



LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION

ISSUE 9 • March 2020



**FOR PROFESSIONAL
CLIENTS ONLY**

CIO SUMMARY

Introduction

Welcome to the ninth edition of the LGPS Central Limited ("LGPSC") Tactical Asset Allocation ("TAA") Report. Sadly, this is being written from home during the coronavirus outbreak with the subsequent restrictions that have affected us all and have had a large impact on pension funds and asset allocation in the last three months. We hope that you, family and friends are safe in this most challenging environment.

I'm pleased to say that LGPSC is open for business as usual, supported by a tried and tested business continuity plan and the excellent work from Adam Nielsen, LGPSC's Head of IT, to keep all our systems up and running. New fund launches (e.g. the Corporate Bond Fund launched at the end of March) and Investment Services continue to be built out. We remain at your service and welcome any questions you may have in these difficult times.

Summary of Strategy Thoughts

The last three months have seen unprecedented moves in markets. US 10y Treasury yields dropped by 136bps in the quarter at worst and Swiss Government bond yields hit a low of -1% for anyone looking to be **paid interest** to take out a mortgage! The global equity market was down 25% at the lowest point of the crisis with the UK equity market faring particularly poorly, down 35% at the worst point. The "fear" built into markets as displayed by the VIX index was clearly apparent when it reached a new high of 83, combined with extremely negative sentiment indicators as investors fled from risky assets. Governments, led by the UK, have initiated huge spending plans and monetary easing to try to address the struggling economy.

The world economy was already faltering ahead of the coronavirus outbreak and subsequent Government restrictions. The world is now clearly in recession with developed economies looking to 10%+ unemployment and possible double-digit declines in GDP. Any outlook for investment markets needs to consider whether markets are pricing in this slowdown. Monetary and fiscal stimulus from the Government and the shape of any recovery will have a major bearing on the next move in markets. We build all these factors into our TAA model which drives our investment recommendations.

We published two interim TAA updates in the last quarter on 28th February and 17th March, both suggesting that the model positioning would be switched to more risky assets. A full re-run of the model has shown this to be the case. The last TAA report and subsequent interim updates can be accessed via CILLA.

We are upgrading growth assets to **strongly overweight** from our neutral position at the end of 2019. Key changes are improved outlooks for Private Equity and European and Emerging Market equities. We remain very cautious on US equities given the high valuations and poor economic outlook. Outside China, the US has been one of the best performing equity markets in the last quarter.

We are downgrading stabilising assets to a **significant underweight** given the extraordinary moves and yield returns that fall a long way short of pension fund return requirements.

Income assets remain at overweight, but the liquidity and valuation concerns push Infrastructure and Property into underweight territory. Risky liquid assets such as EMD and Credit are moved up to **significantly overweight**.

On factors, the model has a **significant overweight position in value** at this point, remaining overweight in growth assets but more cautious on low volatility and quality. On currencies we remain positive on the outlook for Sterling and fear that the US dollar could weaken from here.

The risk section of this report is clearly focused on the COVID-19 risk. Other risks highlighted include the risk of Government fiscal and monetary policy actions and added liquidity as a risk.

In this edition of the TAA report we have added a special feature from Laura Michie on "Introducing LGPS Central's Climate Risk Model".

The Quarterly Stewardship Report will be shared with you separately in mid-May.

Please read on for a more detailed analysis of our views.



Jason Fletcher (CIO)

LGPS CENTRAL LIMITED'S VIEW ON WEIGHTINGS

The following table provides a summary of our view on the 6-18 months tactical positioning horizon.

Table1: Weightings ▲ Upgraded, ▼ Downgraded compared to previous quarter

	Significant Underweight	Underweight	Neutral	Overweight	Significant Overweight
Estimated Probability	80-70%	70-65%	55-45%	70-65%	70-80%
BROAD ASSET CLASS	Stabilising ▼			Income	Growth ▲
GROWTH ASSET CLASS	US Equities			UK Equities, Commodities, Asia Pac Equities, GEM Equities, ▲ Private Equity ▲	Japan Equities, EU Equities ▲
INCOME ASSETS	Property ▼	Infrastructure ▼			Credit, ▲ EM Debt ▲
STABILISING ASSETS	JP Bonds, Index-Linked, ▼ EU Bonds ▼	UK Bonds ▼		Gold, US Bonds ▼	IG Bonds ▲
INVESTMENT STYLES	Low Volatility	Momentum, Quality/ESG ▼	Size ▲	Growth ▲	Value ▲
CURRENCIES		US Dollar	Euro, Yen	GBP	

LGPS's view on "Weightings":

- LGPSC changes Growth Assets to significant overweight from Neutral, remains overweight Income Assets and increased underweight to Stabilising Assets.
- Growth Assets have very attractive valuations after recent market falls and are supported by positive sentiment.
- Stabilising Assets have done well. LGPSC's outlook remains cautious on those but notes that they can provide downside protection in times of recession.
- LGPSC prefers exposure to Income Assets as an alternative to Stabilising Assets where yields and expected returns, combined with a low correlation to those riskier Growth Assets, will provide better diversification.

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

BROAD ASSET CLASSES

Table 2: Growth/Income/Stabilising Assets

	Model Score ¹	View	Investment Notes
GROWTH	6	Overweight	Upgraded from Neutral to Overweight, based mainly on cheap valuations and sentiment being favourable. Market risk improved after recent market falls.
INCOME	1	Overweight	Remains safe income in economic downturn, valuation looking slightly less attractive but positive sentiment remains.
STABILISING	-4	Underweight	Reiterate low/negative expected return, remains expensive, but could provide protection in a recession

Table 3: Historical Annualised Returns in local currency (* except for the 3 months, where total return is used)

	3 months*	One year	Three years	Five years	Ten years	Twenty years	Bloomberg Ticker
GLOBAL EQUITIES	-21.3%	-12.3%	1.4%	3.1%	6.2%	3.3%	FTAW01 Index
PRIVATE EQUITY	-29.1%	-11.7%	-0.9%	5.7%	8.1%	NA	IPRV LN Index
PROPERTY	-23.3%	-15.6%	0.2%	2.1%	8.5%	10.1%	REIT INDEX
INFRASTRUCTURE	-29.2%	-20.9%	-3.2%	-0.4%	4.2%	NA	SPGTIND Index
HIGH YIELD	-13.6%	-6.6%	0.1%	3.1%	7.2%	9.1%	HL00 Index
UK GILTS	6.8%	11.7%	5.3%	5.1%	6.3%	5.8%	GOL0 Index
UK INDEX-LINKED	1.7%	6.5%	4.2%	6.6%	8.2%	6.9%	GOLI Index
GOLD	11.0%	32.4%	9.7%	10.1%	5.9%	10.5%	XAUGBP Currency

Source: Bloomberg (NB: assumes dividends were reinvested). Note: Listed proxies have been used for Infrastructure, Property and Private Equity.

