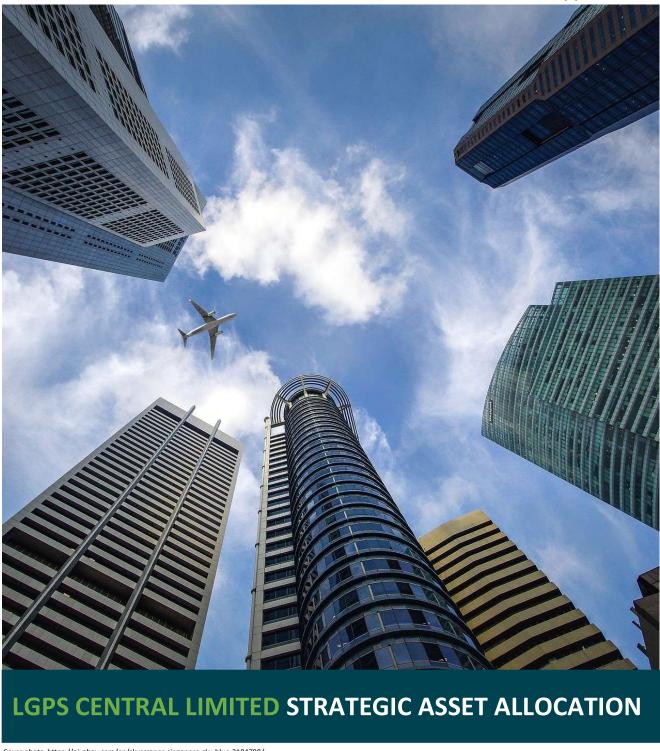
15 Appendix B



Cover photo https://pixabay.com/en/skyscraper-singapore-sky-blue-3184798/

ISSUE 4 • DECEMBER 2018



FOR PROFESSIONAL CLIENTS ONLY

CIO SUMMARY

This is the fourth edition of the LGPS Central Limited strategic asset allocation report which is issued on a quarterly basis to help the Partner Funds form a view on how they may adjust their medium-term strategic asset allocations to the current market environment and to identify return opportunities for meeting future liabilities.

This issue contains a "Themed Paper" on "Private Equity" written by Omar Ghafur, LGPS Central's Investment Director for Private Equity. The report to update on Responsible Investing and Engagement will be circulate in an updated version. There is a summary of market activity during the last quarter of 2018 on page 7 and we also have included a special chart on page 8, summarising the financial market of 2018.

Our view on asset classes remains broadly unchanged compared to the previous quarter, the biggest changes seen in equities with European equities becoming more attractive and GEMs losing attractiveness, which is mainly based on valuation in equities becoming more attractive, but still not being cheap. We have increased the risk of an equity sell off to moderate based on the events in Q4 2018 as we believe that this downward trend could carry on in the rising interest rate and trade war environment. We also have increased the recession risk from low to medium based on the latter as well as the prolonged US growth phase and weakening economic forecasts.

We would like to encourage all Partner Funds to contact the Head of Client Services and Stakeholder Relations, myself or any of the Investment Directors if they wish to discuss any part of this report or LGPS Central Limited's thoughts in more detail (contact details can be found at the end of the document). We would welcome any feedback on the report.

Jason Fletcher CIO

LGPS CENTRAL LIMITED'S VIEW ON WEIGHTINGS

The following table gives a summary of our view on strategic positioning against your customised benchmark. Table1: Weightings

	Significant Underweight	Underweight	Neutral	Overweight	Significant Overweight
BROAD ASSET CLASS		Stabilising	Growth	Income	
GROWTH ASSET CLASS		Private Equity, North America, Equities	Asia Pac Equites, Japan Equities	EU Equities, UK Equities, Commodities, GEM Equities	
INCOME ASSETS				Insurance-Linked, Infrastructure, Property, EM Debt, Credit	
STABILISING ASSETS	EU Bonds, JP Bonds	UK Bonds, Index-Linked	IG Bonds, US Bonds	Gold	
INVESTMENT STYLES		Low Volatility, Size	Quality/ESG	Momentum	Value, Growth
CURRENCIES		US dollar	Euro, Yen	GBP	

LGPS Central Limited's view on "Weightings":

- LGPS Central Limited remains "Underweight" in Stabilising Assets and "Overweight" in Income Assets. Growth Assets remain "Neutral". Cheap valued Growth Assets with good economic outlook and valuation remain attractive.
- Equities are the most favoured of the Growth Assets but has seen some changes in terms of regional favourites. Our favoured equities remain UK, but now also include Europe and GEMs change from strong favourites to medium favourites, all changes mainly related to sentiment changes.
- There are only small changes to observe within our preferences in Stabilising and Income Assets.

