

Private Bank



# Safeguarding assets

BUILDING STRONGER PORTFOLIOS FOR TURBULENT TIMES



OUTLOOK | 2019

OUTLOOK | 2019

## Watchlist

Make sure your portfolio is strong.  
Compare your holdings to our  
Outlook recommendations.

Failing to follow a disciplined long-term investment plan poses many risks to your wealth.

To help keep your portfolio aligned to your recommended allocation and to our investment themes, we can provide you with a detailed report showing how your portfolio compares to key benchmarks.

Your relationship team can then recommend ways for you to address any issues identified.

More than 3,250 clients received their personalized Outlook Watchlist report in 2018.\* Why not request yours from your relationship team today?



\*as of 30 Sep 2018. Recommended allocation is the reference allocation that reflects our understanding of your investment objectives and risk tolerance.



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# Safeguarding assets

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OUTLOOK | **2019**

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## FOREWORD

# How to invest in 2019

David Bailin | Chief Investment Officer

'What should I do with my portfolio for 2019?' A decade or so after the global economic recovery began and following a more difficult year in the markets in 2018, that's the one question you ask us more than any other.

We believe the answer lies in reconciling two very different and powerful developments in the world. The first is a return to pre-crisis normalcy in the global monetary system and markets. The second is the uncomfortable new normal in politics and international relations.

The return to normalcy in the global monetary system and markets concerns central banks' bringing to an end their emergency measures to prevent the Global Financial Crisis of 2008 becoming a new Great Depression. Central banks are gradually retreating from zero borrowing costs and their multi-trillion dollar asset purchases that had fueled markets. The withdrawal of these measures has seen market volatility rise, unsettling many investors who had become accustomed to the placid conditions of recent years.

Against this backdrop, 2018 was different to 2017 for investors. Global equities were down 4.3% for the year as of 1 December, compared to their 20.0% gain the prior year. Emerging markets fell 14.1%, after their 34.4% rally in 2017. This pullback may have been partly a reaction to the strong gains that preceded it. But the withdrawal of monetary stimulus - as well as rate rises in the US - clearly left markets more vulnerable to the political shock of the escalating international trade war in particular. Asset prices thus suffered greater volatility than they had done for several years. The return to normalcy has not felt as good as investors may have expected.

In politics and geopolitics, by contrast, normalcy is in retreat. The post-Cold War international order - characterized by multilateral cooperation, freer movement of people, and more tolerant societies - is under pressure. Voters in countries including the US, the UK, The Philippines, Italy, Hungary, and Brazil have given their backing over recent years to political movements fronted by populist strongmen whose agendas are characterized by foreign policy isolationism, economic nationalism, closed borders, and perhaps also authoritarian law-and-order policies.

The populist strongmen have skillfully played upon voters' fears and insecurities. Income stagnation, growing wealth inequality, official corruption, and intellectual property theft do indeed present genuine challenges in many countries. But the strongmen have been quicker to decry the problems than to propose genuine answers.

Anti-immigrant rhetoric has intensified, while immigrants' social and economic contribution has been ignored. Greater security has been offered in return for sacrificing some personal liberties. In certain countries, a restoration of national greatness has been promised, with the details of implementation to be filled in later.

We do not see this new and uncomfortable political normalcy reversing any time soon. Certain leaders will continue to seek to bolster their powers, sweeping aside many checks and balances. President Xi has already abolished limits on his time in office in China, while Brazil's new president Bolsonaro has praised the country's former dictatorship.

Any weakening of global economic growth could further strengthen nationalist sentiment, the appetite for trade tariffs, and calls to vest even greater power in the hands of these politicians.

Faced with the return of market normalcy on the one hand and its retreat politically, how should you invest in 2019? The approach we take in **Outlook 2019** has two main elements. First, we create guideposts to determine how we may anticipate events, and assess their potential impact on your portfolio. Second, we advise building stronger portfolios for turbulent times by investing in more resilient assets and by employing strategies that reshape investment outcomes.

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#### **Assess your portfolio now.**

Request your Outlook Watchlist, and discuss the opportunities with your Investment Counselor. Seek the insights of our Global Investment Lab where you have specialized queries.

4

#### **Preserve your portfolio's value by diversifying globally and adding higher quality assets.**

Global investors will be able to ride out turbulence better and may potentially recover faster. See **Safeguarding assets.**

3

**Don't try and time the financial markets** - it's a fool's game. See **This is not the time for market timing.**

2

#### **Understand your risk profile.**

If you have a five- to ten-year investment horizon, you probably don't need to change it. But if your circumstances or risk tolerance has changed, your portfolio should be updated accordingly.

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#### **Have a discretionary manager rebalance your portfolio as events unfold.**

By doing so quarterly or at least semi-annually, your portfolio should add assets when markets are cheaper and tilt towards markets likely to recover faster. As markets rally, such portfolios are likely to garner better risk-adjusted returns.

By watching the guideposts, you can then make portfolio adjustments going forward, seeking additional diversification, and tactically exploiting valuation opportunities as they arise.

Among our key guideposts for 2019 is the state of global trade. The escalation of trade tensions in 2018 took many investors by surprise, triggering volatility in markets in China and other emerging economies in particular. As longer-term investors, we continue watching trade developments, as well as Chinese and Asian economic performance, and comparing them to market data to determine whether or not it is an appropriate time to add or reduce exposure - see [Asia asset class preview](#).

As well as trade, we believe investors should focus upon the likely impact of the Fed's gradual, but extended tightening cycle - see [Overview](#).

Besides watching our guideposts, we also emphasize taking positive action now. The return of monetary and market normalcy - and the new normalcy in politics - make portfolio quality even more important. We therefore urge you to allocate to countries and companies that are most likely to withstand the challenges now facing the world. We also advocate seeking to augment your total return profile and help mitigate your risks. Here are nine steps that we recommend you consider to strengthen portfolios as we enter 2019:

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**Manage your cash - all of it - more wisely** - see [Make your cash work much harder](#).

8

**Create an opportunistic element within your portfolio** to allow you to invest during unusual events and short-term market dislocations - see [Core vs opportunistic investing in Themes: Important actions and forces that will drive portfolio returns](#).

7

**Explore risk management tools as well as strategies with different risk-return characteristics.** You can help preserve the safety and return potential of your portfolio this way.

We stand ready to discuss how you might implement these and other steps in your portfolio. I look forward to speaking with you in person, either at one of our Outlook 2019 events or thereafter.

**Seek our advice more frequently,** and let us help you understand the data, and interpret the guideposts.

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# Building stronger portfolios for turbulent times

Steven Wieting | Chief Investment Strategist and Chief Economist

In today's late-cycle US monetary tightening phase, we recommend a variety of actions to prepare portfolios for the coming year and beyond.

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Global investors have routinely doubted the durability of the economic expansion that began in 2009. However, their doubts have been repeatedly contradicted by the breadth and persistence of the recovery. By the second half 2019, we believe the US expansion will likely have become the longest since records began in 1854. That means we need to understand what allowed the expansion to continue so long, what will likely bring it to an end, and what investors should do to make their portfolios resilient. We do not recommend that investors attempt to time markets in their core portfolios. We do recommend investors add quality and rotate from more expensive markets into better value ones.

The US expansion to date has not seen the same sort of excesses in consumer demand and indebtedness that occurred around past peaks. This is good - but also somewhat remarkable - given the late-stage stimulus delivered by tax cuts in 2018. Although US inflation is rising, it remains low for the later stages of a long expansion.

Against this backdrop, the Federal Reserve is tightening monetary policy more gradually than usual - **figure 1**. Whereas more aggressive tightening in past cycles has choked off expansions prematurely, this recovery has not faced this constraint.

## Staying positive, but building up our defenses

We expect the global expansion to continue over the coming year, despite various risks from politics and international relations, in particular - see **The expected and unexpected events of 2018**. We also see the outlook for asset prices as positive, with the potential for ongoing modest returns in global equities and fixed income by the end of 2019 - **figures 2 and 3**. With a handful of idiosyncratic exceptions around the world - see **Portfolio perspectives** - the economic expansion outside the US should provide a tailwind to world economic growth.

**FIGURE 1. GRADUAL FED TIGHTENING**

Fed funds less headline PCE inflation

■ Recession

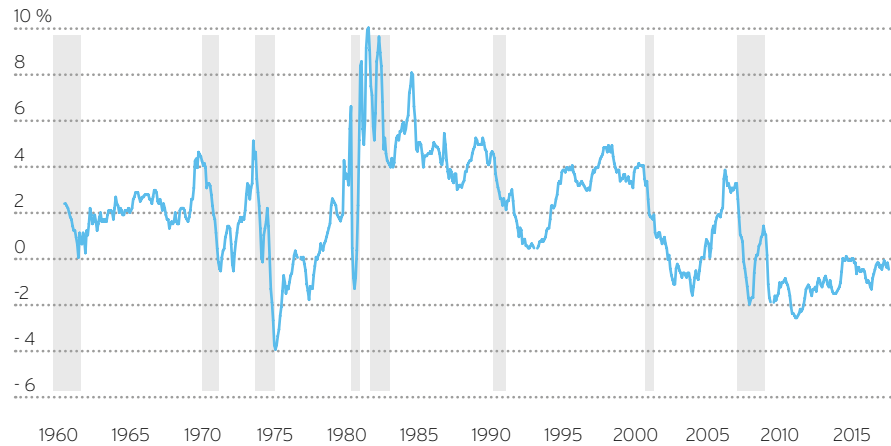


Chart shows inflation adjusted US short-term interest rate. The personal consumption expenditure (PCE) inflation indicator is an average of changes in prices for all domestic personal consumption in the US, and is the Federal Reserve's preferred inflation measure. Source: Haver, as of 31 Oct 2018. Past performance is not indicative of future return.

**FIGURE 2. GLOBAL EQUITY TOTAL RETURN ESTIMATES 2019 (US\$)**

	2019 (%)
MSCI GLOBAL	+7%
S&P 500	+7%
MSCI GLOBAL EX-US	+8%
MSCI EMERGING MKTS	+9%
EURO STOXX 600	+8%

**FIGURE 3. GLOBAL CURRENCY HEDGED FIXED INCOME RETURN ESTIMATES 2019**

	2019 (%)
GLOBAL AGGREGATE	+1%
US AGGREGATE	+1.5%
EURO AREA AGGREGATE	-1.5%
EMERGING MARKET SOVEREIGN	+3.5%

Source: Return estimates from Citi Private Bank's Office of the Chief Investment Strategist; The Yield Book, as of 26 Nov 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. See Glossary for Index definitions. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

FIGURE 4. OUR ASSET ALLOCATION

ASSET CLASS	STRATEGIC (%)	TACTICAL (%)	POSITION
GLOBAL EQUITIES	38.1	1.0	OVERWEIGHT
GLOBAL FIXED INCOME	38.4	-1.0	UNDERWEIGHT
ALTERNATIVES*	21.5	n/a	n/a
COMMODITIES	0.0	0.0	NEUTRAL
CASH	2.0	0.0	NEUTRAL

\*Alternatives: Private Equity, Real Estate, Hedge Funds. Source: Citi Private Bank, as of 26 Nov 2018. Strategic = benchmark; tactical = Citi Private Bank Global Investment Committee's current view. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. Risk Level 3 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. Risk Level 3 may be appropriate for investors willing to subject their portfolio to additional risk for potential growth in addition to a level of income reflective of his/her stated risk tolerance.

Recent market turbulence - such as we saw in early October 2018 - has done nothing to change our positive conviction that global companies can increase their profits in 2019. Investors were clearly unsettled by the US 10-year Treasury yield rising above 3% for the first time since late 2013. This came on top of ongoing concerns over global trade - see **Will the trade war open or close markets?** We see what really happens with global trade as a key guidepost for the markets for the coming year and beyond. If there is clarity on trade between China and the US, it would refocus investors on the positive economic conditions enjoyed by many countries. Greater clarity seems likelier following the successful summit meeting between President Trump and President Xi on 1 December 2018. A further critical guidepost is from US monetary policy, by way of movements in the yield curve. Tightening is led principally by the Fed, with central banks elsewhere eventually following. The speed and degree of such actions needs to be followed closely.

### Regular portfolio rebalancing is essential for 2019 and beyond

Persistent global growth in the face of heavy bouts of market anxiety on the one hand and monetary policy tightening on the other are contradictory forces that will ultimately moderate return prospects for 2019. While the Federal Reserve has recently refocused on the need for its policy to react to positive or negative economic outcomes, we still recommend a clear focus on portfolio quality and a more conservative asset allocation at this stage of the market cycle. We remain slightly overweight global equities - **figure 4** - but with gradually increasing allocations to defensive fixed income strategies, relative to one year ago. Over time, we are likely to continue reducing our cyclical exposure, in anticipation of the increasing impact of the Fed's tightening.

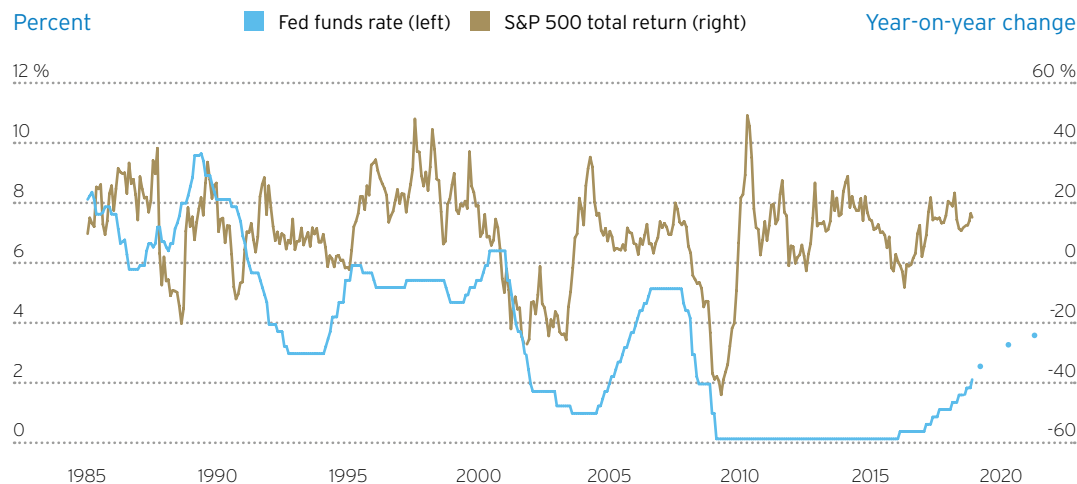


## What central bank policy tightening means for portfolios

Unlike in the early years of the present expansion, investors can no longer expect a favorable confluence of strong economic growth and easy monetary conditions. Assuming a lack of negative economic shocks next year, the Fed might hike rates as many as four more times in the twelve months from December 2018. Many investors never believed the Fed would get this far. Indeed, markets currently doubt the Fed will see its stated schedule of hikes through. However, investors should be mindful that there have already been eight rate increases of 25 basis points. The Fed may do significantly less, as markets now expect. However, under the most positive US growth scenarios, the rate hike tally could conceivably reach twelve or thirteen by the end of 2019.

Fed interest rate hikes have typically been an indicator of favorable conditions. As the economy strengthens, corporate profits rise, markets rally, and the Fed tightens in response to this strength. Early cycle tightening periods are thus positive for investors – **figure 5**. The Fed then gradually raises its risk-free rate towards or above the US nominal economic growth rate. As the expansion ages, and parts of the economy overheat, underlying risks progressively build – see **What to expect when you are expecting recession** below. Subsequently, the early stages of Fed easing cycles are generally bearish for investors. Business cycle activity is depressed, and the Fed is typically lagging behind in delivering the rate cuts necessary to stimulate recovery. That said, the fact that the US is raising rates means it will ultimately have the monetary firepower to re-energize the economy when conditions call for it.

FIGURE 5. EARLY TIGHTENING BULLISH FOR EQUITIES, EARLY EASING BEARISH



Source: Haver, Federal Reserve forecasts for Fed funds, as of 31 Oct 2018. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

FIGURE 6. HEDGED AND UNHEDGED RETURNS IN ACTION

S&P 500 RETURNS 1980 - 2015			
	AVERAGE RETURN OVER 12-MONTH PERIOD: UNHEDGED	BEST RETURN OVER 12-MONTH PERIOD: UNHEDGED	WORST RETURN OVER 12-MONTH PERIOD: UNHEDGED
<b>1 YEAR</b>	<b>10.0%</b>	<b>53.0%</b>	<b>-43.0%</b>

S&P 500 RETURNS 1980 - 2015			
	AVERAGE RETURN OVER 12-MONTH PERIOD: HEDGED	BEST RETURN OVER 12-MONTH PERIOD: HEDGED	WORST RETURN OVER 12-MONTH PERIOD: HEDGED
<b>1 YEAR</b>	<b>7.6%</b>	<b>49.0%</b>	<b>-14.0%</b>

Source: Bloomberg, as of 30 Nov 2018. Citi Private Bank's Office of the Chief Investment Strategist. Hedging illustration above involves purchasing a put option with a strike price 10% below the contemporaneous S&P 500 level with an expiration one year forward. Hedging comparison is shown to illustrate the volatility environments during specific time periods. Returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary. See also the options disclosure at the end of this article.

## A second headwind

Not only is the Fed raising rates, but it also plans to shrink its balance sheet by roughly \$700 billion by not reinvesting the proceeds of its bond holdings as they mature. Other central banks will not be stepping in to offset the resulting loss of stimulus. This makes a slowdown more likely. That is because as rates rise and as the central bank lends less with its own balance sheet, government borrowing in many countries will crowd out the private sector for savings. Their increased demand for funds will gradually affect returns across all asset classes, continuing the trend begun in 2018. Given these facts and assuming we avoid negative shocks to the global economy, it is possible that the US 10-year Treasury yield could rise to as high as 3.75% in 2019.

## Buying value is better than chasing momentum

With the US at a later stage of its economic cycle than the rest of the world, US earnings per share (EPS) are 55% above their 2007 peak. By contrast, non-US EPS remain 20% below their last peak. As well as a stronger recovery in earnings, US equity valuations have risen more sharply. Investors pay about one-quarter more for a dollar of US earnings than they do for non-US earnings. But should they do so now?

For much of the time in recent years, buying the more highly valued US has been rewarded with outperformance. However, we do not advocate persisting with this approach. In a late-cycle environment, we are mindful of the risk of 'buying high.'

Before entering into any transaction using listed options, investors should read and understand the current Options Clearing Corp. Disclosure Document (Characteristics and Risks of Standardized Options) at <http://www.theocc.com/components/docs/riskstoc.pdf> [http://www.theocc.com/components/docs/about/publications/november\\_2012\\_supplement.pdf](http://www.theocc.com/components/docs/about/publications/november_2012_supplement.pdf). If you would like an additional copy of this document please contact Citigroup Global Markets Inc., Options Department, 390 Greenwich Street, New York, NY 10013 or from your Financial Advisor.

