. First, the impact is likely be larger than previously anticipated, and will likely see strong contractions in Asia and Europe. We have also factored in the impact on the US economy. We expect the peak of the oil demand destruction to occur in 2Q20 with 5.0mb/d of oil demand destroyed in those three months, most of it, 70%, from OECD countries, namely the Euro area, South Korea, Japan and the US. In 3Q20, oil consumption should gradually normalise and the catch up in demand we previously forecast could be even stronger. We expect demand destruction to be lower at 3.0mb/d for November (+2.0mb/d on average for 4Q20) compared to our pre-coronavirus base case as the deferred good purchases are likely to peak around the Christmas period. At the end of the year, in 4Q20, global consumption is expected to increase 2.5% yoy to a record high at 103.3mb/d, but averaged over the full year, 2020 consumption expected at 97.7mb/d would be 2.3% lower than in 2019.

Mb/d	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
World demand	**99.1**	99.2	99.2	100.6	100.8	**100.0**	94.2	93.8	99.6	103.3	**97.7**
OECD Demand	**47.9**	47.7	47.0	48.1	47.7	**47.6**	45.3	42.5	46.5	49.0	**45.9**
Non-OECD demand	**51.3**	51.5	52.3	52.6	53.1	**52.4**	49.0	51.2	53.1	54.3	**51.9**
World supply	**100.3**	100.2	99.9	100.0	101.6	**100.4**	100.6	103.5	103.5	103.7	**102.8**
OPEC crude	**31.9**	30.7	30.1	29.5	29.8	**30.0**	29.0	31.5	31.6	32.2	**31.1**
OPEC NGLs	**5.5**	5.5	5.5	5.5	5.5	**5.5**	5.5	5.8	5.8	5.8	**5.7**
non-OPEC supply	**62.9**	64.0	64.3	65.0	66.3	**64.9**	66.0	66.2	66.1	65.7	**66.0**
Balance	**1.2**	1.1	0.6	-0.7	0.8	**0.5**	6.4	9.7	3.9	0.4	**5.1**

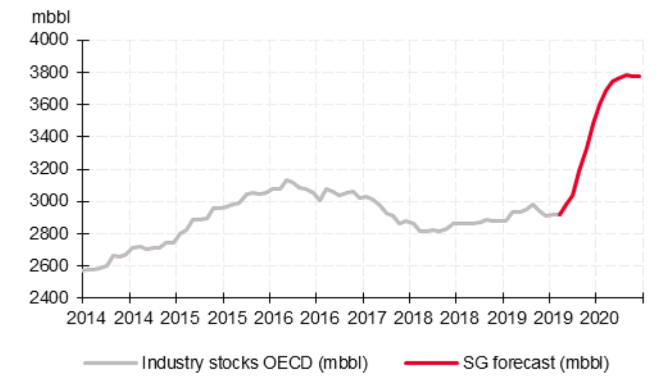
Source: IEA, SG Cross Asset Research/Commodities

OPEC supply: Saudi Aramco, the Saudi national oil company, recently announced it would pump 12.3mb/d or almost 2.5mb/d more than current levels. Other OPEC+ members, mainly Russia and UAE, are expected to significantly increase production as well. In total, we expect OPEC+ output to rise 3mb/d starting from now and this to be sustained, at least in 2020. Russia, which disagreed with the further OPEC+ cuts proposed by Saudi Arabia aimed to mitigate the impact of COVID-19 on demand we discussed above, triggered a dramatic response from the OPEC countries. Saudi Aramco, the Saudi national oil company, has declared not only that it will increase its production close to its 12.5mb/d sustainable capacity but that it will boost this further to 13mb/d.

The UAE's response from the national oil company ADNOC projects to raise output up to 4mb/d in April, while the average UAE output was only at 3.2mb/d in 2019. In addition, ADNOC will work to increase its production capacity up to 5mb/d. Russia also plans to increase output, but to a lesser extent, about 300kbd. While Russia can balance its fiscal budget with a Brent price just above $40/bbl, Saudi Arabia and UAE need a barrel priced between $70 and $80. However, we expect the large foreign reserve held by the latter two countries to allow them to sustain their economy with a crude oil price around $30/bbl for at least two years. This should sustain the increase in oil output over the full year 2020.

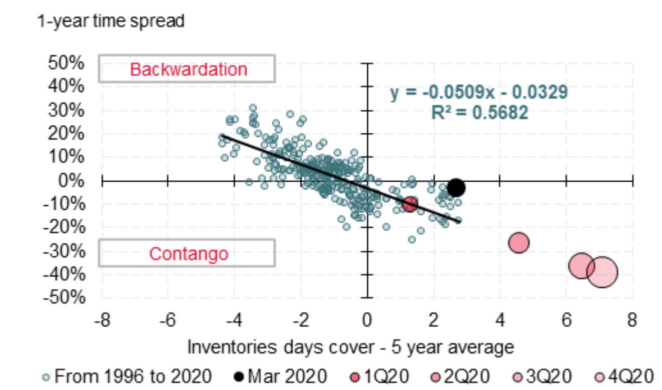
Along with demand destruction, this also creates an enormous global surplus of 9.7mb/d. This should drop to 0.4mb/d by 4Q20 and lead to an average surplus of 5.1mb/d throughout 2020. Again, this is a crisis downside simulation.

The combined effect of the pandemic and the oil price war will dramatically rise the Industry stocks



Source: IEA, SG Cross Asset Research

Record high inventories implies a strong contango, very likely to be concave in shape



Total OECD industry stocks divided by global forward consumption

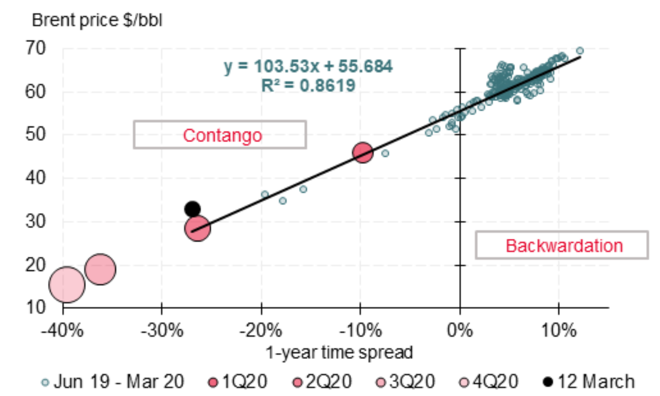
US Shale oil response: US shale oil companies are highly indebted, and the oil price war started by Russia and Saudi Arabia is aimed at pressuring these US energy companies. The final goal would be for US shale production to ultimately become the adjustment mechanism to stabilise prices, a role previously held by the cartel. We expect the US shale oil response to take time, but ultimately, US output to decrease. In our last commodities outlook, published in February 2020, we expected US shale oil output growth to slow to 1.3mb/d.

We estimate that at $30/bbl (WTI) US shale should decline to the 2mb/d level over the next year. There is a big difference between US shale adjusting today versus 2014 when a similar adjustment mechanism took place. It is highly unlikely that the lost shale this time will return as investor appetite for the US shale industry is all but gone. Even though some of the shale that is under threat has been hedged; we estimate roughly 60% of 2020 shale production was hedged at reasonable price levels that ordinarily would have protected profitability.

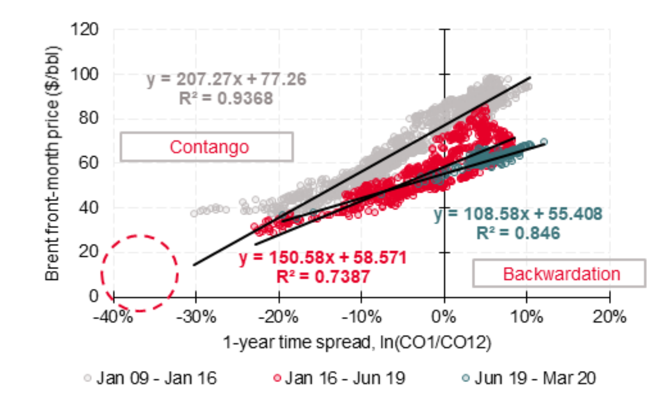
Unfortunately, according to industry sources, a significant portion of the hedging was not done via outright swaps but rather via costless collars, which only provided approximately $10 of downside protection. Moreover, even those companies that hedged via outright swaps, and are protected all the way down to current levels, likely do not have any ambitious plan to expand production in the current context. If 2mb/d of US shale production is lost, in all likelihood, it will not come back.

The forecasted large surplus throughout the year, up to 9.7mb/d in 2Q20, would fill storage facilities to their maximum capacity. This lack of storage capacity implies a strong contango (negative 1-year time spread) as the cost of storage would sharply increase. The shape of this contango is likely to be concave as longer-term storage costs are likely to be less expensive than short-term costs. This concave shape also comes naturally as the cost of the storage of oil that is not yet pumped (long maturity contract) is close to nothing as it is stored in the ground, i.e. not yet extracted, flattening the back-end of the forward curve.

The model simulation sees oil prices crashing – we carefully interpret this forecast and make some adjustments



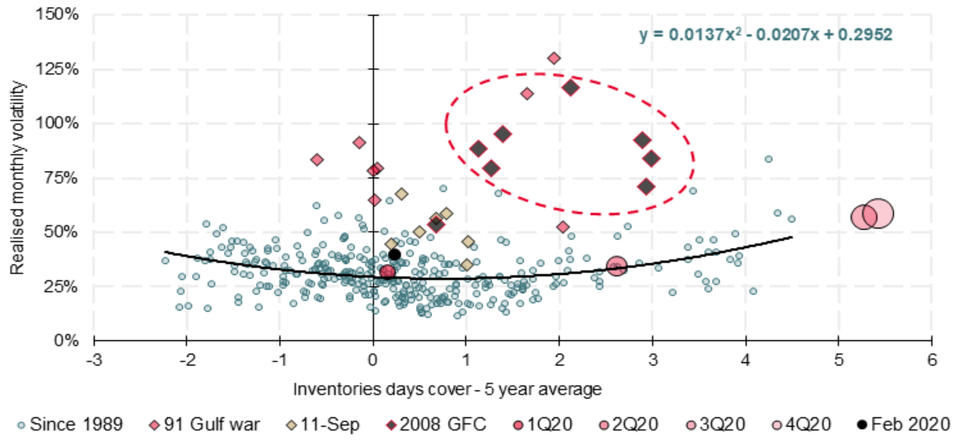
We never see extreme time spread levels such as what we forecast – we carefully interpret the model's output



Source: SG Cross Asset Research

We forecast the 1-year time-spread to decrease and to remain in the range of -35% and -40% over 2H20. We have not observed this size of contango over the past ten years. Even during the 2014-15 "pumping at will" period, the 1-year time spread did not decrease much below -30%. The model implies prices would go as low as $14.91/bbl in 4Q20 as surplus persists and inventories continue to build (but much slower compared to 1H20). However, we do not believe Brent prices could remain below $20/bbl for a prolongated period and expect prices to average $20/bbl over both 3Q20 and 4Q20. Prices could go to the mid-teens on elevated volatility, but we stand by an average price of $20/bbl in this crisis downside simulation.

High volatility in both 3Q an 4Q, we expect volatility to print even higher in 2Q just like GFC in 2008



Source: SG Cross Asset Research
Total OECD industry stocks divided by OECD forward consumption

On volatility, given the significant increase in inventories, volatility levels projected by the model are "off the charts" for 2H20. We have never witnessed this level of inventory, which we suspect could give rise to volatility levels north of 50% in this new normal situation. In the shorter term, i.e. 2Q20, volatility is likely to peak at 80%, levels last seen during the 2008 Global Financial Crisis.

Oil model outputs – Covid-19 Pandemic & Oil price war – model results

	Inventories days cover (OECD demand) – 5-year average*	Brent average price forecasts ($/bbl)	1-year time spread ln (CO1/CO12)	Brent realised monthly volatility (annualised)
1Q20	0.2	45.53	-9.8%	31.6%
2Q20	2.6	28.30	-26.5%	34.4%
3Q20	5.3	18.26	-36.2%	57.2%
4Q20	5.4	14.91	-39.4%	58.1%

Source: SG Cross Asset Research
*Days of OECD demand covered by the OECD total industry stocks (using the average demand over the next three months)

SG forecasts for 2020 in a crisis simulation

2Q20
Brent average prices: $28/bbl
(-$2/bbl compared to last forecast)
Monthly realised volatility: 60 - 80%

3Q20
Brent average prices: $20/bbl
(-$15/bbl compared to last forecast)
Monthly realised volatility: 50 - 60%

4Q20
Brent average prices: $20/bbl
(-$20/bbl compared to last forecast)
Monthly realised volatility: 40 - 50%

Source: SG Cross Asset Research

GLOBAL ASSET ALLOCATION

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Two separate exogenous shocks have taken the world by surprise, threatening to disrupt global growth: COVID-19 spreading out of China with the number of cases increasing day after day, and oil price free fall with the OPEC+ unable to secure an extension of the cuts – click here for more. Market have been turbulent in reaction to these two black swans: what do we do from an asset allocation standpoint? We believe that managing the portfolio drawdown is at this point important in the short term. Do barbell portfolios still work?