Table 4: Correlation Matrix (5 year historical correlation)

	FTSE All World AW TR GBP	iShares Listed Private	DJ REIT	S&P Global Infra	Sterling High-Yield	UK Gilt	UK Inf-Link Gilt	XAUGBP Index
GLOBAL EQUITIES	1	0.779	0.727	0.855	0.681	-0.078	0.113	-0.148
PRIVATE EQUITY		1	0.612	0.715	0.637	-0.008	0.166	0.094
PROPERTY			1	0.83	0.616	0.249	0.362	0.052
INFRASTRUCTURE				1	0.720	0.171	0.301	0.063
HIGH YIELD					1	0.064	0.223	-0.130
UK GILTS						1	0.807	0.467
UK INDEX-LINKED							1	0.376
GOLD								1

Source: Bloomberg Note: listed proxies have been used for Infrastructure, Property and Private Equity

LGPS's view on Broad Asset Classes:

- LGPSC favours Growth Assets due to significant attractive valuations, a recessionary environment and recent market falls which present a cheap opportunity to pick up Growth Assets and benefit from a recovery of the economy in 2021. Income Assets remain important as a diversifier to portfolios, but we prefer certain geographies over others. Stabilising Assets can be allocated to the portfolio for the same reason, but we remain underweight given their poor valuations and low expected returns and we favour Income Assets. Recent correlations have shown a much less diversifying impact to Growth Assets compared to 2008 as correlations between assets have been close to zero this time around compared to being negative in 2008.
- Equity markets have seen the sharpest drops this century with the VIX rising as high as 83, a level which has not been seen even during the 2008 financial crisis. This has impacted the return of most asset classes over the last three, five, ten and twenty years but is expected to improve with the economic recovery.

¹ Refers to LGPSC model as described on page 7

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

GROWTH ASSET VIEW

Table 5: Growth Assets

	Model Score ¹	View	Investment Notes
UK Equities	2	Overweight	Overweight driven by attractive valuations and sentiment, however negative currency impact due to strong outlook for Sterling.
NORTH AMERICA Equities	-3	Underweight	Remains underweight due to sentiment and economic outlook, as well as increased market risk over coronavirus and political uncertainty.
EUROPE Equities	4 ▲	Overweight	Upgrade to strong overweight, due to attractive valuations after recent market falls and being unloved.
JAPAN Equities	6	Overweight	Remain strong overweight supported by valuations, sentiment and economics; currency impact is neutral.
ASIA PAC Equities	2	Overweight	No change, economic growth potential, sentiment remains neutral, potential to pick up after recession.
GEMs Equities	1 ▲	Overweight	Upgraded to overweight from underweight due to potential for pick up after recession.
PRIVATE EQUITY	1 ▲	Overweight	Moved from underweight to overweight due to buying opportunities in the current recessionary environment which can provide attractive entry levels.
COMMODITIES	1	Overweight	Recent commodity price declines provide better value with the possibility of supply shortages. Provides no yield, but can be added as a diversifier and potential inflation hedge.

LGPSC's view on Growth Assets:

- The main change across Growth Assets is cheaper valuations which has changed the model weight for most Growth Assets and has had a pronounced impact on our asset view.
- We are overweight for most regional Growth Assets, except for North America, which in comparison has less attractive valuations and the most market risk due to uncertainty.
- Japan remains the favoured equity market, followed by Europe.
- After Q1 20 it seems markets have stabilised following their recent falls, with the VIX also coming down from its earlier highs, however further falls (albeit less likely) could still push markets down further.

INCOME ASSET VIEW

Table 6: Income Assets

	Model Score ¹	View	Investment Notes
CREDIT	4 ▲	Overweight	Change from Underweight to Overweight due to attractive valuations, selective positive sentiment as can be sensitive to volatile oil price.
EMERGING MARKET DEBT	5 ▲	Overweight	Change from Neutral to Overweight for same reasons as Credit and potential pick-up in recovery.
PROPERTY	-4 ▼	Underweight	Relative value, inflation protection, sentiment remains negative and high investment costs. Increased market risk due to current uncertainty.
INFRASTRUCTURE	-1 ▼	Underweight	Downgrade from Overweight to Underweight due to increased uncertainty. Renewables & sustainable exposure is a positive for Infrastructure.

LGPSC's view on Income Assets:

- For the first time since issuance of the LGPSC Tactical Asset Allocation report, Income Assets are still Overweight but are no longer our favourite broad asset class due to recent market falls and an economic change of direction.
- We prefer Credit and Emerging Market Debt over Property and Infrastructure due to their pickup potential and lower market risk. In addition, with recent market moves, illiquidity has also become a key risk topic (see the risk section) which can impact on the attractiveness of an asset class.

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

STABELISING ASSET VIEW

Table 7: Stabilising Assets

	Model Score ¹	View	Investment Notes
UK BONDS	-2 ▼	Underweight	Negative outlook for UK bonds based on valuations and sentiment as well as the recent rate change, and hence downgraded to strong underweight.
INDEX-LINKED	-3 ▼	Underweight	Similar to UK bonds and concerns about long duration/interest rate leverage.
US BONDS	2 ▼	Overweight	Remain favourite Stabilising Asset and expected to do well in current recessionary environment.
JP BONDS	-5	Underweight	Unchanged: poor valuation and negative impact of Japanese economic cycle.
EU BONDS	-3 ▼	Underweight	Remains underweight due to unattractive valuation, economic outlook and sentiment.
IG CORPORATE BONDS	3 ▲	Overweight	Improved valuations and sentiment support strong overweight.
GOLD	1	Overweight	Favoured Stabilising Asset, when we do not like other Stabilising Assets, potentially safe haven.