Table 2: Growth/Income/Stabilising Assets

	Model Score ¹	View	Investment Notes	
GROWTH	0	Neutral	Valuations have improved since last quarter, but sentiment worse e.g. inflation is positive, volatility environment changed to high ar selectively good return opportunities expected	
INCOME	1	Overweight	Safe Income, relative valuation, downside protection and positive sentiment	
STABILISING	-1	Underweight	Low/Negative expected return, small portfolio allocation, inflation risk if not index-linked, uncertainty around economic growth and expensive	

Table 3: Historical Annualised Returns

	One year	Three years	Five years	Ten years	Twenty years	Bloomberg Ticker
GLOBAL EQUITIES	-10.1%	7.0%	5.0%	9.8%	4.4%	FTAW01 Index
PRIVATE EQUITY	-8.3%	12.4%	8.5%	14.2%	n/a	IPRV LN Index
PROPERTY	-3.6%	4.3%	8.3%	12.8%	10.0%	REIT INDEX
INFRASTRUCTURE	-9.8%	6.9%	4.4%	7.4%	n/a	SPGTIND Index
HIGH YIELD	-1.7%	5.4%	5.4%	16.8%	9.8%	HL00 Index
UK GILTS	1.5%	4.3%	5.5%	4.8%	5.1%	G0L0 Index
UK INDEX-LINKED	0.8%	8.5%	8.6%	7.9%	6.5%	G0LI Index
GOLD	1.5%	11.6%	6.9%	5.3%	9.3%	XAUGBP Index

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	0.648	0.546	0.769	0.474	-0.238	-0.136	-0.26
PRIVATE EQUITY		1	0.344	0.475	0.385	-0.176	-0.095	0.004
PROPERTY			1	0.665	0.209	0.248	0.207	0.047
INFRASTRUCTURE				1	0.413	0.039	0.073	-0.018
HIGH YIELD					1	0.010	0.016	-0.158
UK GILTS						1	0.822	0.407
UK INDEX-LINKED							1	0.358
GOLD								1

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

LGPS Central Limited's view on "Broad Asset Classes":

- LGPS Central Limited currently favours Income over Stabilising Assets over the next 12 months due to their relative value, and stable cash flows with low correlation to Growth Assets.
- The sharp equity market fall in Q₄ has pushed annual equity returns into negative territory. Most asset classes have seen good returns above inflation over the last three, five, ten and twenty years.
- Commodities and Gold provide good diversification against equity markets and could be added as a diversifier to the portfolio.
- Fixed Income can be allocated to the portfolio for the same reason, but we remain underweight, given its poor valuation, low expected returns and the unsupportive economic environment.

¹ Refers to LGPS Central Limited model as described on page 6

GROWTH ASSET VIEW

Table 5: Growth Assets

	Model Score ¹	View	Investment Notes
UK	2	Overweight	Positive sentiment and cheap valuation, but economic and political risks leave an environment of uncertainty
NORTH AMERICA	-1	Underweight	Improved valuations as looks cheaper now, but still expensive compared to other geographies, negative market risk and sentiment
EUROPE	2	Overweight	Neutral economics and good dividend yields, attractive valuations, and sentiment has turned positive, but economic outlook remains unstable
JAPAN	0	Neutral	Slow growth, trade risks, reasonable valuation but over loved asset class
ASIA PAC	0	Neutral	Economic growth and good valuation, looks cheap, but fears of trade war may overshadow the potential
GEMs	1	Overweight	Economic growth and good valuation, has seen biggest regional buy in between quarters, but fears of trade war and political risk may have negative impact, weak dollar would support returns
PRIVATE EQUITY	-1	Underweight	High investment cost, sentiment negative, long-term economic outlook uncertain, selective positioning, better valuation due to recent equity market falls
COMMODITIES	1	Overweight	Economic growth weakening and inflation protection, but provides no yield