Recommendations

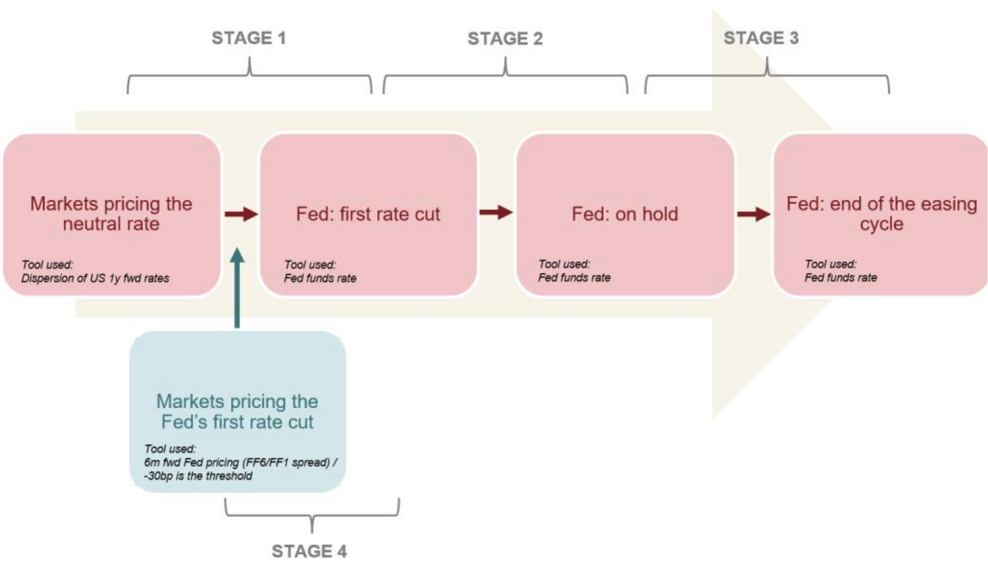
OW sovereign bonds, UW equities
Keep an overweight stance on US Treasuries
Keep a pocket of Global Value in the equity allocation to protect the portfolio drawdown
Favour JPY, GBP and EUR versus USD
Long EM equities versus Nasdaq 100

An asset allocation perspective

The current late stage of the economic cycle is making it harder for global economies to "stomach" unexpected risk scenarios, pushing policymakers to intervene more intensively than before. Indeed, the Fed delivered three cuts last year (25bp each) as well as the recent emergency easing measures (rate cuts and QE) in response to the unexpected COVID-19 and oil price shocks. During Fed easing cycles, which have always been in response to black swan scenarios materialising, as is the case today, how should investors position multi asset portfolios during episodes that require a shift to more risk-averse asset allocation?

We see four stages in the timeline of the Fed easing cycle timeline. Here, we focus on stage 2: the Fed starts to cut rates, before then going on hold.

Fed easing timeline – focus on stage 2



Source: SG Cross Asset Research/Global Asset Allocation

We take a closer look at the historical data to learn more, using our asset allocation framework and focusing on stage 2 of the Fed easing cycle (see timeline above) as the Fed gradually cuts rates before going on hold

We take a closer look at the historical data to learn more, using our asset allocation framework and focusing on stage 2 of the Fed easing cycle (see timeline above) as the Fed gradually cuts rates before going on hold. The results below show the allocations across major asset classes for balanced optimisation (on both returns and variance), dynamic optimisation (only on returns) and risk-averse optimisation (only on variance).

As we move from a balanced to more risk-averse profile, overall equity allocation remains the same

MIN	MAX	Asset allocation	Risk-averse	Balanced	Dynamic
30%	70%	EQUITIES	30%	30%	30%
5%	40%	BONDS	40%	40%	40%
0%	20%	CORPORATE BONDS	0%	0%	0%
5%	30%	CASH	25%	8%	5%
0%	5%	LINKERS	5%	5%	5%
0%	20%	COMMODITIES	0%	17%	20%

In local currency and total return. Historical returns, volatility and covariance matrices obtained through an exponential weighted methodology.
Source: Bloomberg, Datastream, SG Cross Asset Research/Global Asset Allocation

The OW signal on US Treasuries is strong across the different risk profile, and we favour them as well in our latest Multi Asset Portfolio.

In light of recent market moves, with S&P 500 down -26% year-to-date, and US Treasuries at 96bp, and as we wait for COVID-19 to peak in the US and Europe, we advise in the short term to boost the portfolio with hedges and protection. So using the allocation described above, during a Fed easing cycle, which assets are highlighted **as we move from a balanced to a more risk-averse profile**? First, we note that the overall equity and bond allocations remain the same, with an UW stance on equities and OW stance on sovereign bonds.

As we allocate a portion of equity allocation into Global Value, the max drawdown of the portfolio decreases.

Within the equity allocation**, we observe that the Global Value allocation increases in the move towards a more risk-averse risk profile**. How would this work from a portfolio standpoint? We looked at different mixes of asset allocation (see table below). If we start with a 40/60 bonds/equities allocation and allocate a portion of the equity allocation into Global Value, the max drawdown of the portfolio decreases. A bit of the portfolio return is sacrificed – the Sharpe ratio is down to 1.24 from 1.45 – but in turbulent times, we believe that managing the potential downside of the portfolio is more important, especially as the intra-equity correlation is back down to levels seen in 2014-2015 during the crude oil crisis (see following page).

Our Equity Quant team has extensively written on Value. Click here and here for more.
⇨ SG Global Value beta Index : < SGVBNTR Index >
Contact the team if you have any questions.

Since 2010, adding Global Value slightly reduces the drawdown of the portfolio

	100% bonds	100% equities	40% bonds 60% US equities	40% bonds 30% US equities + 20% Global Value
Annualised return	4.9%	12.9%	10.0%	8.7%
Annualised vol	6.5%	13.2%	6.9%	7.1%
Max drawdown	9.4%	16.3%	**7.3%**	**7.1%**
Sharpe ratio	0.76	0.97	1.45	1.24

Total return indices. 10y UST as the benchmark for the bond allocation. Source: SG Cross Asset Research/Global Asset Allocation

These are also the recommendations we have in our latest Multi Asset Portfolio.

From a currency perspective, we think the signal on decreasing the US dollar exposure in favour of the Japanese yen, UK Sterling, with somewhat the resilience of the EUR is clear.

Currency exposure: decreasing the US dollar exposure in favour of JPY. Resilience of the EUR

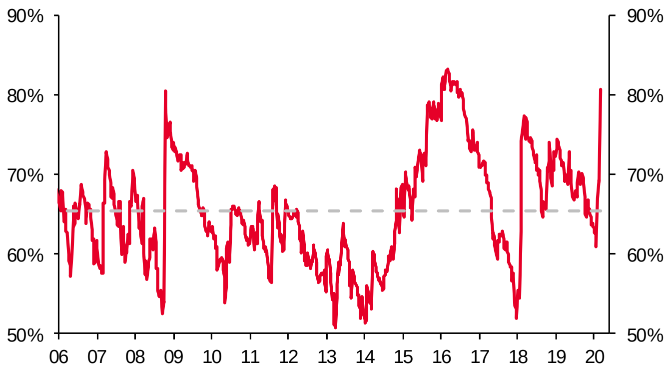
Currency exposure	Risk-averse	Balanced	Dynamic
USD	46%	52%	55%
EUR	11%	15%	10%
JPY	14%	5%	0%
GBP	24%	23%	15%
EM currencies	5%	4%	20%

In local currency and total return. Historical returns, volatility and covariance matrices obtained through an exponential weighted methodology.
Source: Bloomberg, Datastream, SG Cross Asset Research/Global Asset Allocation

Barbells when crown jewels are at risk

The OW signal on US Treasuries is also strong across the different risk profiles, and we also favour them in our latest Multi Asset Portfolio. The sovereign bonds correlation is very low at the moment, which in our view highlights the yield spread between US Treasuries and Europe/UK. In this environment, very low or negative yielding sovereign bonds in Europe/UK provide less protection than US Treasuries, where the US10y has rallied by more than 100bp since the peak of around 1.91% early this year.

Intra-equity correlation

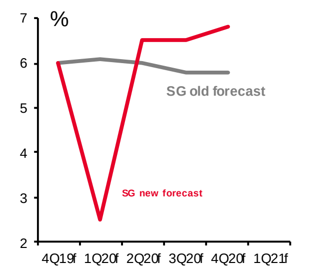


Sovereign bonds correlation

The correlation is calculated over 3-year period using weekly observations of total return indices (euro) and EWMA methodology. For equity/govt bond correlations, US, UK, Europe-ex-UK, Japan and emerging markets have been considered. Source: Datastream, Bloomberg, SG Cross Asset Resaerch/ Global Asset Allocation

Up to now, the barbell portfolio has been a good strategy as the 'safe-haven' portion of portfolios (Treasuries, gold) has rallied more than risky assets have sold off. But is this sustainable? In our view, as long as the Fed does not signal its willingness to go lower than the zero-lower bound (ZLB), and as we think there is only room for five more cuts from the Fed among, which three are already priced-in by end-2020, we could have in the near-term some turbulence in Treasuries and gold. And even more so in an environment where investors start pricing a deep recession, as we do not yet see the peak in coronavirus cases outside of China, especially in the US, which could potentially send equity markets indices even lower. This will certainly highlight liquidity problems and liquidations as investors sell their crown jewels to sponge up some of the losses on risky assets.

SG China GDP forecast



Source: SG Cross Asset Research/ Economics

We still like Treasuries from a multi-asset standpoint as a reserve of value and a positive yielding asset; however, the recent market moves could make a barbell portfolio strategy quite difficult to achieve. We advise investors be patient and look East where the V-shape of China GDP and desynchronisation with the developed world should become clearer. Long EM equities versus Nasdaq 100 could be a good way to navigate this environment.

CROSS ASSET QUANT – A 2008 FEELING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Getting the right mix of policies together is not easy. It will take trial and error and several iterations before markets are satisfied. This is reminiscent of the response to the GFC. It was several months after the Lehman bankruptcy that TARP, which finally killed the crisis, took final shape. Markets, in the meanwhile, gyrated wildly but with an overall negative drift for risk assets. This is the appropriate way to think about expected market behaviour in the short to medium term. Until the market is satisfied that a coherent global policy response has been put together, we should expect many days with large market falls, volatility rises and rate rallies, and fewer days with strong risk asset recoveries. We try and answer two questions that arise from this: (1) what relative value dislocations across assets currently exist in markets? and (2) how can we take advantage of these dislocations through systematic strategies? We explicitly concentrate on risk asset downside scenarios in our discussion.

Recommendations

Rates trend following

Synthetic down variance

Equity put funded by credit

Intra-day trend following

Multiple asset classes in the same framework

We use Principal Components Analysis (PCA) to bring instruments from across the major asset classes – equity and equity volatility, rates, credit, FX and commodities – into a single framework. We perform the analysis on daily price movements of these instruments. The analysis helps us understand which assets are cheap or rich given market prices of other assets.[1]

- **US and European rates are the most dislocated asset class,** and the cheapest. US rates, in particular, have the highest deviation above fair value. The analysis tells us that US 10-year yield at 0% or lower may be more appropriate given pricing in other asset classes.

- **Credit, both investment grade and high yield, is materially undervalued versus equity.** Based on prices as of COB on 11 March 2020, our model indicates that the S&P 500 may be 10-20% overvalued versus CDX.IG and CDX.HY and that the EuroStoxx 50 is potentially 5% rich versus iTraxx Europe and Crossover.

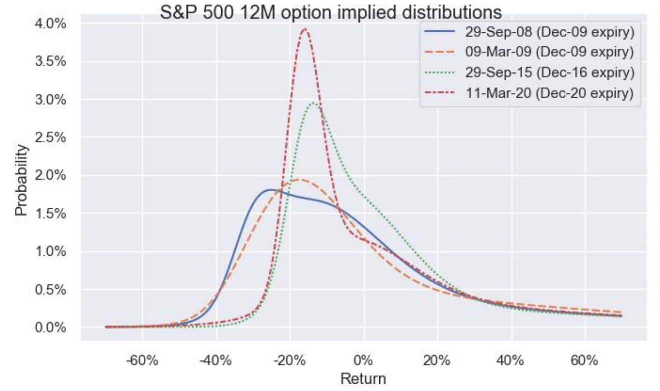
- **Equity volatility (at-the-money) appears moderately low versus other assets**.

[1] Paucity of space prevents us from going into details of the PCA here. Please contact us for a discussion of methodological details. The assets and historical time period we use are the same as for *A decade of experience: macro exposures of alternative risk premia* (10 January 2020) but here we look at daily changes.

Markets aren't pricing fat enough tails

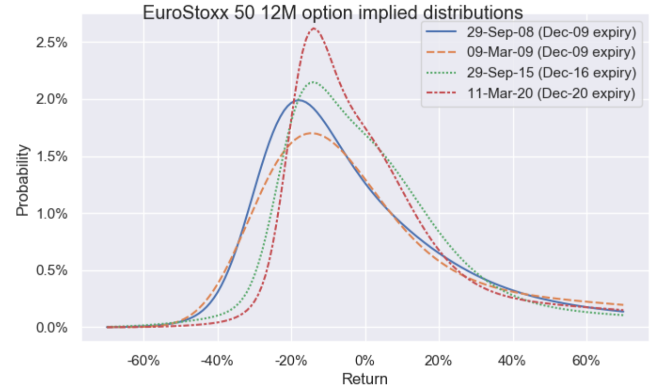
The charts below compare the distribution of future equity returns as priced by options now with what they did in historical crisis periods. We find an interesting result – both S&P 500 and EuroStoxx 50 12-month options currently price downside significantly less aggressively than they did in 2008. Equity option markets are now, but only after the 12 March rout, pricing downside more aggressively they did during the 2015 China/EM/commodity crisis. Equity tail puts are (relatively) cheap given the view of 2008-like uncertainty and volatility.