The history of markets suggests that the good recent performance in one asset class is unlikely to repeat itself. Over the last decade, the best performing of the ten asset classes shown in the infographic in **Safeguarding assets** has been US small- and mid-cap equities. Currently, they trade on 24 times trailing earnings. Most of these smaller firms have weaker balance sheets to weather future economic storms, with greater debt burdens. We currently have a slightly underweight tactical allocation to US small- and mid- caps, even while acknowledging that the segment may rebound in coming months. We are likely to deepen our underweight as future risks build, underscoring our view that small caps are unlikely to be the next decade's top performer - see **Wise idea: Sell booms, buy busts**.

### Managing late-cycle risks

Despite our conviction that there is meaningful upside for risk assets heading into 2019, we also recognize investors' desire to preserve prior years' gains. We therefore want investors to consider ways of maintaining market exposure while protecting against downside - see **Safeguarding assets**. We also advocate exploring hedging possibilities.

The cost of hedging against a cyclical bear market - a temporary drawdown of 20% or more in US equities - is priced at 63%<sup>1</sup> lower for the next two years than it was during the first two years of the present economic recovery. At that stage, the US economy was deeply depressed. Equity valuations were half their current level. It seems anomalous to us that a cyclical bear market is priced as

being less probable after a decade of growth and rising markets than it was after just two years of the same. We see the low cost of hedging now as an anomaly and a potential opportunity. We believe hedging offers a potential alternative to attempts to time the market aggressively - see **This is not the time to time the markets**.

### A time to hedge

Hedging has shown benefits when measured over full cycles - **figure 6**. However, it seems likelier to add value after a long bull market than at times when asset prices and economic activity are deeply depressed. We thus recommend hedging at times like these. While the macro-level illustrations are useful, we suggest doing so in a cost-effective way that does not require frequent and expensive adjustments.

### It is the right time to take portfolio actions...

Hedging is just one of our recommended actions as we enter 2019. In this publication, we explore a variety of opportunities that may help to prepare portfolios for the coming year and beyond. As well as our tactical positioning for the period immediately ahead, we also consider the multi-year prospects for asset classes - see **The long-term outlook for asset classes** - as well as our investment themes. By combining our recommended actions, we believe you can build stronger portfolios for more turbulent times. We believe you should do so now.

<sup>1</sup> Source: Bloomberg, as of 31 Oct 2018

## FOCUS | 1

## 2020: What to expect when you are expecting recession

We do not expect the next US recession and global downturn to begin in 2019.

Time-tested leading indicators of economic activity are not currently consistent with a contraction in the next twelve months. However, financial markets are among these leading indicators, and fears of a 2020 peak may become more prevalent before 2019 is over. And there is always a risk that unanticipated shocks may accelerate the onset of recession. Therefore, we think it is worth thinking about what the next recession may look and feel like.

We do not believe the next recession will resemble the last one. The 2008-09 slump was deep, as those associated with financial crises have usually been. Today, the banking system is better capitalized than it was ahead of the last crisis, with tangible common equity having doubled since 2007. We believe both the next recession and associated bear market will be on a lesser scale than those of a decade ago.

The probability of a recession rises in 2020. With demand for labor gradually set to outstrip supply, overheating risks may come to the fore. While the US financial sector may enter the next downturn with a stronger balance sheet than it did last time round, the same cannot be said of the US government. President Trump's policy experiment of seeking to boost growth sharply in the later stages of a cycle via tax cuts and spending increases has seen an already large budget deficit of \$604bn in 2017 swell to \$804bn in 2018. The Congressional Budget Office sees further widening of the deficit in each year out to 2026. Such deficits reduce market liquidity as funding requirements rise and consumer savings fall.

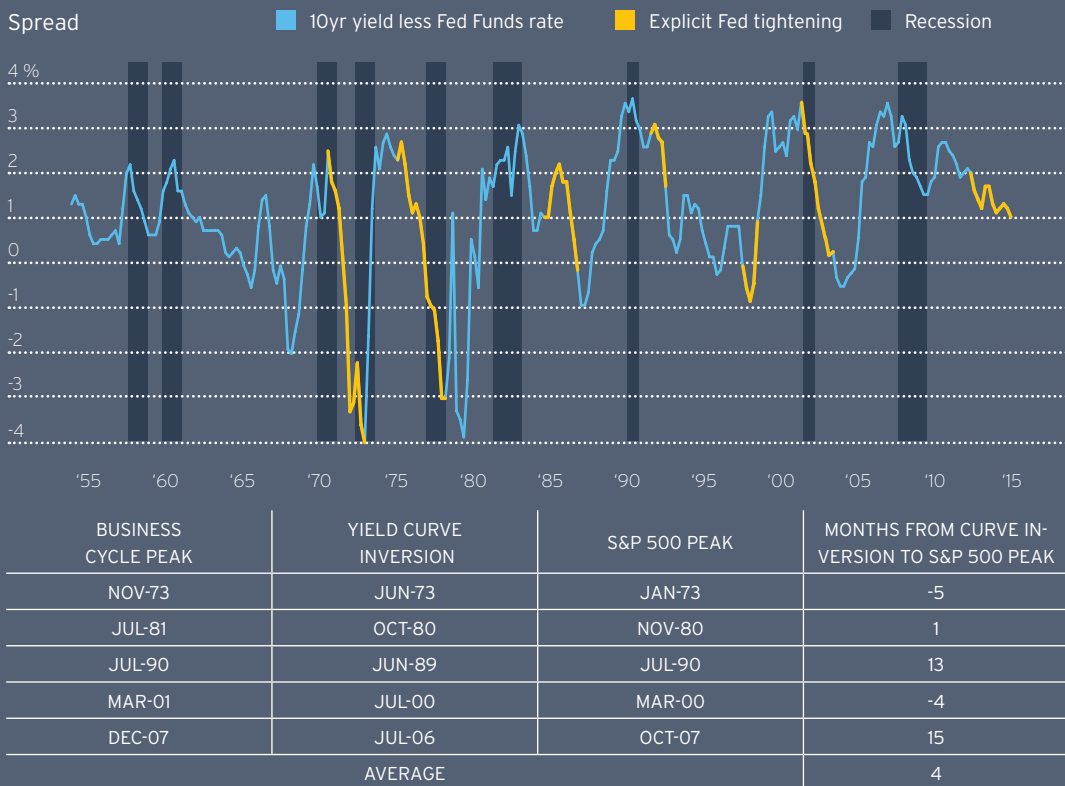
### **What is a normal recession like? Investors tend to overreact.**

Once a downturn does strike, investors should keep events and their portfolios in perspective. Post-war recessions - including the Global Financial Crisis - have involved an average of slightly less than one year of contracting economic activity, and one year of sharply negative equity returns. Over time, though, investors have tended to behave as if such periods might be almost permanent, and have committed asset allocation errors whose negative effects persist for years. How do you know when a recession becomes more likely? As **figure 7** shows, an inverted US yield curve has preceded every US downturn for the past half century. There have been a couple false or early warnings, but no contraction cycles have occurred without this signal being triggered. US contractions have begun on average twelve months after long yields have fallen below the Fed's policy rate. US equities - also a leading indicator, but with a shorter lead time - have peaked on average four months after yield curve inversions. Of course, there are no guarantees when assessing financial market performance. However, we note the past tendency of credit markets and equities to have been much more coincident indicators of economic downturns than the yield curve - **figure 8**.

### **Not yet!**

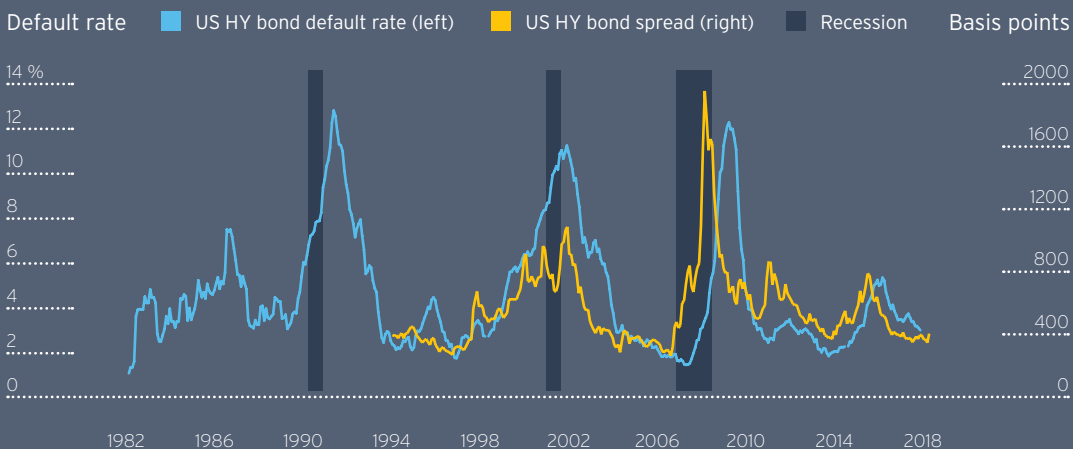
Despite widespread attention and concern, the US yield curve has yet to invert and thus start some of our recession 'clocks' ticking. While we have already de-risked our asset allocation over the past year, we believe the sharp valuation declines driven by rising EPS and investor pessimism are premature. In the coming year, we will further describe our guideposts for the eventual recession, and recommend more steps to prepare portfolios.

FIGURE 7. US YIELD CURVE INVERSIONS, RECESSIONS, AND MARKET PEAKS



Source: Bloomberg, as of 31 Oct 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

FIGURE 8. CREDIT MARKETS: COINCIDENT RECESSION INDICATOR



Source: Haver, as of 20 Nov 2018. HY bond default data from S&P, spread from Bloomberg Barclays indices. Past performance is no guarantee of future returns. Real results may vary.

## FOCUS | 2

## Will the trade war open or close markets?

In September 2018, the US successfully concluded a revised trade agreement with South Korea, and then with Canada and Mexico.

During 2018, hopes and fears over trade between the European Union and the US waxed and waned. For China, the US announced escalating tariff rates for 2019, but subsequently said it would hold off amid negotiations for a wide-ranging trade deal by the end of February. Will the US-driven renegotiations and other actions result in more open or more closed international trade?

The US administration appears to have two conflicting objectives in the trade war that it has initiated. One is 'freer trade' (FT) - a reduction of global trade barriers. The other is what might be called 'better trade' (BT), which seeks to erase US trade deficits by erecting strategic trade barriers, and by bringing more of the manufacturing supply chain back onshore to the US.

We see both of these objectives represented by current and former White House officials. Former White House economic advisor Gary Cohn was the best known voice for FT, with Director of the National Trade Council Peter Navarro the most visible proponent of BT. Markets have long held out the hope that FT would predominate, that trade barriers would actually come down, and the trade war would have no casualties.

It has not always been clear which of these two objectives President Trump supports. Despite cutting trade deals with certain partners that have reduced trade barriers, some of his comments suggest traditional protectionism is his ultimate goal. Indeed, it seems to be the case that the US is aiming both to lower and raise trade barriers for specific counterparties - see **The expected and unexpected events of 2018.**

### **Two different outcomes, one benign and one dangerous**

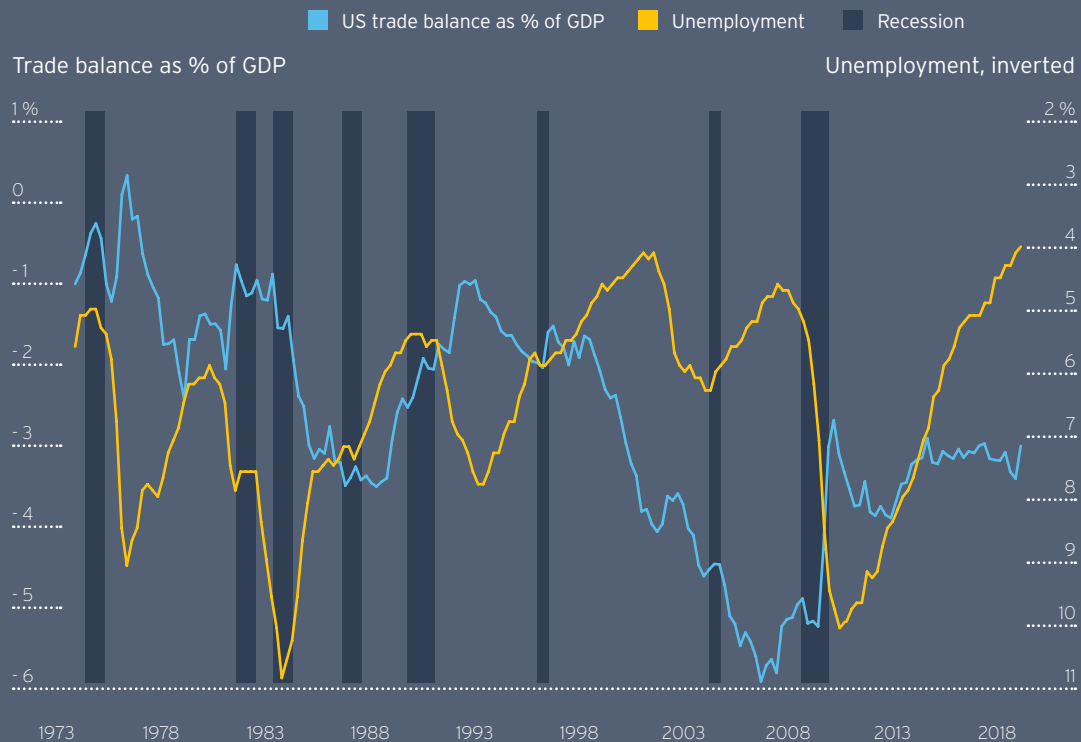
A conventional economic analysis of the objectives of FT and BT finds sharply different economic implications. The goal of FT aligns closely with mainstream economic theory. It suggests that a victory would boost global economic activity and, by extension, financial markets. In contrast, the goal of BT is best viewed as a zero-sum game or worse.

The US economy has added 12 million jobs since the economic peak of 2007. As **figure 9** shows, the nation has seen unemployment drop to less than 4% in recent years 'despite' its large trade deficit. In fact, faster US growth and budget deficits – which create demand not supply – quite ordinarily cause a rise in demand for imports. The US cannot produce all it consumes any more than individual workers could fashion their own vehicles to drive to work. Both require trade with others at a macro and micro level. Satisfying US internal demand without any external supplies would most likely mean higher prices and a lower output level for the US and almost any other economy. There are signs and statements supporting the idea that the President has feet in both camps. While

deals struck with key allies in North America and Asia suggest a willingness to engage in FT, his other statements suggest a risk he leans more towards BT. These include his oft-repeated assertion that it is easy to win a trade war with another country when you have a \$100bn deficit 'by just not trading'. As a result, we must be mindful of how the negotiations with China go in coming months, with implications for Europe in particular. On the one hand, freer trade could calm tensions and extend the current period of global growth. On the other, we may see a greater negative impact as trade slows globally. Given these scenarios, our view is that investors should prepare portfolios for either outcome.

*Malcolm Spittler contributed to this section.*

**FIGURE 9. LESS UNEMPLOYMENT, BIGGER TRADE DEFICIT**



Source: Haver, as of 30 Oct 2018.



# The expected and unexpected events of 2018

Steven Wieting | Chief Investment Strategist and Chief Economist



The trade war came as a shock to markets in 2018, alongside the strong growth and monetary tightening that we expected. We consider the implications for investors looking ahead.

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In 2018, financial market returns were shaped by three major influences. We had expected two of them, but underestimated the likelihood and impact of the third.

First, we expected strong economic and corporate profit growth. Full year average US GDP growth is estimated at around 3% for 2018, with global growth of about 3.3%. US earnings per share (EPS) are on track for a gain of roughly 23%, and global EPS for some 17%.<sup>1</sup> We estimate roughly 8 percentage points of the 2018 US profit gain derives from a one-time cut in corporate tax rates. Still, the overall robustness of profits, particularly for the US, has been better than we expected.

Second, we anticipated the US Federal Reserve's reduction in its asset holdings and higher borrowing by the US Treasury would syphon flows away from other asset classes.

In turn, we thought this would mean more limited returns for most financial markets than in 2017. This too came to pass. Valuations in global equities and fixed income have fallen, but returns have been positive overall. Returns over the past twelve months have been about 3.1% for US equities and -7.9% for non-US equities, as of 23 November 2018. For a global benchmark of equities and fixed income together, the return in US dollar terms has been about 0.1%.<sup>2</sup>

The Fed's asset holdings have fallen by \$230 billion in 2018 to date. At the same time, due to higher deficits from the tax cut, borrowing by the US Treasury has increased by \$100 billion relative to 2017. Increased government borrowing from the private sector is one of many factors that drove US yields up in 2018, pressuring fixed income and equity returns worldwide.

1. Consensus estimates via Bloomberg, as of 23 Nov 2018
2. Bloomberg, as of 23 Nov 2018



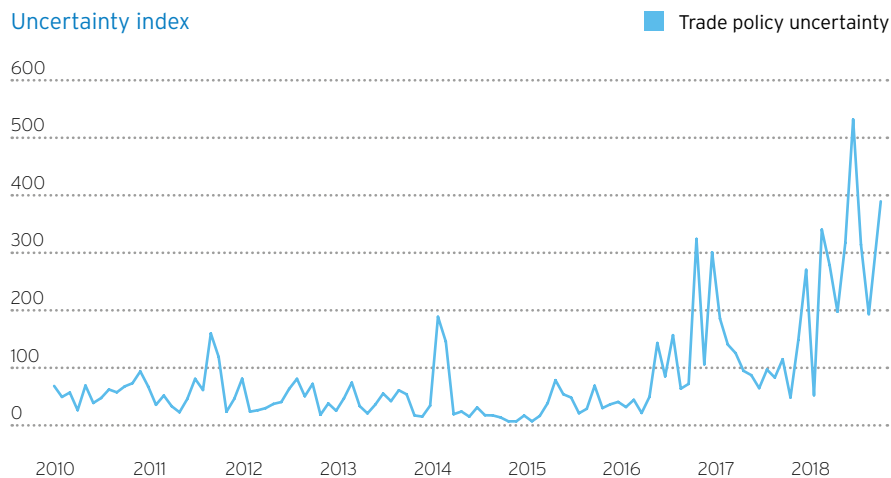
Thirdly, while we noted in **Outlook 2018** that disruptions to world trade represented the biggest risk to global growth, we did not expect the trade war to unfold as it did - **figure 1**. The anticipated disruption of global trade - in combination with Fed tightening and some idiosyncratic country issues - caused sharp divergence between US and non-US asset market performance during the year. In some cases, this involved already undervalued assets declining and already richly valued ones rising further.