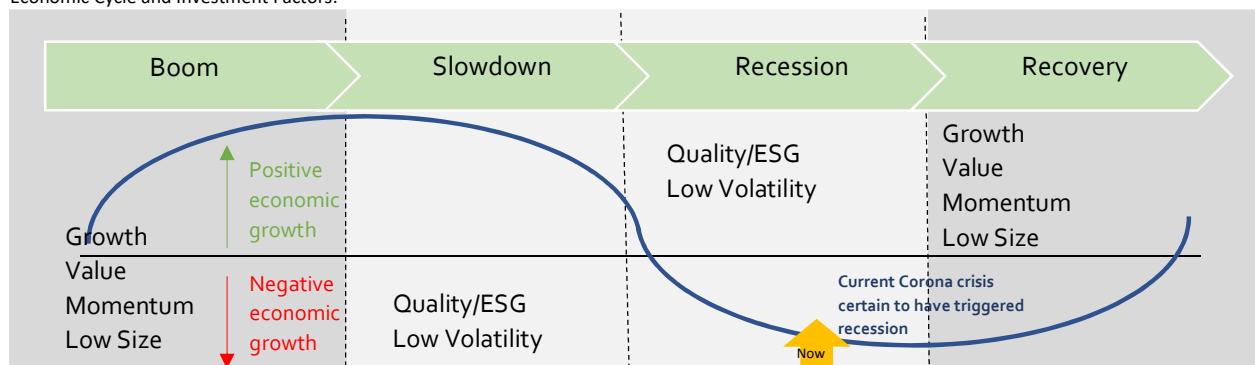
LGPSC's view on Stabilising Assets:

- Regionally, LGPSC remains Underweight for all but North American Stabilising Assets mainly based on the low/negative yields but recognises that they should represent a proportion of the portfolio given the downside protection they can offer, especially in the recent volatile market environment.
- We also move IG Corporate Bonds to a significant Overweight due to valuations and their potential based on current sentiment.
- Gold offers good diversification and a safe haven in turbulent markets and protects against political and economic risks.

INVESTMENT FACTORS (EQUITIES)

Factor Based investing provides a way of potentially adding outperformance relative to a market-cap-based approach at a much lower cost than active investing. It recognises that the market-cap-based index does not provide the best risk-adjusted return for a portfolio given its natural overweight to momentum, large cap and expensive stocks. In the following factor model, we have taken the seven factors of value, growth, income growth, size (small cap), ESG, low volatility and momentum and then applied the same criteria we use to consider other asset classes in our model assessing each factor for valuation, sentiment, economic suitability, risk suitability, investment cost and currency. Investment cost in factor-based investing is low relative to the other asset classes, though the momentum factor (given their higher turnover) and ESG factors (given their higher index costs) are both scored neutral. Given all strategies are global, the currency scores are all neutral. Note that ESG and quality share similar characteristics. Climate change as a factor is little correlated to specific economic cycles given its long-term investment impact horizon of 10-20 years. The graph below summarises the preferred overweight factor(s) depending on the various stages of the economic cycle.

Economic Cycle and Investment Factors:



LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

FACTOR ASSET VIEW

Table 7: Investment Factors

	Model Score ¹	View	Investment Notes
Value	6 ▲	Overweight	Very attractive valuations, unloved, but economics now less favourable for value factor.
Growth	2 ▲	Overweight	Poor sentiment and increased risks.
Size	0 ▲	Neutral	Less negative score due to improved sentiment and uncertainty over the economic cycle.
Momentum	-2 ▼	Underweight	Overweight based on current attractive valuation and sentiment.
Low Volatility	-3	Underweight	Poor long-term performance and less attractive after recent market rally and lower sentiment.
Quality/ESG	-1 ▼	Underweight	Positioning in light of potential economic slowdown and protection against market declines, worsening sentiment.

LGPSC’s view on Investment Factors:

- LGPSC’s view on Investment Factors has changed considerably due to the increased certainty over where in the economic cycle we are.
- Our favourite factors change from Quality/ESG to Value and Growth due to their potential in a recovery but we still favour Quality/ESG over Low volatility and momentum. Size (Small cap) becomes more attractive at the depths of a recession.
- Least favoured factors are now Low Volatility and Momentum, mainly due to a sentiment change carried by the recent market rally.

ABOUT LGPS CENTRAL LIMITED’S SCORING MODEL

LGPSC’s model scores each asset class against its valuation, sentiment, economic outlook, market risk, currency and investment cost (scored between -2 and +2). Positive scores suggest strong overweight and negative scores, strong underweight positions. Where a zero is assigned, our view is neutral. The scores for the different assessment areas, e.g. valuation, sentiment etc. are then added to derive the final score for that asset class. Please note that sentiment is measured as to whether an asset class is over-owned or over-loved. We prefer to own asset classes that are under owned and under loved. We are constantly developing this scoring to include other variables such as ESG measures and technical factors.

RECESSION WATCH

The key indicators are coming with a delay, but the real picture starts turning from bad to ugly. Businesses have no visibility on what to expect and some of these have taken drastic steps by laying off staff, with very few hiring, other than those in the distribution/delivery and food retail sectors. The monetary and fiscal stimulus offered by the leading economies seem to have little effect given that the root of the problem is not a financial one but a medical one. Private consumption is slowing down, similar to most business capital investments. Government spending is increasing, however how much it can compensate for the rest is uncertain at the moment. The question is not about if there is going to be a recession, but how deep it will be and how long it will last for.



Source: Bloomberg

LPGS Central Limited View – We see the likelihood of a recession as 100% certain over the next 12 months, and believe we were close to a recession before the Coronavirus hit. 2021 could mark the start of the recovery.

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

Q1 LGPS CENTRAL LIMITED MARKET UPDATE²

The main market event over the quarter was the outbreak of the Coronavirus, also named Covid-19. It originated in Wuhan, China, last December and quickly spread across the rest of the world. Initially, indices in China and Japan reacted negatively as the prospect of China imposing restrictions on travel and limiting economic activity became more apparent. Global markets grew more and more concerned from the negative impact on global supply chains should China impose a wider shut down. Some companies announced they would miss revenue targets due to the impact of Covid-19. Other companies announced cuts or cancellations of dividends. These announcements resulted in significant market sell offs across all major markets. During the quarter, the virus spread significantly across the rest of the world. The US S&P 500 declined by 20.0%, the UK FTSE 100 by 24.8% and Euro Stoxx 50 by 25.6%. Emerging markets followed the developed markets with double-digit declines. MSCI Asia ex Japan Index declined by 18.6%, while the Russian IMOEX Index declined by 17.6%.