LGPS Central Limited's view on "Growth Assets":

- US equity valuation looking slightly cheaper, but we remain "Underweight" based on negative sentiment, recent increased volatility and a declining economic outlook.
- GEMs remain "Overweight" due to economic growth potential (Brazil & China economic outlook versus world), cheap valuations and negative 2018 performance, but GEMS has seen a big buy in by Investors from Q3 to Q4 and hence sentiment reduces strength of "Overweight".
- Europe changes from "Underweight" to "Overweight", based on attractive looking valuations and sentiment, but remain cautious due to the economic outlook.
- Most equity market valuation have moved away from expensive in recent declines.

INCOME ASSET VIEW

Table 6: Income Assets

	Model Score ¹	Model Score ¹ View Investment Not	
CREDIT	2	Overweight	Economic play, credit improving, and positive valuation
EMERGING MARKET DEBT	2	Overweight	Economic play, credit improving, valuation positive, but some market risk and poor EM performance last year
PROPERTY	1	Overweight	Relative value, inflation protection, sentiment changed to negative and high investment costs
INFRASTRUCTURE	1	Overweight	Relative value, inflation protection, positive sentiment but high investment costs, renewables & sustainable exposure
INSURANCE-LINKED	1	Overweight	Great time to buy after hurricane season, high expected returns, "unloved", uncorrelated with other asset classes

LGPS Central Limited's view on "Income Assets":

- LGPS Central Limited has a favourable view on Income Assets.
- Emerging market debt has a lot of potential in LGPS Central Limited's view, in particular given the poor performance of EM markets LTM and recent equity market performance.
- Infrastructure assets offer a great responsible investing component.
- Credit and EM Debt lost 1 model score point due to increased market risk.

STABILISING ASSET VIEW

Table 7: Stabilising Assets

	Model Score ¹	View	Investment Notes	
UK BONDS	-2	Underweight	Negative expected return, inflation risk, economic growth faltering and political risk	
INDEX-LINKED	-2	Underweight	Negative expected return, inflation risk and concern about long duration/interest rates	
US BONDS	O	Neutral	Fair value but increasing deficit and quantitative tightenin inflation risk and economic growth potentially overheating	
JP BONDS	-3	Underweight	Poor valuation and Central Bank policy supportive market, but a safe haven in increased risk environment	
EU BONDS	-3	Underweight	Negative expected return, inflation risk, economic growth vulnerable due to political EU uncertainty and EU bank debt issue	
IG CORPORATE BONDS	0	Neutral	Corp spreads neutral and anchored to government bond yields, but general good credit outlook	
GOLD	2	Overweight	Favoured Stabilising Asset, when we do not like other Stabilising Assets	

LGPS Central Limited's view on "Stabilising Assets":

- LGPS Central Limited has an "Underweight" view for most 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.
- "Underweight" view has slightly worsened due to more expensive looking valuations, in particular for Japan and Europe.
- 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 of 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 in momentum, large cap bias and expensive stocks. In the following Factor model, we have taken the 7 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 momentum factors 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. Below graph summarise preferred overweight factor depending on economic cycle.

Economic Cycles and Investment Factors:

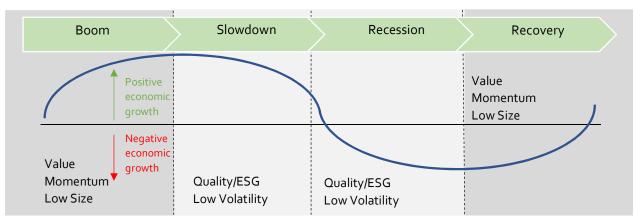


Table 8: Investment Factors

	Model Score ¹	View	Investment Notes
Value	4	Overweight	Supported by current economic growth environment and general underperformance, after recent equity falls valuation looks even more attractive
Growth	3	Overweight	Supported by current economic growth environment. Recent strong outperformance might be impacted if the economy slows down
Size	-2	Underweight	Concern with slowing economy and negative sentiment and market risk
Momentum	2	Overweight	Overweight based on current attractive valuation, however has recently outperformed other factors
Low Volatility	-2	Underweight	Poor long-term performance and unsupportive economic environment
Quality/ESG	O	Neutral	Positioning in light of potential economic slowdown

LGPS Central Limited's view on "Investment Factors":

- LGPS Central Limited view on Investment Factors hardly unchanged, except for a strengthened "Overweight" for Value due to recent increased underperformance.
- In light of the current economic cycle and potential, the favoured factors are a combination of "Value", "Growth" and "Quality/ESG".