We consider trade to be critical to the outlook for how corporate profits might perform

## New world disorder

Both tax cuts and trade protectionism were among Donald Trump's presidential election campaign promises in 2016. However, trade protectionism got sidelined by US domestic political negotiations in 2017, before coming to the fore. The desire of all countries involved to strike quick trade deals with the US or risk worse actual or threatened tariffs is not easy to judge. Trade policy uncertainty was the single biggest reason why we reduced our overall non-US equities weightings in July 2018. Importantly, we consider trade to be critical to the outlook for how corporate profits might perform, including for US firms, whose vulnerability may be underappreciated by investors.

FIGURE 1. US TRADE POLICY UNCERTAINTY INDEX



Source: Haver Analytics, Stanford University, as of 1 Nov, 2018. Data derived from news searches. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

Successfully completed trade agreements with Mexico and Canada will likely further convince President Trump of the effectiveness of his aggressive, tariff-led approach. However, those two nations have by far the greatest reliance on US trade, and are threatened directly by diminished economic activity with the US. The lengthy battles to achieve these new North American trade deals highlight just how difficult it may be to reach further agreements with the European Union and China, despite hopeful statements from all sides.

In May 2018, US Treasury Secretary Mnuchin announced that the US was 'putting the trade war on hold' following negotiations with Chinese counterparts. The initial optimism that his statement created was quickly dashed. Since then, it has seemed that the US's ideal outcome would be a complete overhaul of China's approach to subsidizing industry, the opening of the country's domestic markets to foreign competition, and a hard quantitative reduction in China's trade surplus with the US. The US would also like greater protection of intellectual property, a goal widely shared by others. While these goals might seem advantageous, the US has offered nothing in return save lifting its punishing tariffs.

Following failed attempts to strike an early deal, the US subsequently announced large-scale tariffs on Chinese imports with pre-set escalation. The Chinese authorities compared the situation to the bitter Opium Wars of the nineteenth century, in which the British Empire forced China to legalize the opium trade, open its markets to British merchants, and lift import taxes. Memories of the accompanying 'century of humiliation' - the loss of economic control and territory to foreigners - remain sensitive in modern China.

All this naturally presents a host of geopolitical and economic hazards for the world. However, on 1 December, Presidents Trump and Xi separately announced a 'highly successful' agreement to negotiate a trade truce. The US's has set a deadline for its conclusion in late February, and expects it to be followed by large-scale Chinese

In the coming year,  
the US and China  
may also clash over  
currency policy

purchases of US agricultural products and industrial supplies, a variety of measures to protect intellectual property, and for US firms to be given better access to Chinese markets. While the agreement is clearly a positive development, suspense will continue right up until the deadline. Also, the trade talks cannot be expected to end all friction between the two powers.

After decades of global economic integration, a disintegration of ties between the world's two largest national economies raises risks to both business and portfolios - **figure 2**. Companies and investors underappreciate many potential outcomes including the possibility that citizens of certain domiciles will not be as free to invest as they are now. Another is the risk that services, currently not on the negotiating table, will become a target for China, widening the trade war's scope, and hurting US businesses more directly. In a potential silver lining that is merely theoretical for now, a reversal of the integration between the Chinese and US economies could bring about lower correlations between asset prices over time, and thus greater potential portfolio diversification benefits.

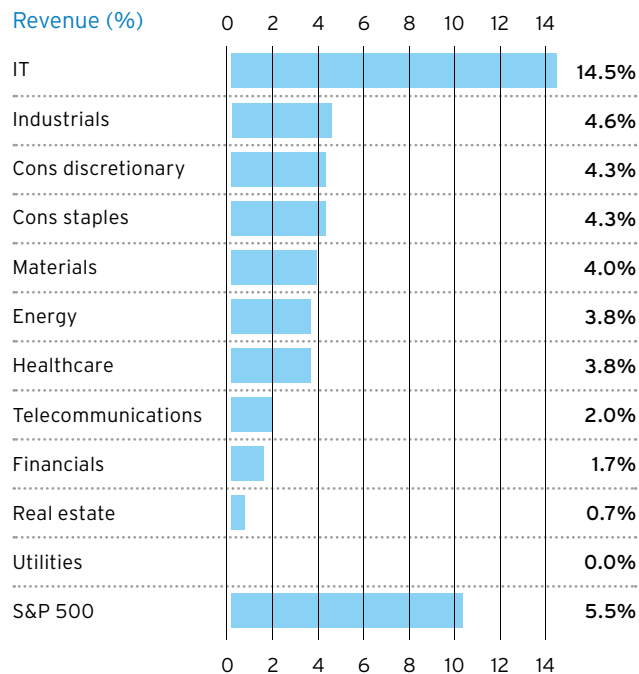
## Ire over Iran

The US trade dispute with China is not the only pressing issue for the coming year. In pulling the US out the 2015 nuclear non-proliferation deal with Iran, President Trump stated that 'anyone doing business with Iran will not be doing business with the US.' The US subsequently took action to exclude firms found engaged in commerce with Iran from using the US banking system, from settling trade in US dollars, and from engaging in commerce in the US. Quite unpredictably, it also exempted eight of Iran's major oil customers from the same sanctions, causing convulsions in the global oil price.

By contrast, the European Union said it would not abandon the 2015 accord. In an unprecedented step, it said it would create a special payments channel open to all countries that would facilitate what it recognizes as legal trade with Iran. Whether or not this special purpose vehicle can successfully hide and shield economic actors from US sanctions, the opposing stances of two longtime allies over Iran suggests a great loss of policy cohesion between the US and Europe.

The US has elsewhere openly stated that a multi-lateral approach weakens outcomes for the US. For a second year at the United Nations, Trump argued against accepting a consensual approach that fails to put US interests first. As long-term wealth and risk managers, we have to be concerned over whether the value of strategic alliances will some day be tested again, as in so many great tragedies of history.

FIGURE 2. US FIRMS' REVENUE % IN CHINA BY SECTOR



Source: Factset through Oct 2018. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

As international cohesion weakens and diplomatic relations become less predictable, we reiterate the importance of global diversification. Having exposure to multiple asset classes across the world may help to mitigate the effect of local or regional flare-ups. While the world as a whole is likely to be worse off as a result of greater barriers to trade, certain countries may be less affected than others, while some may gain at others' expense. We also highlight the possibility of making opportunistic investments if short-term overreactions to flare-ups create divergences between price and value.

Even if trade and geopolitics become less global, your portfolio should certainly not.

# Wise idea: Selling booms and buying busts

Steven Wieting | Chief Investment Strategist and Chief Economist

Investing more in cheap asset classes and less in expensive ones can help improve risk-adjusted returns over time. But doing so requires a disciplined approach.

Late-cycle investing presents a unique challenge. After sustained growth periods, profits have accumulated and future investor expectations follow animal spirits, running wild. Many investors herd into markets and asset classes that have already performed well, paying high valuations in the hope of further gains. Later on, amidst the despair of a final-stage bust, investors all too easily capitulate not long before markets begin to rebound strongly. These poor investor behaviors reflect, in the first case, the fear of missing out and, in the second case, loss aversion. In both cases, the poor behaviors can have significant effects on wealth.

The seemingly logical answer here may be to adopt Warren Buffett's approach of selling booms and buying busts. Some investors try to do this by switching aggressively between risky assets and cash at perceived times of boom and bust. Such random market timing efforts almost inevitably limit portfolio returns and increase portfolio volatility - see **This is not the time for market timing.**

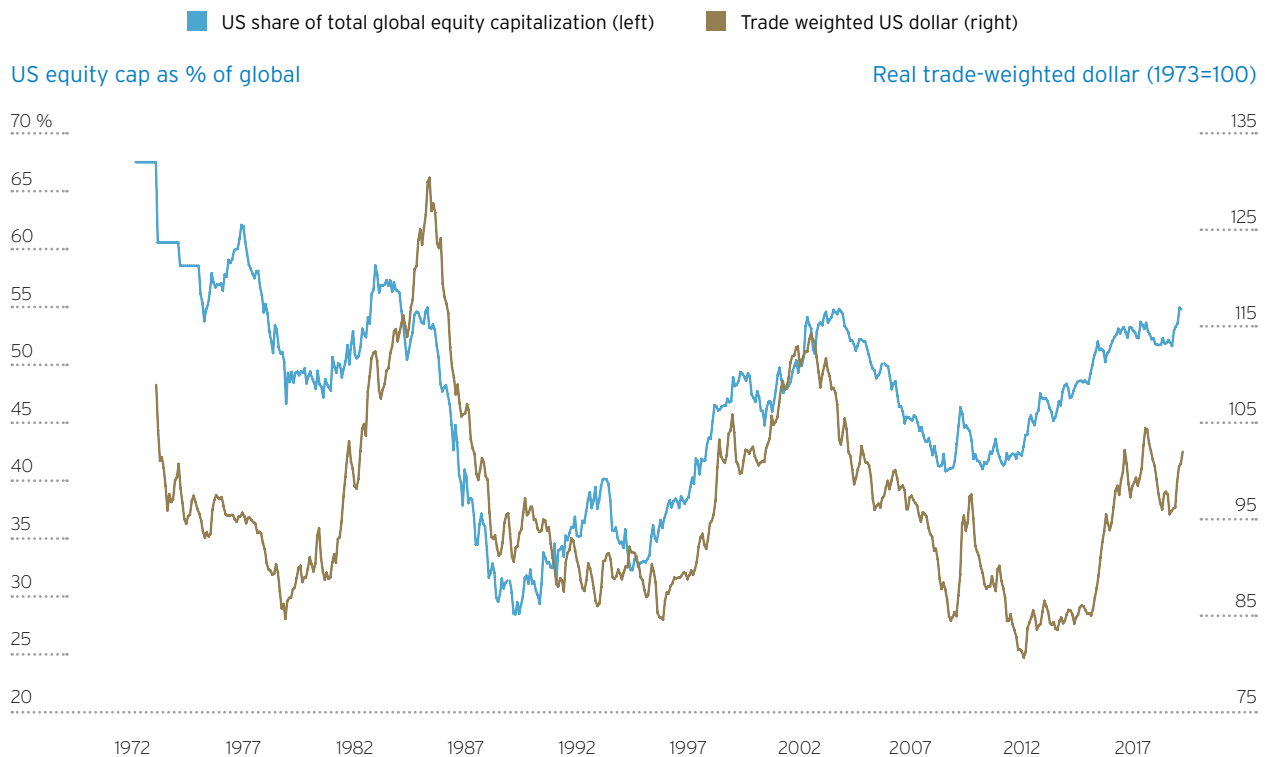
## A better way via AVS

Investors do not need to shift allocations based on perceptions, however. Citi Private Bank's strategic asset allocation methodology - Adaptive Valuation Strategies (AVS) - has an inherent tendency to sell booms and buy busts. When determining how much to allocate to each asset class, AVS focuses upon current valuations and how they compare to historical ones. In order to do so, it relies on a simple but powerful insight: low current valuations have typically preceded periods of high relative returns over time. In contrast, high valuations are indicative of future periods of comparatively low returns.

AVS thus allocates more to asset classes whose low valuations point to higher future risk-adjusted returns, which is a

typical feature of those markets or asset classes that have suffered a 'bust', a period of unusual underperformance. AVS also allocates less to asset classes whose high valuations potentially indicate lower risk-adjusted returns, something often seen after a long boom. While risk asset classes have generally risen over the last decade, some have appreciated much more than others. The US is a standout example. Driven by the US economy's uninterrupted recovery since mid-2009, US large-cap and US small- & mid-cap equities were the decade's two top-performing asset classes - see **Safeguarding assets**. The appreciation of the US dollar has further contributed sharply to US returns measured in US dollars - **figure 1** - as well as pushing US equities' share of global market capitalization to multi-year highs.

FIGURE 1. THE DOLLAR AND US SHARE OF GLOBAL EQUITY MARKET CAP



Source: Bloomberg, as of 20 Oct 2018. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

## Understanding return expectations

We do not believe that US small- and mid-cap equities and US large caps will be the next decade's top performers. Why? As our **Asset class performance** infographic shows - see **Safeguarding assets** - no asset class in our study has experienced two consecutive decades as top performer. We thus believe that these two asset classes' current high valuations point to more typical future returns, according to AVS methodology. Sometime after 2019, we also expect the US dollar to begin weakening and continue doing so over subsequent years. This would reduce US asset values for non-dollar investors and raise returns for non-dollar assets. In our present tactical asset allocation, therefore, we have neutral weightings to both US small- and mid-cap equities, as well as to US large caps.

By contrast, emerging market equities suffered something of a bust in 2018. As a result, their relatively low valuations point to annualized returns over the coming decade of 11.6% - more than double the strategic return estimate for developed market equities - see **figure 1** in **The long-term outlook for asset classes**. AVS thus adapts its recommended allocations in light of this outlook. And our Global Investment

Committee has complemented this with a further 'tactical' or additional overweight recommendation on our present twelve- to eighteen-month view favoring emerging equities.

The case for selling booms and buying busts based upon decades of market data is compelling. Market timing is an ineffective way to enhance a portfolio's risk-adjusted returns. In contrast, buying undervalued markets and reducing exposure to expensive ones has proven incrementally profitable - provided the portfolio remains fully invested. By aligning your portfolio to your recommended AVS allocation while reallocating its assets periodically, selling booms and buying busts automatically becomes an element within your investment strategy. Both shorter- and longer-term, this is likely to produce better risk-adjusted returns and make the trajectory of your portfolio potentially less volatile and more profitable. Allowing your assets to be managed via a disciplined discretionary process is one way to help ensure your portfolio is routinely re-evaluated and rebalanced. That sure beats being guided by animal spirits.

Buying undervalued markets and  
reducing exposure to expensive  
ones has proven incrementally  
profitable - provided the portfolio  
remains fully invested







# This is not the time for market timing

Gregory van Inwegen | Global Head of Quantitative Research and Asset Allocation

Paisan Limratanamongkol | Head of Quantitative Research and Global Asset Allocation

Gasam Abdulaev | Investment Lab Analyst

Market timing in a late-stage bull market may sound like a good idea. But experience suggests that there is no 'right time' to time the markets.

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It sounds perfectly logical. If we can avoid the 'big drawdown' by selling at the peak and buying back in at the trough, we will obviously make more money. So obvious does it seem, that many investors devote themselves entirely to trying to catch most of the markets' upside and then switching into cash during downturns. However, a look at the data suggests that market timing is neither easy nor profitable. Let's start from the bottom.

## Getting in at the 'wrong' time

How would you have done if you'd been unfortunate enough to have invested at some of the least favorable times in recent decades? **Figure 1** shows how long you'd have had to have waited to get back to breakeven had you invested one month before eight of the worst periods of market stress since 1973. These are returns from an investment in a global multi-asset class allocation equivalent to a Citi Private Bank AVS allocation at Risk Level 3, containing developed equities, investment grade fixed income, and US corporate fixed income.

Investing one month prior to a crisis generates losses that take time to recover. How long? On average, it would have taken 2.8 years to recover the original investment. In the worst-case scenario, it took 4.7 years. If the investment had been entirely in developed equities - a concentrated allocation that we would not recommend - the average recovery time was 3.2 years and the longest was 6 years.

## Getting in at the 'right' time

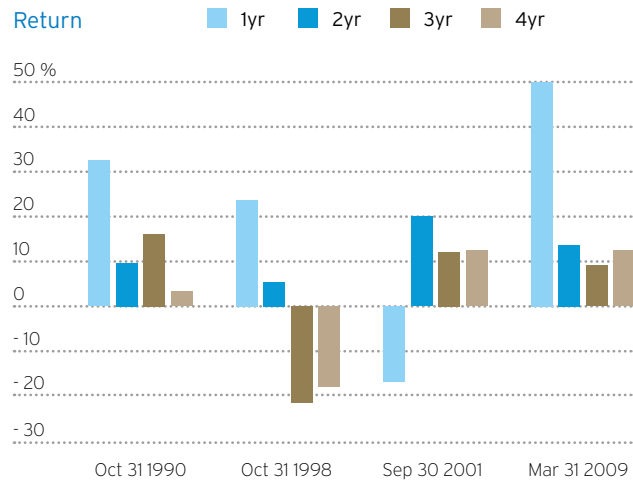
Some of the strongest positive returns have occurred in the aftermath of stress periods. **Figure 2** shows the S&P 500's performance in each of the four years following four prominent stress periods. However, evidence suggests that most investors freeze up in fear after periods of negative returns and end up sitting in cash, especially during the first of the four years. That's precisely what keeps them from generating profits, as the largest positive returns are often clustered in that first post-stress period year.



## Waiting until the 'right' time?

Should you invest now or wait? When we consider the long-term risk-adjusted return potential from asset allocation - see **Safeguarding assets: Global portfolios are the cornerstone** - it is certainly possible to do better than trying to time the markets. Different markets make profits at different times. By holding a global equity and fixed income portfolio based in large part on the relative value of each, we could generate better risk-adjusted returns than with market timing. This comes partly from asset allocation and partly from rebalancing, moving from expensive markets to cheaper ones in a fashion that most investors cannot accomplish on their own.

**FIGURE 2. ANNUAL S&P 500 RETURNS AFTER STRESS PERIODS**



Source: Bloomberg, as of 15 Nov 2018.

The hypothetical performance is based on historical performance data and shown is gross of any commissions, expense ratios, margin costs, or fees that would reduce the return illustrated. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

**FIGURE 1. YEARS TO BREAKEVEN AFTER INVESTING JUST BEFORE MAJOR STRESS PERIODS**

	OPEC OIL CRISIS	SPIKING INTEREST RATES	BLACK MONDAY	FIRST GULF WAR	RUSSIAN DEFAULT	DOT-COM BURST	2001 RECESSION	GLOBAL FINANCIAL CRISIS	AVERAGE YEARS TO RECOVERY
	OCT 1973 TO MAR 1974	NOV 1979 TO AUG 1981	OCT 1987	JUL 1990 TO OCT 1990	AUG 1998 TO OCT 1998	MAR 2000 TO MAR 2001	MAR 2001 TO SEPT 2001	AUG 2008 TO MAR 2009	
DEVELOPED EQUITIES	6.0	3.6	2.3	1.3	0.5	5.7	3.8	2.6	3.2
INVESTMENT GRADE FIXED INCOME	3.3	5.0	0.3	0.6	0.1	0.1	0.4	0.5	1.7
ASSET ALLOCATION	4.7	3.4	4.3	1.3	0.4	3.8	2.8	1.8	2.8

Source: Bloomberg, Citi Private Bank as of 14 Nov 2018. Asset allocation here represents an AVS Risk Level 3 allocation, which includes allocations to equities, fixed income, commodities, cash, and hedge funds. Risk Levels are an indication of clients' appetite for risk. Risk Level 3 – Seeks modest capital appreciation and, secondly capital preservation. The returns shown were calculated at an asset class level using indices and do not reflect fees, which would have reduced the performance shown. Past performance is not indicative of future returns. See glossary for definitions.