The quarter also saw disappointing PMI (company surveys) numbers across China, EU and the US. There were hopes that global trade would recover as the US and China made huge progress in resolving their trade dispute. However, these hopes were soon gone as China entered a lock down to contain the virus. Chinese manufacturing activity slowed down significantly and this has rippled through the globe resulting initially in a supply shock and then later in a demand shock as the virus spread across Europe and the US.

The Michigan Consumer Sentiment Index recorded its fourth biggest drop in history in March, as the US government issued a “stay-home” order. Companies were forced to tell employees to work from home and some industries, like restaurants, had to close and temporarily make staff redundant. The US unemployment claims reached 6 million in a single week. Consumers are buying only essential goods and forgoing big ticket items while the stay-home restrictions are in place. Furthermore, the quarter also witnessed a large upswing in the VIX which reached a high of 83, thereby slightly exceeding the highs of the financial crisis in 2008.

While the coronavirus pandemic was the most significant event during the quarter, there were also some key political events. First, the UK entered the Brexit transition stage with the EU with hopes that a trade agreement can be signed by the 31st of December this year. Second, the former chancellor Sajid Javid resigned and was replaced by the relatively untested Rishi Sunak, formerly at MHCLG, and before that a fund manager at the Children’s Investment Fund and Goldman Sachs. Finally, the quarter witnessed the appointment of the new governor of the Bank of England, Andrew Bailey.

The US Dollar saw a lot of supply and this will undermine its position as a safe-haven currency in the medium and long term. Currently the flight to quality would make some investors prefer the JPY over the USD. The GBP is expected to be the best performing currency compared in order to the JPY, EUR and USD as the worst.

Commodity prices suffered during the quarter with oil being the worst performer. The price of oil declined by 65.6% due to a dispute between Saudi Arabia and Russia on production cuts to support the price of oil. When both governments failed to reach an agreement, Saudi Arabia increased production substantially, pushing oil prices down sharply. The price of oil at the start of the quarter was \$66.00, and by the end of the quarter was \$22.74 per barrel. The Gold price experienced an increase of +4.0% during the quarter.

With equity markets experiencing significant volatility, bond markets experienced significant inflows, driving prices up and lowering yields. The UK 10-year Gilts ended the quarter up 3.8%. This reflected both the monetary easing of the central banks as well as a flight to quality among investors.

Central banks across the globe cut rates in response to the headwinds from Covid-19. The FED cut rates to a target rate of 0%-0.25%. The Bank of England cut rates to 0.1%, the lowest in its history.

² Performance for the quarter measured over period of 31/12/2019 to 31/03/2020

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

Q1 LGPS CENTRAL LIMITED RESPONSIBLE INVESTING UPDATE

The impact of the coronavirus extends to environmental, social and governance factors, and the AGM season. We have written previously about the potential for ESG factors to outperform during market drawdowns and it is interesting to note – albeit with small sample caveats firmly in place – that the MSCI World ESG Leaders index has outperformed the MSCI World index by 50bps (145bps) in the month to 3 April (YTD)³. In addition, the LGPSC Climate based Factor fund outperformed global equities by 150bps in Q1 where Climate, Momentum and Low volatility factors all contributed to that out-performance.

From a corporate governance perspective, the main pandemic-related issues are capital raising, distributions, remuneration, and shareholder voting. National company law usually dictates the period in which a company must hold its AGM and put certain matters to shareholder vote (for UK companies it is six months after the financial year end) so there might be limits on the extent to which AGMs can be postponed and shareholder views expressed. We could see a drawn-out AGM season, or a large amount of ‘bunching’ around end-June. Shareholders have historically been unreceptive to virtual-only AGMs, but leeway might be afforded as a one-off in 2020, or for ‘hybrid’ (in-person and virtual) AGMs. Due procedure requires company articles to be amended to permit AGM format changes and LGPS Central along with its stewardship provider will be keeping a close eye on companies to ensure shareholder rights are not permanently eroded.

Investors will be called to support companies through capital raising and to tolerate a period of low or zero distributions. Active fund managers should apply shrewd judgement. An early example was SSP Group Plc, which deferred the final dividend, scrapped buybacks and the interim dividend, made new arrangements for bank loans and raised equity capital. The problem with raising equity after a drawdown is the high cost of (equity) capital, and companies and investors need to weigh shoring up the balance sheet with the costs of doing so. In the current circumstances, UK equity investors will be under pressure to waive rights of pre-emption (the right of first refusal to existing shareholders for new share issuances), but should be careful to ensure companies do not abuse the current environment or make temporary emergency measures permanent. The Pre-Emption Group’s guidelines have until 30 September been amended to permit raisings of up to 20% of issued capital. When it comes to distributions the banking sector has been prioritised (given capital adequacy concerns) with pressure from the PRA causing large UK banks to cancel both outstanding 2019 dividends and buybacks, and to eliminate cash bonuses to senior staff.

The pandemic will be a good test for the design of remuneration policies, and whether Remuneration Committees are able to exercise discretion to defer executive pay awards until the virus passes. It will also be a test for corporates’ recent embrace of ‘stakeholder capitalism’ (for example the [Business Roundtable](#) or the [Davos Manifesto](#)). Will the costs of the crisis, and any post-crisis gains be public or private? The forced suspension of distributions opens a question as to whether such actions harm faceless HNWIs, or the pension incomes of ordinary people saving for retirement.

Media reports suggest the lockdowns have improved air quality, reduced GHG emissions, and even cleaned up Venice’s canal water. COP26 in Glasgow – along with planned pre-conference policy announcements – has been postponed to an unknown 2021 date. In our view (please refer to our risks table) climate-related risks remain a major uncertainty for long-term investors and any respite in pollution levels or policy announcements is likely to be short term.