LGPS CENTRAL LIMITED SCORING MODEL

LGPS Central Limited'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. We are constantly developing this scoring to include other variables such as ESG measures and technical factors, as well as currencies.

RECESSION WATCH

Key indicators for a recession are not currently apparent with 1) an upward sloping yield curve, 2) improving employment and 3) low but rising rates, inflation and wages. There are concerns on recession watch at the moment such as a serious credit event after the excesses we have seen in some corporate leverage driven by low interest rates for the last decade. Corporate debt is a worry in certain markets alongside EU banks' non-performing loans. Chinese corporate leverage is of concern and some areas of high yield could pose problems especially if rates were to rise more sharply than expected. Auto finance is also showing some signs of stress. The US growth cycle has been already rather long, combined with the raising interest rates and latest increased asset volatility maybe the first more clear signs of a recession in the medium-term future.

LPGS Central Limited View – We see the likelihood of a recession as medium over the next 18 months. 2020 could mark the start of the next recession.

LGPS CENTRAL LIMITED Q3 MARKET UPDATE²

The last quarter of 2018 showed a very negative picture across the globe in equities. The strongest decline was observed from the Nikkei with -17.45% followed by a performance of -14.28% by the S&P 500. The FTSE 100 and Eurostoxx 50 both also had a negative performance for the respective quarter (-10.24%, -12.09%). Asia Pacific and the Hang Seng both entered negative territory albeit not as severe as the performances of the other indices, returning -9.08%% and -6.99%% respectively. Year to date the trend of a rising equity market has been disrupted in Q4, with Asia Pacific being the poorest performer with -16.25% in 2018, followed by the Hang Seng and Eurostoxx 50 (-13.61%/-14.34%). Other indices also record a negative 2018 performance, the FTSE (-12.48%) and Nikkei (-12.08%). Given those drastic equity falls over the last quarter in 2018, equities may have now entered into a bear market, due to weakened economic outlooks, trade war concerns, interest rate rises and looming Brexit uncertainty.

*

Given those strong equity market declines in Q4, it is somehow surprising that the US Michigan Consumer Sentiment is unchanged from its recent highs in April and is still well above its ten-year average indicating that positive momentum continues. Jobless claims and a small business survey (the Small Business Optimism Index), show for the first time in 2018 a downtrend, though remain high suggesting a good economy. The VIX remains at elevated levels showing a general uncertainty of Investment participants on the future market outlook. In 2018 IPOs raised around \$45bn, the IPO pipeline for 2019 looks even stronger with the likes of Dwell, Airbnb and Uber, but could see many IPOs postponed if the bear market manifests itself and does not reverse.

*

There is still little movement on the Brexit front. Theresa May is still trying to gather support for the deal she negotiated, as her draft Brexit deal has divided MPs. May survived a confidence vote with a majority of 83, but not made much progress since then. Mays attempt to modify the Brexit deal with the EU has failed, and the deal she has been offered, was rejected in early January. Outlook still very uncertain between Hard and Soft Brexit or also no Brexit.

*

The Oil price has declined over the course of the fourth quarter by -36.69%, reversing the Q3 year-to-date gains from 23.7% to -19.6% for 2018. At this level Oil closed at its lowest level in 2018, caused by imbalances in supply and demand and the U.S. withdrawal from the Iran nuclear deal as well as the looming trade war. Additionally, OPEC agreed to ratchet up production first pushing the oil price up in September and October, followed by a sharp decline in the price. Gold prices climbed by 7.9%% in Q4, reducing losses in 2018 to -1.56% from -8.6% as of Q3, and hence closing flattish for 2018. Sterling has dropped by 2.2% against the USD over Q3, down 5.6% in 2018.