FIGURE 3. MISSING THE MARKET'S BEST AND WORST DAYS

START	END	S&P 500 ANNUALIZED RETURN (%)	CASH ANNUALIZED RETURN (%)	S&P 500 ANNUALIZED RETURN BY AVOIDING THE WORST DAYS (%)	S&P 500 ANNUALIZED RETURN MISSING OUT ON THE BEST DAYS (%)
JAN 1988	DEC 1997	17.6	5.7	22.8	13.9
JAN 1998	DEC 2007	5.9	3.6	10.9	1.1
JAN 2008	DEC 2017	8.5	0.3	16.8	1.3

Source: Bloomberg, as of 31 Oct 2018. The hypothetical performance shown is based on historical index performance and is gross of any commissions, expense ratios, margin costs, or fees that would reduce the return illustrated. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

### Avoiding drawdowns?

What about avoiding drawdowns once you are already invested? **Figure 3** compares the annualized returns from staying fully invested in the S&P 500 over three consecutive ten-year periods. It also shows the scenarios of being invested but somehow managing to avoid the market's ten worst days, and also missing its ten best days during those periods.

From 1988 to 1997, the annualized return on an investment in the S&P 500 would have risen from 17.6% to 22.8% by avoiding the ten worst days. By contrast, missing out on the market's ten best days would have resulted in an annualized return of 13.9%. The experience would have been even worse by missing the market's ten best days in each of the next two decades.

### So let's just avoid the worst 10 days and capture the best 10 days!

Clearly, avoiding the market's worst days would have led to much higher returns. However, it turns out that the best days and the worst days are typically clustered in the same periods. In other words, you'd have had to have been entering and exiting the market with pinpoint accuracy and high frequency. Without perfect foresight, the probability of being able to achieve this is practically zero.

### I bet there is a way to do this, right?

There's a widespread belief that market timing can be successful if rules are followed, rather than relying upon gut feelings. Many of the best known market-timing systems are based on price action looking at 'inflection points.' For example, some investors believe that moving average crossovers give confirmation of new uptrends and downtrends respectively. Specifically, when the 50-day moving average of a market's price crosses above its 200-day moving average - 'a golden cross' - it is said to be a buy signal, and when the 50-day moving average crosses below the 200-day moving average - 'a death cross' - it is said to be a sell signal.

Between January 1997 and December 2016 - **figure 4** - a market timing strategy of switching in and out of the S&P 500 Index based on these crosses would have delivered an annualized total return of 6.8%. However, this was considerably less than the 7.6% a buy-and-hold strategy would have returned. Nor did market timing achieve a superior risk-adjusted return, as measured by the Sharpe ratio. In fact, systems don't work very well. Market timing systems - however complicated they become - are prone to being out of the market at times of particular strength. The negative effects this can have on a portfolio's compound returns over time can be painful.

FIGURE 4. MARKET TIMING VS BUY AND HOLD 1997-2016

STRATEGY	TRADES	TOTAL PROFIT (%)	ANNUALIZED RETURN (%)	SHARPE RATIO
GOLDEN CROSS	10	272.8	6.8	0.46
BUY-AND-HOLD	1	332.8	7.6	0.51

Source: Bloomberg, as of 31 Oct 2018. The hypothetical performance shown is based on historical index performance data and is gross of any commissions, expense ratios, margin costs, or fees that would reduce the return illustrated. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

We see many wise and prudent steps you can take to preserve and create value

And the answer is...

No method of market timing has been shown to be consistently better over time to having a globally diversified asset allocation. As we have seen, the best single years following stress periods have tended to be the very first year, when many market timers would have been out of the market. A leading 'rules-based' switching strategy produced inferior returns to buy-and-hold. And even the least fortunate of diversified buy-and-hold investors - those who invested just ahead of a stress period - would still have achieved better returns than holding cash after no more than a half a decade in the periods examined.

There is compelling evidence against aggressive attempts to time the markets

Boring but smart: get invested, stay invested, add to portfolios over time

The data and our message are loud and clear: get invested and stay invested. We see many wise and prudent steps you can take to preserve and create value. To preserve gains made in recent years, employ strategies that maintain market upside exposure while limiting downside risks - see **Safeguarding assets: Intelligent exposure to a late-cycle bull market.** You can also ensure that your portfolios are exposed to markets more likely to do well in a downturn, such as healthcare - **Unstoppable trends: Increasing longevity.** You can strive for a portfolio of the highest quality. And you can even add to global portfolios when markets are down, just as Warren Buffett advises. The bottom line, however, is that there is compelling evidence against aggressive attempts to time the markets, with equally weighty data in favor of keeping your core portfolio fully invested over time instead.

*Lisandro Chanlatte also contributed to this article.*

The hypothetical scenarios were provided for illustrative purposes. Historical data was used to create the aforementioned hypothetical scenarios. There is no guarantee the levels illustrated would be achieved.

# The long-term outlook for asset classes

Gregory van Inwegen | Global Head of Quantitative Research and Asset Allocation

Strategic asset allocation is crucial to the performance and risk-exposures of portfolios over time. We review our methodology's long-term outlook for returns.

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How should you decide upon a strategic asset allocation, the way that your portfolio should be diversified globally and across asset classes over time?

The answer depends, in large part, on forecast returns for asset classes over the next several years. Our methodology - Adaptive Valuation Strategies (AVS) - uses current valuations in order to forecast returns over the next ten years. We call these forecasts strategic return estimates or SREs.

Citi Private Bank's SREs provide insight into the return potential of each asset class as well as our view of the relative contribution each can make to a portfolio. For example, AVS estimates annualized returns over the next decade of 5.6% for Global Developed Equity, reflecting today's rich valuations, the late stage of the economic cycle and, at some future point, a recession and recovery. By contrast, Global Emerging Equity is forecast to produce annualized returns of 11.6%, as various emerging markets continue their current early-stage recovery.

Within Fixed Income, the more attractively-valued High Yield's SRE of 5.5% is above that of Developed Investment Grade (3.2%) but below that of Emerging Fixed Income (5.6%). Each has a different value to add to portfolios going forward.

Cash is modelled country by country, reflecting long-term real interest-rate forecasts and inflation expectations. Our US Cash SRE is 3.2%. Meanwhile, Hedge Funds - which can play an important portfolio role as a hedge during cyclical downturns - are estimated to return 7.7%.

Every year, depending on market performance, the valuation of each asset class, and the correlation of the asset classes to each other, AVS adjusts its SREs and asset allocations for investors at different levels of risk tolerance. We think current SREs provide important insight into what may lie ahead for markets and why diversification in portfolios is so important to help safeguard assets.

Strategic Return Estimates (SRE) are no guarantee of future performance.

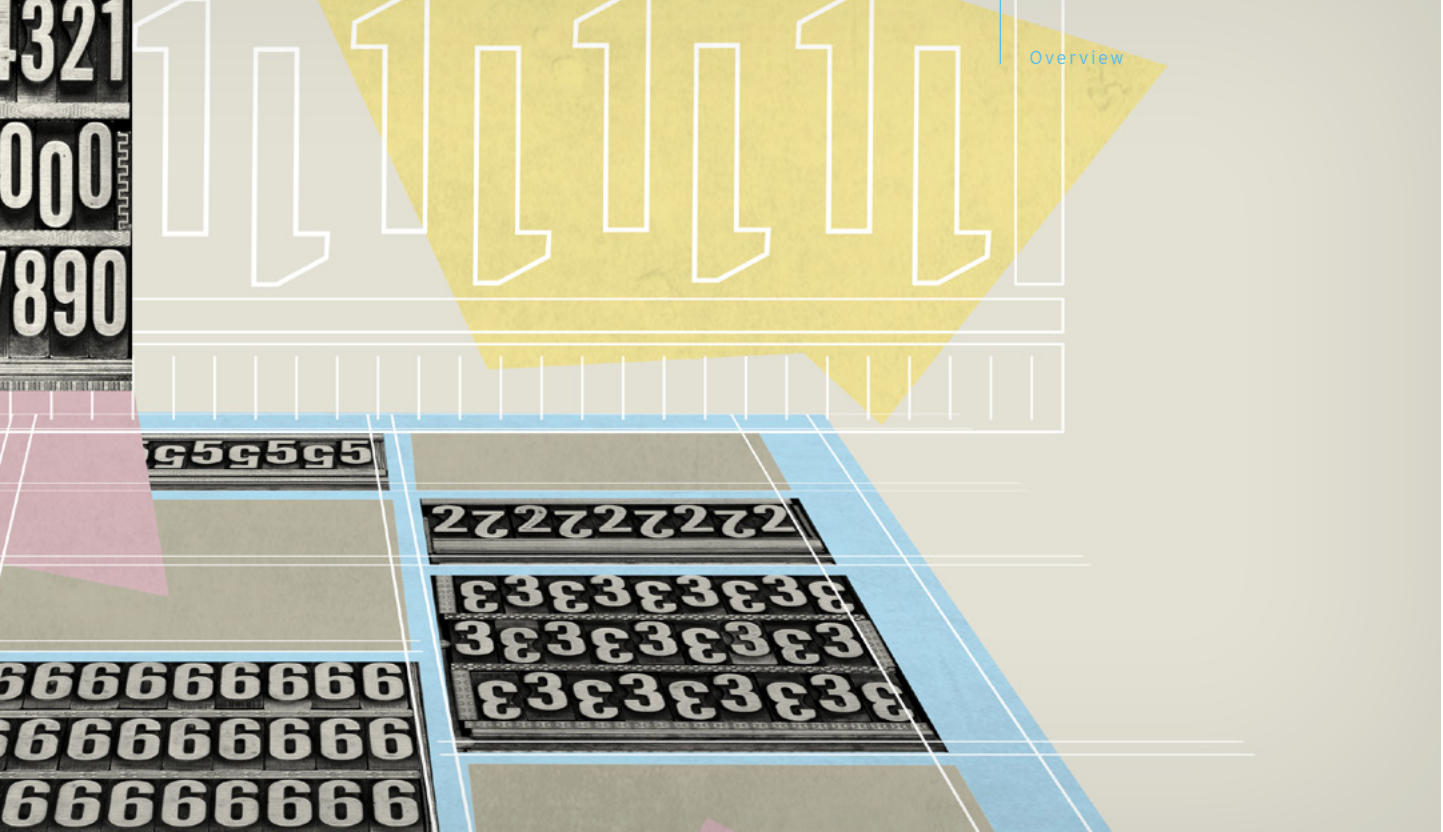


FIGURE 1. STRATEGIC RETURN ESTIMATES

GLOBAL DEVELOPED EQUITY	5.6%
GLOBAL EMERGING EQUITY	11.6%
GLOBAL DEVELOPED INVESTMENT GRADE FIXED INCOME	3.2%
GLOBAL HIGH YIELD FIXED INCOME	5.5%
GLOBAL EMERGING FIXED INCOME	5.6%
CASH	3.2%
HEDGE FUNDS	7.7%
PRIVATE EQUITY	11.9%
REAL ESTATE	10.9%
COMMODITIES	2.2%

Source: Citi Private Bank Asset Allocation team, preliminary estimates as of 31 Oct 2018. Returns estimated in US dollars; All estimates are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Strategic Return Estimates are no guarantee of future performance. For further information, please consult Adaptive Valuation Strategies 2019, due for publication in Feb 2019.

*Paisan Limratanamongkol, Andy Zhu, Gene Desello, Xin He and Wenjing Wu of the Citi Private Bank Asset Allocation team also contributed to this article.*



# Investing with Purpose

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# Investing with Purpose

Stephanie Birrell Luedke | Global Head of Citi Investment Management

Aligning your investment activities with personal values and interests can help enable you to seek financial gain while serving the greater good.

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At Citi Private Bank, we believe that you can invest in a manner that aligns with your values while maintaining quality and improving investment outcomes. We call this simultaneous pursuit of financial returns and societal benefits 'Investing with Purpose' (IwP).

The societal benefits that IwP seeks to achieve fall into three categories: environmental, social, and governance (ESG). Examples of environmental benefits include cleaner water and more sustainable resource use. Social benefits embrace gender equality and other forms of diversity, as well as expanding access to employment, education, and finance. Governance benefits encompass raising standards of corporate behavior, such as how firms treat their employees.

As we will show, companies that score well on ESG factors have achieved better financial results. In turn, investment managers who identify and invest in companies that have

favorable ESG ratings have delivered better investment results in the last decade.

IwP delivers societal benefits by harnessing the power of capital markets, powerful systems that channel the world's wealth. Capital markets finance the growth of businesses, shape sectors and industries, and define what is seen as valuable. Over time, they have helped many people to build and protect great wealth. But their potential extends far beyond achieving financial returns. Investors who attribute value to companies that manage their businesses sustainably can influence and indeed transform how companies behave over time. Ultimately, this could help to solve some of the world's most complex challenges.

IwP does not require you to sacrifice returns nor is it a philanthropic endeavor. These are investments made with the expectation of competitive returns as well as the potential to help advance positive change around a wide range of issues.



Investing with Purpose  
does not require you to  
sacrifice returns nor is it a  
philanthropic endeavor

### Our clients' values

We know that global citizenship is as integral to many Citi Private Bank clients as it is to us. Many of our clients live the values of global citizenship by seeking innovative solutions to some of the world's greatest challenges through their businesses, by giving back to communities, and by supporting worthy causes worldwide. A growing number of our clients have told us that they also wish to align their investment activities with their personal values and interests – and ultimately invest with greater purpose. IwP is our approach to helping to achieve this.

### Citi's values

As an organization, Citi has a stated mission of enabling growth and progress for clients and communities worldwide. Over the past two decades, we have expanded our work in environmental and inclusive finance, created an environmental and social risk management framework, and worked to manage our own environmental footprint. Central to this is our commitment to advancing the United Nations' 17 Sustainable Development Goals (SDGs), which are also the cornerstone of many approaches to sustainable investing – see graphic below.

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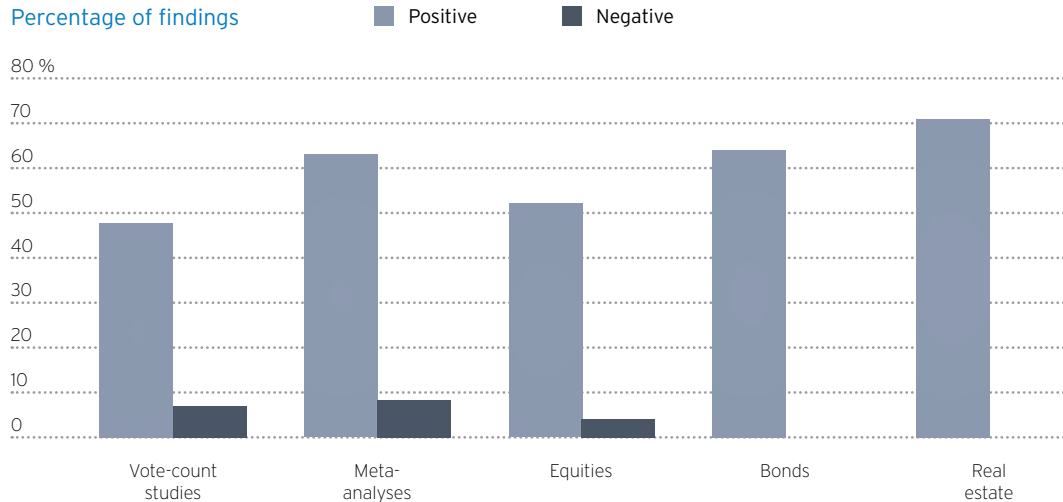
Source: UN Sustainable Development Goals © 2015 United Nations. Reprinted with the permission of the United Nations.

## The case for sustainable investing

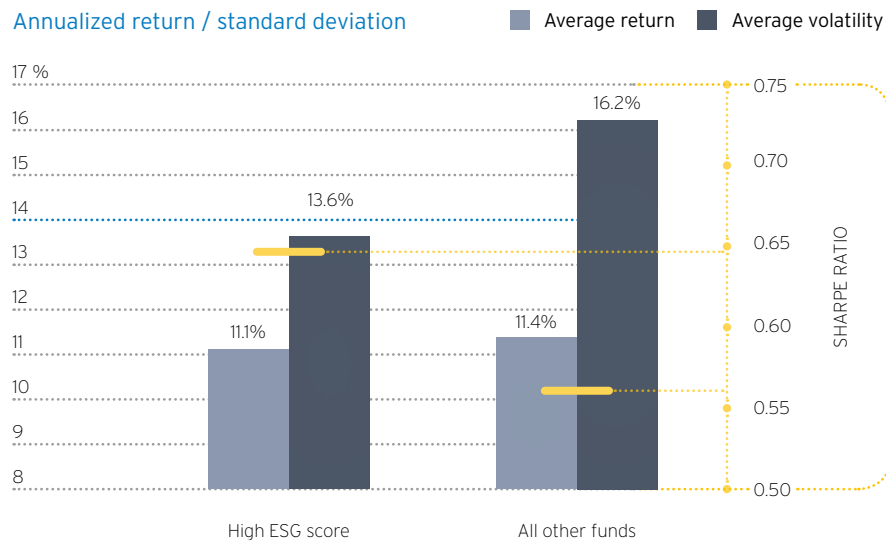
While Citi has a part to play in all of the 17 Sustainable Development Goals, we are particularly focused on safeguarding the environment, assisting urban development, tackling youth unemployment, broadening financial access, promoting female economic empowerment, and enabling innovation. Our commitment to advancing these and other causes is a key element of our own global citizenship.

Citi Private Bank recently reviewed an analysis of the results of more than 2,000 different academic studies that have been carried out since the early 1970s. Over half of these studies found a positive relationship between companies that score well when evaluated based on factors that align with ESG principles and corporate financial performance, while less than 10% identified a negative relationship. The clear conclusion is that companies that score well when evaluated based on ESG factors have better financial results - **figure 1**.

The experience of sustainable investing over recent years reinforces the long-term academic findings. Our analysis suggests that investment managers who successfully identify and invest in companies that have favorable ESG ratings could have better investment results. In fact, when compared to traditional managers, ESG-focused managers have comparable returns with lower risk, resulting in superior risk-adjusted returns over time - **figure 2**.

**FIGURE 1. HIGHER ESG STANDARDS, STRONGER CORPORATE PERFORMANCE**

Source: Friede, Busch, and Bassen; ESG and financial performance, 2015. Past performance is no guarantee of future returns. Real results may vary. Note: The results shown towards the left are based on 723 vote-count studies and 1,214 meta-analyses. The asset class results towards the right involve 334 vote-count studies of which 36 pertain to bonds and 7 to real estate. Vote-count studies assign findings into significant positive, negative and non-significant categories. Meta-analyses involve econometric reviews.

