

Economic & Political Roundup

A collation of recent insights on markets and economies taken from the comments made by chairmen and investment managers of investment companies – have a read and make your own minds up. Please remember that nothing in this note is designed to encourage you to buy or sell any of the companies mentioned.

Roundup

Global equity markets “climbed the wall of worry” in July. Despite the escalating trade war between the US and China and negatively impact global demand, Quantitative Easing (“QE”) turning to Quantitative Tightening (“QT”), all but two major global markets, Hong Kong and South Korea, delivered positive returns.

Global

The global bull market is in its later stages when periods of higher volatility can be expected.

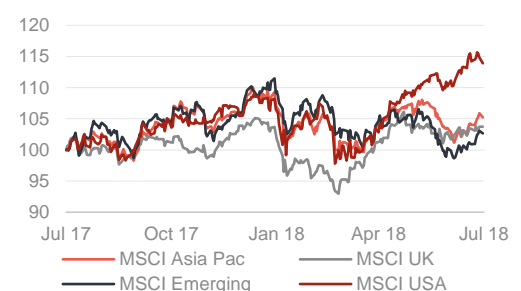
Although their views vary at the margins, many of the managers of global and multi-asset funds accept that the nine-year bull market that began after the global financial crisis of 2008 is in its later stages and that we are reaching the top of the economic cycle. Given that, many write that periods of volatility can be expected. Peter Hewitt, investment Manager of F&C Managed Portfolio Trust repeats the saying that bull markets for equities “climb a wall of worry” and believes that has been the case over the past couple of years, with all sorts of uncertainties, especially of the political kind, being manifest. The investment managers of Ruffer are worried about the outlook for markets and Kun Deng, manager of Lazard World Trust Fund begins his commentary by stating his belief that the global investment environment will be more volatile. Unsurprisingly, none of the managers or chairman is able to give a definitive forecast as to when the cycle or the bull market will end. Many, such as Simon Fraser, chairman of F&C Investment Trust report that their managers are favouring businesses with sustainable business franchises, supported by strong cash flow generation and attractive valuations, reflecting a cautious optimism, perhaps.

Exchange Rate	31/07/18	Change on month %
GBP / USD	1.3124	(0.6)
USD / EUR	0.8554	(0.0)
USD / JPY	111.86	+1.0
USD / CHF	0.9903	+0.0
USD / CNY	6.8167	+3.0

Source: Bloomberg, Marten & Co

MSCI Indices rebased to 100

Time period 31/07/2017 to 31/07/2018



Source: Bloomberg, Marten & Co

	31/07/18	Change on month %
Oil (Brent)	74.25	(6.5)
Gold	1224.15	(2.3)
US Tsy 10 yr yield	2.9598	+3.5
UK Gilt 10 yr yield	1.33	+4.1
Bund 10 yr yield	0.442	+47.3

Source: Bloomberg, Marten & Co

Global (continued)

Richard Martin, chairman of F&C Managed Portfolio Trust points out that the current environment does not preclude positive returns from equities. However, he goes on to say that the driver will be earnings growth as opposed to higher valuations. Opinions vary on whether valuations are too high or not.

Negative news headlines abounded, particularly about the impact of trade restrictions, politics and conflict. Nevertheless, many of this month's commentators reflect cautious optimism, particularly regarding company earnings. Economic growth could be positive, particularly in the US where tax cuts have provided a boost, but is expected to slow in areas such as continental Europe and Japan. The EU has commenced a scaling back of its policy of Quantitative Easing ("QE") over the last few quarters, whilst the US is progressively increasing interest rates and has initiated Quantitative Tightening ("QT"), a reversal of QE. Their combined effect has reduced financial liquidity within the international exchanges and may have led to extra market volatility. Robert Hingley, chairman of Law Debenture notes that, although companies have achieved strong earnings growth, valuations have drifted lower.

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United Kingdom

The focus remains on Brexit and will do for the foreseeable future

It is no surprise that Brexit was once again the key focus of the chairmen and managers of UK investment companies. Several report that international investors are not attracted to the UK. Ciaran Mallon, portfolio manager of Invesco Income Growth writes that, notwithstanding some recent volatility, the UK stock market has risen strongly over the past eight years. While the market is not expensively valued on an historical basis and stands at a discount to other major stock markets, there remain headwinds to withstand, including the yet unknown impact of Brexit implementation, with economic growth likely to remain subdued. There is a difference in perspective between managers with a smaller company mandate and those who invest across the market capitalisation spectrum. Chairman of Aberforth Smaller Companies, Paul Trickett, and Gervais Williams, manager of Miton UK MicroCap, both believe that smaller domestic companies will be less impacted, although they will not totally avoid it. However, Dan Whitestone, manager of Blackrock Throgmorton, says many UK companies already derive considerable proportions of their earnings overseas, which also makes them resilient.

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Europe

Negative sentiment despite little change in backdrop

Writing before the positive result of trade talks between the EU and the Trump administration, Sam Cosh, lead investment manager of European Assets Trust, wrote that 2018 began positively for European investors. Much changed in investor sentiment after that, as trade fears took hold. However, he does not believe that the investment backdrop has changed fundamentally in just a matter of a few months.

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External demand and private sector capital expenditure in counterpoint to a sluggish Japanese economy

Japan

Noel Lamb, chairman of Atlantis Japan Growth, writes that the Japanese economy is growing at a steady pace, given its mature structural characteristics. There are even some inflationary green shoots appearing, although, still shy of the BoJ's 2% inflation target. The company's investment adviser, Taeko Setaishi, is cautious, given sluggish consumer demand but says exports and private sector capital expenditure are holding up.

Environmental companies are not immune to macro influences but sector-specific developments underpin growth

Environmental

Impax Environmental Markets' chairman, John Scott, notes that market volatility is likely to increase, citing trade negotiations and uncertainty about interest rate rises as triggers for this. He sees the outlook for environmental markets remaining strong despite the current conditions. The investment managers of Impax discuss measures being implemented to curb the prevalence of single use plastics.

Growth continues in the maturing UK wind energy market

Infrastructure – Renewable Energy

Tim Ingram, chairman of Greencoat UK Wind, reminds us that electricity generation from wind is the most widely deployed renewable energy technology available in the UK. He also notes that the sector is a mature and growing market.

After many years of reform, sentiment is returning to financials

Financials

Robert Kyprianou, chairman of Polar Capital Global Financials, has seen a recovery in sentiment towards the sector, which is becoming grounded in improving fundamentals. He lists improving global growth, restructuring after the banking crisis and rising interest rates – as evidenced by the 0.25% hike in UK rates early in August.

The investment managers of Polar Capital Global Financials remind us that the sector's performance remains linked to the outlook for economic growth and interest rates, with share prices of banks and life assurance companies positively correlated to the movement in bond yields. However, they note some underperformance in the sector, particularly from US and European banks. They view this as surprising, given the positive economic and sentiment conditions referred to by the chairman and remain confident for the sector.

Continued growth in TMT is expected, supported by positive global economic activity.

Technology, Media & Telecommunications

Ben Rogoff, manager of Polar Capital Technology believes that 2017 was the strongest year for global growth since 2011. He thinks this broadening and more synchronised upswing looks set to continue, with 2018 on track to be the "first year since the financial crisis that the global economy will be operating at or near full capacity". He distinguishes between technology "disrupters" and the "disrupted" but believes that, overall, the outlook for his sector is positive. Sarah Bates, chair of the trust, notes that valuations are high, and that volatility is likely.

the search for yield continues. Warehouses are booming at the expense of high street retail

Property

According to Steven Owen, chairman and Harry Hyman, managing director of Primary Health Properties, the healthcare property has been a prime beneficiary of investors ongoing “hunt for yield”. Healthcare property is also a major beneficiary of the NHS 5-year plan.

In UK commercial property, SEGRO and intu illustrate the divergence in the fortunes of the industrial and retail property sectors. SEGRO has seen positive performance from its warehouse portfolio (on the back of the growth of online shopping) while intu’s shopping centre portfolio is contending with struggling physical retailers. Many retailers and restaurant chains have negotiated special rent deals. intu is comforted by rising UK wage inflation, however.

Residential Secured Income comments on the well-known shortage of housing in many parts of the United Kingdom, resulting in high levels of demand, and says that they have seen a strong appetite from Housing Associations and Local Authorities for new sources of capital to invest in these areas.



Despite concerns over Brexit, the outlook for peripheral debt assets is benign.

Debt

Ian Fitzgerald, chairman of Alcentra European Floating Rate Income, writes that whilst the potential impact of Brexit on its markets is an unknown, loan markets have historically been far less volatile than bond or equity markets. The investment managers of TwentyFour Income report that sentiment in the ABS (asset-backed securities) market is positive, and their expectation is for conditions to remain favourable for the remainder of 2018



In the global aviation industry, growth is coming from growing passenger numbers in Asia and South America

Leasing

According to John Le Prevost, director of Amedeo Air Four Plus, the strong growth in global passenger traffic for 2017 continues into 2018. This is despite oil prices being up by 16%. There is great market potential in the majority of the world’s fastest growing markets, notably Asia and the Middle East. Infrastructure, however, remains a constraint, with more runways, airports and support systems needed in the Asia Pacific, Middle East and South American markets.



The US mid term elections are in biotech and healthcare companies radar screens

Biotechnology & Healthcare

Professor Justin Stebbing, chairman of BB Healthcare, sees the fundamentals for global pharmaceutical companies as positive, albeit unevenly distributed. Valuation remains undemanding with price to earnings ratios towards the low end of the historical range for the group. The managers of the trust state that healthcare provision is an emotive and political subject. They see positive change on the horizon. Both commentators refer to the US mid-term elections, after which they think the market will be more driven by fundamentals.



Commodities & Natural Resources

There are plenty of pressures on the commodities sector. Despite that, positive growth is possible.

BlackRock Commodities Income's chairman, Ed Warner, commented that risks remain for the mining and energy sectors; pointing to the potential for the trade war between the US and China to escalate or a breakdown of the OPEC production agreement combined with a material slowdown in global economic activity. However, he is positive on the outlook for the sector for the rest of the year, given the current backdrop of solid global economic growth. The investment managers agree. They comment on the US 10-year treasury yield, which briefly exceeded 3%, accompanying a greater focus on inflation.

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Global

(compare Global funds [here](#))

Robert Hingley, chairman, Law Debenture: Although companies have achieved strong earnings growth, valuations have drifted lower. Dividends produced by equities continue to grow substantially faster than inflation. This could mean a small increase in investor confidence will lead to a strong upward movement in share prices as investors reallocate back to UK equities, which are currently unpopular with investors. Concerns remain about the health of the economy.

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Lord Smith of Kelvin, chairman, Alliance Trust: Uncertain market outlook; There will always be periods of volatility when the focus of equity markets shifts away from company fundamentals. Going forward, we expect the increased levels of volatility and dispersion that we have witnessed over the recent months to persist, providing opportunities for active stock pickers.

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Harwood Capital, investment advisor, Oryx International Growth: Once again it is unlikely that the smaller companies in the United Kingdom will perform notably well in the coming year. The UK economy has grown consistently since 2008, much of it on increased consumer debt, and this must inevitably result in a period of economic consolidation.

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Investment managers, Ruffer: It is safe to say that we are worried about the outlook for markets. The 10% fall in global equities at the start of February gave investors a peek under the curtain at some of the worrying technical dynamics in global markets.

High valuations in many areas are justified only by the cheap cost of money and so any news which will lead to bond yields rising faster than expected (for example wage growth, inflation or widening credit spreads) undermines this position. At the same time liquidity in financial markets has been greatly reduced by structural changes brought about by regulation since the financial crisis. This need not be the catalyst for a crisis, but it means that markets are more crash prone – limited liquidity will amplify market moves. This is not helped by the exponential growth of unthinking passive vehicles (aka Exchange Traded Funds), which create virtuous circles on the way up, but vicious ones on the way down.

Huge debt issuance by low grade corporates and sovereigns and a general hunger for yield at any price has created products where there is a mismatch between the liquidity of the vehicles in which the credit instruments are held (they typically promise daily or weekly dealing opportunities) and the underlying assets, which may not trade at all on a weekly basis.