*

The US Federal Reserve has raised rates for a fourth time in 2018 from 2.25% to 2.5%, alongside revising its forecast for economic growth down to 2.3% from 2.5%. The Fed was forecasting fewer rate rises lie ahead than it had previously predicted and reduces the rate hike forecast down to 2 from 3. Benchmark US yields therefore fell by 46bps amid concern over the economic outlook. In the UK yields have dropped by 19.7% from 1.587 to 1.275 (generic 10-year UK gilt) driven by the ongoing Brexit uncertainty and the delay in the parliamentary vote on the Brexit deal has seen asset flights to safety.

*

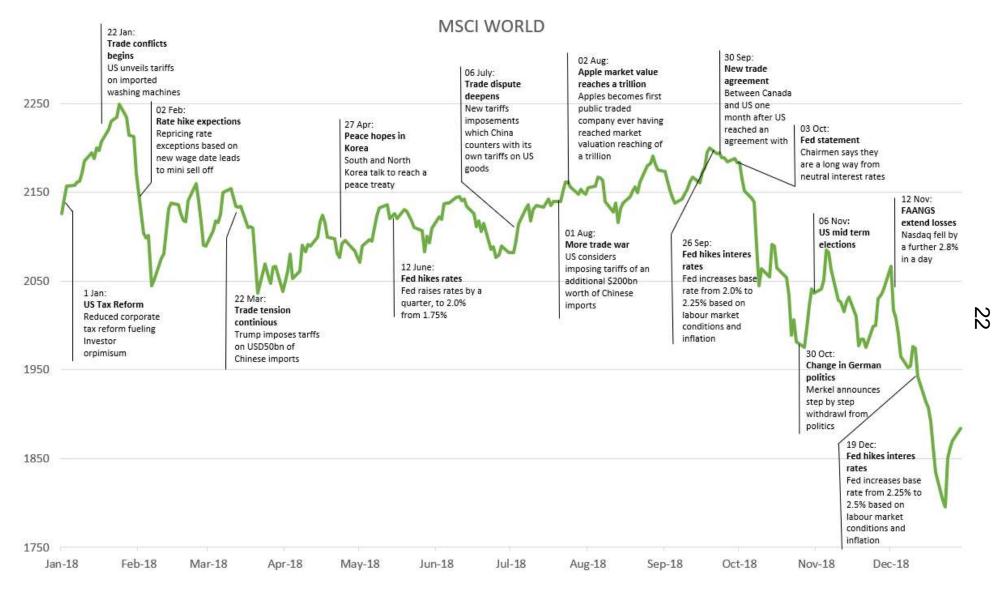
For Q1 2019 it is expected that the market continues to be dominated by Trump politics, Oil prices and Brexit, all remain uncertainties and have not changed since Q3. The rising rate environment could see cash becoming for the first time since a long time an attractive asset again and may in addition to the safety flight into government bonds add to the pressure on the equity market. Cash though remains of high levels in investor surveys which suggests non-cash investments could perform. We believe that no Brexit remains a possibility and this would be positive for the UK equity markets and Sterling.

*

The graph on the next page summaries the year 2018 around the globe:

7

 $^{^{2}}$ Performance for the quarter measured over period of 30/09/18 to 31/12/18 $\,$