³ Insert appropriate risk warning

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

RISK ANALYSIS

Table 8: Risk in order of probability

RISK	LGPSCL Possibility	LGPSCL Impact	Change on quarter	Comment	LGPSCL favoured assets to protect against the risk
CORONAVIRUS	High	Very High	NEW	Governments around the world introduced fiscal policies and central banks ramped up monetary policies aimed at addressing the stress in the economy due to social distancing around the globe. The key risks are a lengthy recession, the measures governments have introduced not showing promised impact on containing the virus and government restrictions on the private sector. In addition, there are concerns regarding the shape of the economic recovery and if potentially the recession could be followed by a depression.	Clients with equity protection should monitor protection levels closely and consider unwinding the protection when maximum protection levels are reached. Selectively investing in Growth Assets and holding a diversified portfolio.
EQUITY DOWNTURN	Medium	Moderate		The probability of a further 20% equity downturn is not very clear as it depends on the length of reduced activity in the economy. Although some technical indicators are signalling a buy for equities, there is still increased uncertainty on corporate earnings, dividend cuts, and the risk of a second wave of a coronavirus hitting, similar to some parts in Asia, adding to the prevailing uncertainty.	Safe haven assets such as government bonds and gold. Renewing equity protection could potentially be very expensive at current high volatility levels and possibly as a short-term measure protection through selling futures more economic.
NO DEAL BREXIT	Low	Medium		Trade negotiations will most likely be delayed due to the coronavirus, and this will significantly reduce the risk of a No Deal Brexit. There is very small risk that some ministers may not be willing to delay, and this would make a trade deal very unlikely.	Current tactical asset allocation will be dominated by the Coronavirus crisis and this risk might become more relevant when the current crisis is under control.
GLOBAL RECESSION	High	High		Indicators point towards entering a global recession as the coronavirus has impacted all major economies. Governments across the globe have introduced stay home orders to contain the spread of the virus and it is uncertain how long those measures will be in place. The uncertainty arises mainly due to the uncertain time entering the recovery phase and the shape of recovery.	Hold a well-diversified portfolio. Once the recession phase is overcome factors such as Size, Growth and Value are expected to perform best.
POLITICAL RISKS	Medium	Medium		US presidential election later this year could lead to a surprise given the current crisis. A less market friendly party and candidate may win the election as a result, voters might turn on the incumbent president post the handling of the coronavirus and the economy. There are concerns regarding social unrest due to how some governments are handling the coronavirus situation.	Overweight protective assets such as Gold, non-Euro assets and reduce US equity exposure.
ISOLATION & PROTECTION/CHINA	Low	Medium		With the current pandemic, protectionism regarding global trade war risks have reduced. Cross-border corporate takeovers may be restricted however, and as EU officials stated companies in EU zone will not be allowed to be bought under market stress conditions.	Current tactical asset allocation will be dominated by the Coronavirus crisis and this risk might become more relevant when the current crisis is under control.
CREDIT RISK/DEBT ISSUES	High	High		High yield bond defaults will likely increase, particularly in the energy and oil sector. Investment grade bond market is in good shape, however with 50% of bonds being rated BBB there is risk of downgrades from IG to HY. Emerging market debt will depend mainly on the price of oil. There is a high probability that the private debt market will suffer more than public debt.	Selective Credit and IG Corporate Bonds.

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

RISK	LGPSCL Possibility	LGPSCL Impact	Change on quarter	Comment	LGPSCL favoured assets to protect against the risk
CURRENCY RISK/ STERLING STRENGTH/US\$ WEAKNESS	Low	Moderate	→	US dollar in high supply will make the dollar the worst performing currency. The flight to quality, which would usually see the dollar up, is now broken and is replaced by the Japanese yen due to cross border currency swaps. Expectation for a long downtrend in the USD. The currency preference will be (in declining order) GBP, YEN, EUR, USD, in particular GBP strength and USD weakness is expected.	Buy GEMs equities, commodities which historically benefit from a weaker dollar.
CLIMATE-RELATED TRANSITION RISK	Medium	Moderate	→	COP 26 Glasgow meeting has been delayed until next year. Governments were expected to announce new policies however this has been delayed. A key climate related transition risk is the outcome of the US presidential election later this year. A Trump re-election will likely hinder global cooperation to combat climate change.	Underweight Energy & GEMs, overweight Renewables and Sustainable Investment themes such as Infrastructure.
CLIMATE-RELATED PHYSICAL RISK	Medium	Moderate	→	In the short-term pollution rate will decline due to lack of travel. However, the concern is that during the recovery if governments set aside their environmental concerns and put people back to work in any capacity, the pollution will go back to high levels. Carbon price has been declining.	Hold a well-diversified portfolio.
LIQUIDITY RISK	High	Medium	NEW	Liquidity risk measured in terms of bid-ask spreads has increased and the risk of market closures in some peripheral markets has increased as well; liquidity is also impacted by the ban on short selling. Liquidity doesn't exist in the private markets, and liquidity is sub-par in the public markets.	Increase cash exposure to compensate for reduced cash inflows to funds due to dividend cuts/cancellations in case of liquidity needs in the next 18 months. Favour liquid assets in periods of uncertainty

LGPSCL's view on "Scenario Risks":

- In light of recent developments LGPSCL has refreshed the "Risk Analysis" of emerging risks ahead of next quarter's planned refresh. As with every refresh this has been done in a roundtable involving all Investment Directors and selected Investment Professionals.
- We have added two new risks, Coronavirus and Liquidity. Both risks are connected and recent sharp market falls in Q1 have caused reduced liquidity across markets. The uncertainty on how long the Coronavirus will have a negative global economic impact is the biggest threat currently. Although governments have announced fiscal stimulus and monetary easing measures, they appear better prepared than in the financial crisis of 2008. However, whilst we cannot see a clear exit strategy from this Corona Virus it makes it very difficult to plan for the future.
- We also have reviewed the likelihood and impact of risks, and we now see that the biggest risks are the "Global Recession" and "Credit Risks".
- We highlight that holding a diversified portfolio still offers the best protection against those risks. Specific risks such as a weakening US\$ can be mitigated by hedging the currency risk.

SPECIAL FEATURE 1: LGPSC CLIMATE RISK MODEL



Laura Michie
Graduate Trainee
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Introducing LGPSC’s Climate Risk Model

The signs and impacts of climate change are continuing to accelerate. A recent report from the World Meteorological Organisation (WMO) states that the past 5 years have seen record global temperatures, significant increases in sea levels and new peaks in CO₂ emissions. Climate change presents a significant and probably undiversifiable risk to asset owners. Most asset classes, sectors and companies will be, to different degrees, vulnerable to climate risk.

Typically, climate risk is split into two categories: “Climate-related physical risk” and “Climate-related transition risk”. Physical risks are the physical effects that climate change causes and include flooding, hurricanes and sea level rise. Transition risks are those that arise as the world attempts to transition to a low-carbon economy and primarily comprise of policy, legal, technology and market changes. Both types of risks, if not properly measured and mitigated, have the potential to cause material financial implications for investors. The severity of these risks is dependent on the global response to climate change. If immediate and wide-spread corrective action is taken, in the form of increased climate legislation and market-based incentives, it would increase transition risks for many assets classes, sectors and particularly carbon intensive operations. In turn, the physical effects of climate change would reduce as the economy strives for a low carbon outcome. However, if little corrective action is taken to transition, the physical risks and effects of climate change will increase in both frequency and severity.