Finally, there are perversities in the trading of volatility. For the last 10 years investors have been encouraged to sell volatility because at the first sign of trouble the world's central banks have moved swiftly to calm investors' nerves. On top of this volatility has become both an output and an input of the investment process. Most risk models have volatility at their core and so low volatility acts as a signal to leverage up and buy. February briefly showed how this can create distortions, which unwind very quickly when the wind changes. We took some profits in our volatility call options in early

February, but we maintain the view that these events were likely a tremor before the earthquake.

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Lucy Macdonald, investment manager, Brunner Investment Trust: Entering the second half of this year, we return to the question with which we began it: How much longer can the benevolent combination of low inflation, accommodative monetary policy and resurgent economic growth be sustained?

It is clear that the synchronised global upswing which characterised 2017 is now visibly fragmenting. On one hand, US economic data continues to impress, and should carry on doing so thanks to the Trump administration's tax reform, which has incentivised consumer spending, business investment and labour compensation. Yet in the rest of the world, growth momentum is moderating, with expectations in the euro-zone and Japan slowing in particular.

The Trump administration's stance on trade has also significantly increased the potential for downside risks. In the extreme event of a 20 per cent jump in tariffs between the US and the rest of the world, Bloomberg Economics estimates a reduction in global output of 1 per cent by 2020. There are already signs that these fears are dampening market sentiment, with China's Shanghai Composite Index plunging 3.8 per cent on the day President Trump threatened tariffs on an additional 200 billion USD of imports.

The topping out of cyclical momentum is a strong indication that we are entering the next stage of the business cycle, in which we should expect rising inflation against a backdrop of ever tighter labour markets and rising capacity utilisation. Yet if trade issues escalate and start to affect consumers, businesses may begin to lose confidence and slow their spending and investment. This further complicates the efforts of central banks struggling to normalise monetary policy without jeopardising economic growth.

As a result, we expect volatility to continue rising to more historic levels. We are already beginning to see signs that investors are rotating away from sectors potentially exposed to tariffs, like Industrials, in favour of more defensive stocks like Consumer Staples. At a style level, we retain our preference for stocks which display earnings momentum, rather than straightforward Growth, as they should be most resilient in the face of macroeconomic headwinds.

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John Pattullo and Jenna Barnard, fund managers, Henderson Diversified Income: The broad outlook remains unchanged from our semi-annual commentary whereby we continue to feel that the economic cycle in the UK and US feels relatively late stage whereas Continental Europe is still in its earlier stages for now (albeit with many structural fragilities). A flattening yield curve in the US government bond market is a warning signal to the Federal Reserve that their rate hikes are affecting the longer-term growth and inflation outlook negatively. Meanwhile, rising US interest rates are beginning to cause problems for lower quality emerging market borrowers, suggesting that liquidity conditions are tightening. This is also reflected in the synchronised downturn in residential property prices in many global cities. At present this doesn't translate into a direct increase in default rates, but rather a rise in market volatility, effectively a repricing of risk by investors.

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Simon Fraser, chairman, F&C Investment Trust: Our current assessment is that, while risks and concerns over issues such as trade and the impact of rising interest rates abound, the fundamental backdrop remains broadly supportive for equity investment.

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Kun Deng, CFA, manager, Lazard World Trust Fund: Going forward, we believe the global investment environment will be more volatile. While economic issues persist - including elevated valuations in several major markets, increasing leverage, and changing interest rate regimes - geopolitical issues, such as nationalism, trade protectionism, military conflicts, and political uncertainty in various parts of the world are increasingly dominating headlines. We are likely to experience market corrections that may be significant, but we continue to remain cautiously optimistic that a volatile environment will present opportunities. The global economy continues to grow, with many economies having not only recovered but making steady progress towards economic expansion.

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Richard M Martin, chairman, F&C Managed Portfolio Trust: Although there will be much focus on Brexit and the accompanying political uncertainty for some time to come, from an investment standpoint it is best to focus on the prospects for the fundamentals. In this regard the underlying fundamentals remain generally positive although the policy Quantitative Easing - which was so supportive of financial markets - has given way to one of tighter monetary policy, particularly in the US where the Federal Reserve has raised interest rates seven times. This does not preclude positive returns from equities; however, the driver will be earnings growth as opposed to higher valuations. It is encouraging that against a background of largely synchronised global growth it is likely that strong corporate earnings growth will continue for some time yet.

Nonetheless, although the duration of a bull market is not a constraint on future returns, this one, at over nine years, is long in the tooth and at some stage will come to an end. This warrants a cautious approach.

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Peter Hewitt, investment Manager, F&C Managed Portfolio Trust: It is often said that bull markets for equities "climb a wall of worry". This has certainly been the case over the past couple of years with all sorts of uncertainties, especially of the political kind, being manifest. Looking ahead there seems little change in the sense that uncertainty of the political variety will be with us for some time. For the UK, Brexit casts a long shadow. By later this year or early next, the nature of the terms of Brexit will be known. At this stage however, speculating on the eventual outcome is a fruitless endeavour.

Over the medium to longer term, returns from financial markets tend to be determined much less by political events and much more by the outlook for the fundamentals of the economy and the prospects for corporate profits and dividends. In this regard the synchronised nature of global growth, led by the US, has created a positive backdrop for equity markets. This is set to continue for the balance of this year and likely into 2019. However, a key policy which has proven to be a strong tailwind for financial markets is coming to an end. Quantitative Easing has, in the US, moved to Quantitative Tightening as the Federal Reserve has steadily increased interest rates and has stopped purchases of financial assets. Interest rates have been increased seven times to be at 2% with more predicted over the next year. Against a background of a slower economy the Bank of England has been more gradual, but even here have increased interest rates once. The ECB in Europe has indicated it will halt purchases of bonds by

the end of this year, although a rise in interest rates is still some way off, the change of trend is clear.

With full employment, there are at long last signs that wage growth in the US (and again even in the UK) is accelerating. This is seen as a key component of rising inflation which is why the monetary authorities are keen to try to normalise interest rates after a decade of extremely low levels.

In this environment the valuation accorded to equity markets stops expanding (a key driver in recent years). In my report last year, it was noted that the forward P/E ratio on the S&P Composite Index was 17x. This year it has fallen to 16x and yet the US market achieved a positive return of 11% over the past twelve months. Looking ahead, positive returns in most equity markets will be driven by earnings growth with valuations, if anything, likely to contract further.

Encouragingly earnings growth is strong in many markets. In the US, fuelled by tax cuts, year on year corporate earnings growth as at the end of Q1 2018 was 24%. In the UK this was 8%, with all major regions, Asia Pacific, Europe and Emerging Markets, reporting strong earnings and dividend progress.

The fact that this bull run for equity markets began in 2009 and that in a historic context this is much longer than almost any other bull market phase does not mean an end is imminent. In broad terms the environment remains constructive for further progress in equity markets. However, what should be anticipated are bouts of volatility which can be both sharp and uncomfortable. The principal risk is that central banks, particularly the Federal Reserve in the US, could tighten monetary policy too far or too fast in response to evidence that inflationary pressures are building. Although there are also more UK specific Brexit related risks, robust synchronised growth across most regions should be a key influence.

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United Kingdom

(compare UK funds [here](#))

Hugh Twiss MBE, chairman, Invesco Income Growth: As I write this report we are now well into the last year before Brexit and it is still not much clearer whether this is going to be a hard or soft Brexit, let alone the full economic impact on the UK economy; President Trump is upending the established world order and starting trade wars with both friends and foes; populism appears to be on the rise in Europe and these are only some of the uncertainties that are currently around.

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Ciaran Mallon, portfolio manager, Invesco Income Growth: Notwithstanding some recent volatility, the UK stock market has risen strongly over the past eight years. While the market is not expensively valued on an historical basis and stands at a discount to other major stock markets, there remain headwinds to withstand, including the as yet unknown impact of Brexit implementation, with economic growth likely to remain subdued. Interest rates are now on an upward path, notably in the US, while China has again lowered its desired growth targets. Additionally, sterling could strengthen further from still relatively depressed levels, creating pressure on forecasts for the overseas revenues that comprise the major part of FTSE 100 company earnings. There is,

however, further recovery potential in the stocks where sentiment has been negatively impacted by Brexit and political concerns.

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Jonathan Cartwright, chairman, Aberforth Split Level Income: At a global level, the spectre of trade tariffs and the continued unwinding of the exceptional monetary stimulus in place since the global financial crisis will surely challenge companies of all sizes and nationalities. Closer to home, the uncertain political and economic consequences of the UK's exit from the EU is an even more obvious reason to expect choppy waters for UK companies in the short and medium term.

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Investment managers, Aberforth Split Level Income: It is now nine years since the last recession, a period in which total returns from the All-Share and the Numis Smaller Companies Index (XIC) have been 166% and 274% respectively. Given that length of time and the strength of those returns, a degree of nervousness about a less rewarding period is understandable. Early in 2018, the markets appeared to have found good reason for concern as monetary tightening in the US combined with rising political risk around the world to cloud the outlook. And, of course, the situation in the UK is complicated by the possibility of a Brexit settlement that proves hostile to business.

In the event, the elevated volatility of the quarter to 31 March 2018 proved transient and many indices [were] at or close to historical highs. However, there is a different story in the bond markets, with the US ten-year yield still around 3%. This would imply better prospects for economic activity in nominal terms, but it remains to be seen whether the world economy can endure such a repricing of money. The experience of 2013 does not bode well, but today's growth is more balanced among the major economies and inflationary pressures are more difficult to ignore, with employment markets tightening and populism encouraging looser fiscal policies. At the very least, 3% bond yields give financial markets pause for thought. Will the investment strategies and styles that have prospered in a decade of easy money prove so successful as circumstances change?

As these big picture issues play out, it is important not to lose sight of the progress being made by most of businesses within the the NSCI (XIC). Notwithstanding the continuing negotiations with the EU, another year of higher sales and profits looks likely. A healthy level of investment and above average dividend growth suggest confidence on the part of company boards. However, in the context of broader equity markets, valuations of small UK quoted companies remain low, especially among the "smaller small" companies and domestic businesses.

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Paul Trickett, chairman, Aberforth Smaller Companies: The Brexit journey continues. Politicians from all sides contribute to the uncertainty, the public trade opinions, large companies lobby and meanwhile small businesses appear to be just getting on with it. Some businesses see opportunities while others see risk: the currency lens undoubtedly influencing their perspective. Against a healthy global economic backdrop, the divergence between domestic and overseas businesses is most stark. Brexit, be it hard or soft, will run its course. Currency flexibility and an improving fiscal position may enhance the prospects for the UK economy once some of the Brexit hysteria fades.

Globally, the world continues to tack away from deflation and it is perhaps that journey which will prove of more significance over the medium term. A normalisation of interest rates, and the end of "free money" has the potential to alter the investment landscape in a radical fashion.

Christopher Samuel, chairman, Blackrock Throgmorton: Despite recent softening, global economic activity is expected to remain robust during the second half of 2018. Corporate earnings remain strong, particularly in the US. In the UK, equities are trading at near record highs and inflation appears to be trending down towards the Bank of England's 2% target, which may bode well for the outlook for UK Small Cap companies. There has also been an acceleration in UK wage growth in recent months and the labour market has strengthened, with levels of employment hitting a record high in May 2018.

These factors have offset some of the negative impact of the heightened global and domestic political risk, concerns around the potential impact of rising interest rates, and a general wind-down of the easy monetary policy seen in recent years which will result in a tightening of liquidity. In addition, the uncertainty around the ongoing Brexit negotiations with the European Union remains a significant risk and there are indications that the UK economy is starting to feel the effects of Brexit. Overall, the outlook for the UK market, which even in the smaller companies sector, derives a significant proportion of its revenue from overseas, appears reasonable and the combination of low inflation, low unemployment and increasing earnings should be supportive of UK economic growth.

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Dan Whitestone, manager, Blackrock Throgmorton: Following the strong performance of the UK stock market in 2017 with low levels of volatility, 2018 has been much more volatile with markets reacting "more normally" to company news flow, both positive and negative, as opposed to continually grinding higher as we saw in the previous year.