**FIGURE 2. HIGH ESG SCORE, BETTER RISK ADJUSTED RETURNS 2010-18**

Source: Morningstar; 1 Jan 2010 - 31 Oct 2018. Past performance is not indicative of future results. By Charlie Reinhard, Office of the Chief Investment Strategist, Citi Private Bank. See glossary for definitions.

1. We used data on 528 US equity funds with data back to 2010 from the Morningstar database
2. Of these, 58 were assigned to the high ESG score universe based on Morningstar's methodology; all others totaled 470 funds
3. We compared the high ESG funds and all others on an equal-weighted basis for return and standard deviation
4. The Sharpe ratios shown were calculated on the aggregated returns and standard deviations

# ESG equity credentials by country

Which countries' equity markets score highest for environmental, social, and governance (ESG) factors in 2018?

To answer this vital question, Citi Private Bank's Office of the Chief Investment Strategist examined 1,321 firms across 22 developed countries, using ESG Risk Ratings from Sustainalytics.

These ESG Risk Ratings consider each company's exposure to and management of financially material ESG risk factors.

Our approach was bottom-up, looking at individual companies, and then developing scores for each country on a market capitalization-weighted basis.

The country ESG scores are shown on a scale of 0 to 100, and compare the relative standing of each country's equity market.

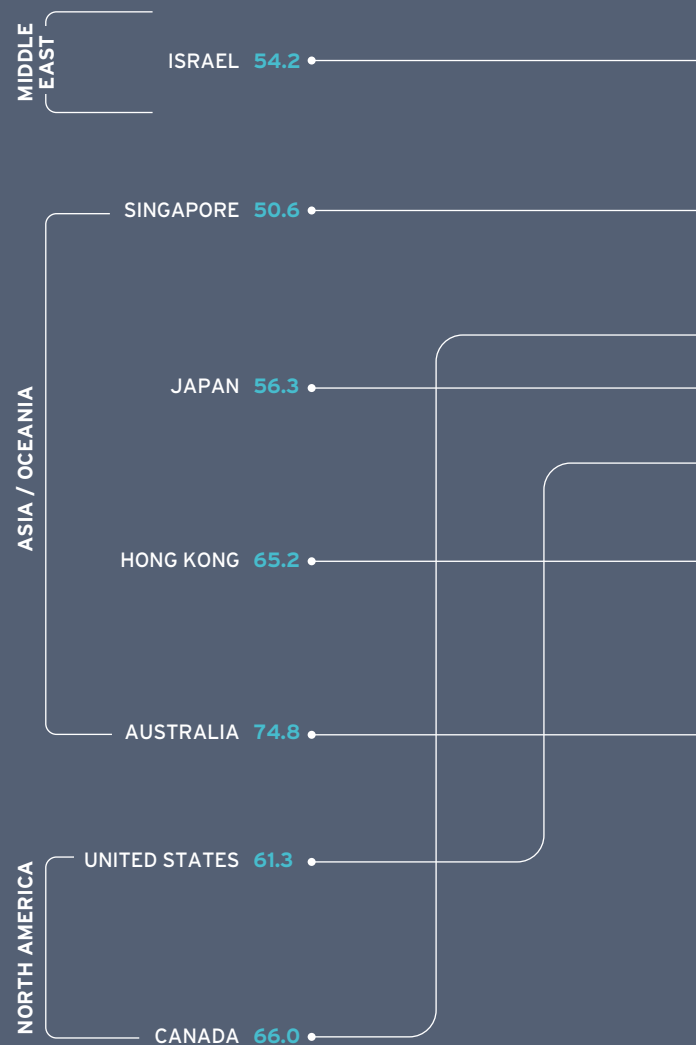
The higher an individual country's score, the better its equity market's ESG credentials.

To give perspective into ESG progress over time, we also highlight which countries' scores increased or decreased from four years ago.

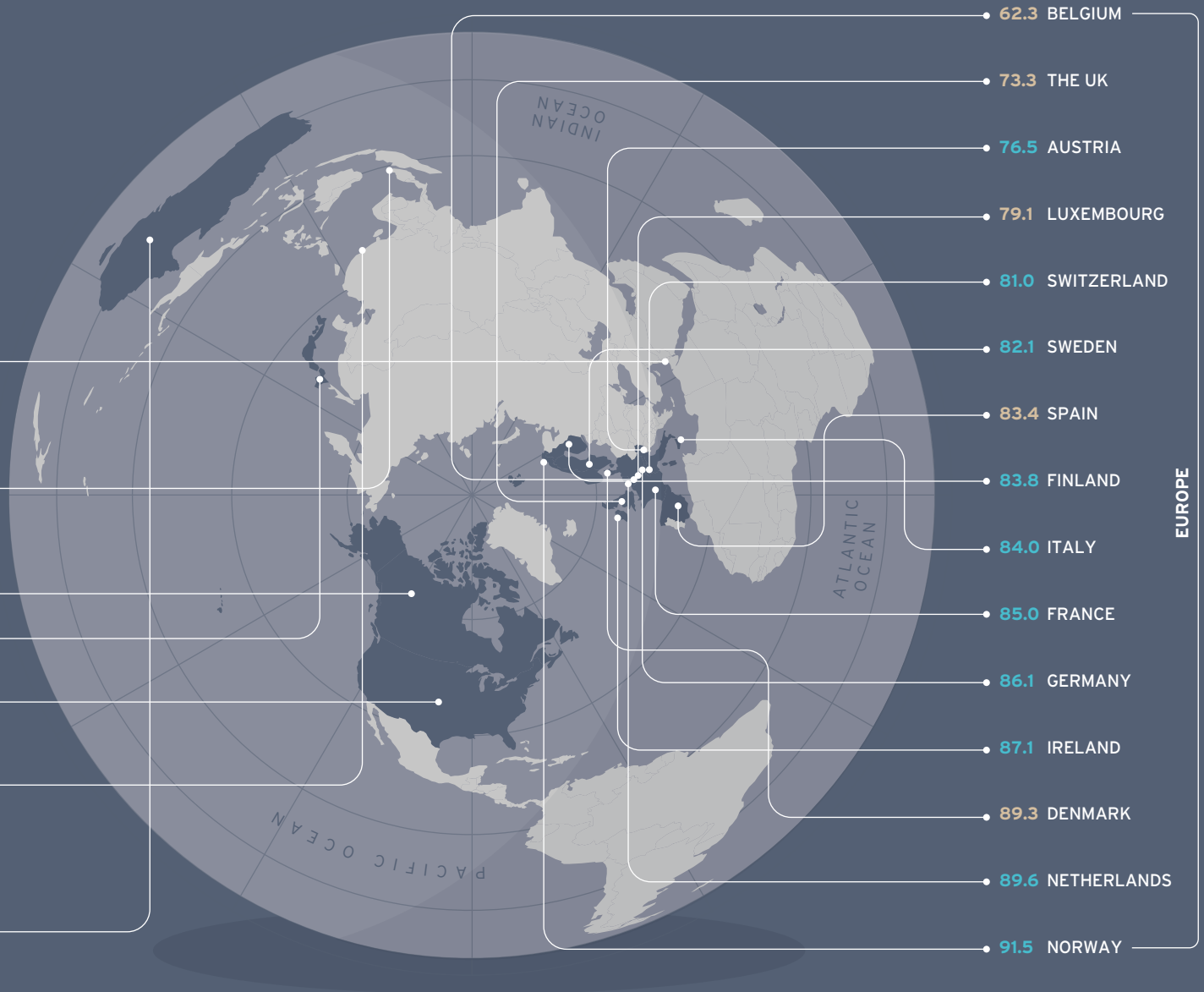
In all, 58% of the companies and 77% of the countries we looked at recorded progress.

## 2018 ESG SCORES

A **BLUE** SCORE INDICATES AN INCREASE SINCE 2014.  
A **TAN** SCORE INDICATES A DECREASE.



Source: Sustainalytics, as of September 30, 2018.  
58% of the 1,321 companies analyzed showed progress



## SAMPLE OF ESG CONSIDERATIONS



## ENVIRONMENTAL

BIODIVERSITY	CLEAN TECHNOLOGY	POLLUTION & WASTE
CARBON EMISSIONS	CLIMATE CHANGE	
ENERGY USE	WATER SCARCITY	



## SOCIAL

COMMUNITY MINDSET	HUMAN RIGHTS
GENDER EQUALITY	PRODUCT LIABILITY
HEALTH & SAFETY	STAKEHOLDER INTERESTS



## GOVERNANCE

PRIVACY & DATA SECURITY	ACCOUNTING TRANSPARENCY	BUSINESS & ETHICS
WORKPLACE ENVIRONMENT	BOARD COMPOSITION	EXECUTIVE COMPENSATION
	CONFLICTS OF INTEREST	OWNERSHIP & VOTING RIGHTS

Technology and innovation are strengthening investment processes and adding new dimensions to the evaluation of IWP opportunities

### A spectrum of opportunities

There are various distinct approaches to this type of investing. We find it helpful to represent these approaches along a spectrum - **figure 3**.

At one end of the spectrum, socially responsible investing involves screening out investments in companies or sectors that fail to meet ESG standards. Refusing to invest in particular companies or sectors - perhaps because their business processes pollute or their products cause harm - as well as advocating for higher ESG standards, may encourage them to improve. We believe that the societal benefits of this approach are hard to measure, and that the financial benefits are limited.

By contrast, sustainable investing and ESG integration is a more positive approach. It actively seeks out firms with the highest ESG standards, as well as quality financial factors. The strategic integration of ESG criteria into investment processes helps quantify risks and opportunities that cannot be measured by traditional financial metrics alone, leading to more complete insights - and ultimately better portfolio and investment decisions. Sustainable investing and ESG integration are most often applied to public market investments, and mainly address core holdings within an overall investment strategy - see **Core and opportunistic investing** box in **Our themes**.

At the far end of the spectrum is impact investing, involving opportunities with an even sharper focus upon positive societal impacts. Impact investments are targeted and intentional. These often seek to achieve certain specific results on the ground as well as a financial return, the so-called 'double bottom line.' Impact investing can take many forms. As well as being highly specific, such investments may have longer time horizons, and are less liquid. They can include expanding access to water, renewable energy, finance, education and affordable housing, for example. As such, they are more likely to constitute the opportunistic, alternative or illiquid part of an overall allocation - see **Core and opportunistic investing** in **Our themes**.

FIGURE 3. THE SPECTRUM OF OPPORTUNITIES

HISTORICAL MODEL		TODAY
Responsible	Sustainable	Impact
LIMITED FINANCIAL BENEFIT	FOCUS ON FINANCIAL BENEFITS	+ A SOCIAL BENEFIT
<p><b>Socially Responsible Investing</b> (SRI) negatively screens firms based on sustainability criteria such as ethical or ESG factors.</p> <p><i>Often excludes exposure to guns, tobacco, and gambling.</i></p>	<p>Evaluates firms on adherence to accepted <b>environmental, social, and governance</b> principles.</p> <p><i>Focuses on positive screening or selection of best-in-class securities.</i></p>	<p>Investments with an <b>intended focus</b> on positive environmental, social and governance impact.</p> <p><i>Thematic private investing with an intended impact typically resulting in double-bottom line reporting.</i></p>

Source: Global Investments at Citi Private Bank as of December 2018.

### Why Investing with Purpose is possible today

Technology and innovation are strengthening investment processes and adding new dimensions to the evaluation of IWP opportunities. Artificial intelligence and machine learning are making it more possible to gather, synthesize, and evaluate both quantitative and qualitative data, and use it to understand how companies are doing with respect to ESG and other factors. They are essentially creating a new form of an information advantage, which is sought after by active investment managers. And this comes with the added benefit of valuing companies that are managing their businesses in a manner that is aligned with ESG principles.

### Enabling you to invest with purpose

Citi Private Bank is committed to serving our clients' growing desire to express their global citizenship by investing with purpose. We begin by helping you articulate your goals and objectives, understanding those goals and objectives, and providing you with comprehensive advice and investment strategies to meet your long-term goals and objectives.

We do this by dedicating resources to the development of our advice and then by backing up our advice with a broad and deep range of investment capabilities. We are committed to partnering with asset managers to identify and develop relevant investment themes and strategies available to reflect our advice and your views.

lwp adds an important new dimension to how we can work with you to understand your goals and objectives. It layers in your views when it comes to environmental, social, and governance matters. When putting your investment capital to work, it provides you with an additional dimension to express your values and ultimately to invest with broader purpose. Our differentiated approach allows you to invest without compromising your existing relationships or the due diligence rigor we apply to all investments.

Eventually, we believe that this form of investing will become mainstream, that it will be a part and parcel of all robust investment processes. Until then, we will continue to integrate lwp into our broader investment capabilities.

### lwp for a better world

For many generations, the world's wealthiest individuals and families have sought to drive positive societal change. Traditionally, however, they have not had the opportunity to do so via their investment portfolios. With the proliferation of ESG investments worldwide, the challenge today is to select those that combine some of the best financial prospects with alignment to the individual's values. Through our focus on Investing with Purpose, Citi Private Bank can be your partner as you seek financial gain while serving the greater good. Working together, we can help bring about a better, more sustainable, and more inclusive world.

lwp adds an important  
new dimension to how  
we can work with you  
to understand your  
goals and objectives



## Our commitment to a better world

As a global bank, Citi believes it is important for us to take a leading role in contributing to the United Nations Sustainable Development Goals (SDGs). Private sector leadership in general is essential to help transition away from practices that undermine the achievement of the goals, and to create solutions proactively that solve existing challenges.

For example, Citi has pledged to finance \$100 billion of activities to reduce climate change and help the environment. We are assisting half a million younger people worldwide to improve their employability. In inclusive finance, our direct funding is expanding access to finance and has reached more than one million low-income women around the world. And we run dedicated leadership and diversity programs within our organization to foster gender equality, something we also promote in our supply chain.

The UN SDGs underscore for us the importance of our continued partnership with our clients to contribute to achieving these societal goals. The Private Bank is proud to serve clients who make contributions to their communities and to society as a whole. We aspire to enable and to emulate their global citizenship.





Portfolio  
perspectives





# Europe

AL\_Albania\_\_\_\_Tirana  
AD\_Andorra\_\_\_\_Andorra la Vella  
AM\_Armenia\_\_\_\_Yerevan  
AT\_Austria\_\_\_\_Vienna  
AZ\_Azerbaijan\_\_\_\_Baku  
BY\_Belarus\_\_\_\_Minsk  
BL\_Belgium\_\_\_\_Brussels  
BA\_Bosnia and Herzegovina\_\_\_\_Sarajevo  
BG\_Bulgaria\_\_\_\_Sofia  
CZ\_Czech Republic\_\_\_\_Prague  
DK\_Denmark\_\_\_\_Copenhagen  
EE\_Estonia\_\_\_\_Tallinn  
FR\_France\_\_\_\_Paris  
GE\_Georgia\_\_\_\_Tbilisi  
GR\_Greece\_\_\_\_Athens

HU\_Hungary\_\_\_\_Budapest  
IS\_Iceland\_\_\_\_Reykjavik  
IE\_Ireland\_\_\_\_Dublin  
IT\_Italy\_\_\_\_Rome  
KZ\_Kazakhstan\_\_\_\_Astana  
LV\_Latvia\_\_\_\_Riga  
LI\_Liechtenstein\_\_\_\_Vaduz  
LT\_Lithuania\_\_\_\_Vilnius  
LU\_Luxembourg\_\_\_\_Luxembourg  
MK\_Macedonia\_\_\_\_Skopje  
MT\_Malta\_\_\_\_Valletta  
MD\_Moldova\_\_\_\_Chisinau  
MC\_Monaco\_\_\_\_Monaco  
ME\_Montenegro\_\_\_\_Podgorica  
NL\_Netherlands\_\_\_\_Amsterdam  
NO\_Norway\_\_\_\_Oslo  
PO\_Poland\_\_\_\_Warsaw  
PT\_Portugal\_\_\_\_Lisbon  
RO\_Romania\_\_\_\_Bucharest  
RU\_Russia\_\_\_\_Moscow  
SM\_San Marino\_\_\_\_San Marino  
RS\_Serbia\_\_\_\_Belgrade  
SV\_Slovenia\_\_\_\_Ljubljana  
ES\_Spain\_\_\_\_Madrid  
SE\_Sweden\_\_\_\_Stockholm  
CH\_Switzerland\_\_\_\_Bern  
TR\_Turkey\_\_\_\_Ankara  
UA\_Ukraine\_\_\_\_Kyiv  
UK\_United Kingdom\_\_\_\_London  
VA\_Vatican City\_\_\_\_Vatican City



# ASIA



# Our favored markets for 2019

We enter 2019 with a small overweight to global equities, focused upon certain European and emerging markets, and with a small underweight to global fixed income.