Given the material financial ramifications that climate change poses to asset owners, how do we at LGPS Central measure climate-related transition and physical risks?

To ensure that we have a clear and up to date perspective on climate risk, we have designed and developed our own in-house climate risk model. This model monitors a broad range of variables that affect the probability and impact of climate-related transition and physical risk. The insights from the model allow us to provide our clients with recommendations in these quarterly LGPSC Tactical Asset Allocation reports on how best to manage and mitigate climate risks in their portfolios. The climate risk model is split into a transition risk model and a physical risk model, in which the variables chosen are primarily quantitative. The following two sections describe 5 variables from each model and how they each interact with climate-related transition and physical risk.

Climate-related Transition Risk Model

The key to measuring climate-related transition risk is to identify the timing and speed of the transition to a low-carbon economy. Figure 1 depicts 5 examples of the different variables that are used to measure the level of transition risk.

Determining public sentiment is inherently difficult. However, if captured, it can provide meaningful insights into how concerned countries are about climate change. Public opinion polls carried out across the UK and the US in the last year show there is a growing concern over climate change. This shift in public sentiment is

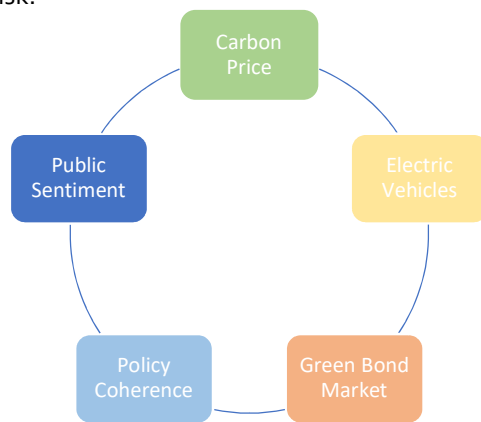


Figure 1. Example variables used to measure climate-related transition risk

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

exemplified by the rising influence of climate pressure groups such as Extinction Rebellion. Rising public concerns over climate change can lead to greater than anticipated policy responses and as such increases climate-related transition risk. Conversely, limited or no public concern can diminish climate-related transition risk.

The size and market share of the green bond market is a further indication of the level of climate-related transition risk. Capital raised from the issuance of green bonds is used for projects with environmental benefits, such as renewable energy and low-carbon transport. Green bonds are increasingly gaining traction in the fixed-income market. However its total market share remains low at 1%. Between 2018 and 2019, green bond issuance grew by 51%, from USD\$170.6bn to USD\$257.7bn. This reflects both the rising demand from investors and greater incentives for issuers and, as such, provides an indication of the speed of the transition to a low carbon economy.

Widespread technological changes, particularly in the energy and transport sectors, are needed to achieve Paris Climate change target alignment. Electric vehicles are part of the solution, and thus a rapid increase in market share would suggest more favourable government policies and subsidies, increased investments from the automotive industry, and value chain impacts, would be indicative of increased climate-related transition risk.

Finally, policy responses to climate change play a fundamental role in the transition to a low carbon economy. Carbon pricing has been a prominent market-based mechanism to altering private sector behaviour and ensuring they incorporate the negative externality of climate change. The carbon price in the EU was relatively stagnant until early 2018 due to the overallocation of allowances. Following changes to the scheme, prices have soared from €7 per tonne to highs of €29 per tonne in the last two years. This is a clear example of how climate-related transition risk can shift from a relatively low risk to a moderate risk for carbon-intensive sectors and companies.

Through understanding the degree to which these variables influence climate-related transition risk, a quantitative model is created to periodically measure whether this risk is increasing or decreasing.

Climate-related Physical Risk Model

Example variables which are used to measure climate-related physical risk are provided in Figure 2.

Growth in greenhouse gas emissions and land use change are the principal contributing factors to Arctic ice melting, sea level rising and the increased frequency in billion-dollar weather and climate disaster events. Increases in each variable are indicators of growing climate-related physical risks. Last year was the second warmest year on record and CO₂ levels reached new peaks in the beginning of 2020. A continuation of this trend will have serious financial implications across asset classes, sectors and companies. Through determining the rate in change and the significance of these variables, a quantitative score is computed, which when compared on a quarterly basis, provides us with an indication of the level of climate-related physical risk.

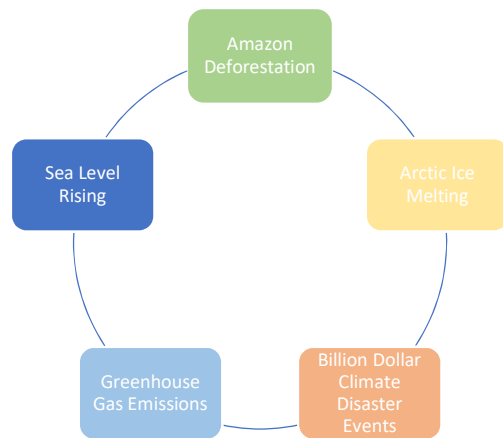


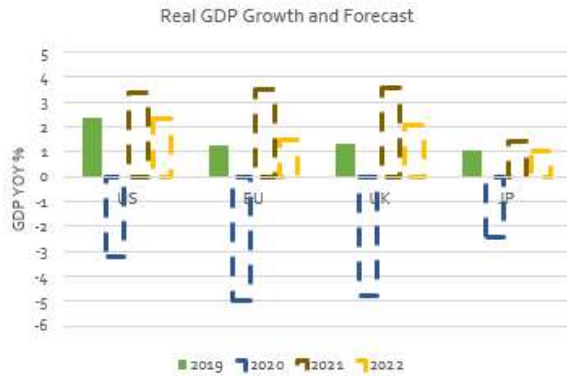
Figure 2. Example variables used to measure climate-related physical risk