The outlook for the UK domestic economy remains challenged and the recent evidence would suggest it is deteriorating. This has had a notable impact on the share prices of many domestic companies with several market participants highlighting the value on offer. However, we think many of these UK consumer shares are "bad value" and whilst many of them appear cheap on valuation metrics like "price to adjusted earnings", this fails to take into account the levels of debt and poor cashflow some of these companies exhibit. In many cases these same investments are also exposed to cyclical pressures (weakening demand or rising cost pressures impacting corporate profit margins), and/or structural pressures (digital disruption, or competition from low cost or specialised formats).

As such we remain cautious on UK domestics in general but remain positive on the outlook for UK listed companies. We think the UK is home to many compelling investment opportunities where the revenues and profits are generated outside the UK and the companies have a leading differentiated competitive offering. Notably, the outlook for these investments is tied to the global economy which we believe remains robust. Our universe is well diversified by sector and geography and there are ample opportunities to find well managed, dynamic, differentiated companies that are market leaders competing on a global basis.

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Margaret Littlejohns, chairman, Henderson High Income: While global equity markets have recovered from their sharp falls earlier in the year, considerable uncertainty still remains ahead. In the US President Trump continues to court controversy and fears of an escalating tit-for-tat trade war have risen following his introduction of specific trade tariffs, particularly aimed at China. That said, current global economic growth is still relatively strong and inflationary pressures are beginning to prompt some central banks to consider increasing interest rates gradually, with the

Federal Reserve leading the way. However, inflation in Japan and the Eurozone remains low.

Given the slow progress on Brexit negotiations and the recent sluggish performance of the UK economy, UK equities are still generally unpopular with international investors and sentiment.

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Andy Pomfret, chairman, Miton UK MicroCap Trust: There is growing evidence that market trends are changing. The political agenda is in a period of flux, as a growing proportion of the electorate vote against the prior status quo, in part because wage growth has disappointed over recent years. Indeed, the recent imposition of tariffs in pursuit of domestic political goals suggests that the days of increasing globalisation may be drawing to a close.

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Gervais Williams and Martin Turner, managers, Miton UK MicroCap Trust: At this stage, it seems probable that the Brexit/EU agreement will be effected via a transitional arrangement where the UK border with the EU continues with customs arrangements largely unchanged until the end of 2020. If this assumption is correct, we believe there would be very little adverse impact prior to the end of 2020.

Over the longer term, a KPMG report on the non-tariff barriers in the EU estimated that wider border checks may cost between 0.4% and 1.9% of the value of traded goods. HMRC expects the longer-term EU border costs to be about 1%, although some others estimate it could be higher. Overall, it is assumed that there will be some additional cost for some stocks at the time of an orderly withdrawal from the EU.

There is a chance that the current political process becomes derailed prior to the end of March 2019, and the UK exits the EU without a transitional arrangement. The abrupt imposition of a national border between the UK and the EU countries would add much greater costs to cross border trade if this were to occur immediately. In addition, it is likely that the passage of goods could be delayed, possibly for weeks. Both of these factors would significantly adversely affect the profitability of a number of [UK companies].

Over the last three decades, many of the most popular funds sought to outperform the mainstream benchmarks. Generally, most narrowed their investment universe to mid and larger companies to better meet this objective and institutional interest in small and microcaps therefore died away. In this context, it is noteworthy that microcap stocks showed a degree of resilience during February when equity markets became more volatile. This was not because their share prices were ignored during a busy period - many microcap share prices were marked down with others during the early part of that month. Rather, it was because many of the smallest stocks attracted renewed market interest after their share prices fell back, and hence tended to recover quicker than others!

Interestingly, this renewed interest in microcaps occurred during a period when monetary conditions were tightened. The EU has commenced a scaling back of its policy of Quantitative Easing ("QE") over the last few quarters, whilst the US is progressively increasing interest rates and has initiated Quantitative Tightening ("QT"), a reversal of QE. Their combined effect has reduced financial liquidity within the international exchanges and led to extra market volatility.

The changing market trends are now leading to additional interest in the microcap stocks, given their vibrant and agile nature, and returns that are often not closely

correlated with that of the mainstream equity benchmarks. Importantly, this new preference resembles the pattern that existed prior to globalisation, and contrasts with that of the last three decades.

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Europe

(compare European funds [here](#))

Sam Cosh, lead investment manager, European Assets Trust: As we entered 2018 the investment consensus was bullish; we were enjoying a co-ordinated global upswing supported by a market friendly US administration. Much has changed in investor sentiment during the intervening period with the most dominant driver of investor nervousness being an escalation in trade fears. We cannot possibly make predictions of the outcome of these current disturbances or the market reaction to such outcomes. We do not however believe that the investment backdrop has changed so fundamentally in just a matter of a few months.

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Japan

(compare Japan funds [here](#))

Noel Lamb, chairman, Atlantis Japan Growth: As at the end of April 2018 the TOPIX was trading on a forward price earnings multiple of 15.0x and a price to book ratio of 1.46x. These valuations are towards the lower end of historical ranges and compare favourably to other developed equity markets.

The Japanese economy is growing at a steady pace given its mature structural characteristics. There are even some inflationary green shoots finally appearing, although we expect the Bank of Japan (“BoJ”) to maintain its current monetary policies with the 2% inflation target still a long way off.

Last year, I touched on the implications of the greater focus in Japan on the Corporate Governance Code and we continue to see a steady improvement in total shareholder returns by way of more efficient use of capital, share buybacks and higher dividends.

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Taeko Setaishi, Investment adviser, Atlantis Japan Growth: The most recent economic data flow confirms growth has given way to sluggishness. The most disappointing performance has come from consumption. The tight labour market and higher wages have failed to ignite robust household spending. Spending on services has been solid but durables expenditure has dropped back to levels not seen since 2014. If wage (and bonus) levels are increased this would fuel a consumption recovery.

The major catalysts that have contributed to two years of growth – external demand and private sector capital expenditure – continue to exhibit brisk growth. Private sector capital spending is solid. Equipment demand is fuelled by Japan’s output gap coupled with surging corporate cash flow. Asian demand for Japan’s robots and material

handling equipment remains robust. These contributions, coupled with a consumption recovery, could put Japan back on an economic expansion path.

The Bank of Japan (BoJ) continues to run an exceedingly loose monetary policy with no change to its 2% CPI target. Key price measurements have slipped into positive territory but remain well adrift of the BoJ target. Given current trends the BoJ is not likely to consider tapering until mid to end 2019.

In summary, the Investment Adviser expects the Japanese economy over the next 2-3 years to grow potentially at an annualised rate of 1.0% to 1.5% with positive contributions from capital spending, external demand, and private consumption. Risks to this scenario would be a sharp appreciation of the Japanese yen, a full-blown trade war between China and the United States with Japan caught in the middle (China and the United States combined account for 40% of Japan's exports) and a China recession.

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Environmental

(compare Environmental funds [here](#))

John Scott, chairman, Impax Environmental Markets: It is likely that equity market volatility will continue in the coming months, due to trade negotiations and uncertainty about interest rate rises, to mention just two of the more obvious hazards on the horizon. Regardless of whatever fallout there may be from the Brexit negotiations (or lack thereof) we would expect environmental market conditions to continue to improve across much of the globe.

The global push to reduce plastic waste continued to gain momentum. The issue, which first came to wider public attention during BBC's Blue Planet II television series, was followed in January by the Chinese government banning the import of contaminated recyclables. These factors have led to aggressive government policy responses in Europe, including the UK government looking to introduce a deposit scheme on drinks containers. This, alongside changing consumer attitudes, is opening up multiple investment opportunities.

The transition away from pure internal combustion engines, towards hybrid and electric vehicles, also continues to gather pace. In the first six months of the year, sales of new diesel cars in the UK fell by 30%. In February, Germany's highest administrative court declared that its cities have a duty to meet EU air quality levels and determined that banning older diesel vehicles was an effective and legal means to achieve these targets. Changing government policy, falling technology costs and evolving consumer preferences are expected to drive strong growth in this category. Both Original Equipment Manufacturer (OEM) targets and industry consultants such as Ricardo suggest rapid growth for hybrids and electric vehicles from under 1% penetration of world car sales in 2017 to 20% by 2025.

Disappointingly, global CO₂ emissions rose in 2017, according to BP's Statistical Review of World Energy. Under a "business as usual scenario", Climate Action Tracker expects atmospheric temperatures to reach 4 C above preindustrial levels by 2050. Although advances have been made in influencing this trajectory, further technology developments and policy support is likely to emerge. Such developments will support the expansion of Environmental Markets, providing a compelling backdrop

Investment managers, Impax Environmental Markets: We expect equity markets to remain volatile. The recent de-rating, healthy earnings growth, and a diversified positioning provide some comfort on outlook. We continue to encourage investors to remain focussed on the long-term growth story. The overarching global drive towards more efficient usage of resources and the substantial investments required to establish and maintain infrastructure in environmental markets all remain firmly in place on a global basis. More disruptive developments, for example the transition from internal combustion to electric vehicles or related to the war on plastics waste, drive additional investment opportunities and provide a favourable outlook for growth and performance over the long term.

Update on Digitalisation in Environmental Markets

We envisage continuing increases in technology and software content in Environmental Markets driving further efficiency gains. McKinsey & Co has estimated that the industrial internet-of-things (IoT) could create more than \$4trn of value in the next decade as the digital and physical worlds converge and improve efficiency in the industrial environment.

Pressure on Plastics Mounting

The global pressure on companies and policymakers to move away from single-use plastic continued to intensify. In May, Chinese President Xi Jinping pledged to push the fight against pollution forward. He signalled a desire to improve environmental quality standards before 2035. In June, India's Prime Minister Narendra Modi indicated that India will remove all single-use plastics by 2022, in the boldest move yet to tackle plastic pollution. Closer to home, the European Commission unveiled new rules on single-use plastics, which will be banned where ready alternatives are available - such as with plastic cotton buds, cutlery, plates, straws and drinks stirrers. European Member States will set national reduction targets to lower the amount of plastic food containers and drinking cups in circulation and to increase plastic bottle recycling to 90% by 2025.

Deposit schemes are currently the most realistic approach to achieving such ambitious targets. We are equally encouraged by the opportunities now presented by the momentum in recycling infrastructure, fibre-based packaging and bioplastic alternative materials.

Lighting Update

Following rapid growth in recent years, the light emitting diode ("LED") lighting market has been slowing, as the proportion of LED sales for lighting businesses has matured and the rate of growth in penetration of the building stock has tapered. Slowing growth has driven an increase in competition.

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Infrastructure - Renewable Energy

(compare Infrastructure - Renewable Energy funds [here](#))

Tim Ingram, chairman, Greencoat UK Wind: Electricity generation from wind is the most widely deployed renewable energy technology available in the UK and has matured from being a somewhat unusual form of generation into becoming one of the key providers of electricity: on average, over 15 per cent. of the UK's electricity demand is now being supplied by wind energy and by 2020, over 30 per cent. of the UK's electricity demand should be met from renewable sources (of which wind is the dominant component).

There are currently 20GW of operating UK wind farms (13GW onshore plus 7GW offshore). Installed capacity is set to grow to 14GW onshore plus 12GW offshore by 2021. In monetary terms, the secondary market for operating UK wind farms is approximately GBP50 billion, increasing to GBP75 billion by 2021.

The key value driver affecting operating UK wind farms is the wholesale power price. In general, independent forecasters expect the UK wholesale power price to rise in real terms, driven by higher gas and carbon prices.

The Company does not expect any material change to its business as a result of the UK exiting the European Union. Being solely UK focused and deliberately low risk, all of the Group's assets and liabilities are within the UK and sterling denominated. In addition, the regulatory regime under which the assets operate is robust, longstanding and rooted in UK legislation.

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Financials

(compare Sector Specialists: Financials funds [here](#))

Robert Kyprianou, chairman, Polar Capital Global Financials: In my last Interim Statement, I noted that sentiment towards the financial sector was finally improving, albeit from a very low level following the global financial crisis. In discussion with market participants and investors we believe this recovery in sentiment is becoming grounded in improving fundamentals. These include a better outlook for global growth; the prospect of rising bank net interest margins as the interest rate cycle turns; stronger bank balance sheets and regulatory capital; greater operational leverage from digitisation and consolidation, and the passing of the penal cycle of fines on financial services firms. It may have taken longer than we would have liked but a period of rising profitability and greater pay-outs to investors is now underway. Coupled with the fact that the sector has yet to be fully re-rated, these fundamentals present the most favourable medium and long-term outlook for the sector that we have seen since the financial crisis.