## NORTH AMERICA

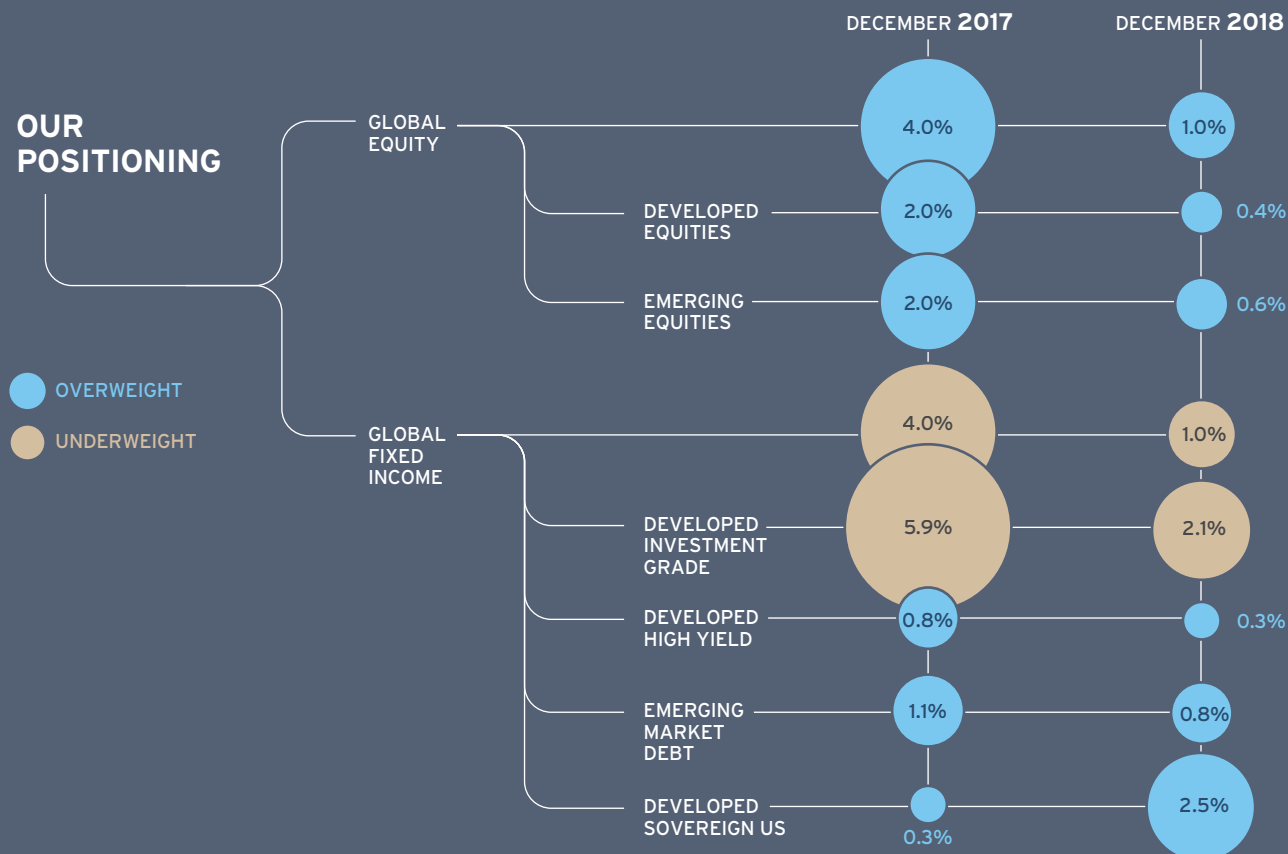
### SECTORS EPS GROWTH FORECAST<sup>2</sup>

IT		8.1%
COMMUNICATION SERVICES		8.6%
HEALTHCARE		7.0%
ENERGY		23.7%

### FIXED INCOME YIELD<sup>3</sup>

IG CORPORATE FLOATERS		3.0%
VARIABLE-RATE HY BANK LOANS		6.0%
TIPS*		3.2%
ASSET-BACKED SECURITIES		
MUNIS (BENCHMARK)		3.0%
IN NO STATE TAX		5.0%
IN THE HIGHEST TAXED STATES		6.0%

## OUR POSITIONING



Sources: <sup>1</sup>Citi Research, Citi Private Bank Office of the Chief Investment Strategist as of November 19, 2018; <sup>2</sup>Factset as of November 19, 2018; <sup>3</sup>The Yield Book as of November 19, 2018. Indices are unmanaged. An Investor cannot invest directly in an index. Opinions expressed herein may differ from the opinions expressed by other businesses or affiliates of Citigroup, Inc., and are not intended to be a forecast of future events, a guarantee of future results for investment advice, and are subject to change based on market and other conditions. There may be additional risk associated with international investing, including foreign, economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets. International investing may not be for everyone.

## EUROPE

### EQUITIES EPS GROWTH FORECAST <sup>1</sup>

FRANCE	<div></div>	9.4%
SWITZERLAND	<div></div>	11.1%

### SECTORS EPS GROWTH FORECAST

EUROPE EX-UK FINANCIALS	<div></div>	8.3%
IT	<div></div>	18.5%
HEALTHCARE	<div></div>	8.5%
ENERGY	<div></div>	14.5%

### FIXED INCOME YIELD <sup>3</sup>

SINGLE-B RATED HY	<div></div>	6.0%
EURO HY BANK LOANS	<div></div>	4.4%

## ASIA

### EQUITIES EPS GROWTH FORECAST <sup>1</sup>

CHINA	<div></div>	13.4%
JAPAN	<div></div>	3.8%

### SECTORS EPS GROWTH FORECAST

IT	<div></div>	2.9%
HEALTHCARE	<div></div>	21.0%

### FIXED INCOME YIELD <sup>3</sup>

SHORT DURATION USD BONDS	<div></div>	5.7%
LOCAL CURRENCY CHINESE DEBT **	<div></div>	3.2%

## LATIN AMERICA

### EQUITIES EPS GROWTH FORECAST <sup>1</sup>

BRAZIL	<div></div>	17.5%
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### SECTORS EPS GROWTH FORECAST

ENERGY	<div></div>	12.3%
FINANCIALS	<div></div>	14.9%

### FIXED INCOME YIELD <sup>3</sup>

BRAZILIAN DEBT (IN USD)	<div></div>	5.75%
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\* Treasury Inflation Protected Securities \*\* 5yr maturity

Each investor should carefully view the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's objectives. Past performance is not indicative of future return. Real results may vary.

## OPPORTUNITIES



FULL-CAPITAL-AT-MATURITY STRATEGIES TO REPLACE EQUITY EXPOSURE



US HIGH YIELD FIXED INCOME



STRUCTURED CREDIT



COLLATERALIZED LOAN OBLIGATIONS (CLOs) VIA ACTIVE MANAGEMENT



MEZZANINE LOANS AND MORTGAGE PARTICIPATIONS VIA ACTIVE MANAGEMENT



SELECTIVE LONG-TERM EM ASIA INVESTMENTS VIA ACTIVE MANAGEMENT



DISRUPTORS AND THEIR BENEFICIARIES ACROSS ARTIFICIAL INTELLIGENCE, ROBOTICS, AND BLOCKCHAIN



HEALTHCARE INCLUDING DISRUPTIVE TREATMENT AND DEVICE MAKERS



# Asia: Recovering markets driven by fundamental growth

Ken Peng | Head - Asia Investment Strategy

Kris Xippolitos | Head - Global Fixed Income Strategy

After a difficult 2018, we see Asian assets returning to form in 2019, with emerging markets benefiting from attractive valuations and continuing, but slower regional growth.

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For all the turbulence in financial markets in 2018, we expect only a slight slowdown in emerging Asian economic growth over the coming year. Citi Research forecasts EM Asian real GDP not far short of the estimated 6% in 2018 and 6.1% in 2017 - **figure 1**.

## Chinese stimulus

The main headwind to Asian growth is the likely impact of China's trade standoff with the US. However, we expect China to offset some of those effects with various stimulus initiatives. As well as encouraging infrastructure spending, it has been cutting taxes to boost domestic consumption, while also easing private sector credit. Further business tax cuts and measures to ease private sector credit conditions may follow. As a result, Chinese growth could pick up somewhat after the fourth quarter of 2018. We expect 2019 real GDP growth to come close to meeting the government's target of 6.5%.

## Our favored markets

EQUITY MARKETS  
China, Japan

EQUITY SECTORS  
IT, healthcare

FIXED INCOME  
Short duration US dollar bonds,  
local currency Chinese debt



FIGURE 1. KEY REGIONAL ECONOMIC DATA

	REAL GDP (% YOY)	CURRENT ACCOUNT (% OF GDP)	FISCAL BALANCE (% OF GDP)	10YR GOVT YIELD (%)	LOCAL CURRENCY (VS US DOLLAR)
	2019F	2018F	2018F	SPOT	2019F
JAPAN	1.6	3.7	-4.1	0.09	112.00
AUSTRALIA	2.9	-2.8	-0.6	2.67	0.71
NEW ZEALAND	2.9	-2.5	1.1	2.71	0.66
ASIA EX-JAPAN	5.9	0.6	N/A	N/A	N/A
CHINA	6.4	-0.1	-2.6	3.37	6.90
HONG KONG	2.5	3.3	2.8	2.30	7.83
INDIA	7.8	-2.9	-5.8	7.79	71.40
INDONESIA	5.0	-3.0	-2.1	8.0	14700
KOREA	2.6	4.1	1.1	2.22	1120
MALAYSIA	4.8	2.8	-2.8	4.15	4.00
PHILIPPINES	6.4	-1.5	-2.6	7.32	53.00
SINGAPORE	2.5	19.2	-0.1	2.44	1.33
TAIWAN	2.2	13.0	-0.3	0.91	30.45
THAILAND	4.2	7.3	-2.8	2.77	32.30

Source: Bloomberg, Citi Research, as of 16 Nov 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Past performance is no guarantee of future returns.

Growth may also turn higher in India, where fiscal spending might stay expansionary ahead of the general election in April-May. This may keep pressure on India's current account deficit, but the decline in oil prices has already alleviated some concerns. Indonesia is in a similar situation, with the authorities pursuing expansionary fiscal policies, while the exchange rate is allowed to absorb external weakness.

Thailand, Malaysia, and Vietnam are beginning to feel some benefits from companies relocating supply chains away from China. Many companies are keen to diversify their supply chains into politically stable destinations with already developed infrastructure, with the aim of avoiding US tariffs on Chinese goods. South Korea has

already renewed its trade deal with the US, while its domestic politics and relations with North Korea have stabilized for now. Japan is also in a drawn out bilateral trade negotiation with the US, while its economy is experiencing tepid growth.

### Asian growth drivers

Several factors may help EM Asia mitigate the drag upon growth from more restrictive US trade policies. Regional inflation was tame at around 2.5% in 2018 and may only reach a still-manageable 2.8% in 2019, staying contained even in more vulnerable markets like India and Indonesia.



## Trade, rates and political risks

Financial resources remain intact, as most central banks chose to conserve their foreign currency reserves and let their currencies weaken during 2018's turbulence. EM Asian currencies have weakened in excess of 7% versus the US dollar from peak to trough in 2018 - **figure 2** - a factor likely to assist regional growth in 2019.

Developments in the US may also prove helpful. Growth there is likely to ease back closer to its long-term trend as the effects of tax cuts fade. Whereas strong US growth pushed US rates higher and supported the dollar in 2018, these effects may reverse in 2019, benefiting emerging markets in general.

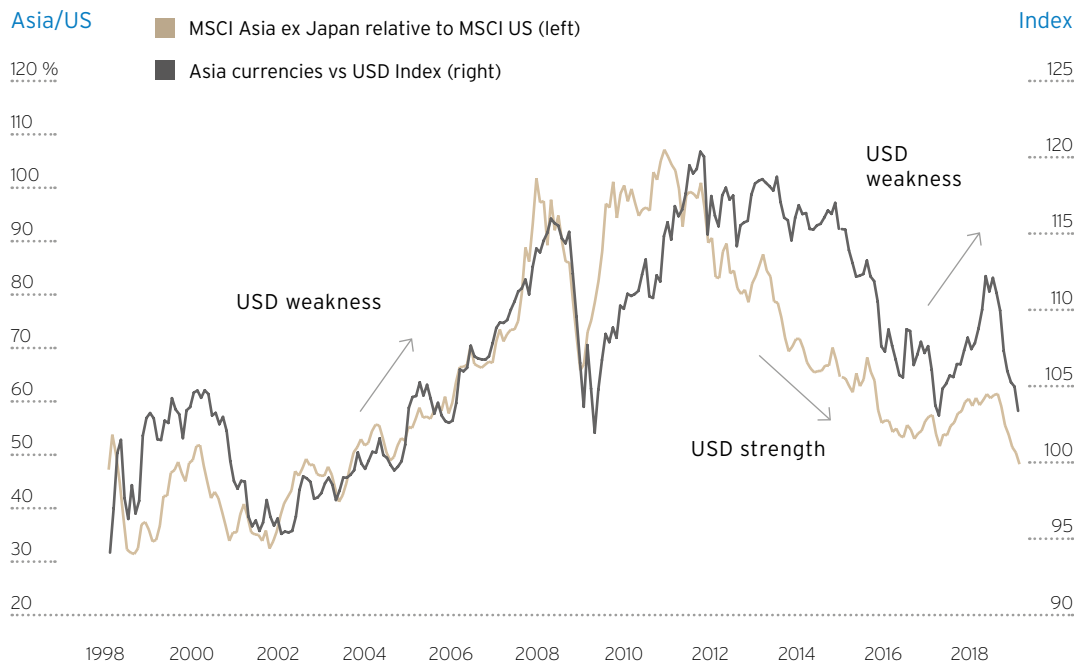
Oil prices have reversed much of their rise in 2018 due to US political developments. This alleviated some of the pressure upon Asia, particularly in energy-importing nations like India and Indonesia. But supply risks remain alive, with geopolitical tensions in multiple regions.

Trade tensions between the US and China remain a key risk in 2019. The truce announced at December's G20 meeting in Buenos Aires has increased the chances for more constructive negotiations, though uncertainties remain. We think China may be willing to make significant concessions, while the US may be more inclined to negotiate in a non-election year like 2019.

The rise in the cost of US dollar financing has created difficulties for marginal borrowers in EM Asia. The US Fed's rate hike cycle is likely to remain gradual and may conclude in 2019, but until then, these pressures may remain.

General elections in India and Indonesia in April-May 2019 are among the major political events in the region. Although the incumbents Modi and Widodo are both expected to win, they may have to pursue expansionary fiscal policies to enhance their electoral prospects, which could add to bond market uncertainties. Moreover, campaigning on both sides may cause social and market volatility.

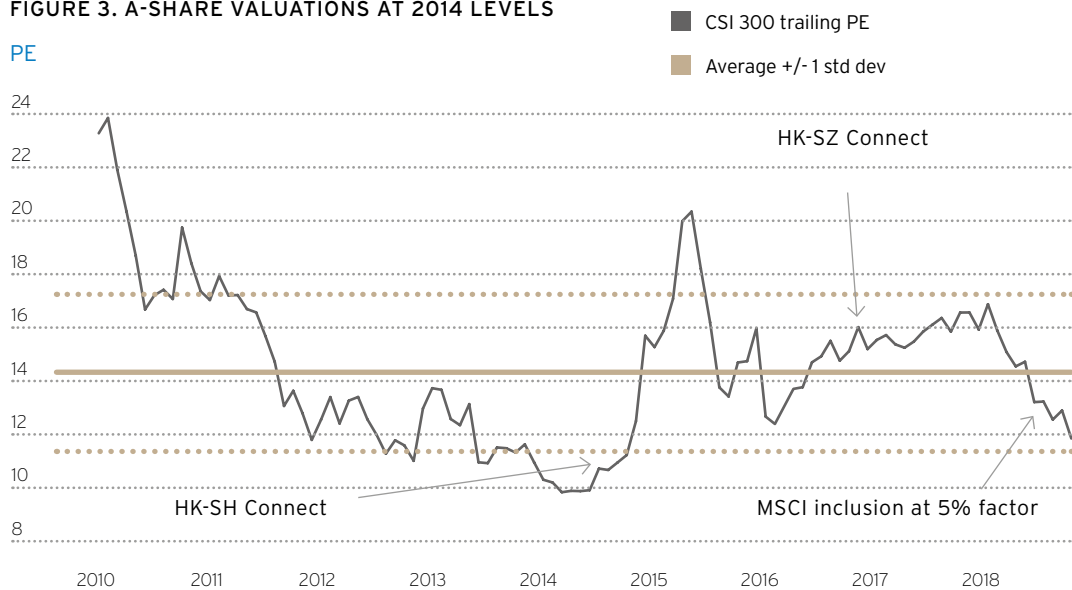
**FIGURE 2. ASIAN CURRENCY WEAKNESS**



Source: Bloomberg, as of 31 Oct 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

FIGURE 3. A-SHARE VALUATIONS AT 2014 LEVELS

PE



Source: Bloomberg, as of 31 Oct 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. See glossary for definitions.

## Equities

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In 2019, we expect 2018's sharp EM equity underperformance to reverse, at least partially. Underpinning our view is the likelihood of ongoing Asian growth accompanied by contained inflation, moderating US growth that limits the extent of US rate rises and dollar strength, and significant easing in China that helps to offset most of the drag from trade tensions. Also, strongly bearish investor positioning - particularly in China - is likely to reverse as investors diversify away from the US market.

Against this backdrop, we believe the markets and sectors that sold off most heavily in 2018 - but which still have solid growth prospects - are likely to outperform. In China - one of our favored equity markets - valuations have fallen to levels last seen in 2014 - **figure 3**. Since that period, however, China has opened its mainland markets to greater international participation, Chinese assets have been included in broad benchmark indices, and important supply

side reforms have taken place. And in 2019, MSCI is set to quadruple its inclusion factor - the percentage of actual market cap recognized for benchmark inclusion for A-shares, which remain under-represented in global portfolios - **figure 5** in **Unstoppable trends: The rise of Asia**.

The valuations in several other EM Asian markets have also dipped to compelling levels - **figure 4**. Singapore's dividend yield hit 5.1% at the end of October, a figure that has been consistent with 12-month price returns of over 10%. Similarly, Taiwan's yield is 4.8%. Such yields go a long way to compensate equity holders for taking additional risk over bonds. South Korean equities were weighed down in 2018 by corporate scandals, trade fears, geopolitics, and semiconductor industry troubles. Its IT sector - the most affected - now trades at 2001 valuations, despite the recent renewal of the Korea-US trade agreement, while tensions with North Korea have declined.

FIGURE 4. ASIA VALUATIONS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE	DY (%)	CAPE
	US\$bn	'18E	'19E	'18E	'19E	'18E	'18E	'18E	10yr
JAPAN	3,214	12.3	11.9	10.0	3.3	1.2	9.9	2.4	25.0
AUSTRALIA	910	14.9	14.1	7.9	5.5	1.8	12.2	5.1	18.8
NEW ZEALAND	30	28.4	22.2	13.3	27.8	2.7	9.5	2.9	23.8
ASIA EX-JAPAN	4,213	12.0	11.0	9.4	8.6	1.4	11.7	2.9	16.1
CHINA	1,496	11.8	10.3	11.3	14.3	1.5	12.9	2.6	13.9
HONG KONG	481	14.6	13.4	2.3	8.9	1.1	7.9	3.3	17.3
INDIA	433	21.2	17.6	8.8	20.3	2.9	13.6	1.5	27.7
INDONESIA	108	16.1	14.3	10.3	12.2	2.6	16.1	2.6	21.7
KOREA	683	7.8	7.6	12.4	1.8	0.9	11.7	2.6	12.8
MALAYSIA	118	16.4	15.5	7.7	5.4	1.6	10.0	3.3	17.4
PHILIPPINES	49	16.8	15.0	6.1	12.5	1.9	11.4	1.8	23.3
SINGAPORE	171	12.3	11.6	10.1	6.7	1.2	9.5	4.6	13.5
TAIWAN	554	12.7	12.6	5.0	0.9	1.6	12.9	4.6	19.3
THAILAND	118	14.2	13.7	8.6	3.7	1.9	13.4	3.1	19.4

Source: Factset Consensus, MSCI, as of 16 Nov 2018. Note: The above data are compiled based on companies in MSCI AC World Index. Free MC is free float adjusted market capitalization for regions, markets and sectors. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield (DY) and RoE (Return on Equity) are aggregated from Factset consensus estimates. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

As we noted, Thailand, Malaysia, and Vietnam may be favorite destinations for companies seeking to relocate supply chains from China to avoid US tariffs. This may have contributed to those equity markets' relative outperformance in 2018. Japan benefited from an influx of investors who had switched out of EM, but who were also skeptical of US valuations. Japanese valuations are low among developed markets, while earnings expectations are conservative. However, the country lacks robust long-term growth prospects, while its central bank's diminishing asset purchase program is a potentially significant risk. Nonetheless, Japan's IT and consumer sectors offer good

value and many of its leading companies are themselves leaders in disruptive technologies - see **Unstoppable trends: digital disruption.**

Indian equities erased their gains over the past year in the early autumn global market shakeout. Recent lower oil prices help to alleviate current account pressures. However, earnings growth expectations look hard to meet at 20% for 2019. Indonesian equities have actually held up within a narrow range since summer 2018, while the rupiah had weakened substantially. The country's external vulnerability remains high.