RISK ANALYSIS

Table 8: Risk in order of probability

R ISK	LGPSCL Possibility	LGPSCL Impact	Change	Comment	LGPSCL favoured assets to protect against the risk
RISING INFLATION	High	High	→	Forecasts are stagnating, but market participants have a different view and believe levels are rising everywhere from low levels. UK inflation risk is increasing with Brexit weighing on the economy. Declining oil price will put downward pressure on inflation.	Overweight Infrastructure, property and equities, underweight Fixed Income
RISING INTEREST RATES	High	Moderate	>	Rates rising, and QE reversal is putting upward pressure on yields. A no-deal Brexit could further put pressure to hike interest rates up.	Overweight short duration, Growth Assets and high-quality credit Securitised debt which attracts floating interest rate, underweight Fixed Income
WORLD TRADE WAR	Medium	High		US imposes tariffs on \$200bn of Chinese imports. Economists believe this will only have modest impact on global growth as tariffs only impact a small proportion of global trade.	Slowdown of economic growth and de-stabilising effect, overweight Gold and insurance linked, overweight US equities
EQUITY SELL OFF	Moderate	Moderate	1	We initially included this risk as equity highs could lead to some profit taking fuelled by inflation concerns causing a sell-off, as well as Rising rates aggerating sell-off due to shift in asset class. We believe this is what has been seen over Q4 18 and increase possibility as we believe there is a good change downward trends carries on as we may enter into a bear market.	Safe haven assets such as government bonds and gold, increased demand for equity downside protection makes volatility rise, buy volatility early, as short-term measure protect through selling futures
HARD BREXIT	Moderate	Moderate		Hard Brexit could hit the UK economy due to lost trade revenue from the EU and carry on having a weakening impact on Sterling which could cause rising exports outside the EU in the medium turn. Hard Brexit seems more likely	Consider underweighting UK equities in the short term and if Hard Brexit leaving foreign currency exposure unhedged or reduce hedge. Reduce exposure to chemicals, automotive and food sector as those will be hit hardest by a hard Brexit. UK domestic equities are pricing Brexit in at 12xPE
EURO BREAK- UP	Medium	High		Still considerable uncertainty as the UK leaves the EU. Italy's political maelstrom adds to the picture.	Overweight protective assets such as Gold, non-Euro assets, buy Sterling, buy US Dollar
GEOPOLITICAL RISK	Medium	Low	-	New leader in Brazil and Africa can cause a shift in dynamics and impact economy and investor behaviour.	Hold a well-diversified portfolio
DEBT ISSUES	Medium	Moderate		UK political risks are increasing, EU banks have not taken enough non-performing loan action, China and Automotive debt concerns present.	Underweight EU and China, underweight selective credit, such as Automotive
CLIMATE- RELATED TRANSITION RISK	Medium	Moderate		- Generic Carbon price at 10-year high - UNPRI is highlighting risk - Investment gap in transitioning the energy system equal to 2.4% of GDP	Underweight Energy & GEMs, overweight Renewables and sustainable investment themes such as Infrastructure
CLIMATE- RELATED PHYSICAL RISK	Medium	Moderate	→	- US Billon Dollar Disaster Event Frequency: Average based on last 5 years, modestly above average based on last 38 years Catastrophic Economic losses for EMEA for 2018 well under 10-year average Catastrophic Economic losses for US for 2018 at record low compared to 10-year average.	Hold a well-diversified portfolio

LGPS Central Limited's view on "Scenario Risks":

- LGPS Central Limited's view is that with a well-diversified portfolio, the majority of key risks from these scenarios should balance out any strong negative impacts. Alternatively, short term asset adjustments can be made to the portfolio to seek protection or a derivative overlay can hedge out undesired negative impacts and provide protection.
- It is our view that the next 12 months should produce a positive return for Income Assets and will probably see low to negative returns for Stabilising Assets. Our opinion is that fixed income does not offer good risk adjusted returns for pension fund money at this time and should remain underweight. Growth Assets may in the short-term see negative returns if a bear market manifests itself.

SPECIAL FEATURE: PRIVATE EQUITY



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Sell Private Equity Funds / Buy Direct Private Equity Investments

As we round off 2018, the Global Private Equity Market shows no sign of abatement and all signals point to another record year for Private Equity. With the Private Equity asset class taking up an increasingly larger portfolio allocation for many institutional investors, the market is continuing to be awash with Private Equity fund raising. Circa US\$621 billion was raised for Private Equity Funds in 2017, which makes it the current record holder, having surpassed the US\$557 billion of funds raised for Private Equity in 2008.

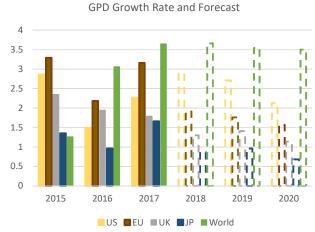
Let's take a step back and ask the fundamental question why should one invest in the Private Equity asset class? If you take a survey, you will likely hear the following responses – Private Equity has lower volatility than listed equities, it usually has low correlation with traditional asset classes and able to deliver positive diversification effects, and the favourite – offers exposure to companies/industries you may not have access to via traditional listed markets.