S&P 500 puts price downside slightly more aggressively than during the 2015 China/EM/commodities sell-off…



Source: Bloomberg, Optionmetrics, SG Cross Asset Research/Cross Asset Quant

… while EuroStoxx 50 puts price downside even less aggressively

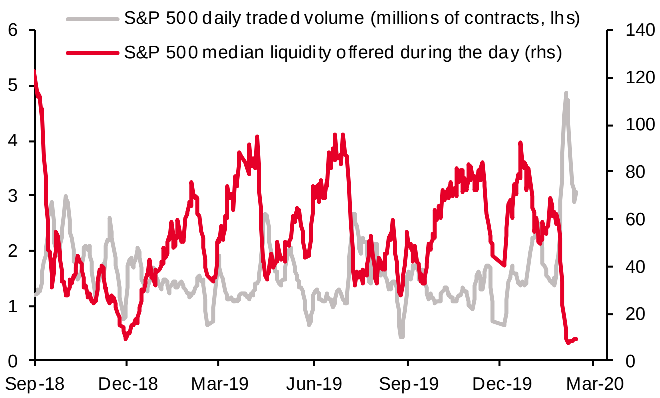


Source: Bloomberg, Optionmetrics, SG Cross Asset Research/Cross Asset Quant

Liquidity is drying up

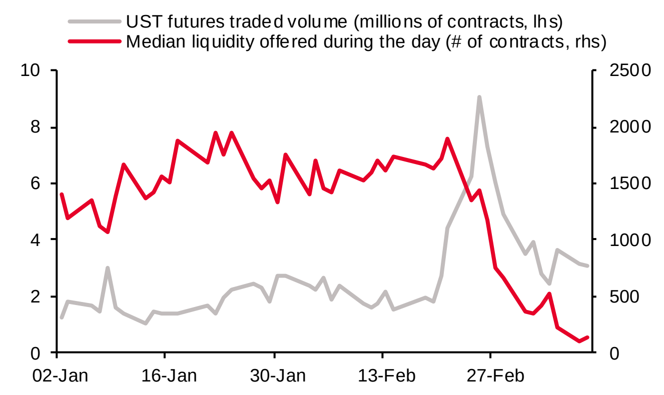
Liquidity is the ability to trade a large size close to a perceived fair price of the instrument being traded. In normal times, participants can trade in good size near the fair price for instruments like S&P 500 futures, Treasuries and crude oil. However, this has changed substantially in recent weeks. The demand to trade has increased, but the size on offer at or near the fair price of the instrument has declined rapidly. Liquidity is drying up.

Liquidity supply is much lower than demand for S&P 500…



Source: Bloomberg, SG Cross Asset Research/Cross Asset Quant

… as well as for US Treasuries



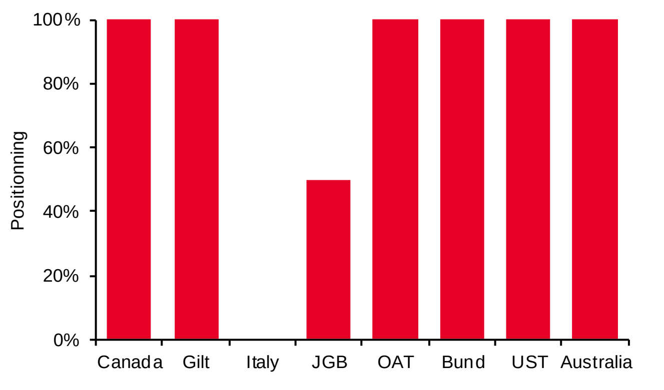
Source: Bloomberg, SG Cross Asset Research/Cross Asset Quant

The charts above demonstrate this. The left y-axes show the total number of contracts traded daily, and the right (or secondary) y-axes show the median sizes available to trade at the prevailing price. If the latter quantity is high, it indicates a willingness by dealers to accommodate larger sizes close to the market mid. The charts show that these sizes have decreased – there is less liquidity on offer

Positioning with systematic strategies

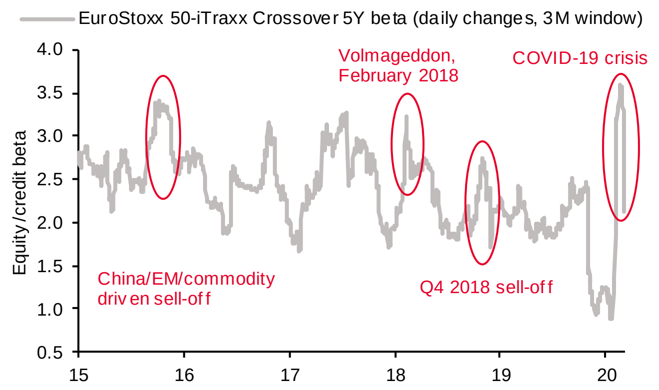
- **Rates trend following:** Our analysis suggests that there is significant room for US and European rates to rally further. The chart on the left below shows the strategy is long these rates. Note that it is up approximately 10% since 21 February when the sell-off started.
- **Synthetic down variance:** This strategy is designed to perform during large, rapid equity sell-offs. The S&P 500 version of the strategy has gained nearly 20% since 21 February. Importantly, the strategy still has upside, as our analysis shows that tail equity puts are cheap.
- **Equity put funded by credit:** This relative value strategy is designed to benefit from equity underperformance versus credit plus increases in equity-implied volatility in a material sell-off. The EuroStoxx 50 + iTraxx Crossover version is up 3% since 21 February. The chart below on the right shows the EuroStoxx 50 three-month regression beta versus the iTraxx Crossover. It rose at the start of the recent market sell-off but has declined since mainly due to credit market technicals. We expect this strategy to perform given that credit is cheap versus equity.
- **Intra-day trend following:** This strategy follows trends as they develop over the course of the day, i.e. goes long the S&P 500 as it rallies or short as it sells off. It then unwinds the position built up at the close, just when market participants constrained to trade at the close (ETF providers, option hedgers, etc.) are putting on the trade our strategy is getting out of. The strategy is a liquidity provider at a time of day when liquidity is typically lower. Supplying liquidity, especially at times of stress, is valuable. The strategy is up 8% since 21 February.

Rates Trend Following is long US and German rates



Source: Bloomberg, SG Cross Asset Research/Cross Asset Quant

EuroStoxx 50 beta rises versus iTraxx Crossover in risk off



Source: Bloomberg, SG Cross Asset Research/Cross Asset Quant

CORPORATE CREDIT

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Corporate credit proved resilient in the early stages of the crisis, but in recent sessions it has suffered much more than equities. European IG is now good value, in our view, while US HY spreads do not yet discount enough defaults.

Recommendations

Switch to overweight from underweight on Euro IG credit
Stay underweight US HY, and Euro HY and USD IG cash markets
Prefer European issuers to US issuers in Europe

Spreads have widened but not yet to our forecasted levels. Our 2020 Outlook, A tale of two scenarios, anticipated a sharp widening of corporate credit spreads this year. Spreads have indeed widened, due to COVID-19 and the fall in oil prices. Yet as Table 1 shows, spreads in most sectors are still below our end-of-year targets.

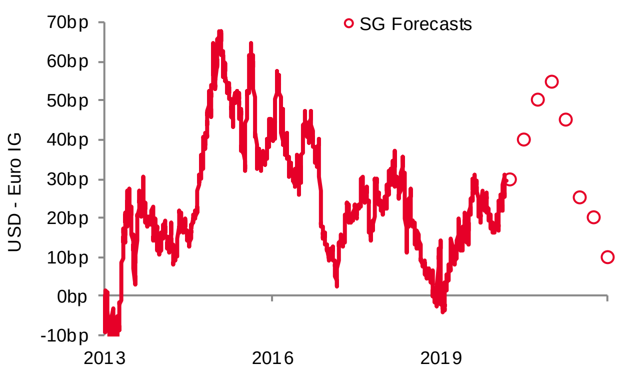
Table 1: Credit spreads still below our targets

	USD IG	Euro IG	USD HY	Euro HY
1 January	120bp	112bp	376bp	346bp
10 March	205bp	169bp	605bp	553bp
4Q 20 SG Forecast	235bp	180bp	940bp	675bp
% of move to target	74%	84%	41%	63%

Source: SG Cross Asset Research/Credit

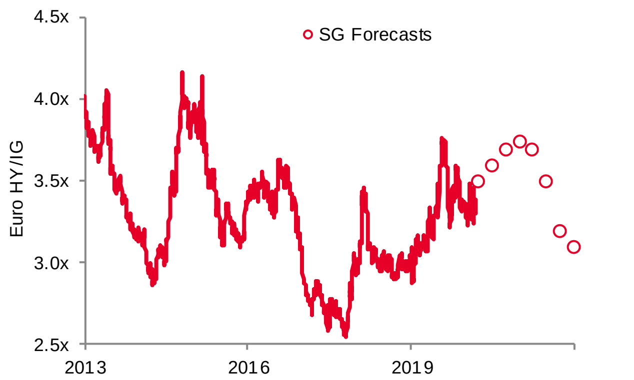
European investment grade spreads have moved 84% of the way towards our targets. By contrast, USD high yield spreads are only 41% of the way towards the move that we had expected over the year. This is because we expected markets to diverge this year, and they have not. Charts 1 and 2 respectively show the basis-point spread between US and European IG spreads, and the ratio of European high yield to IG spreads. US IG has slightly widened vs European IG, but by far less than we had expected. And European High yield has widened less in percentage terms than European IG.

Chart 1: US spreads have widened only a little vs Europe



Source: SG Cross Asset Research/Credit

Chart 2: Ratio of high yield to IG lower than we expected



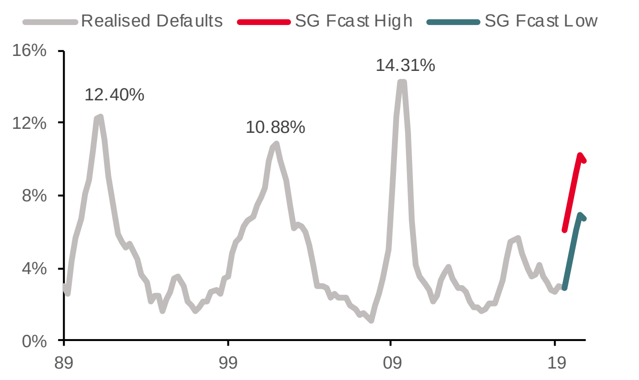
Source: SG Cross Asset Research/Credit

This high correlation between markets is quite different from what we experience in either the 2015-2016 oil driven crisis (when Europe took more than a year to react to weakness in the US high yield market), or in 2011-2012, when Europe lead the weakness. It is more similar to 2008-9, but even then the US led the weakness, and Europe followed suit only later.

US high yield does not discount enough defaults yet: The high level of balance sheet leverage in the US speculative grade market and our expectations of weak growth led us to forecast an acceleration of defaults in the US to 7-10%. Covid-19 looks likely to drive defaults to the top end of the range.

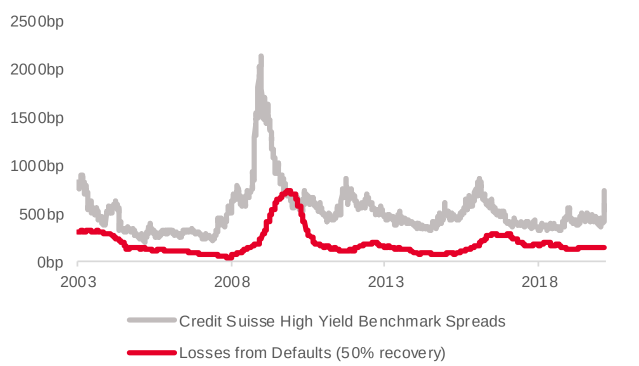
Chart 3 shows how these defaults would still be below the previous peaks in 2009, 2002 and 1992. Indeed, it is possible that these forecasts are too modest and that defaults exceed the top end of our range, if growth turns out to be weaker this year than even we expect. A late October paper, How sensitive are default forecasts to GDP growth, explains the relationship between growth forecasts and defaults.

Chart 3: More defaults to come



Source: SG Cross Asset Research/Credit, Moody's.

Chart 4: Spreads always rise above the level of default losses



Source: SG Cross Asset Research/Credit, Bloomberg, Moody's, Credit Suisse Indices

Do current US high yield spreads discount these defaults already? It's possible to argue that 600bp spread discounts 10% defaults with a 60% loss given default. Doing so, however, ignores the fact that US high yield spreads also include a substantial risk and liquidity premium, as Chart 4 above shows. Regressing spreads against realised defaults suggests that the market is only pricing in defaults of around 5%. To reflect 10% defaults, spreads should be at least at our 940bp target, and more probably around 1100bp.

Technical support to buttress investment grade in Europe: While we remain bearish on high yield markets, we do think investment grade spreads – and particularly European investment grade spreads – are now attractive enough to buy.

To understand why, it's worth starting with how the credit cycle has changed since the financial crisis, and particularly since the Fed and ECB began quantitative easing programs in 2014. In this paper, we explain how the traditional eight-year credit cycle has become a three-year credit spiral, with much shorter rallies and sell-offs, and very few periods of sideways trading. Government bond yields keep going down, but credit spreads either widen for fundamental reasons or tighten because of technical support. And in this type of environment, valuations become much more important.