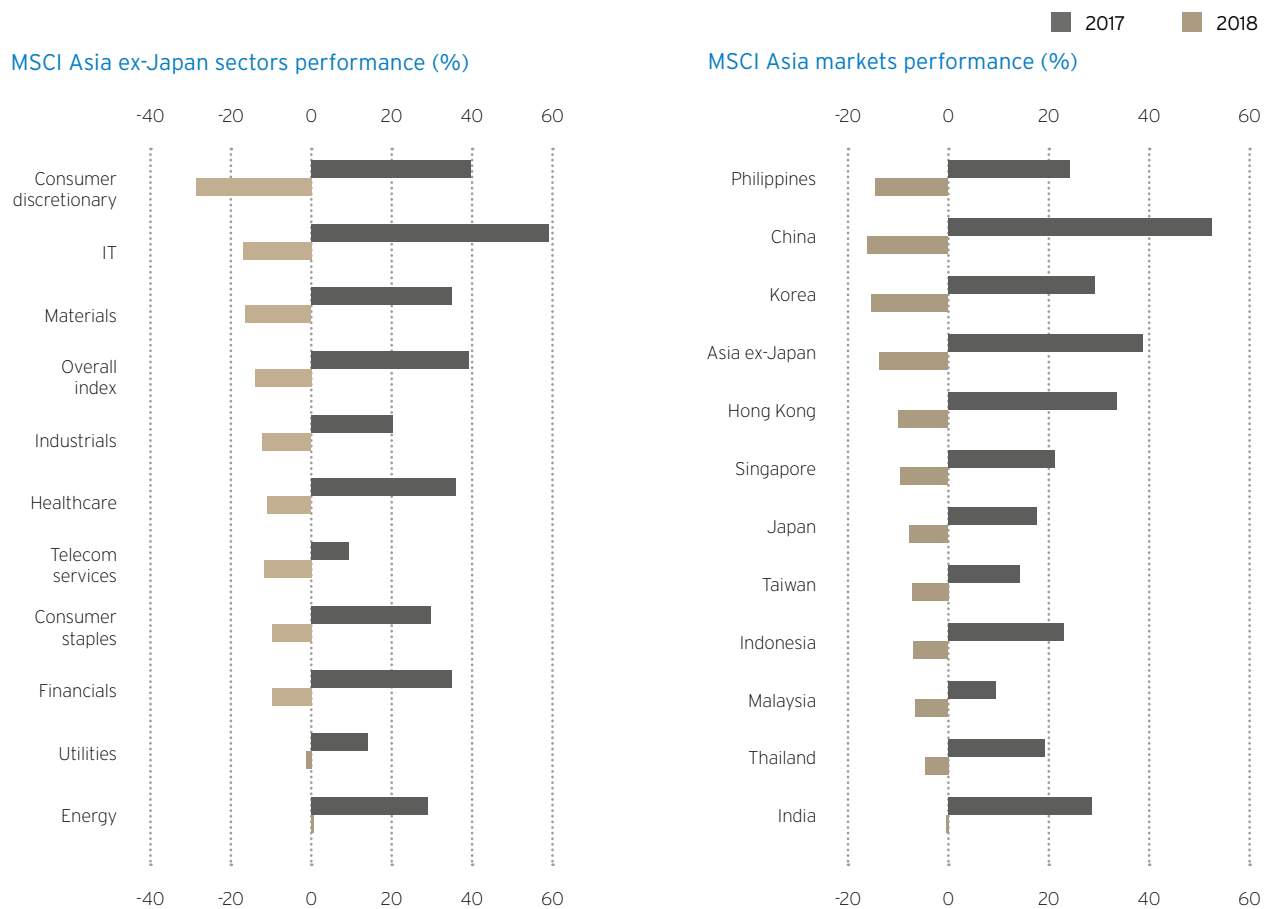
Japanese valuations are low among developed markets, while earnings expectations are conservative

FIGURE 5. OUR FAVORED ASIA SECTORS

	Mkt cap US\$bn	P/E		EPS YoY (%)		P/B	RoE (%)	DY (%)	CAPE 10yr
		'18E	'19E	'18E	'19E				
HEALTHCARE	126	30.2	24.8	10.4	21.5	3.6	11.9	0.8	46.6
IT	1,238	12.5	12.2	12.6	2.8	2.2	17.6	2.1	22.8

Source: Factset Consensus, MSCI, as of 16 Nov 2018. Note: The above data are compiled based on companies in MSCI AC World Index. Free MC is free float adjusted market capitalization for regions, markets and sectors. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield (DY) and RoE (Return on Equity) are aggregated from Factset consensus estimates. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

FIGURE 6. PERFORMANCE REVERSAL



Source: Bloomberg, as of 16 Nov 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Among sectors, IT was among the most heavily sold off – **figure 6**. A combination of regulatory tightening and poor sentiment have caused some of the most favored names to drop by more than one third. Meanwhile, earnings growth continues, particularly in areas where monetization has not been extensive, such as online advertising and mobile payments. The region's IT advantage stems mainly from its large and well-educated talent pool and data generation, factors that are likely to persist. Consumer industries and healthcare also sold off hard in 2018, while underlying

earnings growth is still likely to last through the coming decade. In financials, insurance remains our favored sub-sector, as aging demographics and rising wealth underpin the long-term case. China has materially curtailed its unruly wealth management product industry, effectively removing the biggest competitor for insurance products. Utilities and energy are heavily regulated sectors that tend not to be able to pass on higher energy input costs. Investors seeking to take advantage of higher oil prices should look at energy producers in less regulated markets.

FIGURE 7. ASIA EX-JAPAN HIGH YIELD'S 2018 CORRECTION



Source: Bloomberg, as of 19 Nov 2018. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

## Fixed income

Asian corporate fixed income markets endured significant volatility in 2018, albeit much less than regional equities and currencies. Overall, US dollar denominated Asian investment grade (IG) corporate bond benchmarks fell 1.3% through November 2018, while Asian high yield (HY) lost roughly 4.5%. More notably, HY benchmark spreads widened 230bp to nearly 600bp in 2018. Valuations have thus returned to their widest levels since 2016's market sell-off, and are roughly 120bp wider relative to the 10-year regional average – **figure 7**.

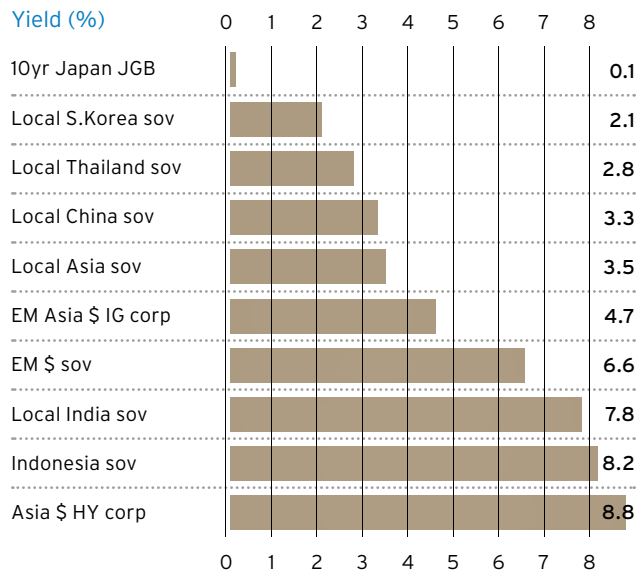
The weakness in fixed income in 2018 was largely attributable to US and China issues. Fed tightening and the strong US economy supported the US dollar, drawing capital away from emerging markets. So, despite low inflation, many Asian central banks were pushed into tightening monetary policy in an effort to stabilize their currencies. As US growth likely eases back towards trend in 2019 and the end of the Fed's tightening cycle approaches, the US dollar's momentum

may moderate, and Asian credit may see investor inflows return. The pressure upon regional central banks to tighten may subside.

Chinese bond defaults also weighed upon regional markets and spreads in fixed-income markets in 2018. Thirty-two Chinese issuers – including three offshore issuers – defaulted on over 80 billion yuan (\$12 billion) of bonds through October 2018. This partly reflects the authorities' greater tolerance of defaults, and also tighter credit conditions.

Chinese policy easing measures designed to support liquidity – and which will be particularly targeted at private enterprise – are likely to help stabilize defaults in 2019. So, better quality US dollar denominated Chinese corporate debt appears attractive, in our view, especially given its cheaper valuations. Citi Private Bank's Global Investment Committee is overweight Asia US dollar-denominated fixed income.

FIGURE 8. ASIA FIXED INCOME YIELDS



Source: The Yield Book, as of 19 Nov 2018. Past performance is no guarantee of future returns. Real results may vary.

China will likely remain  
the more interesting local  
currency fixed income  
market in 2019

In local currency fixed income, India and Indonesia are likely to see continued volatility as both countries face political uncertainty and increasing fiscal concerns, although lower oil prices in 2019 could help contain widening current account deficits. In particular, Indonesia has suffered substantial outflows of capital, which has driven bond yields sharply higher, and weakened the rupiah significantly. With 5-year bond yields near a two-year high of 8%, Indonesian local currency fixed income may outperform over the coming year, especially if the fiscal and current account concerns dissipate, allowing the rupiah to appreciate.

China will likely remain the more interesting local currency fixed income market in 2019. Starting in April, nearly \$3 trillion of eligible onshore China Government Bonds (CGB) will be phased in as constituents of the Bloomberg Barclays Global Aggregate Index. Thus, substantial passive inflows will occur, as China is estimated to become the fourth largest bond market in aggregate fixed income benchmarks. Inflows into onshore CGBs were strong even in 2018 when the yuan depreciated substantially, thanks to the authorities' allowing investors to hedge currency risk cheaply in the onshore forward market.

In our view, Japan is still Asia's least attractive fixed income market, owing to the Bank of Japan's likely continued reductions of its net bond purchases. It may also shift its 10-year yield target upwards as part of its yield curve control policy. These represent significant risks to the Japanese yield curve. Other low yield markets like Korea and Thailand also offer little to fixed income investors when there are better alternatives in a higher rate environment.



## Later in 2019, EM currencies may get some respite

### Currencies

In 2018, Asian currencies completely reversed their gains of 2017. As measured by the Bloomberg-JPMorgan Asia Currency Index, Asian currencies returned to their end-2016 lows in October 2018, approaching their lowest since March 2009. Fed tightening and US dollar strength were partly responsible, along with EM capital outflows. The Indian rupee and Indonesian rupiah performed worst, followed by the Australian dollar, the latter partly influenced by the Chinese yuan's trade-dispute driven weakness. The Thai baht, Singaporean dollar, and Malaysian ringgit performed best, being seen as more resilient to the fallout from the US-China standoff.

In the near term, various factors may support the US dollar, including trade friction and probable further Fed tightening. The Chinese yuan is likely to weaken further until headlines about trade become less negative. In any case, the Chinese authorities will probably continue to manage the currency closely, and it may prove a lower beta currency during bouts of risk aversion. The higher beta currencies, such as the Australian dollar and Korean won - which are influenced by the yuan - may suffer more if volatility stays elevated.

The Indian rupee and Indonesian rupiah could remain vulnerable ahead of those countries' elections in April-May, given that tighter monetary and fiscal policies are unlikely before then. Later in 2019, EM currencies may get some respite. The US dollar is likely to be softer, as US growth moderates. Further Fed hikes may look less likely by the second half. The US fiscal and current account deficits may also start to weigh on the dollar once market sentiment calms. At that time, the higher beta Asian currencies may outperform.

# Europe: Selective opportunities amid sluggish growth

Jeffrey Sacks | Head - Europe Investment Strategy  
Kris Xippolitos | Head - Global Fixed Income Strategy

With regional growth set to continue, we see upside potential for certain European equities and the single currency.

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Economic growth in Europe in 2019 is likely to be solid, albeit unspectacular. The pace of growth is slowing somewhat. However, we see few signs of an outright downturn for now. We expect GDP for the Euro area to rise by 1.7% in 2019, slightly down from the estimated 1.9% in 2018 - **figure 1**. This reasonable strength should be fairly broadly spread, across both the core countries - such as France and Germany - and the periphery countries - such as Spain and Portugal. We also see balanced activity across both services and manufacturing. In the face of slow growth, we also see European earnings per share growth of around 10% in 2019, representing perhaps the brightest reason to expect a reversal of fortunes here.

Underlying measures of European inflation remain muted, but are rising. We expect further mild increases over the medium-term. The European Central Bank's monetary easing program has begun to feed through into broad annualized money supply growth of 4.5% and lending growth of 4.0%.

## Our favored markets

### EQUITY MARKETS

France, Switzerland

### EQUITY SECTORS

Europe ex-UK financials, IT, healthcare, and energy

### FIXED INCOME

Single-B rated HY and Euro HY bank loans



In early 2018, an escalation of trade tensions between Europe and the US seemed to be a material risk. However, we are now somewhat less concerned about the dangers after the constructive dialogue and some early follow-up in October between President Trump and European Commission President Juncker. We now think that the US might withdraw the steel and aluminum tariffs it announced in March, and which prompted retaliation from the European Union. Whether Trump will follow through on threats to extend tariffs to cars remains uncertain for now.

In politics, a troubled and prolonged period of coalition-building in Spain, Italy, and Germany is over. The resulting governing coalitions are weak, which creates substantial risks for policymaking. However, this is less concerning than more fundamental political risks, such as a break-up of the Euro or European Union. Tensions between Italy's populist government and the European Union have triggered bouts of market volatility and have held back valuations. We do not see a crisis coming to a head in 2019, however.

FIGURE 1. KEY REGIONAL ECONOMIC DATA

	REAL GDP (% YOY)	CURRENT ACCOUNT (% OF GDP)	FISCAL BALANCE (% OF GDP)	10YR GOVT YIELD (%)	LOCAL CURRENCY (VS US DOLLAR)
	2019F	2018F	2018F	SPOT	2019F
<b>EURO AREA</b>	<b>1.7</b>	<b>3.1</b>	<b>-0.9</b>	<b>-</b>	<b>1.18</b>
<b>UNITED KINGDOM</b>	<b>1.4</b>	<b>-3.1</b>	<b>-1.5</b>	<b>1.38</b>	<b>1.30</b>
FRANCE	1.8	-0.7	-2.8	0.72	1.18
GERMANY	1.8	7.4	1.0	0.34	1.18
SWITZERLAND	1.6	9.8	0.6	-0.13	0.98
NETHERLANDS	1.9	11.7	0.8	0.48	1.18
SPAIN	2.3	1.7	-2.2	1.53	1.18
SWEDEN	1.9	2.4	0.7	0.48	10.15
ITALY	0.7	2.7	-2.7	3.23	1.18
PORTUGAL	1.6	0.9	-0.8	1.85	1.18
SOUTH AFRICA	1.4	-3.1	-4.3	8.86	14.5

Source: Citi Research, Worldscope, MSCI, Factset, as of 23 Nov 2018. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from Factset consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index level data. NM = Not Meaningful; NA = Not Available. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.





The United Kingdom's near-term economic prospects look highly dependent upon the outcome of the country's negotiations to leave the European Union. Our base case for Brexit is that a deal will be struck and eventually ratified by the UK parliament, given the mounting pressure to reach agreement from both UK business and from the EU's 27 continuing member states. If our base case proves correct, UK GDP growth may steady in 2019 at around 1.4%, having slowed to an estimated 1.2% in 2018. With improved sentiment and a recovery in foreign direct investment, growth momentum could sustain through to 2020.

If the UK crashes out of the EU without a deal - either because of irreconcilable differences with the EU or because the UK's parliament rejects a proposed deal - the UK economy is likely to contract sharply and enter a recession. Some estimates put the potential shrinkage at as much as 5%, similar to the loss of output suffered around the Global Financial Crisis of 2008. This would almost certainly be accompanied by a serious escalation of political risks. Prime Minister Theresa May could face a Conservative Party leadership challenge. There is also the possibility of a vote of no confidence in parliament, which could lead to a snap general election being called. Such a vote could result in a new government led by the Labour Party, whose hard left-wing leader's agenda includes renationalization of key industries, and tax rises to fund redistributive policies. We do not rule out the possibility of a second referendum being held. However, this would require a larger shift in public mood in favor of such a vote than has been seen so far.

Turkey's economic challenges look far from over. However, we see limited risks of Turkish spillover to Europe, with vulnerability confined to a handful of European banks.

## Equities

European equities disappointed during 2018. Worse-than-expected economic performance early in the year, political uncertainty arising from prolonged attempts to build new governing coalitions in Italy, Spain, and Germany, fears of a trade conflict as well as political tensions with the US, and the risk of Turkey's economic crisis spreading all weighed upon European markets. Looking ahead, however, we have conviction in our forecast of mid-teen total returns in 2019.

One reason for this is that we expect European earnings per share growth of around 10% for the year - **figure 2** - broadly spread across different sectors. Even in a worst-case scenario of Europe suffering fallout from US trade restrictions - such as disruption to supply chains - earnings growth might dip to a still positive 7% to 8%.

Another driver of European returns is likely to be dividend yields, which stand at a reasonably high average of 3.3%. This raises the quality of Europe's total return forecast. It should also help to attract inflows from yield-seeking investors in Europe. By comparison, European investment grade fixed income yields just 1.3%.

European equities may also see valuations rise further, at least towards historic norms. On a cyclically-adjusted price to earnings basis (CAPE) of 19.3, Europe ex-UK equities are trading at a 25% discount relative to US equities, on 28. That compares to a historic average discount of 12%. On a price-to-book basis, Europe is 47% cheaper than the US, which is a low level by the standards of recent decades.