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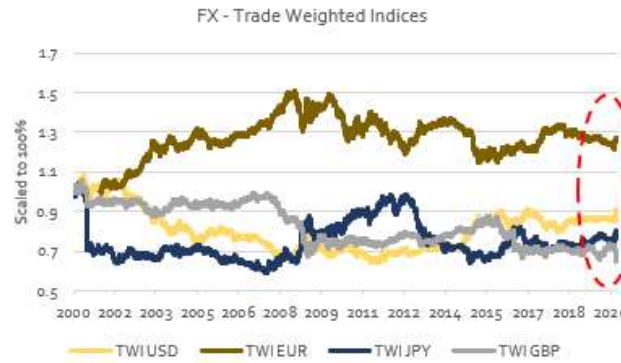
While both the climate-related transition and physical models are quantitative, the importance of qualitative factors cannot be disregarded. Data availability of certain variables creates challenges in producing up to date information at the appropriate granularity. Therefore, qualitative elements feed into the final judgement on the level of climate-related transition or physical risk. A recent example would be postponement of the COP 26, while arguably impossible to quantitatively measure, there is no doubt in the short-term this will impede worldwide climate efforts. From a physical risk perspective, the economic slowdown caused by the Covid-19 pandemic will almost certainly cause a temporary downturn in global emissions. The lessons from the financial crisis of 2008 show that government stimulus packages are likely to drive emissions up, offsetting this temporary reduction. We believe that climate change is a significant, systematic and undiversifiable risk, that will create both winners and losers. This feature has provided an overview of one of the many tools that we use to protect our client's assets against climate risk. As with all other financial models, the output of our climate risk model is indicative and a function of the assumptions we make rather than a deterministic model, and regular reviews are conducted to ensure it remains within the accepted parameters.

LGPS Central will continue to monitor the risks and investment opportunities that come out of this Climate Risk Analysis and use it to improve the Risk adjusted returns to our Partner Funds.

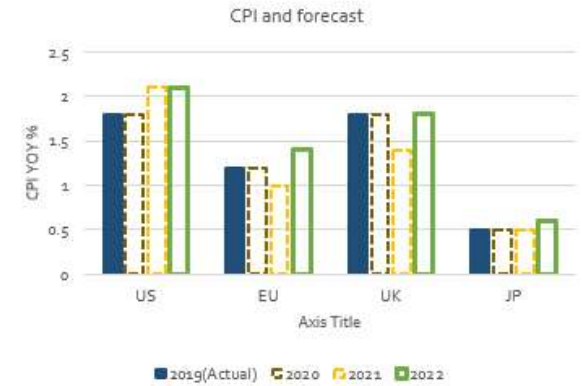
APPENDIX 1: ECONOMIC OUTLOOK



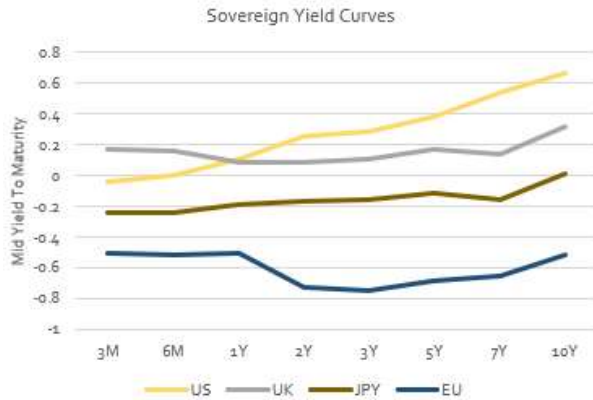
The current crisis is showing an impact on GDP growth forecast rates turning strong negative for 2020....



... similar to trade weighted indices which have seen sharp moves over the last quarter.



Inflation forecasts around the globe have seen a downward correction...



... with yields all being revised downwards and some entering negative territory.



Consumer confidence however remains above average and small business optimism has not seen yet a sharp decline



Initial jobless claims spiked in March 2020 as unemployment rose in the US

Source: Bloomberg, OECD, data as of 30/03/2020

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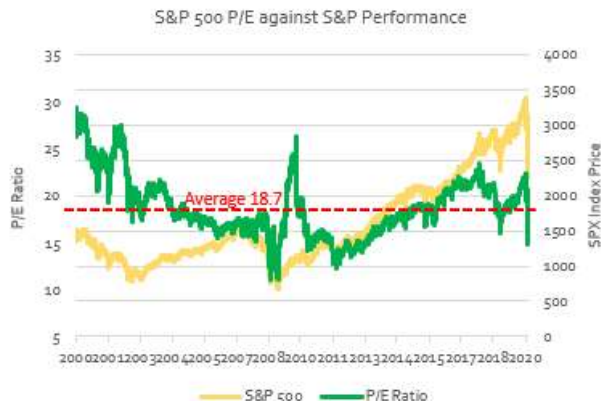
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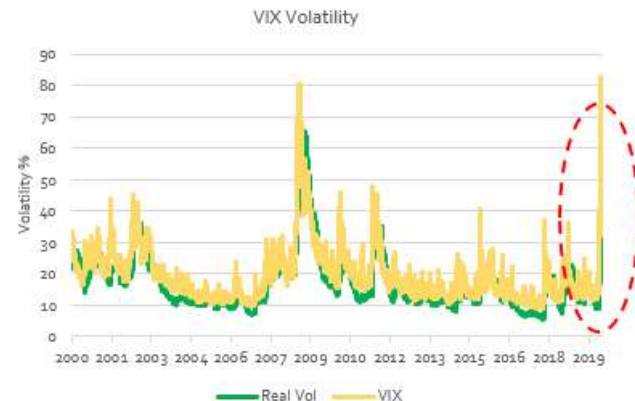
APPENDIX 2: MARKET OUTLOOK



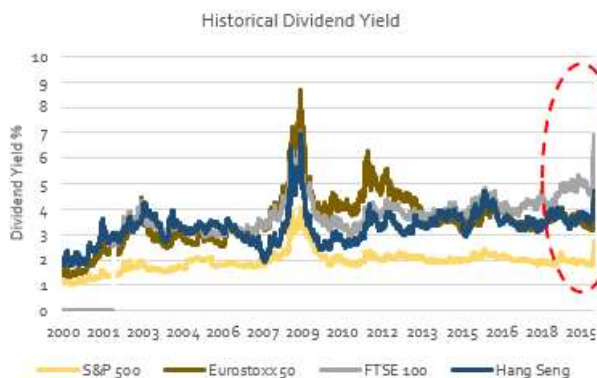
Markets have witnessed unprecedented market falls amid fears of the economic impact of the pandemic declared by the WHO.