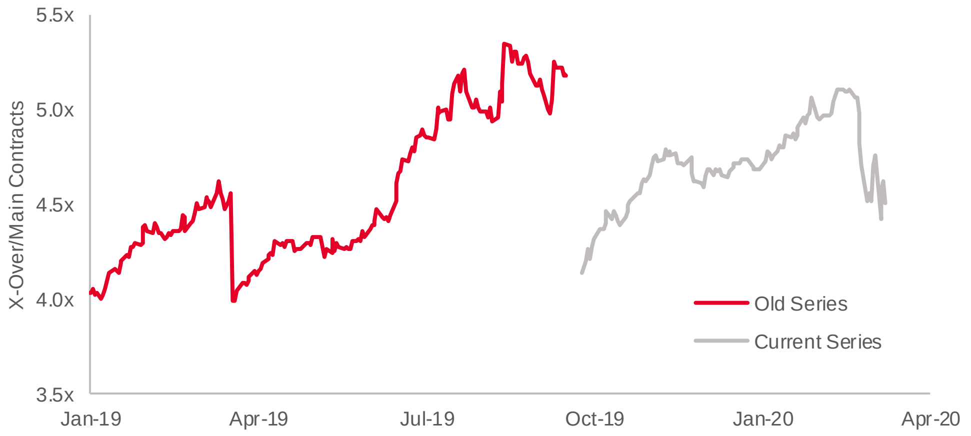
European investment grade markets have become cheap again. In "Credit markets are now cheap enough to buy," we show how spreads have gone from one standard deviation below the seven-year median to one standard deviation above the median, or from expensive to cheap, in the space of a fortnight.

But do valuations matter if Europe is going into recession? They still do, because the technicals are going to become more important. Bund yields have fallen sharply, as our rates colleagues point out elsewhere in this report. That increases the pressure on yield-based investors like insurance companies to buy corporate credit to meet their liabilities. Moreover, the ECB has just announced a €120bn expansion of its asset purchase program over the rest of the year, which will be targeted at "the private sector purchase programmes." Assume for a moment that all of this money is split between corporate and covered bonds, with covered bonds and SSEs unable to absorb more than around €2.5bn. The additional €9.5bn of corporate bond purchases, on top of the €5bn already being done, is roughly equivalent to the entire €15bn of CSPP-eligible issuance per month since the start of the year. This suggests that there could be a squeeze on European IG credit for technical reasons, even as the rest of the market is going wider.

As a result, we think cash investors should be moving to overweight on Euro-denominated IG credit (from the underweight position suggested in our last Fixed Income Portfolio Strategy). By contrast, we recommend that investors stick with underweight positions in high yield and in US IG, where we see spreads going wider still before we hit good valuations. And not all European IG bonds are equally attractive. We think investors should prefer CSPP-eligible bonds from European issuers to ineligible bonds from US corporates.

Alternatively, investors should look to sell Main contracts and buy X-Over contracts at a current ratio of 4.4x. Chart 5 shows this ratio, which we think will widen back towards the 5.0x range over the coming weeks.

Chart 5: X-Over contracts should widen vs Main



Source: SG Cross Asset Research. Bloomberg.

EUROPEAN EQUITIES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In our 2020 outlook, we warned there was too much complacency in the European equity markets, as too much good news was already priced in. Following the sharp correction, we are starting to see some value in European equities that we haven't seen for a while. So, we would take any further market weakness as an opportunity to start selectively building some more pro-cyclical, long-term positions, as we did last week by moving Overweight on Oil & Gas.

A "mild" recession is now priced in… According to our calculations published at the end of last year (see p. 12 of our 2020 outlook), a "mild" US recession would push the Stoxx600 index to 300pts. We are already there, however. But at that time, we were not factoring in the outbreak of a pandemic and its impact on the global supply chain and demand. Of course, a much deeper and longer global recession (such as in 2008) would lower the index level further.

… but earnings downgrades likely to accelerate In our latest outlook, our valuation tools showed that a recession could bring the P/E ratio back to 10x (assuming the UST yield at 0%). We are currently at 10.6x. So, this would imply a Stoxx600 index at 275pts if EPS estimates remain where they are. However, we believe 2020 earnings growth expectations are still too high at 6.6% (at the same time of the year in 2019, they were even lower at 5.3%). Hence, profit warnings are also likely to occur, and earnings downgrades will likely accelerate. We expect EPS to contract by at least 10% in 2020, which corresponds to two standard deviations below the average of the current consensus EPS estimates. This could potentially reduce the Stoxx600 index to around 250pts (with a 12m forward P/E of 10x).

How to position? Ahead of earnings downgrades, we recommend concentrating on sectors offering good visibility on earnings (such as Health Care, Utilities, Consumer Staples and Real Estate). We would also recommend going long our Recession Resilient basket (<SGEURRLG Index>) / short Recession Risk basket (<SGEURRLG Index>). More details here.

Any dislocation? In our Outlook, we highlight a spectacular recent dislocation between the relative performance of the STOXX Food & Beverage index (SX3P Index) relative and the German long-term bond yield. Despite the restatement of organic sales growth, the sector remains a tower of strength, albeit now at a more reasonable valuation.

Any opportunities? Last week, we upgraded the European Oil & Gas sector to Overweight. Despite the risk of oil prices remaining low for longer, it seems that the sector somewhat overshot the drop in oil prices during the recent selloff. The Oil & Gas sector is trading historically low relative to the European market. Its valuation is at its lowest level since the financial crisis in 2009, while we think its strong balance sheet should allow the sector to absorb an earnings cut.

Four trade ideas. We look for trade ideas that would generate alpha, irrespective of market direction. Our four favourites are:1) long Utilities (SX6P Index) / short Telecom (SXKP Index); 2) long Banks (SX7P Index) / short Autos (SXAP Index); 3) long Oil & Gas (SXEP Index) / short Chemicals (SX4P Index); and 4) long SG Recession Resilient basket (SGEURRLG Index) / short SG Recession Risk (SGEURRSH Index). More details here.

US Equities

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As published in our latest US Equity Strategy – Looking for a way out of the woods - we believe that consensus expectations for EPS and sales growth, and margins are still quite complacent. Consensus expects 2020 EPS growth of around +6.6% (as of 11 March), and we see room for downgrades. However, with the S&P 500 down -22% year-to-date (-25% since the peak in early-February), how much is already priced-in by the market?

How much negative news is priced in?

According to our equity risk premium tool, from the peak mid- February, the market is currently pricing-a decline in EPS of approximately -20% for 2020 (should 2020 and 2021 EPS growth remain at the same level). Looking at past recessions shows that S&P 500 12m trailing EPS fell on average by -25%. According to our fair value model, a mild recession scenario with a recovery by 4Q20, should see around 3.5% EPS growth. **The market is in our view currently pricing a deep recession for the entire year, with no anticipation of light at the end of the tunnel.** Reconciling consensus expectations from a bottom-up perspective and the recent price action, which has a more top-down perspective, we believe that the wave of downgrades for consensus numbers should keep the S&P 500 under pressure in the near-term, until the end of 2Q20.

S&P 500 EPS growth

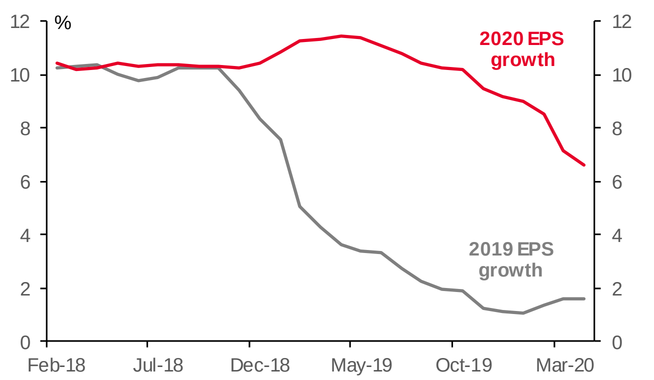
	EPS growth (consensus)
2019	1.6%
2020	6.6%
2021	11.9%
2022	10.5%

Source: IBES, SG Cross Asset Research/US Equity Strategy

Overall, we do not exclude the potential for further downside on the S&P 500 in the next few weeks if COVID-19 cases outside of China continue to increase and policymakers fail to efficiently respond in a coordinated way. In this scenario, investors could potentially shift to downgrade 2021 EPS growth– this is not our central scenario where we have 2Q20/3Q20 negative US GDP figures, with a recovery in 4Q20. Nevertheless, estimate it would push the S&P 500 down to 2380 (2020 EPS growth at -20% and 2021 EPS halved). **All in all, in the near term, we are still looking for a way out of woods. We suggest being long staples versus discretionary, and to stay away from the growth components of US equities (US Tech).**

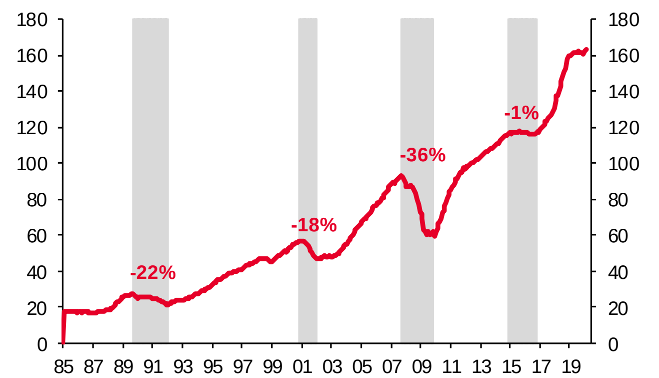
For 2H20, we believe that the long-term forces will remain in motion for the US equity market – we do not believe there will be an L-shape, but rather a V/U shape recovery: (1) US share buybacks remain high; (2) The equity market becoming a duration call as US sectors are more driven by common factors; (3) The ownership of the US equity market gives us some clues. **We believe the S&P 500 could rebound to 3500 by end-2020**.

S&P 500 – More downgrades to come for 2020 EPS growth



Data as of 11 March 2020.Source: Datatsream, SG Cross Asset Research/US Equity Strategy

Past episodes of EPS recession



S&P 500 12m trailing EPS. Source: Datastream, SG Cross Asset Research/US Equity Strategy

Asia Equities

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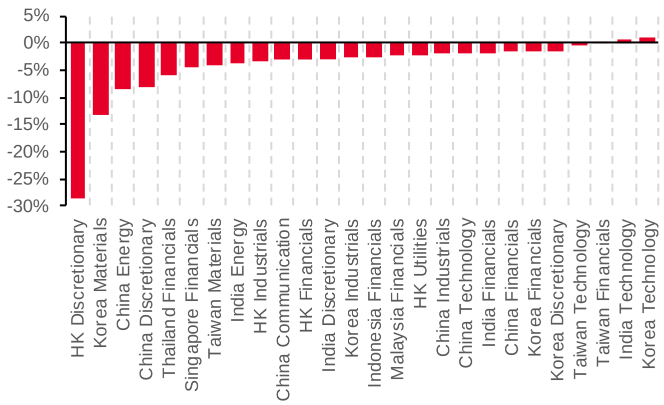
Asia equities are facing the triple shock of COVID-19 outbreak originating in China, the reverse oil shock, and the global economic consequences of the pandemic. Although correlations rise in falling markets, all indices are not reacting in a similar manner. The main dislocation is the divergence between onshore China equities and the rest of Asia. The Shenzhen market is even posting a 2.3% return year-to-date and small caps are outperforming broad markets by 10% points.

There are at least three reasons in our view for diverging trends between China stocks and the rest of Asia. First, onshore China equities price in a major fiscal stimulus. Unlike developed economies where markets are sceptical of the efficiency of monetary easing, Chinese authorities have had an effective policy response. Second, the virus has been contained in China at a time when Europe and the US are taking drastic measures to contain or delay contagion. Thirdly, the investor base is essentially domestic, which unlike most EM Asia peers make equity flows less dependent on overseas investors. We think the dislocation could continue and we overweight China equities in a global equity portfolio, while the divergence could end when market conditions stabilise.

Another dislocation is among cyclicals impacted by lower demand and supply chain disruption. The market makes a distinction between technology-led industries and those driven by consumer demand. The Asian Technology hardware sector, notably in Taiwan continues to be among the most resilient, whereas the cyclical consumer sectors are at the other end.

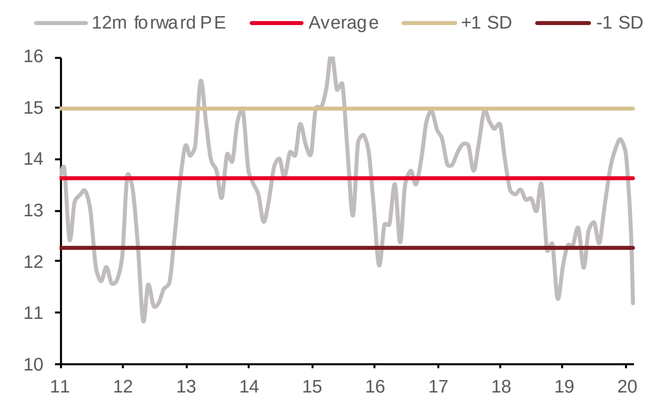
Finally, in Japan, equity markets have started to price in the end of Abenomics. Equities are down more than 30% from their 2018 peak and valuation have fallen to 2012 levels as price-to-book has reverted to 1x and 12-month forward earnings to 11x. The yen's strength and the rising probability of the Tokyo summer games being cancelled or postponed add further headwinds to share prices. Earnings, which have been falling for two years in a row could contract again this year. The development of tourism, one of the successes of the Abe administration may be seriously damaged. But another achievement of the past eight years, improving corporate governance, should outlast the market shock and support higher valuations. The extremely low valuation triggered by the current turmoil creates opportunities.