Thus, when you couple the rationale for Private Equity investments with the current figures of fund raising activity, it poses the logical question – will not too much money chasing the same deals drive up the underlying asset price? Correct. The market is already seeing historically high valuation levels in the large buyout segment. Furthermore, the pre-IPO Private Equity market is facing challenges due to increasing competition from non-traditional Private Equity investors e.g. debt funds which are offering financing via debt instruments to the same companies – hence also further contributing to the current high valuation levels. Lastly, one of the two routes of exit from a Private Equity investment, the IPO (the other being trade sale to financial/strategic/PE buyer) faces a similar challenge – namely too many transactions currently in the pipeline for IPO creating a backlog. As of end of January 2018, just one major UK investment bank had cited that they alone had circa 25 transactions in the IPO pipeline carried over from 2017 – extrapolate that number across the number of international investment banks known to you in NYC, London, Paris, HK, Tokyo, Shanghai and the situation starts to look quite hairy.

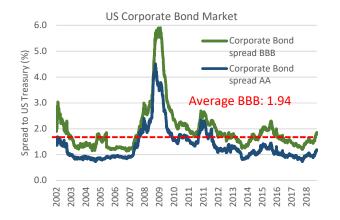
Therefore, in a situation which is currently offering entry at a higher than norm valuations and an opaque exit strategy, whilst charging on-going fees of circa 2.0% per annum, it is recommended to be "Underweight" Private Equity Funds. Nonetheless, a "do not" invest" recommendation is certainly not being flagged for the entire Private Equity asset class, specifically the Direct Private Equity approach (albeit as a lead or co-investor basis) still offers the fundamental characteristics, as discussed previously herein, investors are attracted to in this asset class. Investing directly in a defensive company (utilities, necessities, healthcare) will achieve for you the lower volatility and low correlation beloved of Private Equity. Furthermore, net returns will not be curbed with high management and performance fees associated with a Private Equity Fund investment and investment exit will not be a constant issue of worry, as being in a company in a defensive sector allows for the flexibility to delay the deal exit and earn a return via dividends, in the interim.

Over the course of 2018, the LGPS Central Private Equity group generated under an Advisory Mandate dozens of direct co-investments opportunities via the Investment Director's network and/or existing GP-LP relationships of the Partner Funds. The imminent launch of the 2018 Vintage LGPS Central Private Equity Fund comprises a "sleeve" devoted to underwriting direct co-investments.

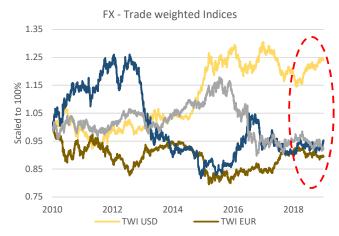
APPENDIX 1: ECONOMIC OUTLOOK



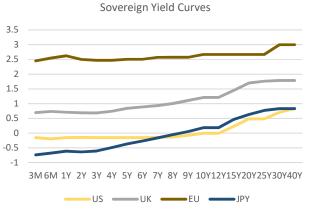
Since last quarter the World Economy is now forecasted to slightly declined and forecasts of all major economies have been corrected downward.



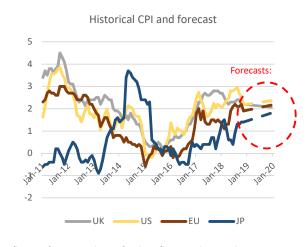
Corporate bond spreads have continued rising since the last quarter and are now just over the periods average, indicating credit is getting more expensive



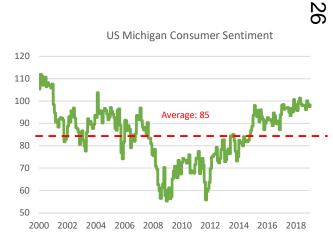
The trade-weighted strength of the Dollar has further increased its gap compared to other currencies over the last quarter.



Significant changes have been observed since the last quarter, with the EU and UK yield curve higher and Japan lower. Only the US yield curve is hardly unchanged compared to last quarter.



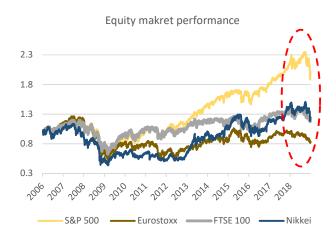
Inflation forecasts have further flattened since last quarter and suggest not too much of a surprise for 2019.