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Nick Brind & John Yakas, investment managers, Polar Capital Global Financials:

Unsurprisingly the sector's performance remains linked to the outlook for economic growth and interest rates with share prices of banks and life assurance companies positively correlated to the movement in bond yields. Meanwhile nonlife insurance stocks, while beneficiaries from rising interest rates, have lagged probably in part due to their defensive qualities, as cyclical companies have been outperforming reflecting their greater economic sensitivity, but also negative sentiment around reinsurance pricing.

US and European banks have failed to provide any fresh impetus to the sector post results, although US banks have seen a big boost to their earnings from the fall in corporate tax rates. Nevertheless, the underlying trend of banks continuing to return capital to shareholders through buybacks and dividends has continued and with significantly more clarity on the outlook for capital requirements, this should help to underpin sentiment towards the banking sector.

While US banks have seen better underlying operating trends, benefiting from an increase in net interest margins and loan growth, than their European peers, it was only rising concerns around Italian political risk that resulted in the sell-off in European bank shares during May. The biggest risk in the short-term in Europe is if the new Italian government heads down a path of confrontation with other Eurozone governments.

In the US, after receiving Senate approval, the House of Representatives, in May, approved a series of banking reforms which rolls back part of the Dodd-Frank post financial crisis legislation and continues a trend of a gradual easing in financial regulation. One of the key aspects of the bill is a reform to increase the threshold for a bank to qualify as systemically important (raised to US\$250bn in assets from US\$50bn previously) which will materially reduce the cost of regulation for smaller banks. Furthermore, other proposed changes give US banks greater flexibility to return more capital via buyback and dividends to shareholders going forward. The clarity now provided on Basel 4 should also allow European banks to have more confidence on what sustainable level of dividends they can pay to shareholders as some banks had held back on returning surplus capital to shareholders until the rules on capital requirements were finalised.

Over the next couple of years, we would expect to see a significant increase in M&A activity in the US. There are still around 5,000 banks in the US as it was not until the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, when there were over 12,000 banks in existence, which lifted the restrictions on banks operating across state borders. One of the key drivers for increased activity will be the need for smaller banks to compete with their much larger peers where they are being outspent on technology.

We continue to see a lot of value in the sector, as at the time of writing, the financials sector, in particular banks, has pulled back relative to equity markets and, as highlighted above, European banks have been particularly weak. Against the background of rising interest rates this looks surprising and anomalous, unless economic indicators turn down sharply in due course. Therefore, notwithstanding short-term volatility in financial markets we remain very constructive on the outlook for the sector.

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Technology

(compare Sector Specialists -Technology, Media & Telecommunications funds [here](#))

Sarah Bates, Chair, Polar Capital Technology: Ben Rogoff has been right about the radical impact of cloud computing on enterprise computing as well as the development of big data and these trends have underpinned the portfolio in recent years. We expect these themes to continue and the disruption caused already by such trends not to diminish.

The companies at the forefront of these changes are doing well, demand seems robust and debt levels are generally low. The speed with which dominant market shares are developed is to an extent alarming, and margins are substantial. In many ways, it's better to be invested in the disrupting than the disrupted.

The sector is itself volatile. Technologies get superseded and in some instances the winners take all. In addition, valuations for our preferred non-legacy companies within the sector are not cheap, and we have had extraordinary returns over the last two years.

However, market timing is a very unreliable source of returns. Our view is therefore that it is entirely possible that there will be some downturn in the prices of the companies in which we invest although we don't know when that might happen.

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Ben Rogoff, manager, Polar Capital Technology:

Market outlook

Looking back, 2017 proved the strongest year for global growth since 2011, with GDP +3.8% y/y as c.120 countries (accounting for three quarters of world GDP) experienced accelerating growth. This broadening and more synchronised upswing looks set to continue with 2018 on track to be the "first year since the financial crisis that the global economy will be operating at or near full capacity" with growth pegged at 3.9% this year and next. Advanced economies are expected to expand by 2.5% in 2018, driven by 2.9% growth in the US (2017: 2.3%) with consumption supported by wage growth, small business optimism at the highest level in decades and the expansionary impact of tax reform, offset by further policy normalisation. After delivering its fastest annual growth rate since 2007, Europe should experience another solid year with GDP expected to expand by 2.4% (2017: 2.3%) aided by labour market improvement, business capital spending and supported by loose monetary policy / quantitative easing (QE). The UK is likely to trail with growth pegged at just 1.6% (2016: 1.8%) due to soft consumption (relating to earlier Sterling weakness) and ongoing Brexit uncertainty. Japan remains a key beneficiary of global economic acceleration although growth is expected to moderate to 1.2% this year (2017: 1.9%) due to lower fiscal stimulus and Yen strength. After a strong 2017, developing economies are expected to further accelerate this year to 4.9% (2017: 4.8%) aided by reacceleration in India with growth forecast at c.7.4% (2017: 6.7%E) following a weaker year due to rebounding oil prices, demonetisation and the implementation of the Goods and Services Tax. Although growth rebounded in 2017 for the first time in seven years, China is expected to resume a gradual slowdown to 6.6% this year (2017: 6.9%) due to economic rebalancing / structural reforms and efforts to curb the expansion of credit.

Strengthening company numbers

The improved economic backdrop has presaged a sharp recovery in US corporate earnings which bounced back sharply in 2017, aided by the weaker US Dollar and the

recovery of oil / commodity-related earnings. Current forecasts have the pace of earnings growth accelerating this year with estimates currently experiencing their largest upward revision since Factset began tracking the data.

The first-quarter earnings season has been exemplary with the S&P 500 on track to deliver 24.9% earnings growth y/y - the highest earnings growth since Q3'10 - boosted by recently enacted US tax reform and the new 21% corporate tax rate. Revenue growth has also impressed with the S&P 500 tracking at 8.2% y/y which would represent the highest revenue growth reported by the index since Q4'11. As in prior years, earnings should also be buttressed by buybacks with S&P 500 companies sitting on nearly \$1.8tr in cash and equivalents, much of which has been stranded offshore until recently. This year is therefore likely to prove a record year with more than \$178bn in buybacks already announced by the end of February (more than twice the prior 10 year average) while Apple alone repurchased \$23.5bn worth of stock in its most recent quarter, the largest single-stock buyback ever and more than the market value of 275 of the S&P 500 constituents. Although elevated margins may appear a risk to earnings progress, this largely reflects the growing influence of margin-rich technology companies that currently account for 19.1% of S&P 500 earnings. Adjusting for this improved mix, US non-financial (ex-tech) EBITDA margins remain far from 1990s highs. While higher interest costs may prove a headwind (each additional percentage point on the corporate bond yield said to reduce EPS by c.4%) the altogether thornier issue of wage inflation represents the most latent risk to margins.

Interest rate normalisation

However, the elimination of output gaps is already beginning to have an impact on monetary policy which - in the US, in particular - has already become less market friendly. The Fed has already begun to unwind its balance sheet and raise interest rates (six times since the lows) with expectations for a further two hikes in 2018. The Bank of England has also raised interest rates for the first time since 2008, (although this was largely due to earlier Sterling depreciation), while the ECB - having bought more than €2tr worth of bonds may also begin to wind down its own QE programme.

However, we expect policy and liquidity conditions to remain supportive with G4 central bank balance sheets likely to expand until late this year and Mario Draghi all but ruling out ECB rate hikes this year. As such we remain hopeful that inevitable policy normalisation - now that the "era of QE and financial repression" is ending - will be carefully managed, not least because central banks have very little firepower in the event of an unforeseen economic shock. This view depends on core inflation remaining below target (core PCE averaging c.1.6% during 2018 vs. the 2% Fed target) despite unemployment falling to 3.9% - 17-year lows and decisively below levels once considered the "natural rate". While the market has begun to discount somewhat higher inflation (10-year Treasury Inflation Protected Securities (TIPS) spread rising to 2.15%) rising long-term Treasury yields also reflect other factors including higher growth, the Fed unwinding its balance sheet and \$1.5tr of unfunded tax cuts. While we expect the alignment of interest between policymakers and investors - the bedrock of this long-bull market - to be increasingly tested, we remain hopeful that their respective paths will not diverge critically over the coming year.

The valuation conundrum

The combination of strong earnings progress and choppy market conditions has resulted in some recent valuation compression, the forward 12-month PE on the S&P 500 falling back to 16.5x (from 18.2x in January), leaving this metric broadly in line with the five-year (16.1x), but above the 10-year (14.3x) averages. International markets appear better value, but less so on a sector adjusted basis. However, lower equity multiples have been more than offset by higher US Treasury yields and measures of

inflation such that the relative valuation gap between equities and bonds has narrowed over the past year. While the Fed Model (which compares earnings and bond yields) continues to suggest that equities remain substantially undervalued versus both Treasuries and corporate bonds, the so-called Rule of 20 (where the fair value PE is equivalent to $20 - \text{CPI}$) suggests that equities are only modestly undervalued today having traded at fair value briefly according to this measure at the January 2018 highs. Although valuations remain appropriate for the current (low) inflation environment, higher bond yields and/or rising inflationary pressures will likely act as valuation headwinds going forwards. As such we do not expect equity valuations to expand easily from here (and it is quite possible that cycle-high valuations have already been seen). That is not to say we are bearish - downside risk to valuations should prove modest absent deflation or inflation, the two primary causes of sharply lower PEs. But the key question remains - at what level does the current inverse relationship between stocks and bonds break down? Of course, we will not know the answer to this until after the event, but history suggests the relationship turns negative once 10 year US Treasury yields breach 4%. However, we imagine the path to 3.5%-4% is likely to involve more serious buffeting than investors have become accustomed to simply because we do not know where the break point is.

We are hopeful that in the absence of further PE expansion, investors may gravitate towards and ultimately crowd in stocks able to deliver genuine growth. This may help to explain why "growth" often outperforms in late-stage bull markets when "value" ought to be doing better as yields rise, epitomised by the so-called Nifty Fifty period, Japan between 1988-90 and of course the TMT bubble. At these times, technology and regulatory change has often played a key role in carving out subsets of stocks that perfectly capture the excitement of the time. Radio stocks played a prominent role in the years prior to 1929 epitomised by RCA which was growing revenues at 50% per year, while another frontier industry - electric utilities were "the favourites of speculators". Technology companies were also well represented within the so-called Nifty Fifty - 50 stocks identified by Morgan Guaranty Trust that were among the fastest-growing companies on the planet in the latter half of the 1960s. These included hardware high-fliers Burroughs, Digital Equipment and IBM as well as reprographics darlings Polaroid and Xerox. Likewise, technology leadership in consumer electronics, video gaming and use of assembly-line robots in manufacturing helped create the preconditions for the late 1980s Japanese equity market bubble. And the late 1990s bubble - characterised by the classic "new" and "old" economy division - was driven by the confluence of game- changing technologies and telecom deregulation.

Disruption

The zeitgeist of today is of course disruption made possible and being delivered by technology winners, epitomised by Amazon and the other FANG stocks 20 years after "Internet 1.0". Once again, the world is divided into winners and losers, while a number of nascent technologies such as artificial intelligence and blockchain have the long-term potential to change everything. Despite this potentially heady mix, markets have yet to really experience anything that resembles a late 1990s 'blow-off'. After all, bull markets tend to go out with a bang (not a whimper) with peaks often marked by excess. This can take the form of investment fads, sentiment, use of leverage and valuation.

Each of these variables has become a little more elevated over the past year: Bitcoin and marijuana- related stocks have delivered incredible returns to speculative investors, equity flows have continued to improve and leverage is at post-financial crisis highs as US corporates replace equity with cheap debt. However, valuations still look appropriate and sentiment remains remarkably restrained. The so-called "melt-up" scenario therefore still exists as a bull case and could be presaged by a great rotation moment where higher yields force a reallocation away from bonds, but remain below

levels that might derail equities. M&A activity - subdued in 2017 - could also explode back to life as a result of repatriation and technology disruption, with private equity a potent incremental buyer.