2020 EPS growth revisions year to date



Source: Bloomberg, SG Cross Asset Research/Equity Strategy

Japan valuations back to pre-Abenomics level



Source: Bloomberg, SG Cross Asset Research/Equity Strategy

EQUITY VOLATILITY

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Coronavirus fears have put an end to the long-lasting equity up/vol suppressed loop. The vicious circle of long gamma dealers positioning fuelling more gamma/option selling supply, which further increases the positive gamma of dealers, has finally been short-circuited. The sharp drop in equity prices on 24 February sent the dealer positions deep into negative gamma territory, leading to daily amplitudes not seen since 2011. After that, all the other drivers went into play and enhanced the vol pick-up: deleveraging from passive funds (risk parity and vol target), short covering in the VIX market and forced selling in various assets to meet mark-to-market constraints among others. The plunge in the oil price came as the final blow.

Recommendations

Prefer long position on Long Term volatilities that still have further room to go on the upside, in particular in Europe

As markets are marking a pause (at the time we write) in their downward spiral (but are still very volatile), we take the opportunity to discuss how **the situation can evolve on the gamma front**. In our view, it will depend on two variables, **the future spot path** and **the appetite for selling options** from systematic investors:

- Scenario 1) **We would expect the high volatility regime to stick around for an extended period of time**, if either a) investors pull back from selling options as a source of yield enhancement, and therefore no longer provide a continuous supply of gamma at current spot levels; or if b) equity prices keep moving lower (recession discounted in more countries, risks on weak balance-sheet companies through cash flow issues).

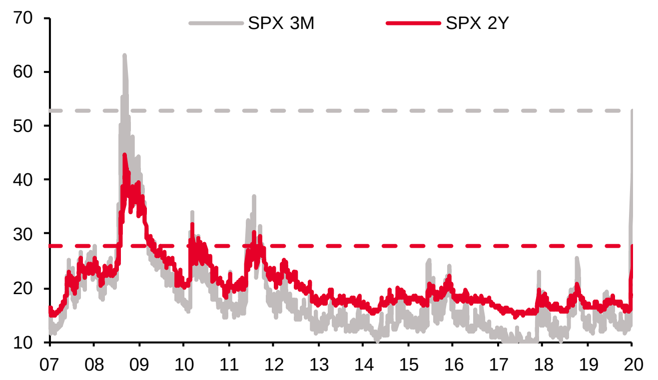
- Scenario 2) Aggregate gamma turns positive as a relative **period of calm and high volatility levels attract systematic yield enhancement flows back.** As dealers collect enough gamma to turn gamma positive, **volatility settles gradually.** We think the current environment of ±3-5% daily moves is not really conducive to this flow.

- Scenario 3) **Equity prices recover quickly and strongly for the sustained low volatility environment to return in earnest.** For this to happen, we would need the S&P to increase 11.8% and the Eurostoxx50 23.5%, as per our Speed Index (see chart).

Choosing a preferred scenario is not easy, as the eventual outcome depends on many moving parts – price action, central bank/government intervention, spread of the virus, risk limits, credit defaults in the oil complex, and investor behaviour. **Our view is that the first scenario above is the most likely, followed by the second**. We see little likelihood of going back to a suppressed volatility framework, in the short term at least.

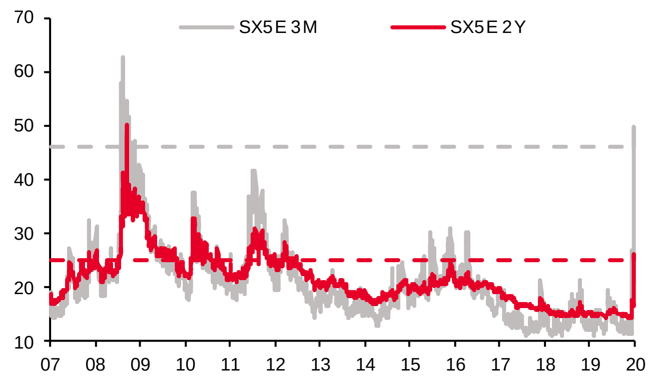
Investors looking for hedges may find very few affordable options given the impressive rise of volatility across the board. **We think they should look at long-term volatilities, which have been lagging so far, in particular on the Eurostoxx50**. For now, supply from structured products hedging in Asia and Europe seems to be keeping long-term volatility relatively constrained despite some natural hedging demand from long equity investors, but **if spot continues to fall, we are likely to cross the peak of vega, leading to additional demand for long-term volatility and to a significant increase in European and Asian indices.**

S&P500 ATM volatility



Source: SG Cross Asset Research/Derivatives

Eurostoxx50 ATM volatility



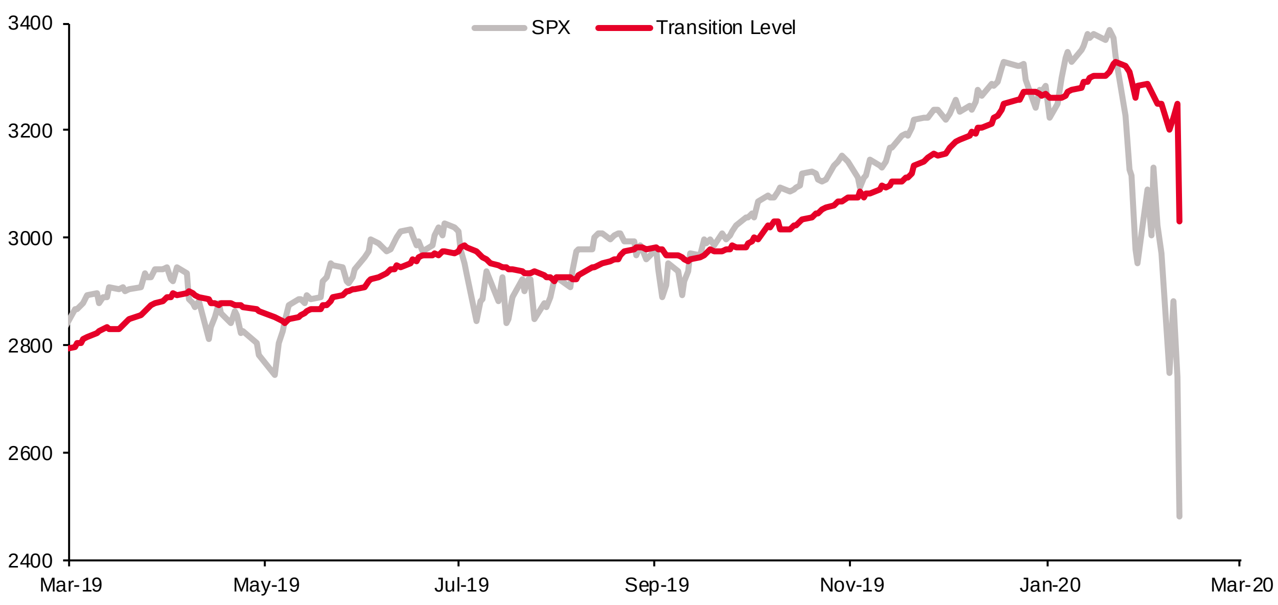
Source: SG Cross Asset Research/Derivatives

S&P500 gamma transition level:

-Scenario 1: spot keeps on going lower with no likelihood of the transition level following as quickly

Scenario 2: spot stabilizes here, it will take some time before the transition level falls below the spot

-Scenario 3: in a sharp move back up (11.8%), the spot could move directly above the transition level



Source: SG Cross Asset Research/Derivatives

EUR RATES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The peak of the coronavirus pandemic remains uncertain, and a contraction in 2020 has become the baseline scenario for several economies. Despite yields being at historical lows, we retain our long duration bias until virus fears abate and signs of stability return. Fear may drive the Bund 10y even lower temporarily. But hope is growing for coordinated fiscal stimulus in Europe. Yet we fear that sizeable coordinated stimulus may still require more time and more economic damage. We keep our view for Bund 10y around -0.50% in 2020.

Recommendations

Stay long duration. Continue overweighting Treasuries vs Bund, FX hedged.

Long convexity – keep overweighting the wings in OATs vs the belly.

Conditional normalisation strategies/hedges: payer calendar spreads in long tails, long Bund 10y puts vs swaption payers, conditional 10-30y bear steepeners via 5y payers.

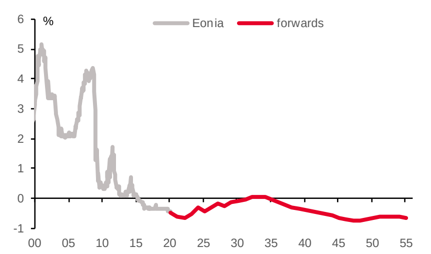
Hope vs fear

EUR rates are at lows, and the market is pricing that it will never change (Graph 1). This is because the yield curve is flat and even inverted at the long end, with the 10-30y real slope close to its 2008 extreme (Graph 2). An inverted curve when short rates are at historical lows and negative does not make economic sense. This shows how segmented the market is right now.

Fear. Fundamentally, there is no potential for a persistent and significant fall in EUR rates. But there is still room for even higher safety premia and a lower Bund 10y yield if risk aversion surges back. Uncertainty remains regarding the peak of the pandemic and on how deep the economic hit will be. This will maintain ‘low for long’ expectations. The ECB will likely remain inclined to strengthen its accommodation and will be alert to the risk of de-anchoring medium-term inflation expectations. The market is pricing a 10bp rate cut in June and chances for more later. The ECB may also consider strengthening PSPP purchases if needed (see here).

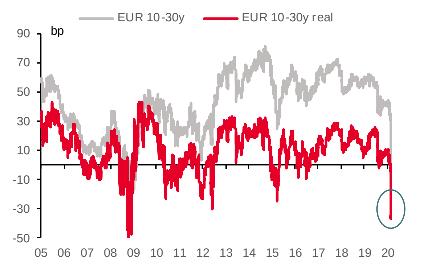
Hope. Central banks are well armed to deal with liquidity shortages, but it is now up to governments to contain growing perceptions of solvency risks. The market was disappointed after the ECB decided on 12 March to focus on targeted measures only. Hopes are growing for coordinated fiscal action in Europe, moving the Bund 10y yield off its lows (Graph 3). The EUR 2-10y tends to steepen by 20bp or so and the Bund 10y swap spread widen by 8bp if the German budget surplus is expected to decline by 1pp of GDP in the coming year.

Graph 1: Market is pricing that EUR rates will remain always at lows



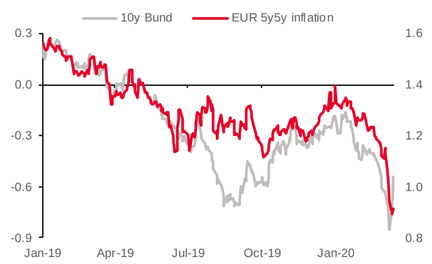
Source: SG Cross Asset Research/Rates. Bloomberg.

Graph 2: EUR 10-30y inverted and 10-30y real slope close to 2008 inversion



Source: SG Cross Asset Research/Rates. Bloomberg.

Graph 3: Bund 10y yield off lows on hopes of significant fiscal stimulus



Source: SG Cross Asset Research/Rates. Bloomberg.

EUR INFLATION-LINKED

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Inflation breakevens have typically undershot during large flight-to-quality scenarios (in the relatively short history of euro HIPC-linked markets of less than 20 years). If the flight to quality is combined with a large collapse in energy prices, the undershoot has been even more pronounced. This can create opportunities for longs in inflation, which will perform when things start to normalise. However, timing the bottom is hard when you are at all-time lows and volatility in rates, oil and equities remains massive. This suggests safer trades with a long inflation bias.

Recommendations

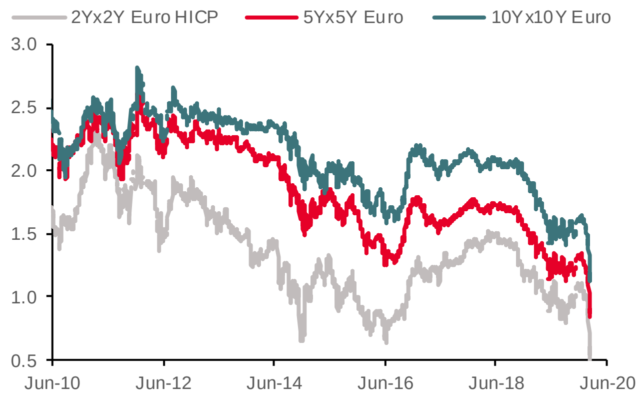
Long HICP 2y2y at 0.48% offers good risk-reward with a 3m horizon

Long OATei 2024 breakeven vs. paying Euro HICP 5y

Reports of the death of inflation are greatly exaggerated

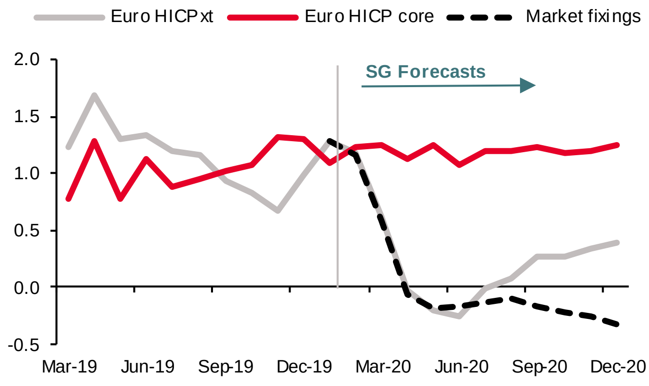
Inflation breakevens have collapsed since the start of the coronavirus scare. Similar market corrections in inflation have occurred in 2008 (Lehman), 2014 (global slowdown and commodity rout) and, to a lesser extent, 2016 (worries about China). All these events shared a dramatic fall in global demand for crude driven by prospects of a marked deceleration in growth, combined with a flight-to-quality into bonds. The current environment is quite similar, with coronavirus risks now compounded by the recent collapse in energy prices. A lack of agreement on production curbs between Saudi Arabia and Russia has compounded the impact from the already evident lower energy demand globally.