Consumer confidence remains high and continues to show an upward trend, sending a mixed signal based on weaker economic data.

Source: Bloomberg, OECD, data as of 02/01/2019

APPENDIX 2: MARKET OUTLOOK



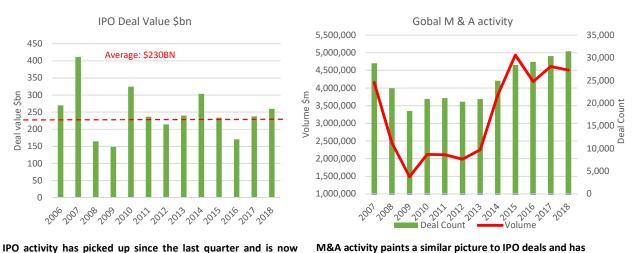
The US has significantly outperformed the rest of the world since 2009, however Q4 has seen a sharp market decline caused by the Technology sector.

IPO Deal Value Sbn

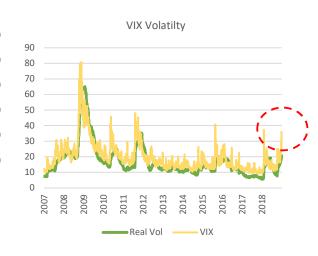
Average: \$230BN



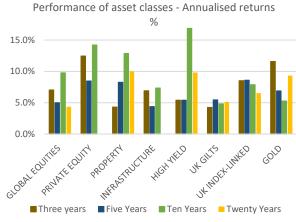
US equities start to look less expensive compared to the EU and UK. The current S&P P/E is 17.11, decreased from 21.2 in Q3 18 and now below its long-term average.



M&A activity paints a similar picture to IPO deals and has recorded an increased deal activity compared to Q3 18.



This is accompanied by a spike in implied volatility, indicating a general increased nervousness in the market. Historically this has tended to be a good buy signal.



Recent negative equity market performance had an impact on recent returns which are correlated to equities.

Source: Bloomberg, OECD, data as of 02/01/2019

450

400

350

300

250

200

150

100

50

Deal value \$bn

slightly above average for the respective period. 2019 could see

with examples such as Uber and Dell a peak IPO year.

, ⁵60, ⁵⁶8, ⁵⁶8, ⁵⁶5, ⁵⁶5,

APPENDIX 3: INVESTMENT IDEAS - MEET THE TEAM



Jason Fletcher CIO

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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

Underweight Fixed Income (G. Ross)

- 1.5% nominal yield on UK 10yr Gilt is not a sufficient return to meet future liabilities which are inflation-linked
- Rising inflation is bad for Gilt returns
- Yields to turn upwards as multi-year lows are reversed

Neutral property – Negative Outlook (M. Hardwick)

- Heightened sensitivity to Brexit deterring some investors and slowing investment activity
- Continued pressure on Retail valuations likely to accelerate as valuation departments assert their independence
- Retail will present value at some point, just not yet
- Occupational demand a mixed bag but slowing even in strongest sectors
- Yield still attractive versus other asset classes

Overweight EM equities (J. Fletcher)

- Weak dollar expected good returns for GEMs
- Threat from US-China trade tariffs/trade war priced into GEMs
- Valuation very attractive for GEMs

Overweight infrastructure (M. Hardwick)

- Expensive historically but good value versus bonds
- Opportunities may arise from some global investors paring back interest in UK
- Maturing pension schemes and better funding levels should support
- Fears of nationalisation of infrastructure assets under a future labour government could impact investment returns especially in light of political instability emanating from Brexit deal rejection



Selective Overweight Private Equity (O. Ghafur)

- Fund raising environment remains robust, with substantial "dry powder" for investments;
- Possibility of PE Managers overpaying for assets due to increased competition;
- Favour PE downside protection (e.g. private debt) and uncorrelated
- with world equity market
- Direct investment in defensive companies/sectors and/or upper quartile managers
- Sell unattractive and legacy assets



Defensive positioning in rising interest rate environment

- High quality credit
- Securitised debt which attracts floating rates of interest
- Yield curve positioning

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