In short, the final phase of this bull market could yet surprise us to the upside given that we have the necessary ingredients for another Nifty Fifty and many of the late-cycle conditions that could trigger a "melt-up".

Looking for signals

That said, we are ever mindful of the duration of this long bull market - now the second longest on record. While "bull markets don't die of old age", we will continue to watch for signs of deterioration that might help us better navigate choppier waters. Fortunately, there are few signs today of the usual preconditions that might indicate the market is at a peak such as widening credit spreads, loss of breadth and recession probability above 20%. With corporate leverage back at highs (and mindful of the 2016 market correction caused by the high yield market seizing up as energy prices plunged) we remain focused on credit spreads as a potential trigger.

According to CSFB, a widening of high yield spreads has preceded eight of the last nine market peaks on average by seven months (and at least two months) before an equity market correction. Another key indicator we will be watching is the yield curve because it typically inverts in anticipation of the next recession and ahead of an equity market correction. As Ned Davis states, "Bull markets often end in a predictable manner. The economy begins to grow above potential with inflation starting to rise, and the Fed raising interest rates to keep inflation in check. This generally leads to an inverted yield curve, which makes it either unprofitable or risky for banks to lend...".

Although the yield curve has been flattening, this should be expected late cycle while the lead time between full inversion and a recession can be as much as 18 months. Finally, we will watch for deteriorating breadth as per our Nifty Fifty scenario where an ever-diminishing number of stocks shore up a market that really wants to go down. "Persistent divergence between the S&P 500 making a series of new highs, while market breadth makes a series of lower highs" has been present "in virtually every" market top, a process that can last anywhere from four months to two years. Deteriorating breadth characterised tops in 1929, 1972, 1987 and of course during the 1990s technology bubble. However - and despite much FANG-related chatter to the contrary - recent market breadth has been positive while none of the indicators we follow look particularly concerning.

Risks

As ever, there are myriad risks that could challenge our view. The most significant of these relates to policy error and/or the loss of policymaker support with the elimination of output gaps and late-cycle fiscal stimulus potentially forcing the Fed to normalise interest rates ahead of schedule. Mario Draghi's anticipated departure from the ECB in 2019 could further increase the "risk of missteps or disorderly financial market adjustments" with the changing of the guard feeling a little like politicians moving from a peace to a war footing.

The market sell-off in January following the spike in average hourly earnings made it abundantly clear that wage pressure remains the most significant risk to orderly policy normalisation. Sharply higher rates would likely spill into equity markets, potentially presaging a 1987-type moment, and/or a recession, already statistically overdue given the length of the current expansion (105 months) as compared to the median of 37 months. A recession or a growth scare could also be induced by a trade dislocation should President Trump succeed in further emulating President Reagan, considered by some to have been "the most protectionist president since Herbert Hoover". A key

tenet of his pre-election campaign, investors should not be surprised by "Trumpist" efforts to "save U.S. jobs" through higher tariffs, bilateral trade deals, and lower trade deficits.

The decision in January to impose US tariffs on imported solar panels and refrigerators and aimed squarely at the Chinese, has commenced a tit-for-tat series of tariffs today covering more than \$100bn worth of trade. Markets have absorbed this well as a war of words ahead of negotiations aimed at reducing the US trade gap with China by \$100bn. While we expect worst-case scenarios to be avoided, the President's acerbic style ("trade wars are good, and easy to win") will only add to the uncertainty.

While the Trump victory has so far proved the high watermark for so-called populism, the risk posed by this political movement, continues to simmer. Condemned as right-wing or worse, populist parties have been on the rise in Europe since the financial crisis initially as protests against income inequalities, political correctness, liberal elites, globalisation and the EU. However, the migration crisis and Angela Merkel's Willkommenspolitik open door policy has seen many of these protest parties morph into anti-immigration / socially conservative parties that "defy classic left right categorisation". This issue has apparently driven a wedge between "old" and "new" Europe with some governments in the Visegrad group containing "political parties in favour of heterodox policies that break away from the patterns set by Western democracies" including Fidesz in Hungary led by Viktor Orban and Law and Justice in Poland. In Austria, the nationalist Freedom party joined the government having captured 26% of the vote in November elections. While this outcome has been avoided in Germany, Angela Merkel's party suffered its worst post-war election result during September elections. Immigration dominated the contest benefiting the Alternative for Germany (AfD) party which received 12.6% of the vote (identical to UKIP's share in 2005). Unlike UKIP - which achieved its Brexit referendum goal and then imploded - the AfD continues to gain support (>14% at present) because popular (illiberal) concerns continue to go unaddressed by (liberal) elites. Recently concluded Italian elections delivered the same message with Mario Renzi's ruling centre-left Democratic Party punished by voters worried about immigration at a time when the economy remains below pre-crisis levels with unemployment above 10%. As discussed last year, "continued failure by political establishments to listen to voters and unwind some of the perceived excesses will make a 1930s rerun significantly more likely" - a position that looks increasingly obvious and inauspicious twelve months later.

In addition to those outlined above, there are a number of additional risks that investors should consider. As in prior years, China represents a key risk to the global economy and financial markets. Having stabilised in 2017, growth is expected to slow this year as economic rebalancing continues. This trend may continue as President Xi - now the "most powerful Chinese leader of the modern age" having consolidated power by abolishing term limits - could continue to address the longer-term issues facing China's economy or make trade concessions to placate the US that come at the expense of near-term growth. These issues include excessive leverage (overall credit reaching >250% of GDP) and an overvalued housing market.

As we have consistently argued, China should be able to avoid a hard landing due to the self-funded nature of its growth, while reserves have been somewhat rebuilt and inflation remains relatively benign affording policymakers some room for manoeuvre. Political risk remains elevated, with North Korea and Iran likely focal points, while European populist movements (and arguably Jeremy Corbyn's Labour Party) represent latent threats to the (market friendly) status quo. Other risks include Brexit where the divorce from Europe "could take the best part of a decade", the ongoing challenge to nation states posed by Islamic extremism, unintended consequence of US Dollar strength particularly in emerging markets, and seasonality - the six months prior to mid-

term elections (due in November) empirically "the weakest stretch of the Presidential cycle".

Technology outlook

Worldwide IT spending is expected to reach \$3.7tr in 2018 with estimated growth of 6.2%, the highest in a decade. While less impressive on a constant currency basis (+3.4%) technology spending appears to be recovering with the improved macroeconomic backdrop and the sector a beneficiary of fiscal reform as companies opt to reinvest their tax windfalls in order to reinvent themselves and stay relevant during a period of (what we believe is) unprecedented disruption. As in prior years, budgets continue to shift in favour of newer technologies with security, cloud software and mobility the top three IT priorities this year, according to Piper Jaffray. The combination of secular and cyclical factors saw the technology sector deliver outstanding growth in 2017 with revenue and earnings of 10.4% and 16.9%, well ahead of the S&P 500 which posted 6.3% and 10.8% respectively.

While the relative lustre of technology may dim this year as tax reform lifts all boats, technology earnings should be well supported by the better economy, improved margins and of course, lower taxes. Tax reform may also be acting as a tailwind for business spending with the CEO of Salesforce.com recently noting that "multiple customers were accelerating software investments due to tax reform". This view appears well supported by an outstanding first-quarter earnings season that has seen technology deliver the highest blended revenue growth of any sector (+16.1% y/y), nearly twice the overall market (+8.5%) rate. While the technology sector is expected to deliver less earnings growth than the broader market for the full year (16.1% vs. 19.2%), this reflects the uneven impact of tax reform and sharp recoveries expected in both energy and financials. However, in revenue terms technology (+11.9%) should substantially outgrow the S&P 500 (+7.2%) in 2018.

The combination of superior growth and marked outperformance saw the technology sector enjoy a well deserved re-rating over the past year leaving it trading on a forward PE of 18.0x as compared to 17.8x at prior year-end. This represents the highest level since 2007 and a c.9% premium to the broader market, ignoring the sector's relative balance sheet strength. Although we do not expect the sector to materially Re-rate versus the market over the coming year due to ongoing Cloud disruption, relative valuation downside should also prove limited given the sector's growth and balance sheet profile. Following another strong year, we remain constructive and continue to see significant opportunities within the technology sector for 2018. In contrast, many commentators instead remain focused on the downside risks associated with our sector while others believe technology stocks are in the middle of another bubble. We remain of the view that the 1990s parallel is too easy, while over- exuberance is contained to a few exciting longer-term opportunities. Rather than signalling a return to bubble-like conditions, we regard this excitement as normal fare for a sector where mainstream adoption often takes significantly longer than originally hoped.

Our own excitement remains underpinned by a new cycle thesis that appears to be gathering strength with every earnings season. Cloud adoption - the kernel of this long-held view - is continuing to capture "every" additional workload. Gartner - a long-time naysayer and proponent of the hybrid approach - recently conceded that public cloud computing was "growing more strongly than initially forecast". After reaching \$34.7bn last year (+37% y/y), infrastructure as a service (IaaS) is forecast to grow 32% in 2018 as enterprises continue to migrate production workloads. Amazon Web Services (AWS) remains at the vanguard of this mass production form of computing having achieved a \$22bn revenue run rate, with growth accelerating to +49% y/y in Q1'18. That AWS has been able to maintain its growth trajectory at scale speaks volumes about the size of the market opportunity, something that Amazon CEO Jeff Bezos called out in his 2014

letter to shareholders when he said that AWS was "market size unconstrained". Both Microsoft Azure and Google Cloud have also made good progress (estimated +90% and +75% y/y growth respectively), although Google remains a distant number three. While Alibaba has built a strong beachhead in China, everyone else appears all but irrelevant in an industry "where scale really matters". E (SaaS) has also continued to prosper, reaching \$58.6bn last year and is expected to grow 22% in 2018. We expect growth in excess of 20% to continue for the foreseeable future as the market potentially triples during the so-called "second decade of SaaS". Platform as a service (PaaS) is also expected to grow c.25% this year driven by rapid-application development platforms (aPaaS) and low-code business process management (BPM).

The Cloud is the future

While it is impossible to know precisely where penetration is, a recent survey of 100 CIOs revealed that the public cloud accounts for c.21% of workloads today. This is headed much higher as adoption inflects with the same survey estimating penetration of 44% by 2021, while Cisco believes that more than 60% of workloads and compute instances will be processed by public cloud data centres three years from now. The reason that the Cloud has become the default computing platform reflects the fact it is more scalable and cheaper (we believe every \$1 spent at AWS represents c.\$4 lost to traditional IT), more secure (IaaS workloads will suffer at least 60% less security incidents than traditional data centres), increasingly global (number of hyperscale data centres expected to near double between 2016-21) with lower migration costs as offshore IT providers ramp their skills and capacity. The Cloud also allows enterprises to reduce maintenance spending - said to account for as much as 75% of IT budgets - by "eliminating technical debt associated with maintaining legacy systems". And for most companies, the Cloud represents the only real way to embrace Artificial Intelligence (AI) today. However, the overarching reason why Cloud adoption is accelerating is as a key enabler of the so-called digital transformation - "the business imperative of responding to needs of a new generation of customers, partners and suppliers who expect transactions to be seamless, real-time, Facebook-like in experience, Amazon-like in reliability". This requires the adoption of concepts such as DevOps and "innovation at scale" - likely beyond the capabilities of internal IT and legacy vendors but table stakes for AWS with multiple CIOs reporting that they "have never seen a technology company of this size and scale deliver this much continuous innovation to customers".

The growing divergence between incumbents and next-generation companies is likely to intensify over the coming years as workloads continue to gravitate towards the public cloud, while emerging technologies such as AI - where the Internet platforms enjoy a leadership position - are likely to accelerate this trend. This is already apparent from the reallocation of IT budgets away from legacy areas while deflation is permeating up the stack. According to Jeff Bezos, the Cloud threat "encompasses servers, networking, data centres, infrastructure software, databases, data warehouses, and more". The impact is already apparent today, with overall device unit growth having come to a halt and market shares in flux. However, the improving economy and improved pricing (aided by component shortages) are ameliorating this impact for now.