Graph 1. All-time lows in inflation forwards across the curve



Source: SG Cross Asset Research. Bloomberg

Graph 2. Euro HICPxt to move drastically lower, core to hold

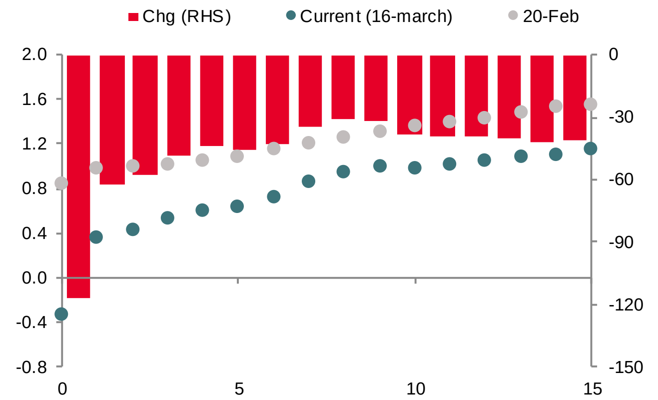


Source: SG Cross Asset Research. Bloomberg

Inflation breakevens have collapsed in the past week and are now consistent with sub -0.30% yoy inflation by December 2020, with inflation staying below 0.40% in 2021 and below 0.50% in 2022-23. Long-dated inflation expectations (5y5y forward) are now just around 0.85%, at all-time historic lows. All the above-mentioned episodes were followed by significant upmoves in breakevens, but uncertainty around oil makes the timing of a rebound difficult. **The collapse in oil prices pushes down our inflation forecast**. The move in oil prices completely changed the outlook going forward. We believe in a base case scenario where Brent stabilises around current levels and rises very modestly in the coming quarters. This is broadly in line with Brent futures and consistent with an economic recovery from the coronavirus in 2H. However, we expect realised volatility to be 60-80% in the coming quarter. This means there are huge two-sided risks here. On the downside, Brent in the low 20s is a possibility. Using our base case scenario, our euro HICP inflation forecast path has been lowered drastically, but nowhere near as much as markets have priced in. Under our base case, euro HICPxt should be at 0.4% yoy in December 2020, vs markets now pricing this at -0.3% (see Graph 2). We assume Brent will average $30, $35 and $40/bbl for 2Q, 3Q and 4Q respectively.

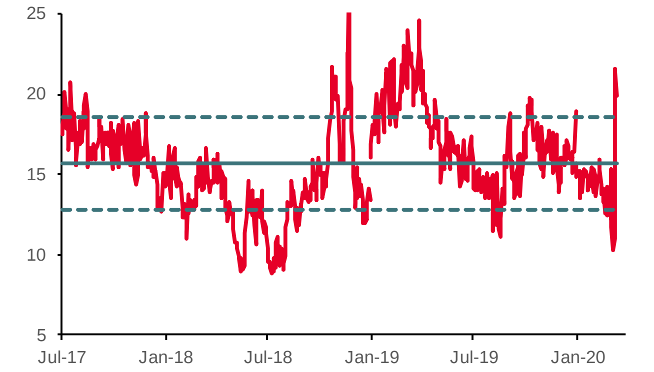
Collateral damage to core inflation most likely to be temporary. One possible way to square the weakness would be for expectations of core inflation to move significantly lower. While some weakness is possible, we do not expect it to be particularly large. Admittedly, weakness in the leisure sector (airlines, hotels, restaurants, luxury goods) could push inflation lower, but we expect some rebound within the next 3-4 months as the coronavirus situation improves. Second-round effects from lower oil prices (transport) are possible, but they require time. In any case, we expect consumer staples (like food, pharmaceutical products, etc.) to counterbalance price falls in the near term. All in all, while a much weaker core is not impossible, it is unlikely to have a sizeable contribution at this stage, with the core remaining fairly sticky.

Graph 3. Large corrections in HICP inflation forwards, even beyond 1 year; HICPxt 1y forwards and change since 20 Feb



Source: SG Cross Asset Research. Bloomberg

Graph 4. Inflation breakevens are cheaper than inflation swaps; Z-spread pickup of OATei 24 vs OATs, average and 1stdv lines



Source: SG Cross Asset Research. Bloomberg

Outright longs in inflation tricky to time. An outright long breakeven trade is likely to be heavily directional on bond yields and could be impacted by large moves in Brent in either direction. Trading inflation on a forward basis is one way to avoid near-term moves in oil. Thus, even if buying 1y inflation (Dec-2020) below zero seems attractive, **buying 2y2y HICP inflation at 0.48% offers a better risk-reward.** The 2y2y has held above 0.60% in all previous similar corrections (2008, 2014 and 2016). This is likely to outperform longer forwards if oil stabilises but rates continue to stay low. Investors who fear more near-term downside to oil can hedge this position with shorts in near-term fixings (e.g. June 2020 close to -0.15%).

Another way to exploit the current cheapness in inflation-linked is to **be long cash breakevens relative to HICP swaps**. This is typically directional on breakeven levels but is much more protected against a further oil-led correction or flight-to-quality. It takes advantage of the liquidity premium offered by linkers over conventionals and increased APP by the ECB. For instance, OATei 2024 trades with a z-spread pickup of almost 20bp relative to nominal OATs (Graph 4).

ITALIAN BTPS

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Recent bold measures to contain the coronavirus paints a very pessimistic outlook for the Italian economy. Despite a welcome fiscal response, the downside risks to the macro outlook will weigh on BTPs. Comments by ECB President Lagarde that the "ECB is not here to close bond spreads" have been taken negatively by investors. A perceived deterioration in Italian credit could accelerate the recent selling trend from non-domestics and suggest modest shorts.

Recommendations

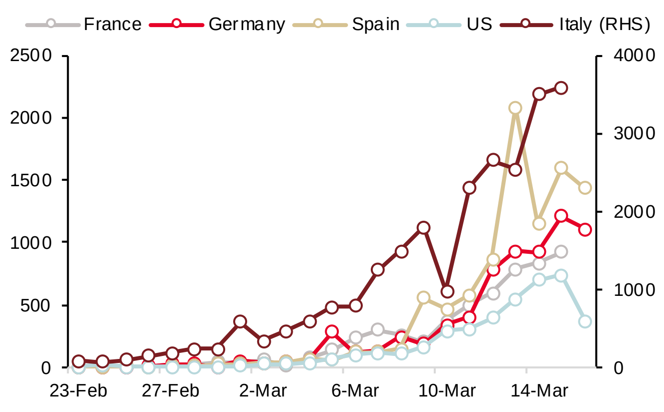
Turn negative on BTP-Bund spreads in 10y, target a modest correction to 285-300bp

Keep 10-30 BTP-Bund box and enter outright BTP 10-30 flatteners

Macro outlook quickly deteriorating

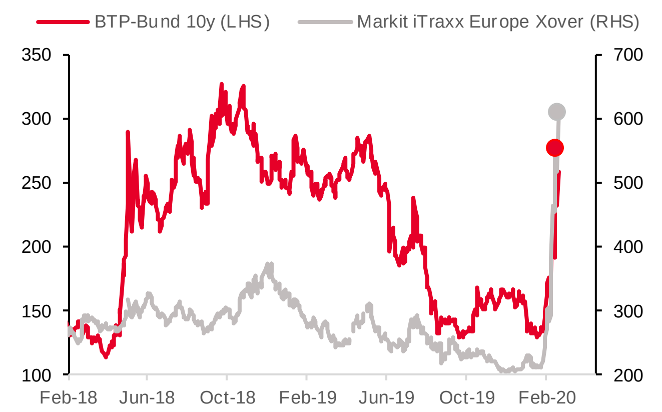
Italy lockdown to weigh on an already weak macro outlook. Recent bold measures to lock down the whole country and close shops are probably the right way to contain coronavirus, but they will certainly put a lot of pressure on the Italian economy if they remain in place for a long period. Looking at a chart of new COVID-19 cases, there is little sign of near-term stabilisation for now. The Italian economy was already contracting at end-2019, and the prospects of economic contraction for the coming quarters are evident.

Graph 1. New coronavirus cases keep increasing in Italy, pointing to possibly longer lasting pain measures



Source: SG Cross Asset Research/Rates. Worldometer.com

Graph 2. BTP correction in context: BTP Bund vs credit spreads



Source: SG Cross Asset Research/Rates.

The policy response to address the economic consequences of the outbreak is welcome but will be insufficient, in our view. The Italian government has pledged €25bn to cushion the hit from the pandemic, and the European Commission has published a set of new EU-wide measures: assistance in health care systems, SMEs and hit sectors, more coordinated national responses and waiving of fiscal rules and regulations to allow for capital to flow to affected sectors and businesses. The ECB also took important steps to incentivise more bank lending by offering better terms under the TLTRO3, in some cases funding banks below the deposit rate of -0.50%. This will make banks more likely to renew credit lines to troubled sectors and SMEs, or even increase lending where possible. A further €120bn destined to APP will also help BTPs, on the margin, even if the ECB has a clear intention to skew this towards the private sector. However, investors who were hoping for more positive rhetoric for BTPs were bitterly disappointed after President Lagarde's comment that the *"ECB is not here to close bond spreads"* during the press conference. While this may have been an overreaction from an unfortunate communication "glitch" (other ECB governing council members qualified these comments one day later), it shows investors are feeling uneasy about BTP prospects.

Table 1. Credit rating calendar for Italy in 2020

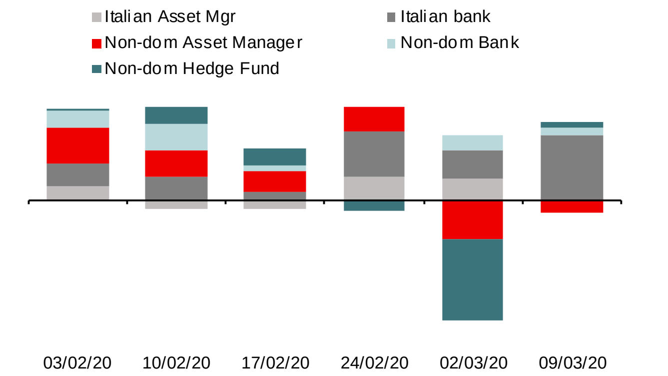
Italy	
Date	**Agency**
07-Feb	Fitch
24-Apr	S&P
08-May	Moody's
08-May	DBRS
10-Jul	Fitch (2)
23-Oct	S&P (2)
30-Oct	DBRS (2)
06-Nov	Moody's (2)
04-Dec	Fitch (3)

Source: SG Cross Asset Research/Rates

Likely BTP driver: perceived deterioration in credit metrics

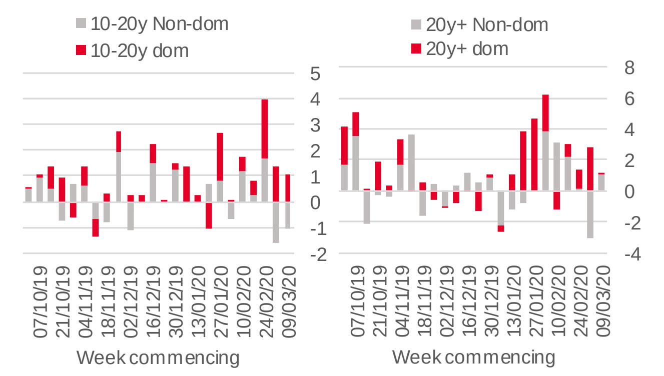
A perceived deterioration of credit metrics could take place over the coming weeks. A rapid deterioration in the growth outlook can lead to an increase in the deficit. Our economists had predicted a 2.2% deficit for 2020 a few months ago, but they now expect a number closer to 3.4%. Considering the growth dynamics and debt servicing costs, they expect debt/GDP to deteriorate from 135% to 140% over time. Italy is rated Baa3 by Moody's (stable) and BBB (negative outlook) by S&P and Fitch. While Italy is only one notch (Moody's) to two notches away (S&P, Fitch) from becoming sub-investment grade, we do not expect such a move in the near term (see calendar). We think agencies will want to see more evidence about the impact from the coronavirus and gather more information on the policy response. Regardless, the risk of a downgrade is likely to feature as a key risk for investors over a 6m horizon.