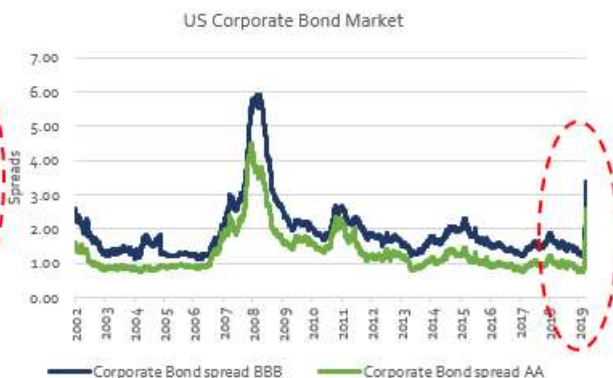
The P/E ratio dropped from 19.7 to 16.7 between the 2 quarters, making US equities looking cheap...



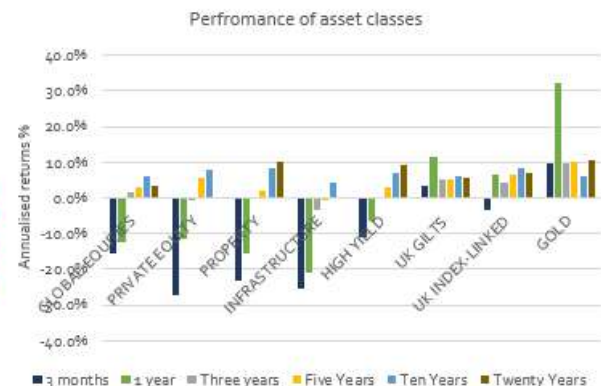
...however volatility is at its highest level since the 2008 Global Financial Crisis, indicating a high degree of uncertainty amongst market participants.



Dividend yields rose as share prices fell, however we expect many companies to announce dividend cuts



Corporate bond spreads have seen a sharp increase, however they haven't reached the levels seen in 2008.



After the recent sharp market falls, most asset classes experienced negative returns over the quarter and 12 months.

Source: Bloomberg, OECD, data as of 30/03/2020

LGPS CENTRAL LIMITED TACTICAL ASSET ALLOCATION: ISSUE 9

APPENDIX 3: INVESTMENT IDEAS – MEET THE TEAM



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Please contact Callum Campbell, Head of Client Services and Stakeholder Relations, if you would like to discuss the views outlined in this report with LGPS Central’s Investment Directors

1 Selective Overweight Private Equity (Jaswant Sidhu)

- Transaction volumes are expected to fall as managers concentrate on existing investments. Good managers will continue to source deals
- Exits will dry-up; IPO markets are effectively shut and buyers will want visibility on business impacts from the Covid-19 crisis
- Liquidity squeeze could see some assets being put up for sale, potentially heralding a good time to buy
- Distressed, Special-Situations and Turnaround deal volumes could increase, but perhaps only for a relatively short time-frame
- Valuations and asset prices are expected to decline with mark-to-market movements
- Secondary sales will dry up unless willing to accept big discounts; all but the most desperate sellers are likely to sit on the side lines
- New fund raising will slow with managers deferring capital raising; those already in the market are expected to either take longer or curtail their target sizes. Top quartile managers will continue to raise funds and will likely remain over-subscribed. Seasoned and experienced LP’s will continue to deploy to the asset class.

2 Underweight property – Caution required (Mike Hardwick)

- Big declines in listed property – expect private valuations to be hit heavily at quarter end
- Hardest hit sectors – Retail (again!), Leisure & Office
- Tenants seeking rental deferment & holidays, landlords sharing the pain
- Too early to buy unless individual assets represent good/deep value
- Indirect closed-ended property now interesting, given the lead in time from commitment to deployment, coupled with the high beta effect generally seen in these vehicles
- Liquidity concerns and uncertain valuations

3 Underweight Fixed Income (Gordon Ross)

- Historically low Gilt yields remain unattractive with the prospect of increased issuance to fund fiscal stimulation may push yields higher
- Intermediate peripheral EU bonds (Italy, Spain, Portugal) offer attractive hedged yield pickup in GBP terms
- Global interest rates likely to remain low over the next several years with little immediate sign of inflationary pressures.
- Credit markets offer excellent value given the recent increase in yields and spreads

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Neutral Infrastructure (Mike Hardwick)

- Asset class not immune to economic malaise – GDP facing assets such as transport hit in revenue – valuation correction to follow
- Only some assets currently in advanced stages are likely to transact in the short-term
- Core, availability based and renewables likely to be least impacted
- Sector overall is still attractive although revaluations of riskier assets likely to cause investor circumspection
- No need to rush but would advocate investment in closed-ended funds due to positive vintage effect

5

Overweight Equities – Positive Outlook (Mark Davies)

- Our near-term outlook is for a recession, where we expect company news flow to deteriorate further even as announced policies put a limit on further market downside. At present we would argue that a focus should be on companies that can weather the storm, focusing on strong balance sheets, low debt, market leading positions, with sustainable business models.
- As the market fall lessens we would expect “value” stocks to begin to slow their underperformance, potentially even leading the way as prices for some cyclical sectors recover before they see the deepest cuts to their earnings, symmetrically we would expect “quality” to underperform even as prices recover.
- Consumer weakness may be more significant for developed western economies oriented more towards services, notably the United States and United Kingdom providing a plausible argument that a full or rapid recovery in discretionary consumer activity could be constrained until the widespread availability of a vaccine.
- Our expectations are that the markets hit hardest by the COVID-19 crisis will be those that benefit the most from the recovery that will eventually appear with UK and Eurozone equities most attractively valued. Europe’s high weighting to cyclical stocks should help it outperform in the recovery. Emerging market equities should also perform strongly with the additional benefit of reduced trade-war tensions.
- By their nature passive investments have no awareness of tail risk events while active managers do (or at least should). Good active management should outperform passive investments during times of market stress. Analysis shows that the top 25% of active managers beat the benchmark, and therefore passive investments 60% of the time during downturns, with the top 5% beating the benchmark 75% of the time, implying some downside protection.

GLOSSARY:

GEMs	Global Emerging Markets
ESG	Environmental, social and governance
LTM	Last twelve months
IG	Investment Grade
VIX	S&P Implied Volatility Index
IPO	Initial Public Offering
OPEC	Organisation of Petroleum Exporting Countries
FAANG	Facebook, Apple, Amazon, Netflix & Google
UNPRI	Principles for Responsible Investment
YTD	Year to date
PE	Private Equity

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