The PC market is expected to be flat in 2018 having contracted c.3% in unit terms during 2017, with enterprise "strength" due to Windows 10 offset by ongoing consumer weakness. Storage continues to fall as an IT priority despite expectations that the volume of data stored will triple by 2021. While the server market has been stronger than expected (+4.7% y/y in 2017) this largely reflects hyperscale / AI-related demand and pass-through of higher prices of components. Downward pressure on units will continue to be exerted by c.4x greater workload intensity in cloud data centres compared to traditional ones. Smartphone growth is also faltering with units forecast to

grow 3% annually through 2021. While IT services are also expected to enjoy a c.4.5% five year CAGR, "segment growth will be varied" with IaaS driving net new spending with "next to zero" growth in infrastructure and network implementation.

The structural headwinds facing legacy technologies and once-dominant incumbents is most apparent at IBM which suffered 22 consecutive quarters of negative year-over-year revenue growth before "turning the corner" in Q1'18 when it posted 1% y/y growth which CEO Ginni Rometty "was pleased with".

Oracle has also fared poorly; having mocked the Cloud as "complete gibberish" and "idiocy" in 2008, CEO Larry Ellison has attempted to catch up via a series of acquisitions including Netsuite, Responsys and RightNow. However, Oracle's revenues are essentially flat with where they stood in 2011 despite spending more than \$25bn on acquisition since then. Rival SAP has also been reinvesting vigorously having spent more than \$28bn on M&A (we believe equivalent to c.90% of the free cash flow generated during the period) but has only rarely been able to deliver Cloud growth and margin improvement. While both Cisco and Intel are faring better - reflecting their dominant positions and less competition - they also appear increasingly reliant on M&A to shore up growth. Unlike people who can opt to age gracefully, technology companies cannot - terminal growth is negative, and the value of incumbency atrophies - thanks to deflation and the so-called innovator's dilemma.

The road to redemption is a difficult one that few successfully travel. Microsoft's successful Cloud pivot greatly aided by its dominance of office productivity software and a visionary CEO - is thus likely to prove a siren call for investors.

That said, at a time when global growth is reaccelerating, there is a chance that incumbents might enjoy an economic time-out as budgets lift. The improved economic environment prompted Mark Benioff - CEO of Salesforce.com - to recently declare he had "never seen a demand environment like this". Repatriation could also help as previously offshore cash is deployed on buybacks, M&A and business spending. Financial engineering has long been the mainstay of challenged incumbents - the potential return of c.\$1tr of offshore cash by the largest technology companies will provide them with a new source of ammunition. However, this positive is likely being overplayed because incumbent balance sheets have already been greatly depleted via bond issuance to finance dividends, buybacks and of course, M&A. While it is true that tech giants are awash with cash, their net cash positions are far less healthy. For instance, we calculate that Oracle has negligible net cash once a 15% haircut is applied to its \$58bn offshore cash and its onshore cash (\$13bn) and debt (\$61bn) are considered. Likewise, Microsoft's \$146bn gross cash is nearer \$23bn net, while Intel is in a net debt position. Even Apple's fully taxed net cash position is closer to \$122bn, equivalent to c.42% of its headline \$285bn gross cash. In contrast, no such distinction exists at either Alphabet or Facebook with their combined gross / net cash of \$145bn / \$132bn and debt of \$4bn. Of course, generalist investors may not care about this nuance as technology balance sheets remain unusually strong compared to other sectors, something likely to become increasingly attractive as interest costs rise.

Thematic update

Beyond Cloud computing and the bifurcation of fortunes within the technology sector, there are a number of other core themes that are captured within the portfolio. As we have previously articulated, Internet platforms remain the greatest beneficiaries of smartphone ubiquity and plentiful bandwidth with more than 4.1bn people accessing the Internet today, c.54% of the world's population. While 2017 proved another vintage one for many Internet stocks, the subsector began the year amid greater regulatory scrutiny and ended it embroiled in a data / privacy debate following Cambridge Analytica revelations. The growing political and press narrative at times resembled an

outright backlash, likely driven by growing Internet-related disruption. The introduction of General Data Protection Regulation (GDPR) in Europe - legislation designed to strengthen the data rights of EU citizens from May 2018 also helped shape the narrative. At the risk of sounding overly sanguine, we do not believe that the Internet platforms have breached anti-trust regulations either via higher pricing or consumer welfare - they are not exclusive suppliers and in many instances deliver their services for free in exchange for the collection and use of data. Nor do we think that GDPR (and similar data protection legislation that may follow) will undermine their *raison d'être*. Not only do the Internet companies appear confident that they will be compliant, but they may end up benefitting as the inability to collect data in the offline world embellishes their inherent data advantage.

While the risk of greater taxation exists - for instance, a draft European Commission has proposed a levy based on where the customer rather than the company is located - we do not think it will prove easy to change the basis of global taxation. Instead, we hope that the internet sub-sector is able to avoid worst-case outcomes by proactively improving their business practices, use of data and "cleaning up" content on their platforms.

Risks and rewards

While regulatory risk may be dominating the headlines, the Internet economy remains in rude health. The outlook for online advertising (+16% y/y in 2017) remains resilient as it continues to take share from offline media spend. The US continues to lead with online accounting for c.40% of overall spending with mobile (search / display / video) a key growth driver. As previously, Alphabet (Google) and Facebook continue to dominate the market with their large audiences and ROI advantages that they deliver for their advertisers. This advantage is likely to persist as innovation around new ad formats and superior targeting contributes to the wide and deep moats both have established. However, both Amazon and eBay are also increasing their focus on their respective advertising opportunity. Retail remains the largest ad vertical in the US at c.20% of the total market and both companies have specific advantages specific to the sector in their purchase data and ability to close the attribution loop between advertising and purchases. Social media continues to grow its share of advertising Dollars and time spent online with Facebook the undisputed global leader with 2.1bn monthly active users (MAU) and 1.4bn daily active users (DAU) while its messaging platforms Messenger and WhatsApp boast 1.2bn and 1.5bn MAU respectively. In China, Tencent's WeChat remains the market leader in China with more than 1bn MAU.

The growth in e-commerce continues at a steady pace, assisted by the tailwinds of an improving global economy. In 2018, global retail is forecast to grow c.5% while eCommerce is expected to deliver 15%, with online penetration increasing a further 1% as it continues to take market share steadily from offline.

Mobile commerce (mCommerce) continues to outpace overall eCommerce, representing 23% of online but only 3% of overall US retail spending. There are still large retail categories significantly underpenetrated online such as grocery and home furnishings and a B2B eCommerce market ripe for disruption. Traditional bricks and mortar retailers are likely to continue to face headwinds, especially those who fail to adapt to the new digital environment or those with a larger store base than required today. Over 5,000 store closures were announced in the US during 2017, highlighting the level of stress experienced offline in contrast to the fortunes of Amazon which captured more than 70% of US online retail sales growth (and 35% of total retail growth) during 2017. Omnichannel remains a major theme following Amazon's acquisition of Whole Foods and the introduction of Alibaba's Hema supermarket store format, central to its "New Retail" strategy for blending offline and online experiences.

Internet-driven disruption is also accelerating in media content as time shifting to digital away from linear TV continues. Consumer consumption of media content remains in flux as new forms of content across a wide range of devices compete for leisure time. YouTube has now surpassed 1.5bn monthly logged-in users who spend on average more than one hour per day watching content just on their mobile device. However, its fastest growing medium of consumption is the TV, +90% y/y. As a key battleground, the race for premium video supremacy continues. In 2018 Netflix and Amazon are expected to spend c.\$7bn and \$5bn on content respectively, Google is forecast to invest several billion dollars to support YouTube, and both Twitter and Snap are also increasing spending. In this environment, it is not surprising that fears of "peak TV" have been wide of the mark - a phrase coined by the CEO of FX Networks in 2015 to describe the overwhelming amount of TV content available on broadcast, cable, satellite and streaming platforms.

At that time, a then record 422 scripted series aired in the US, but this has continued to grow, reaching 487 in 2017 with almost all of the growth driven by the enormous incremental budgets of the over-the-top (OTT) players. Subscription models remain a popular and successful mode of monetising media content employed by all of today's top ten grossing non-game apps in stark contrast with 2009 when none used it.

Video streaming category leader Netflix has reached 110m paying subscribers while music streaming leader and recent IPO Spotify has exceeded 70m. Dating app Tinder has quickly risen to become the second highest grossing app globally in 2017 aided by subscriptions and its innovative use of micropayments designed to boost profile views.

Smartphone: sales up, units down

Our concerns about a slowing smartphone market were borne out in 2017. Although smartphone sales to end users rose 2.7% y/y to 1.54bn units, worldwide sales recorded their first ever decline in Q4 with 408m units shipped (-5.6% y/y) while the Chinese market - the largest in unit terms - faltered as annual shipments fell year over year-. With global smartphone penetration estimated at 66% and 80-90% in the most advanced markets, the unit story is essentially over with growth forecast at c.3% CAGR between 2016-21. This may be further frustrated by extending replacement cycles which in the US increased to 2.6 years, up from 2.4 years in 2016. However, in value terms the smartphone market expanded by 9% in 2017 as average selling prices (ASPs) increased 6% and a whopping 11% in Q4 driven by the \$1000 iPhone X and the \$930 Galaxy Note 8. This is both new news and an unusual feature in mature technology markets following significant price hikes at the high-end of the market led by Samsung and Apple. Although higher prices reflect a significant increase in features (OLED screen, 3D sensors, wireless charging etc) and a corresponding bill of materials (BOM) the gross margin dollar uplift is material.

Apple and Samsung with their dominant share of profits and high-end smartphones look well placed to capture most if not all of this additional value. While higher prices make easy copy, high-end smartphones continue to represent incredible value for money given their utility and frequency of use (25% of users spend more than 7 hours per day on their smartphones) with high residual values also ameliorating the actual cost of ownership, particularly in the case of Apple. Nevertheless, it is clear that the best days of the smartphone market are behind it unless something like augmented reality (AR) can genuinely change everything by obsoleting the c.3.2bn smartphone installed base. Until then, we have no idea where replacement cycles will extend to, although the PC experience is sobering (now at 5-6 years).

Consistent with our long-held views, Apple remains our favourite smartphone-related stock which we believe is best understood as a mass affluent / luxury goods company whose premium brand, customer base and ecosystem allow it to capture a vast majority

of industry profits with only c.16% smartphone market share. While disappointing iPhone X sales have put an end to hopes of a so-called supercycle, Apple's ability to raise prices is highly supportive of our own view. We also remain excited about its services business which generated \$8.5bn in Q1 (+27% adjusting for the longer-quarter last year) and 500m customers visiting the App Store each week.

As this recurring revenue stream grows in Apple's mix its valuation may tend towards consumer peers such as Coca-Cola. However, our bullishness is constrained by smartphone-related headwinds (maturity and lengthening replacement cycles at a time when iPhone sales may be plateauing at c.215m units/ year). It will also be difficult for the company to grow units in the US where it already sells 70m units which represent 58% market share of c.120m phones that come up for replacement each year (assuming a 2.3 year upgrade cycle). Other risks include China, both in terms of demand (c.30% of iPhone sales) and supply (components made in China) in the event of a trade war. As such, we expect to retain a large but significant underweight position in this remarkable, inexpensively valued but growth challenged company.

The Apple-related inventory correction during the final third of our fiscal year took the shine off a remarkable year for the semiconductor sector which posted c.22% revenue growth during 2017. Surging memory prices greatly contributed to ASPs which rose 7% (the highest rate achieved since 2000), but even without this boost, the industry still delivered c.10% growth. We expect growth to slow during the year ahead due to smartphone-related weakness and as memory price increases moderate or potentially reverses.

However, AI and cloud computing should continue to drive demand while PC unit growth may turn positive for the first time in six years as chip-set security problems found in legacy Intel and AMD chip-sets ignite a corporate upgrade cycle. We are also very excited about opportunities related to power-train electrification but cautious on smartphone-related segments due to slowing unit growth, particularly at the high end where semiconductor content is multiple times higher than mainstream smartphones. Following a much quieter year for semiconductor M&A (value of deals declining to \$27.7bn in 2017) we expect the muted deal backdrop to persist following President Trump's pre-emptive decision to block the proposed acquisition of Qualcomm by Broadcom on national security grounds.