Graph 3. Non-domestic asset managers have turned modest net sellers in the past two weeks



Source: SG proprietary trading data – week commencing 9-March includes data through 11 March

Graph 4. Net purchases of 10y+ BTPs by domestic and non-domestic investors; actual/average weekly flow since Apr-2018



Non-domestic investors are a key driver for yields and spreads. Following extensive buying in early 2020, they have started to pare down Italian risk. Until we see a stabilisation, spread vol is likely to remain elevated, keeping investors at bay. With the ECB not sounding reassuring to BTP investors, we do not see what can short-circuit this dynamic. We are not sure that a coordinated fiscal response will be sufficient to turn these perceptions but will revisit our views in the event of something more radical on this front. **We recommend tactical shorts in 10y BTP vs Bunds or vs OATs**, targeting at least the wides of 2019 (285-300bp for BTP-Bund).

BTP 10-30 to flatten vs Bund and in absolute terms. 30y BTPs should remain relatively more defensive, with a higher value given to convexity in a volatile environment. Meanwhile, the 10y could be under sustained pressure from futures-driven selling and is likely to be much more volatile. With BTP 10-30 around 60bp, we see more downside to this spread from further corrections in BTPs (not forgetting that this curve went to 40-60bp during the Italian mini-crisis of 2018). This also argues for **outright BTP 10-30 BTP flatteners** as well (directional to higher BTP yields).

US RATES

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Treasury yields will likely decline to new lows before a gradual rebound later this year if conditions improve. The Fed cut rates to the zero lower bound (ZLB) and announced $700bn in asset purchases. Policymakers are keen to do whatever it takes to counter the effects of the coronavirus. Monetary and fiscal stimulus will likely have the desired impact when virus fears abate. Hence, we retain our long duration bias over the near term but expect Treasury yields to trade in line with fundamentals as we get through risks over the near to medium term.

Recommendations

Retain a long duration bias. Yields are likely to decline to new lows before gradually reversing course later this year.

Yield curve to bull flatten over the near to medium term and bear steepen later in the year as conditions improve.

Buy USD 6m10y ATMF/A+25/A+50 1x2x1 notional payer strike fly at 3.6bp running premium.

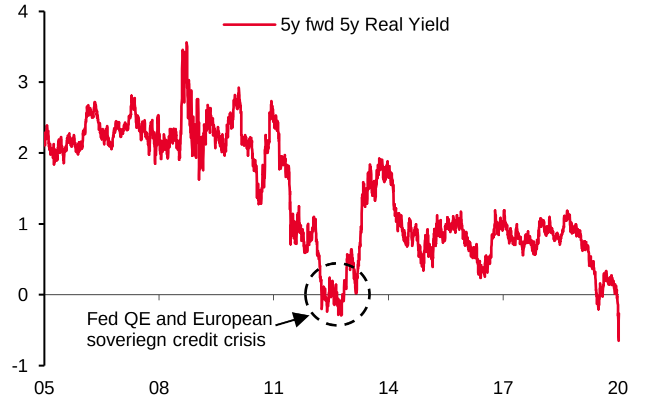
Playing it safe

With the dramatic decline in Treasury yields, the bond markets are now pricing the potential for a meaningful slowdown in growth leading to a global recession. The Fed responded by cutting rates to the ZLB and announced $700bn in asset purchase. The sharp decline in the 10y real yield below -20bp and the 10y breakeven to below 100bp must be a concern for policymakers, especially when there is little room to cut rates further and monetary policy is mostly ill-suited to respond to this unique crisis. Whether or not it is warranted, the Japanification of the US curve seems to be well underway, as investors are shunning risky assets and pouring money into bonds.

Caution to prevail

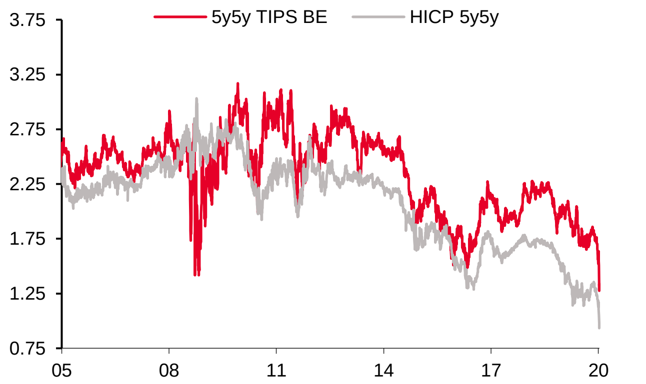
Looking beyond the near-term market reaction to coronavirus fears, which could potentially be a shock that can normalise in a couple of quarters, we attempt to gauge the market's expectations for long-term growth by focusing on the 5y forward 5y real yield. Not only is the 5y forward 5y real yield currently negative (-8bp), it also briefly reached an all-time low last week, just under the previous low in 2012 (**Graph 1**). Note that the 2012 low was reached during the Fed's undertaking of QE and the European sovereign credit crisis. In this context, the rates market is currently already pricing in an extremely pessimistic outlook for long-term growth. Hence, for real yields to settle meaningfully lower than here would require prolonged recessions in the US and globally.

Graph 1: With 5y fwd 5y real yield briefly touching historical low and negative, the market is already pricing for dire growth



Source: SG Cross Asset Research/Rates, Bloomberg

Graph 2: 5y forward 5y TIPS breakeven is similarly depressed and below its long-run historical low



Source: SG Cross Asset Research/Rates, Bloomberg

Forward-looking inflation expectations (5y forward 5y TIPS breakeven) are similarly depressed and below long-run historical lows, which coincided with a recession (2008) and oil shock (2016) (**Graph 2**). Although the 5y5y TIPS breakeven is intended to neutralise oil shocks, it can certainly reach new lows, with the sharp decline in oil prices in the context of global demand destruction and financial stability concerns. Hence, the 10yT yield will likely test new lows before the positive impact of significant monetary and fiscal stimulus is felt by the global economies as risk sentiment improves.

Voicing reason

While we live in unprecedent times amid unquantifiable uncertainties, we believe global monetary policy easing and targeted fiscal easing could have the desired impact over time. Our China economists continue to expect the outbreak to be contained over the coming quarters and for full-year growth in China to be in the 5.2-5.6% range, relative to their pre-virus forecast of 5.9% (see Country briefing – China for detailed forecasts). Our central scenario is for a rebound in 2H, which supports our forecast of a gradual normalisation of fundamentals and modestly higher bond yields.

To be clear, there are considerable uncertainties around our US and global growth forecasts as global economies work through what could potentially turn out to be prolonged supply and demand shock. Hence, we suggest retaining a long duration bias until virus fears abate. To position for modestly higher yields in the second half of the year with limited downside, we recommend **buying a USD 6m10y ATMF/A+25/A+50 1x2x1 notional payer strike fly at a 3.6bp running premium** (mid-model pricing, ATMF: 0.871%, spot: 0.851%). The trade has a terminal profit region between 0.907% and 1.335% and an attractive maximum payoff ratio of 6.9x by monetising the elevated level of short-dated implied swaption vol. The trade's potential loss is limited to the premium paid, which is a favourable feature given the uncertainties in both the ultimate extent of the coronavirus and corresponding market repricing.

FX - THE DOLLAR'S CYCLE TURNS OVER

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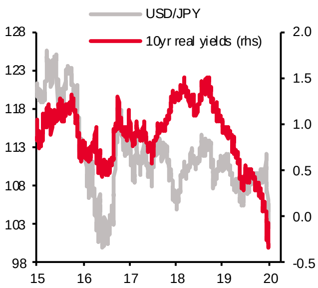
USD-JPY and real yields



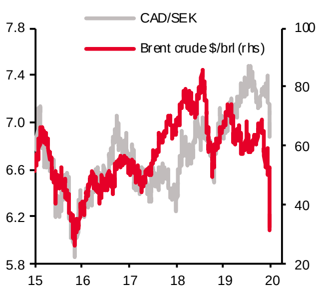
Source: SG Cross Asset Research

The coronavirus pandemic has triggered sharp falls in global equity indices and even bigger falls in government bond yields over the last month, led by an astonishing 90bp fall in 10-year yields in the US. For the FX market the reaction has, for the most part, been for traditional beneficiaries of low yields and risk aversion, to benefit. The yen is the clear winner, ahead of the swiss franc and the euro. The biggest losers over this period have been oil-sensitive currencies, with the Norwegian krone falling against the rest of G10 while the Mexican peso is the weakest currency overall. A reminder that while the spread of the virus is the biggest global economic shock the world faces in the short term, the fall in oil prices is as important for the FX market. We expect oil prices to remain depressed and have no appetite for buying oil-sensitive currencies but maybe the biggest legacy of the collapse of bond yields will be that US economic outperformance will be blunted for a while, interest rates will converge further and the dollar's 10% trade-weighted gain since the start of 2018 will be reversed.

Recommendations

Short USD-JPY
Long CAD-SEK
Short EUR-GBP

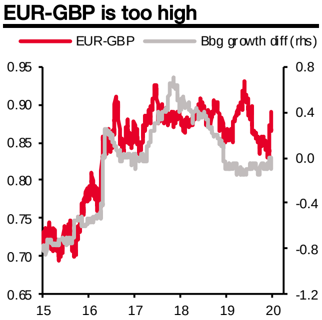
CAD-SEK and oil – just wrong



Source: SG Cross Asset Research

Virus heads west from Asia to North America. We have learned that the virus has been no easier to control in Europe than in China and indeed, even if Asia isn't fully back to business yet, it seems the peak of the health crisis is in the past there. By contrast, it is spreading quickly in Europe and the US. The Australian dollar initially fell further as the Chinese economy, regional trade, and resource prices were impacted. The Canadian dollar, by contrast, was more resilient. We like shorting CAD, which hasn't yet priced in the full scale of the epidemic, or the full effects lower oil prices, relative to the two Scandinavian currencies, NOK and SEK, the Japanese yen, or even the Australian dollar, which has been hit by a series of negative shocks in recent months, but does have support from current account and budget surpluses. Buying the Australian dollar feels a little like catching a falling knife and getting the absolute low right is as much luck as analysis, but on a longer-term horizon, it has fallen too far. Short CAD/SEK though, is our pick here.

EUR-GBP is too high



Source: Bloomberg; SG Cross Asset Research

In Europe, the euro has bounced from oversold levels as short positions, both speculative and used for funding longs in higher-yielding currencies, have been flushed out. But lack of a co-ordinated EU fiscal response will hamper growth and the ECB's ability to offset the inevitable demand shock is limited. By contrast, in the UK the Bank of England the Chancellor have worked hand in hand to come up with a robust, co-ordinated fiscal response. Markets have been slow to react to this, but while sterling will continue to be buffeted by headlines as trade talks with the EU continue and is weighed down by a big current account deficit, the current level of EUR/GBP offers a good opportunity to buy sterling, against both euro and dollar. The chart shows the evolution of the consensus forecast growth differential, against the exchange rate. The recent move looks wrong to us.

EM FX

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EM currencies have been weaker during the recent episode of financial market stress and have priced in some of the bad news – but not all – that could be forthcoming in the coming weeks or quarters. We continue to believe that volatility (too low) and currencies (too strong) are mispriced and do not adequately compensate investors for growing tail risk scenarios. Lower oil prices, US recession risks, and growing chances of more financial market stress argue for a bearish stance. We remain buyers of dollars and volatility on dips, especially to end 2Q, and at least until the global growth cycle can show signs of a durable uptrend.

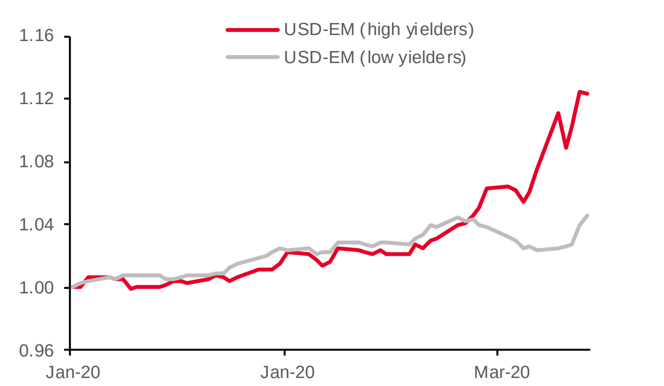
Recommendations

Asia: Long IDR 3x12, long JPY-KRW, long USD-TWD
EMEA: Long USD-ZAR call, long EUR-HUF, long EUR-CZK call
LATAM: Long USD-BRL and long USD-COP

Not all the bad news is priced in. Emerging market currencies have weakened alongside the re-rating of global risk assets. However, a sharper and more protracted growth slowdown, US recession, and downside risks to oil are not fully priced in. As such, we do not feel that currencies are adequately pricing in our economists' and commodity strategists' base case scenario of a temporary hit to growth from the coronavirus, and especially not the risk scenario that it impairs growth into 2H or more heightened stress develops across risk assets. We expect EM currencies to fall another 5% this year with asymmetric downside risks (i.e. 10-15% decline if risk assets come under additional significant pressure).

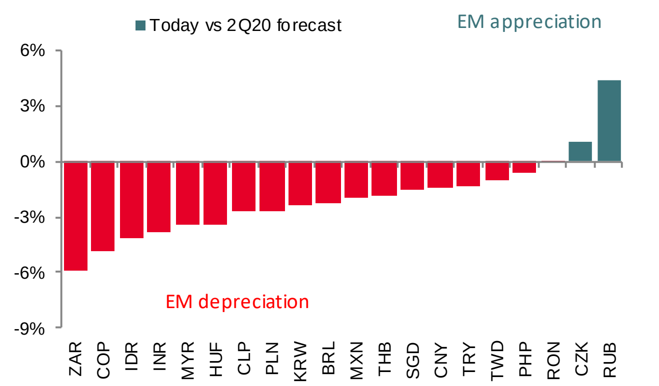
Winners and losers. Current account deficit countries are most susceptible to episodic large-scale depreciation pressures if risk assets fall further, especially those exposed to oil prices. Caution is warranted in currencies such as BRL, COP, MXN, IDR, INR, ZAR and TRY, until market volatility subsides. Current account surplus currencies, especially those in Asia, should outperform during market stress scenarios. Like in past episodes of severe market stress, Chinese policymakers' preference will be stability in the renminbi, which helps to anchor low yielding Asian currencies relative to global peers. While some CEE currencies like PLN and HUF may outperform the USD, they will remain under pressure against the EUR in the near term.

High yielders under pressure



Source: SG Cross Asset Research/EM. Bloomberg. High yielders (RUB, MXN, ZAR, TRY, BRL, INR, IDR) and low yielders (KRW, CNY, SGD, THB, HUF, PLN, CZK, CLP)

More weakness to come in the next quarter



Source: SG Cross Asset Research/EM. Bloomberg. Performance measures against USD, except for PLN, CZK, HUF, and RON which are measured against EUR.

LOCAL CURRENCY BONDS

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Bond yields have risen sharply in most countries during the past week, despite fundamentals (growth and inflation) arguing for lower yields. This dislocation reflects the stress in global markets and downward pressure on currencies and signifies the bond markets have priced in a lot of bad news. Our economists' and oil strategists' base-case-scenario is for weaker growth and lower prices in the short term, which should help most bond markets realign with fundamentals. However, selectivity remains necessary to protect against the possibly of additional weakness in currencies and risk assets.

Recommendations

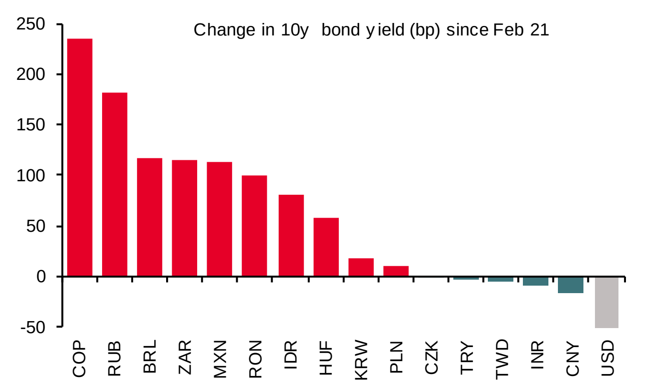
Underweight: Brazil and Turkey
Overweight China, Korea, Hungary, Poland, and Czech Republic

EM yields surged higher as equities and FX came under pressure. Despite a weaker growth (coronavirus) and inflation (oil) outlook, bond yields in most EM markets jumped sharply in the past week alongside sizeable currency depreciation and global investors fleeing riskier assets. This usually only happens in periods of extreme market stress.

What is priced in? EM bond markets are pricing in lower growth and inflation but there is substantial risk premium related to market stress and currency depreciation. However, the market has not priced in the worst-case scenario relative to our economists' pessimistic outlook of a deeper growth downturn and the crisis extending beyond the short term. This presents opportunities but also argues for being cautious in certain markets.

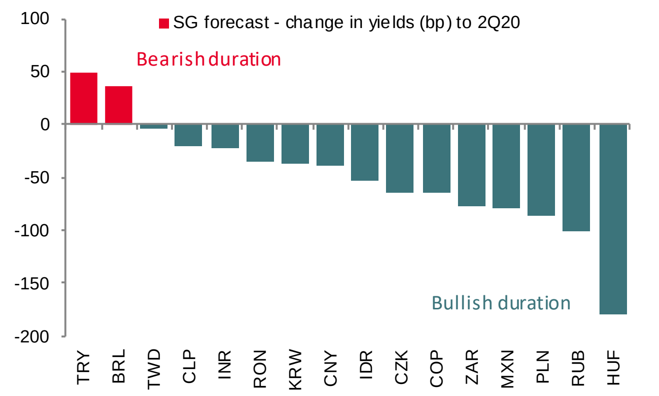
Selectivity is warranted. Our fair value framework for EM bonds incorporates growth, inflation, FX, and foreign yields. US yields have already fallen a lot, but weaker medium-term growth (coronavirus and US recession) and inflation (lower oil) should push equilibrium yields lower on average. Despite our fundamental views arguing for lower yields in some high yielding markets, the risk of larger financial stress is elevated and warrants a cautious approach in Turkey and Brazil. We would also avoid, for the time being, countries with current account deficits or dependent on oil. We prefer overweight exposure in low-yielding markets (i.e. China, CEE, Korea) that are more insulated from risk-off developments and where yields are more likely to follow fundamentals lower.

EM yields went up despite lower UST yields since Feb 21



Source: SG Cross Asset Research/EM. Bloomberg

Fundamentals should push yields lower over the next quarter



Source: SG Cross Asset Research/EM. Bloomberg.

SOVEREIGN CREDIT

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Sovereign credit spreads have widened significantly in the past month, consistent with our year ahead outlook and the large risk-off decline in US 10y yields and surge in equity volatility. While the sovereign credit market has priced in a lot of bad news, there is not enough risk premium to warrant overweight exposure. We do not believe the market has factored in more extreme outcomes of the coronavirus lasting beyond midyear and a US recession (i.e. elevated equity vol and lower US 10y yields). For now, we remain underweight, but if spreads widened to 600-650bp it would be enough to compensate for downside risk scenarios and warrant switching to overweight exposure.

Recommendations

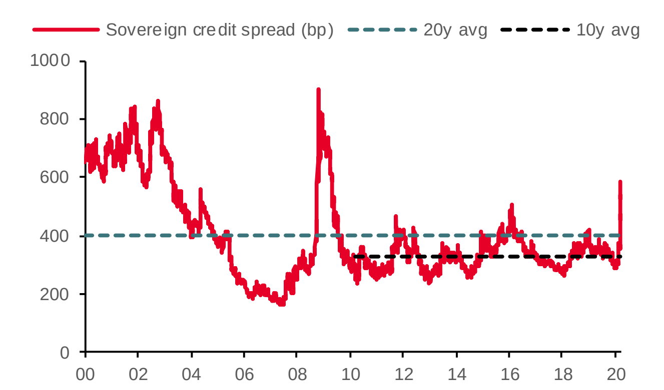
Underweight sovereign credit
Switch to overweight exposure if spreads rise to 600-650bp

Spreads have surged in the past month. In our 2020 outlook (Endgame) we forecast spreads to widen by 65bp in 2020 based on our macro assumptions of lower US 10y yields and a higher VIX. In the past month spreads have widened by 270bp and are 250bp above the 10-year average, 190bp above the 20-year average, and above the past decade's peak.

Direction of spreads is consistent with other asset classes. The directional widening of spreads is consistent with the large downward adjustment in US yields and the VIX rising to panic levels. Spreads are trading around 40bp above (i.e. cheap) to fair value, which is marginal in the current situation considering the valuation gap would be eliminated if the VIX rose or 10y yields fell slightly.

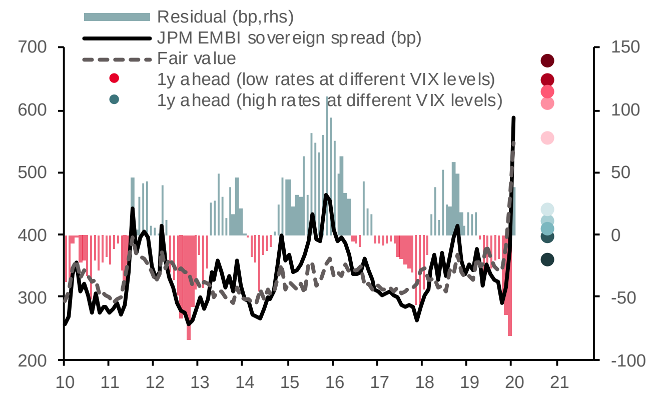
Scenario analysis shows wide dispersion. Sovereign spreads are especially sensitive to the level of 10y US yields and also equity volatility. If US 10y rates approach 0%, spreads should widen out in all medium-term VIX scenarios (between 15-45), but if US 10y yields adjusted higher to levels prior to the coronavirus outbreak, spreads should narrow. The market has priced in our economists' baseline view of an eventual V-shape recovery, Fed policy remaining at the ZLB, and depressed 10y yields (albeit higher than current levels) – but not a scenario (longer and deeper growth downturn) that could see US 10y yields fall further and stay depressed.

Sovereign spreads above long-term averages



Source: SG Cross Asset Research/EM. Bloomberg. JP Morgan EMBI Diversified sovereign spread index (JPEIDISP Index).

Scenario analysis for sovereign spreads



Source: SG Cross Asset Research/EM. Bloomberg. JP Morgan EMBI Diversified sovereign spread index (JPEIDISP Index). Low rate scenario assumes 10Y = 0.1%, 3M LIBOR 0.25%. High rate scenario assumes US 10y & 3m LIBOR = 1.5%. VIX levels of 15, 25, 30, 35, 45.

Report completed on 17 Mar. 2020 9:51 CET

APPENDIX

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Michael Chang's historical MAD2MAR recommendations over the past 12 months.

Subadra Rajappa's historical MAD2MAR recommendations over the past 12 months.

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BUY: absolute total shareholder return forecast of 15% or more over a 12 month period.

HOLD: absolute total shareholder return forecast between 0% and +15% over a 12 month period.

SELL: absolute total shareholder return forecast below 0% over a 12 month period.

Total shareholder return means forecast share price appreciation plus all forecast cash dividend income, including income from special dividends, paid during the 12 month period. Ratings are determined by the ranges described above at the time of the initiation of coverage or a change in rating (subject to limited management discretion). At other times, ratings may fall outside of these ranges because of market price movements and/or other short term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by research management.

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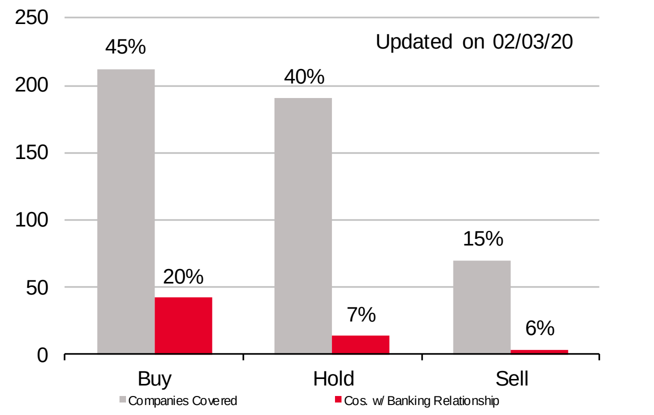
OVERWEIGHT: sector expected to outperform the relevant broad market benchmark over the next 12 months.

NEUTRAL: sector expected to perform in-line with the relevant broad market benchmark over the next 12 months.

UNDERWEIGHT: sector expected to underperform the relevant broad market benchmark over the next 12 months.

The Preferred and Least preferred stocks are selected by the covering analyst based on the individual analyst's coverage universe and not by the SG Equity Research Strategist.

Equity rating and dispersion relationship



Source: SG Cross Asset Research/Equity

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CREDIT OPINION
POSITIVE: Indicates expectations of a general improvement of the issuer's credit quality over the next six to twelve months, with credit quality expected to be materially stronger by the end of the designated time horizon.
STABLE: Indicates expectations of a generally stable trend in the issuer's credit quality over the next six to twelve months, with credit quality expected to be essentially unchanged by the end of the designated time horizon.
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INDIVIDUAL BOND RECOMENDATIONS:
BUY: Indicates likely to outperform its iBoxx subsector by 5% or more
HOLD: Indicates likely to be within 5% of the performance of its iBoxx subsector
SELL: Indicates likely to underperform its iBoxx subsector by 5% or more

INDIVIDUAL CDS RECOMMENDATIONS:
SG Credit research evaluates its expectation of how the 5 year CDS is going to perform vis-à-vis its sector.
SELL: CDS spreads should outperform its iTraxx sector performance
NEUTRAL: CDS spreads should perform in line with its iTraxx sector performance
BUY: CDS spreads should underperform its iTraxx sector performance

SECTOR WEIGHTINGS:
OVERWEIGHT: Sector spread should outperform its iBoxx corporate index
NEUTRAL: Sector spread should perform in line with its iBoxx corporate index
UNDERWEIGHT: Sector spread should underperform its iBoxx corporate index

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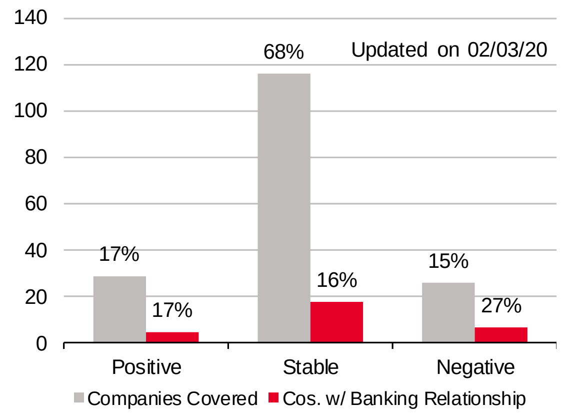
CREDIT OPINION AND DISPERSION RELATIONSHIP



Source: SG Cross Asset Research/Credit

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