The disappointing debut of the iPhone X also reminded investors of the smartphone exposure that comes with robotics in what was otherwise an outstanding year for industry fundamentals and share prices alike. The proliferation of machine vision, industrial IoT and real-time analytics aided by cheap compute and storage enabled by cloud computing has given robots new capabilities that have radically changed payback periods and reduced implementation costs. Modular production lines - thanks to improvements in control systems and reduced time spent reprogramming robots for multiple tasks - provide greater flexibility to manufacturers of multiple low volume products. This has created large incremental opportunities as users are able to achieve faster time to market, epitomised by so-called "Fast Retail". In addition, demand from traditional users of robots has remained strong. The automotive industry which accounts for c.35% of total robot volume, has accelerated its adoption of lightweight materials, leading to a meaningful increase of robot density to deal with more complicated manufacturing processes. Likewise, the adoption of new technologies has been driving demand in the smartphone industry, the growth of OLED (Organic Light-Emitting Diode) displays (included in the iPhone X) creating a large opportunity for the robotic industry due to the complicated manufacturing process. In addition, the Samsung battery issue and recall led to smartphone makers introducing machine vision-based production trace systems to improve quality control. While OLED-related

weakness represents a near-term headwind, we remain hugely excited about longer-term prospects for the robotics industry.

After a difficult 2016, software stocks enjoyed a banner year as valuations recovered alongside fundamental strength. In addition to an improved backdrop for spending, the subsector also benefited from a shift in investor focus from consumer (Internet) names in favour of critical modernisations that are beginning to happen as the agility that consumers want and now expect, begins to ripple back up through the corporate structure. In this new data-driven world, "software has evolved from being a method of modernisation to a source of differentiation", but in order to meet the new exacting needs of customers, companies need agile yet broad back-end capabilities. It also requires the recognition that for every business, the showroom, the storefront is digital and the importance of leveraging the corporate treasure - its data. At the same time, the Cloud has enabled smaller companies (that may not even have an IT department) to access applications previously tackled with spreadsheets or pen and paper with just a credit card. Today there are myriad vertical SaaS apps that bestow upon their users domain expertise once the reserve of enterprise customers and their IT service partners. While we have taken some profits after a strong run and some multiple expansion, we believe the sector remains well supported by actual and potential M&A, much improved profitability and the emergence of "winners" in many of the most important business software categories.

Computer gaming companies enjoyed another strong year with most of our holdings significantly outperforming the technology market. With two-thirds of American households regularly playing them, video games have truly evolved into a mass market medium. Adoption has been enabled by the proliferation of increasingly capable electronic devices and Internet connectivity, which has enabled the creation of large player networks and digital distribution. The global video games software industry is estimated to have grown a healthy 10.7% in 2017 to \$116bn with mobile (c.43% of the total industry) driving nearly all of the growth. In addition, industry profitability has been transformed by full game digital downloads (now c.40% penetrated) and additional digital content (DLC/MTX) which today accounts for between 20-40% of sales at EA, Activision and Take-Two with c.90% incremental gross margins. Back end monetisation is actually greater than upfront game sales at some successful digital franchises (GTA Online registered its highest ever bookings in Q4'17 more than four years after launch) and this trend looks set to continue with the emergence of AI which can leverage immense data sets of human behaviour to further improve monetisation.

While we remain constructive on the group, we are continuing to monitor the progress of Fortnite, a free to play console (and now mobile and PC) game which has attracted more than 45m players with a new game genre ("Battle Royal"). Unlikely to pose much risk to existing AAA franchises, the back-end only monetisation of Fortnite is new to console gaming and could potentially prove disruptive over time.

In addition, there are a number of other themes that we are excited about including payments where smartphone-enabled disruption is extending, driven by new entities that have been able to create superior user experiences and generate trust. Although these companies are enabled by technology, they are not about technology. It is about financial inclusion, consumer empowerment, and disruption of the status quo. For instance, Atom Bank - one of the UK's first digital banks, already offers mortgage products and has started taking customer deposits. Revolut started life as a provider of competitive foreign exchange rates, before broadening its offering. Monzo was initially pitched as an elegant way to ringfence spending but today its distinctive card is now prevalent among millennials in the UK. The updated European Payment Services Directive (or PSD2) came into force in January this year and will only exacerbate the problem for incumbents. Its central aim is to open the market to greater competition

and ultimately lower the cost of payment processing. Banks are required to build Application Programme Interfaces (APIs) in order to allow qualified parties to access customer data (with the consumer's approval, of course). This should enable start-ups with very asset light models to compete on a reasonably level playing field, benefiting from existing infrastructure that banks have invested in. Although there are a limited number of pure-plays on this theme, we continue to favour Visa which should benefit from growth in digital spending which only accounted for 9% of total retail spend in 2016 but is expected to reach 15% by 2020. While losing part of the eBay business will create an earnings headwind, Paypal also remains a preferred payments play as it continues to enjoy strong core growth and good traction with its acquired assets. We also have exposure to two of the most important global payment assets - WeChat and AliPay - via our holdings in Tencent and Alibaba.

The final word belongs to AI following a breakthrough year when almost every company was alerted to the potential opportunities and disruption it posed. Interest in startups exploded as VC investors poured over \$14bn into AI companies, 2.4x more than during 2016. Interestingly, c.70 exit events also happened in 2017 (+75% y/y) driven by corporates wanting to own the technology in-house. Acquirers included technology companies such as Apple, Cisco and Samsung but also non-traditional ones too including Centrica and John Deere.

This explosion in AI-related activity reflects the significant improvement in machine learning (ML) and deep learning - a network based on complicated algorithms capable of adapting to new data without being explicitly reprogrammed - that have driven the recent evolution of AI. For us, how AI diffuses in the real economy and brings changes to existing business models matters far more than a smart speaker capable of playing music via voice commands. If the target (and average age) of VC funding is any guide then we can get a sense which sectors are going to be disrupted. Speech translation / recognition is one of the very few AI applications reaching a mature phase as consumers use these technologies on their smartphones. Consumer-facing smart robots and recommendation engines are also considered potentially disruptive to incumbents while computer vision, natural language processing, video recognition and virtual assistants are still at an early stage but hold great potential.

Much of the recent excitement and why this potential is beginning to feel within reach reflects the remarkable progress made comparing human and AI systems when playing games - a relatively simple, controlled, experimental environment. According to this, AI has clearly made significant progress with performance achieving human (Jeopardy / Atari / Switchboard) and super-human (Go / Pac-Man) levels. However, just as 1970s calculators could perform arithmetic better than humans, AI today remains extremely narrow and not very intelligent. According to Facebook's head of AI, the most advanced systems today are "dumber than rats". Likewise, while as many as 800m jobs could be under threat from automation only 6% of the most repetitive jobs are at danger of being automated entirely.

This reality is in stark contrast with views held by Bill Gates and Steven Hawking who believe (malevolent) superhuman AI is coming while Elon Musk famously stated, "with artificial intelligence we are summoning the demon". This difference of opinion may be explained by the fact that the timeline to general purpose AI remains unknown. AI experts believe that so-called artificial general intelligence (AGI) could arrive between 2040-2050 while futurist Ray Kurzweil thinks the Singularity - the point where "there will be no distinction between human and machine" could occur in 2045. Until then (or some later date) it is more likely that "we will invent whole new modes of cognition that don't exist in us and don't exist anywhere in biology". As the founding executive editor of Wired explained "when we invented artificial flying we were inspired by biological modes of flying... But the flying we invented - propellers bolted to a wide fixed wing -

was a new mode of flying unknown in our biological world." Likewise, the future of AI, at least for now, is not general AI. Rather "it will be many hundreds of extra-human new species of thinking... a galaxy of finite intelligences, working in unfamiliar dimensions, exceeding our thinking in many of them, working together with us in time to solve existing problems and create new ones". We can't wait.

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Property

(compare Property: Direct – UK funds [here](#))

Steven Owen, chairman and Harry Hyman, managing director, Primary Health Properties: Despite the continued volatility within the economic and political environment and prolonged era of low interest rates, there continues to be an unrelenting search for income yield across most sectors. Primary healthcare, with its strong fundamental characteristics and government-backed income, has been a significant beneficiary. The UK market for primary healthcare property investment continues to be highly competitive with strong yields and prices being paid by investors for assets in the sector and we have continued to see yields compress further in the first half of 2018.

Primary healthcare performs a critical function, providing a key part of the NHS's Five Year Forward View ("FYFV"), operating as most patients' first point of call when unwell. The primary care estate has faced under investment over the last decade, with approximately 50% of the 8,000 GP surgeries in England and Wales now considered by medical professionals to be unfit for purpose. Building on the FYFV, the follow-up "Next Steps on the Five Year Forward View", published in March 2017, reiterated that shift, setting out targets for growth in the primary care workforce, expansion of access to general practice and the need for improved primary care premises.

In January 2018, the Government published a response to the Naylor Review which acknowledged the importance of land and property to the transformation of the health system and how the NHS will be able to supplement public capital with other sources of finance from the private sector. The response also confirms that the use of private finance has been particularly effective as a source of investment and innovation in primary and community care in the past and will still be used in the future where it represents good value for money. Demand for healthcare is driven by demographics and the NHS is supported on a cross party basis in the UK. We welcome the recent announcement by the Government to increase funding for the NHS, on its 70th anniversary, and these additional resources may in time lead to increased activity in the building of new and the modernisation of existing primary care premises which is essential if they are to reduce the increasing pressures on hospitals by improving access to primary care. We look forward to helping deliver the modernisation of the primary care estate by actively pursuing attractive investment opportunities of both existing assets and developments.

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David Sleath, chief executive and Soumen Das, chief financial officer, SEGRO: We have continued to see strong occupier demand for warehouses across our markets, our vacancy rate remains low and we have captured reversionary potential from our UK portfolio and from indexation provisions in our Continental European leases.

Data on the logistics markets in the UK (from JLL) and France (from CBRE) implies that available prime space continues to equate to less than one year of prime take-up. In the UK, development levels are increasing but construction continues to be primarily on a pre-let basis and, in our case, all of our big box warehouse development in the UK is pre-leased. In France, availability of prime logistics space has fallen every year since 2010 and now stands at just 2.8 million sq m, compared to 4.2 million sq m of take-up over the past 12 months.

This supply-demand tension has manifested itself in our own experience through low vacancy across our major markets, faster take-up of speculatively developed urban warehouse space than expected on appraisal and a sharp increase in pre-let agreements.

Whilst remaining alert to a range of macroeconomic and political risks, we enter the second half of the year with a strong pipeline of developments under construction and in negotiation, and low vacancy rates. The occupier demand-supply situation remains well balanced across our markets and there is still strong investor appetite to own assets such as ours which is supportive of investment yields at current levels. These factors give us confidence about our future prospects.

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David Fischel, chief executive and Matthew Roberts, chief financial officer, intu:

In the pre-Brexit period, the UK economy has remained sluggish. The sentiment towards retail and retail property has been extremely negative, fuelled by a number of retailers, in particular New Look and House of Fraser, and restaurant chains entering high profile CVAs or administrations. While the direct financial impact on intu from CVAs and administrations has been minimal, they have dampened the retail property investment market with our property valuations decreasing by 5.6 per cent on a like-for-like basis, principally as a result of increased investment yield.

We are seeing very little change in intu centre visitor numbers in the pre-Brexit period where the continued uncertainty about the eventual outcome, and its impact, means the UK economy remains sluggish with modest growth.

On the positive side, unemployment remains at record low levels and, after a year of inflation running ahead of wage growth, this reversed in February 2018. Looking forward, Bank of England forecasts suggest that earnings should continue to outpace inflation through their forecast period to the end of 2020.

Against this, consumer confidence, as measured by GfK, continues to be challenging as it has been since the 2016 EU referendum vote, with consumers in pre-Brexit UK less confident about the economy.

A challenging time for retailers

Sales for retailers in our centres are robust given the mixed messages from improving disposable income, but low consumer confidence. UK total non-food retail spending (British Retail Consortium) fell by 0.6 per cent over the first half of 2018, with a fall of 2.3 per cent in physical store sales partially offset by an increase of 1.7 per cent in online sales highlighting the issues facing any retailers who are less advanced in their multichannel approach.

Some retailers face multiple challenges from lower spending, an increased cost base and a structural shift to multichannel retailing. Whilst some respite may come through as disposable income grows, leading to improving retailers' top line sales, they still face pressures on their net profit from increased business rates and national living wage.

On top of this, the fast-paced change of online retailing leaves some retailers catching up.

In 2018, we have seen an increase in the number of administrations and CVAs as the pressures of an increased cost base and multichannel transformation mount on certain retailers and food and beverage operators.

The two most high profile CVAs in 2018 have been New Look and House of Fraser, planning to close 60 of 593 stores and 31 of 59 stores respectively. In both instances, their closure lists have been focused on secondary locations. This illustrates the polarisation occurring in the market where the best retail and leisure experiential destinations, such as intu's, are performing well against a weaker national position.

Polarisation in the market

We operate in many of the top UK retail destinations where retailers want to maintain their best stores and as such we have been relatively unaffected by the problems faced by certain retailers. This is in contrast with the media's continual focus on the issues facing retail and its impact on the UK high street, in particular those towns with many stores closing.

The administrations and CVAs in the period related to around 5 per cent of our passing rent. The majority of these (around 80 per cent) have had minimal impact with the retailers keeping the stores open on the existing rent or with a small reduction. Of the remainder, 10 per cent are trading on discounted rents and 10 per cent have closed.

Investment market

The headwinds in the consumer and occupier market mean that investors remain cautious regarding shopping centres with sentiment weakening in the period. According to CBRE, 2017 had the lowest level of transactions since 2008 and volumes in the first half of 2018 remain subdued. There is an expectation that this situation will remain until the Brexit outcome becomes clearer.

In this market, it is anticipated that investors will seek a higher net initial yield to protect returns if capital growth is harder to deliver. Therefore, the quality and longevity of income streams increase in importance, along with the potential to add value through asset management.

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Robert Whiteman, chairman, Residential Secure Income: There is a well-publicised lack of availability and affordability of housing in large parts of the UK which is attracting increasing policy focus:

- Local Authorities are becoming more active in the delivery of housing using a variety of structures, with private sources of capital required to help to unlock and facilitate the delivery of more housing
- Growing imbalance between the availability and affordability of UK social housing should mean that demand for this accommodation remains high (according to The House of Commons Library research briefing paper 'Tackling the under-supply of housing in England' issued on 31 May 2018)

There continues to be a shortage of housing in many parts of the United Kingdom, resulting in high levels of demand, and ReSI has seen strong appetite from Housing Associations and Local Authorities for new sources of capital to invest in these areas.

Debt

(compare Sector Specialist – Debt funds [here](#))

Ian Fitzgerald, chairman, Alcentra European Floating Rate Income: The Board continues to closely monitor the markets in the current environment, including the consequences of the Brexit vote, within the risk management framework that has been established by the Risk Committee. Whilst the impact of Brexit remains unknown, loan markets have historically been far less volatile than bond or equity markets.

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Investment managers, TwentyFour Income: Sentiment in the ABS market is positive, and the expectation is for performance to continue in this manner for the remainder of 2018.

There is an expectation that new issuance volume for the year will surpass that of 2017 and looking forward to the end of the ECB ABS Purchase Programme, European banks will likely have further appetite to issue additional supply into the market.

External events continue to occupy the mind of the Portfolio Managers, and while the impact on the portfolio's underlying asset pools of issues such as geopolitical risk, global trade wars, electoral risk and Brexit, are likely to be minimal, the resulting change in market sentiment can create market volatility.

The ongoing strong demand for European ABS is expected to continue to provide support for pricing through most market events, with the increased attraction of floating rate bonds adding to this, particularly in the event of further inflation or rate driven volatility.

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Leasing

(compare Sector Specialist: Leasing funds [here](#))

John Le Prevost, director, Amedeo Air Four Plus: The strong growth in global passenger traffic for 2017 continues into 2018 as RPK's (revenue passenger kilometres) grew by 7.6% year-on-year in February. Up from a growth rate of 4.6% for January, the difference in passenger volumes for the first two months of 2018 occurred due to the late timing of the Lunar New Year resulting in the surge in passenger demand to fall in February.

Industry wide passenger capacity increased by 6.3% year-on-year in February 2018. Whilst capacity outpaced passenger demand for January, figures for February show passenger load factors to have increased to 80.4%.

Most notably from February's performance, South American carriers posted the highest rate of international RPK traffic growth for the month at 9.8%. At the same time, India's year-on-year passenger demand growth (RPKs) was 22.9% for February making this the 42nd month in a row of double digit growth for the country.

2018 is forecast to be a year of strong growth with passenger volumes currently moving upwards at rates between 5.0% and 5.6% per annum. Despite the slower start to the year, February's figures show rebound to the initial year's performance. Strong

economic drivers, favourable business confidence indicators and continued capacity expansion are likely to encourage passenger growth over the course of 2018.

Despite oil prices up 16% year-on-year for February 2018, airlines are indicating strong earnings with EBIT. Profit margin results at 8.6% of revenues for the third quarter of 2017, with particularly strong results from Asia Pacific and Latin American carriers.

Air travel has developed considerably over the past few decades. Most noticeably, air fares have become more and more affordable. Continuous technological improvements are being implemented in new aircraft and the adoption of supportive government policies has allowed air travel to become a significant economic driver in a growing number of countries. As a result, air travel has become ever more accessible to consumers in developing regions, whilst other countries have established themselves as the 'super connectors' in international travel. Overall, the landscape of commercial air travel is not the same as it was almost two decades ago when air traffic growth was once led by Europe and North America. Today, it is being driven by the rapid growth in the Asia Pacific, Middle East and South American markets that are forecast to continue to grow.

In 2017, the United States, China and Japan, retained top positions for the world's busiest airline markets in terms of seats. While the US has stayed at the top of the podium with Hartsfield-Jackson Atlanta being the only airport to carry over 100 million passengers a year, China's Beijing Capital International Airport has set another record high in terms of passengers carried (95.8 million passengers in 2017). Traffic between Beijing and Shanghai is now the eighth busiest route in the world and is only superseded by other city pairs within the Asia Pacific region.

China continues to close the gap to overtake the US and with Beijing's new airport opening in 2019, the capital will gain some of the additional infrastructure needed to support the forecast rise in traffic expected in the region. Beijing's growth emulates that of the wider Chinese market for which IATA has revised its latest growth forecasts and predicts China to displace the US as the world's largest market by 2022, a full two years ahead of the original forecast.

In terms of market potential, the majority of the world's fastest growing markets in the past eight years can be located within Asia and the Middle East. Countries such as India and Indonesia are experiencing rapid levels of growth, whilst also being listed as some of the biggest markets in the world. To compare, India has overtaken the UK as the fourth busiest market in terms of seat capacity. Whilst London Heathrow's passenger numbers grew by 1.7% in 2017 (year-on-year), Delhi saw a 15.1% increase during the same period. India's lead on the UK is only set to continue as Delhi's airport is to expand existing terminals and build a new runway, whilst London Heathrow has only recently been able to secure government approval for a vital third runway.

Infrastructure constraints are a global issue. With the forecast rise in passenger traffic, the industry must plan for future capacity and whilst some areas such as China, Singapore and India are able to expand their airports and traffic capacity accordingly, other regions of the world need additional government support and investment in order to facilitate future growth. Regions such as the Americas, where facilities can be up to fifty years old, require planning that can accommodate the next 25 years of passenger travel. For the Latin American aviation industry, this is a necessity as it continues to grow with above average passenger traffic growth of 6.1% (RPK's) for January 2018. It is estimated that US\$100bn of investment is required in North America alone, to modernise existing facilities. With insufficient investment to date, some markets are constrained in their own operations.

As forecast by IATA, the Asia Pacific region is expected to be the origin of more than half of the world's new passengers within the next 20 years. With the world's number of city pairs now exceeding 20,000, where nearly 45% of the increased connectivity in the past year came from new routes within Asia, it is certain that the Asia Pacific region is becoming the epicentre of air traffic demand. What's more, the rising levels of connectivity between cities makes markets more open in terms of tourism, trade and investment.

As Asia's network expands, it is expected the region will need between fourteen to sixteen thousand new aircraft in order to support regional growth through trade and tourism over the coming decades. By today's standards, where 48% of the world's aircraft in service are leased, Asia will rely on the leasing industry to fund almost half of the new aircraft to be delivered over the next 20 years.

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Biotechnology & Healthcare

(compare Sector Specialist: Biotech and Healthcare funds [here](#))

Professor Justin Stebbing, chairman, BB Healthcare: Whilst the clamorous electioneering will continue in the US for some months yet, the lack of substantive proposals argues for the status quo, and the second half of the year should see a pivot back toward stock-specific fundamentals. We are in the foothills of an unprecedented period of change for our industry that offers multitudinous new opportunities for investors. All the while, valuations look undemanding in a number of healthcare sub-sectors and the need for healthcare products and services will continue to grow into the foreseeable future.

Overall, we view the fundamentals of the global pharmaceutical companies as positive, albeit unevenly distributed. Valuation, as mentioned, remains undemanding with price to earnings ratios towards the low end of the historical range for the group. Innovation remains strong with a number of data read outs and new drug launches expected in 2018. Earnings growth rates, however, are somewhat disparate, ranging from low single digits to high teens as patent expirations, pipelines, and new product are somewhat dissimilar from company to company.

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Paul Major, Brett Darke and Daniel Koller, managers, BB Healthcare: Healthcare provision is an emotive subject. Let us be honest, we will all need to use it at some point and access to these services is considered a basic human right in most of the developed world. Thus, the broad notion that the system in whatever country one inhabits is no longer fit for purpose or under intolerable strain is an unpalatable one and calling for wholesale change has never been a sure-fire vote winner for politicians.

Nonetheless, change is coming and that represents a significant opportunity for both investors and society in the wider context. The Company was incepted recognising that such a prospect was finally upon us. One can of course talk ebulliently at any time about all manner of exciting innovations to come, and generally find an audience willing to listen, being as we are all so emotionally invested in the notion that scientific progress and human ingenuity can save us from suffering. This is not the same as making money, and alpha is generated by focusing on the ideas whose time has now come.

Whilst there have been a number of shorter-term headwinds since we began, our focus remains on the longer-term outlook and those companies which we believe can improve care at an acceptable cost. As we move into the fourth quarter and the US mid-term election result becomes known, fundamentals should again come to the fore of the debate. Objectively, there are few things as certain as rising demand for healthcare, and we hope to ride the synchronous waves of innovation and demographic change for many years to come.

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Commodities & Natural Resources

(compare Sector Specialist: Commodities & Natural Resources funds [here](#))

Ed Warner, chairman, BlackRock Commodities Income: Although risks remain for the mining and energy sectors, in particular the potential for the trade war between the US and China to escalate and negatively impact global demand, or a breakdown of the OPEC production agreement combined with a material slowdown in global economic activity, the portfolio management team is positive on the outlook for the natural resources sector as a whole for the rest of 2018 given the current backdrop of solid global economic growth.

Even given the recent positive performance in the sector, there are still compelling reasons for investors to remain optimistic. Valuations remain competitive relative to the wider equity market, especially given the free cash flow yields of many companies. These strong cash flows (especially for energy companies if the oil price remains at current levels) are likely to feed through into an increase in dividend income.

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Investment managers, BlackRock Commodities Income: A backdrop of strong global economic growth is typically good for the underlying commodity markets and whilst there are always risks to economic growth and markets, our view is that this positive environment will continue for the rest of 2018. The key risk to the positive view on the mined commodities is a further escalation of the trade war between the US and China; for the oil market the key supply risk would be a breakdown in the OPEC production agreement.

As the US 10-year treasury yield went over 3% towards the end of the period, there is increasing focus on the risk of inflation increasing. We would expect both the mining and energy sectors to be a beneficiary of rising inflation expectations given their historical correlation.

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QuotedData

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