FIGURE 2. EUROPE VALUATIONS

	Mkt cap US\$bn	P/E		EPS YoY (%)		P/B	RoE	DY (%)	CAPE
		'19E	'20E	'19E	'20E	'18E	'18E	'18E	10yr
EUROPE	8,179	12.2	11.3	9.1	8.0	1.5	12.6	4.2	18.2
UNITED KINGDOM	2,276	11.5	10.8	7.4	6.6	1.5	13.4	5.0	16.0
EUROPE EX UK	5,903	12.5	11.5	9.8	8.6	1.5	12.3	3.9	19.3
FRANCE	1,426	12.3	11.3	9.3	8.4	1.4	11.3	3.9	19.6
GERMANY	1,164	11.2	10.3	10.5	8.8	1.4	12.1	3.7	17.4
SWITZERLAND	1,129	15.1	13.9	11.0	8.5	2.3	15.4	3.7	23.9
NETHERLANDS	452	14.0	12.7	8.9	10.6	1.9	13.7	3.2	24.7
SPAIN	396	10.6	9.9	8.5	7.7	1.1	10.4	5.1	12.7
SWEDEN	341	13.6	12.7	4.5	7.1	1.8	13.4	4.6	19.2
ITALY	295	9.0	8.4	13.3	7.6	1.0	10.6	5.3	14.9
PORTUGAL	20	13.7	12.8	13.1	6.9	1.7	12.1	5.0	11.5
SOUTH AFRICA	301	12.5	10.9	19.5	14.1	1.7	13.7	3.7	21.3

Source: Citi Research, Worldscope, MSCI, Factset, as of 23 Nov 2018. \*Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from Factset consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index level data. NM = Not Meaningful; NA = Not Available. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

Despite the potential for upside, equities are likely to be more volatile in the months ahead, partly reflecting their correlation with US equities. In addition, European equity volatility often rises when European corporate bond spreads rise, something we expect in 2019 - see **Fixed income** section below.

We emphasize greater selectivity by country and region. We favor French and Swiss equities. Consensus estimates for French earnings are being revised upwards, amid signs that President Macron's labor market reforms are beginning to have an impact on costs. Net inflows from passive investors are supporting equity prices. The yield gap between French equities and bonds has now risen to a high of over 2%, while dividends are twice covered by earnings.

Swiss economic data has been firm, not held back by the strong Swiss franc. Despite having large overseas revenues, Swiss companies have continued to register robust earnings growth. This partly reflects the resilient franchises and pricing power of several of the larger Swiss companies. Swiss equity prices have fallen by more than justified given earnings growth.

After a poor 2018, our favored European ex-UK sectors are financials, IT, healthcare and energy - **figure 2**. In financials, we expect the multi-year trend towards European banks' improving their returns on equity (RoEs) to continue.

With earnings still on average more than 50% below their pre-crisis average peak, we see potential for RoEs to rise further.

FIGURE 3. OUR FAVORED EUROPEAN SECTORS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE (%)	DY (%)	CAPE
	US\$bn	'19E	'20E	'19E	'20E	'19E	'19E	'19E	10yr
EUROPE EX-UK	5,903	12.5	11.5	9.8	8.6	1.5	12.3	3.9	19.3
ENERGY	277	9.3	9.1	14.9	3.1	1.2	12.4	5.4	13.9
CONSUMER DISCRETIONARY	653	10.4	9.7	10.0	7.0	1.5	14.1	3.6	17.8
HEALTHCARE	860	15.2	13.9	8.9	8.8	2.7	18.1	3.1	26.1
FINANCIALS	1,104	9.1	8.4	8.6	8.5	0.8	8.8	5.9	13.4
IT	413	17.4	15.0	18.9	15.9	3.1	17.9	1.7	39.8

Source: Citi Research, Worldscope, MSCI, Factset, as of 23 Nov 2018. \*Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from Factset consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index level data. NM = Not Meaningful; NA = Not Available. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

Despite this, financials were 2018's worst performing sector. And, because they make up 18% of regional equity benchmarks, they were responsible for around one-third of European equities' 12% decline in 2018 through October.

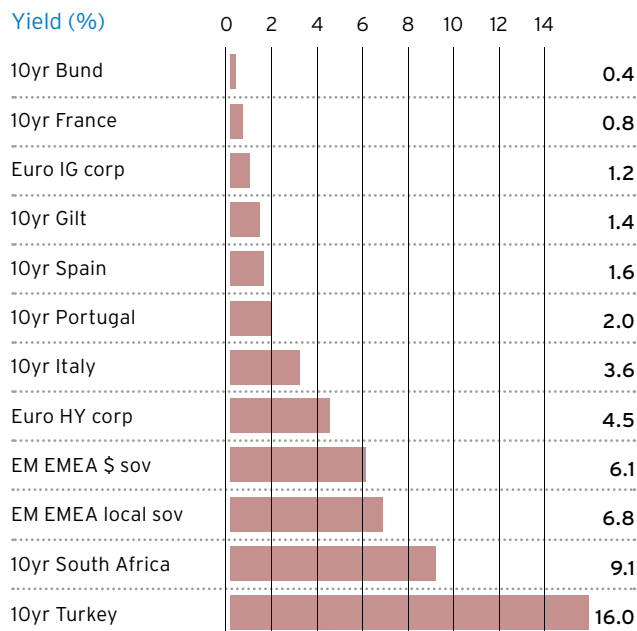
Financials' underperformance was mainly driven by concerns over Eurozone peripheral nations, especially Italy, where the sector is under pressure from weak growth and balance sheet issues. More recently, concerns over some banks' exposure to Turkey has weighed upon the sector. Following their sell-off, European banks trade more than 25% below their January peaks. We see the outlook as encouraging, with forecast average EPS growth of 15%, and RoEs up to 7% and expected to rise to 15%. Valuations are attractive, with average price-to-book valuations of 0.7, and dividend yields of above 4% in our preferred banks. We thus believe the present offers a compelling entry point.

European information technology (IT) suffered worse than other sectors during October 2018's sell-off. However, its fundamentals remain intact, with forecast earnings growth of 19% in 2019. IT also benefits from exposure to ongoing global growth, with approximately 67% of the sector's revenues generated outside Europe. Despite the sector being relatively small at around 6% of European market capitalization, we see selective opportunities.

Energy is the only European sector whose earnings forecasts have been revised upwards over the last six months. Energy companies are in a fundamentally better position than they were going into the oil price slump of 2014-16. Their balance sheets are stronger, while the oil price has recovered steadily. Many companies have undergone restructuring, are generating positive free cash flow, while their leverage continues to decline.

The brightest outlook in Europe remains in the healthcare sector. Various positive multi-year trends will likely continue to benefit healthcare in 2019. These include rising spending, aging populations – see **Unstoppable trends: Increasing longevity** – and innovation in medical technology. Healthcare has previously outperformed during periods of heightened uncertainty and risk aversion thanks to its relatively stable earnings outlook. European healthcare generates only a quarter of its revenues from its home region, with over 40% coming from the Americas.

FIGURE 3. EUROPE FIXED INCOME YIELDS



Source: The Yield Book, as of 19 Nov 2018. Past performance is no guarantee of future returns. Real results may vary.

## Fixed Income

The ECB's first rate hike from its current deposit rate of -0.4% and refinancing rate of 0.0% is likely around a year away. More significantly, its asset purchases – currently running at \$15bn a month – are set to finish at the end of 2018. While the ECB still needs to elaborate upon its reinvestment plans for its existing bonds when they mature, its balance sheet is likely to remain large for some time. The direction in core inflation will need to be watched closely. While currently muted, we expect inflation to move gradually closer to the ECB's 2% target. This should allow the ECB to slowly reduce accommodation over the coming years.

European sovereign bonds remain our largest fixed income underweight in our global asset allocation. Valuations are expensive. Nearly 30% of the sovereign bond market offer negative yields, with the average core Eurozone (EZ) yield around 0.3%. The ECB's planned ending of its asset purchase program represents a major headwind. Despite the ECB's reinvestment plans, net supply is likely to be less negative in 2019. The mild reduction in technical pressure, and improving macro outlook is likely to push bond yields upwards.

Italian sovereign bonds will also remain a focus and risk barometer for investors, although we do not expect an imminent market collapse. With a sovereign debt-to-GDP ratio of 132%, a fiscal deficit target of 2.4% of GDP, and the bank sector still burdened with over €200 billion of non-performing loans, the growth rate will be the key variable. Should Italy slow more than we currently expect, its bond market could suffer, with a risk of contagion to other European sovereign markets. Italy remains our deepest Eurozone underweight.

Returns in European investment grade (IG) corporate credit have been supported by low inflation and ECB quantitative easing (QE). In turn, keeping core rates low. On the other hand, spreads have widened in anticipation of the likely rise in net supply when the ECB buying program ends.



Indeed, benchmark spreads have risen 60bp in 2018, nearly doubling to 130bp after reaching their tightest levels since the Global Financial Crisis. We expect spreads to widen further in 2019. Moreover, an average benchmark yield just above 1.0% leaves European IG vulnerable even to small rises in core rates. For this reason, we remain underweight in global portfolios.

European high yield (HY) has benefited from investment grade investors migrating to lower quality credit in order to earn greater yields. However, this may be much less of a factor in 2019 if the end of ECB quantitative easing results in higher IG yields. Nevertheless, with default rates just under 2%, leverage stable and interest coverage at broadly comfortable levels, we remain neutral in HY. That said, around 63% of the European HY market is rated BB and yielding an anemic 3.1%. Similar to IG corporates, these bonds are more susceptible to a rise in core rates. As such, we have a preference for single 'B'-rated issuers, where more attractive yields of around 5.7% and wider spreads can provide investors with a larger cushion against higher rates.

European HY bank loans also remain an attractive source of higher current income. All-in yields are attractive as investors looking for a more liquid source of yield have bypassed the loan market altogether. As a result, Euro bank loan yields are higher, despite negative Euribor rates. For example, Single-B rated bank loans yield 6.6%, versus 5.7% for bonds. As such, the higher yields and relatively lower liquidity has helped the bank loan market outperform HY bonds in 2018, the former rising 2.8% versus the latter's 0.5% fall. We would expect this relative outperformance to continue over the coming year.

UK government bonds - or gilts - offer good liquidity and have no default risk. However, 10-year yields near 1.4% are unattractive. Without an evident path towards a Brexit deal, we would expect rate volatility to rise. In the event of no Brexit deal being reached, higher yields will probably follow.

European HY bank  
loans also remain  
an attractive  
source of higher  
current income

## Currencies

The Euro is likely to strengthen against the US dollar in 2019. We forecast a move to \$1.18 over six to twelve months, and \$1.30 longer-term. Our forecast is underpinned by the likelihood of the European Central Bank starting to tighten monetary policy at a time when the Federal Reserve may be nearing the end of its rate-hiking cycle. Also, current accounts are broadly positive or improving across Europe. Relative political certainty should also help, as we do not expect any Eurozone nation to call a referendum on currency union membership in 2019. As to valuation, the Euro looks inexpensive on a real exchange rate basis.

The British pound's direction is expected to be influenced by the progress of Brexit negotiations. Given our base case of a deal being struck and ratified, we think Sterling looks well supported on the downside. On a real-exchange rate basis, sterling looks attractively valued. In addition, the Bank of England is expected to hike interest rates twice after the UK's exit from the EU during the first stage of the transition period. Our long-term forecast is for the pound to rise from \$1.28 today to \$1.48, but that is dependent upon the establishment of a post-Brexit roadmap for the UK, as well as low domestic political turbulence.

# Latin America: Slower growth & political change

Jorge Amato | Head - Latin America Investment Strategy  
Kris Xippolitos | Head - Global Fixed Income Strategy

Modest growth and reasonable valuations point to an economic rebound in Latin America in 2019, but not on the scale of the post-2016 rally. With political, commodity and trade issues complicating matters, it is a good time to be an opportunistic investor.

Latin America is still in the earlier stages of its economic recovery cycle. That said, there are few reasons to expect any significant acceleration in the regional economy before the next global slowdown arrives. Consensus regional GDP growth forecasts are around 2.2% for 2019 - **figure 1** on the next page. International trade tensions and significant political uncertainty due to elections in Mexico and Brazil, rather than poor economic fundamentals, were behind regional equity market underperformance in 2018. Lingering uncertainty over US trade policy remains a risk to growth in 2019. In our view, Peru and Colombia are likely to outpace Brazil, while Mexico could suffer a material slowdown in business investment if elevated uncertainty over the new president's agenda persists. Meanwhile, Argentina's outlook remains highly uncertain.

## Our favored markets

### EQUITY MARKETS

Brazil

### EQUITY SECTORS

Energy, financials

### FIXED INCOME

Brazilian US denominated debt



FIGURE 1. KEY REGIONAL ECONOMIC DATA

	REAL GDP (% YOY)	CURRENT ACCOUNT (% OF GDP)	FISCAL BALANCE (% OF GDP)	10YR GOVT YIELD (%)	LOCAL CURRENCY (VS US DOLLAR)
	2019F	2018F	2018F	SPOT	2019F
LATIN AMERICA	2.2	-1.5	-5.8	-	-
ARGENTINA	-0.6	-4.4	-5.6	9.44	44
BRAZIL	2.3	-0.8	-7.4	5.57	3.75
CHILE	3.4	-2.0	-2.1	4.20	663
COLOMBIA	3.2	-3.0	-3.1	4.81	3020
MEXICO	2.1	-1.7	-2.2	4.92	19.50
PERU	3.9	-1.6	-3.0	3.98	3.30

Source: Bloomberg, Citi Research, as of 20 Nov 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

Despite the likelihood of modest, below-potential economic growth in Latin America, regional fundamentals remain fairly robust. Economies have limited cyclical imbalances and expectations for policy are mostly positive. However, inflation expectations could rise if 2018's currency weakness feeds through into prices. Central banks are likely to respond to these higher inflation expectations by raising policy rates by some 75-175 basis points in Brazil and the Andean region. Rates in Mexico could remain high until the political agenda becomes clearer, but early signs suggest that rates could also rise there. In Argentina, the new monetary program could result in lower policy rates, but only if the adjustment process succeeds.

With monetary policy and nominal expectations well anchored, few countries should face large external financing pressures. The regional current account deficit should stay below 2% as a result of modest growth and devalued currencies helping to contain imports while boosting exports. Nearly three-quarters of the total stock of Latin American public debt is denominated in local currency, so governments should be able to weather

higher international interest rates without succumbing to 1990s-style balance-of-payments crises. These are positive signs for the longer term across Latin America.

We were surprised at Brazil's and Mexico's election of presidents from the radical right and left respectively in 2018. Those results reflected the deep social discontent with those nations' political establishments. While we are still encouraged by the cyclical recovery outlook, uncertainty over government policy remains elevated in those countries.

In Mexico, President López Obrador has begun a six-year term. Investors will closely monitor policy developments. Recent decisions - such as the cancelation of a new international airport - increase uncertainty and risks for business investment.

Brazil's Bolsonaro has made market friendly cabinet appointments, bolstering investors' confidence. Focus is likely to shift next to reforms, particularly pension reform, which is sorely needed so as to stabilize a deteriorating domestic debt path.

Structural fiscal reforms are likely to be a top priority for governments around the region. New administrations in Colombia, Mexico, and Brazil need to focus on long-term fiscal sustainability or face investors' displeasure. Argentina is the region's most difficult call for 2019. The country suffers from major macroeconomic imbalances, demanding an adjustment period that could easily trigger social unrest and test the administration's will to see it through. We expect greater differentiation in economic policies across the region. This will guide where investors should make opportunistic investments.

The Andean region should continue to benefit from solid fundamentals and marginally improving commodity prices. However, Andean markets are already discounting this outperformance, making them less attractive.

We see few  
fundamental  
reasons to reduce  
exposure to Latin  
America

Global markets are likely to represent a risk to sentiment, rather than a sustained fundamental vulnerability. In particular, trade wars broadening or intensifying and higher US interest rates will probably remain prominent risks during 2019, generating short-term volatility but not necessarily derailing longer-term fundamentals if policy responses remain adequate. Chinese government policy will also be monitored closely to see if it has the desired effect of stimulating the economy.

We continue to recommend that investors be selective as they build high quality regional exposures. These should focus on long-term regional opportunities, companies with reasonable valuations and moderate debt, as well as specific country exposures based on how their policies evolve. We see few fundamental reasons to reduce exposure to the region. That said, we do not believe Latin America to be on the verge of another powerful rally such as it saw coming out of the regional crisis of 2015-16. We expect that international trade concerns, local political risks, and commodity prices are likely to moderate market performance somewhat in 2019. Greater volatility and range-bound market gains are the likeliest outcome, in our view.

While remaining slightly overweight the region, we advocate a selective and opportunistic approach to investing in this environment. Skillful EM active managers may provide a good way for gaining such exposure.

## Equities

We enter 2019 with an overweight allocation to Latin American equities. The MSCI Latin America Index dropped by 7% in the year through 20 November 2018, despite expectations-beating forecast annual earnings growth of 26%. Underperformance was caused more by uncertainty over international trade than by deterioration in regional fundamentals. Following the sell-off, Latin American equities trade on a multiple of 11.2 times next year's forecast earnings - **figure 2**. They are thus on a similarly deep discount relative to global equities as they were at their trough coming out of the commodity-led regional slump in 2016 - **figure 3**.

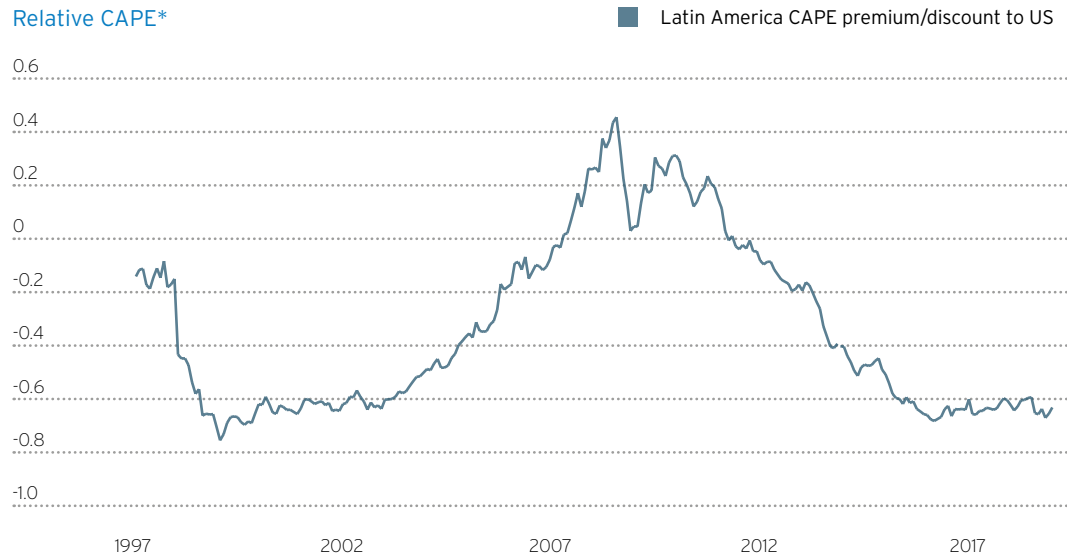
Looking across Latin America and emerging markets more broadly, we believe Brazil offers attractive risk/reward characteristics. We are positive on the outlook for Brazil's economy, given the potential for economic reforms under new President Bolsonaro. In local currency terms, Brazilian equities fared better than many other regional markets in 2018, rising 15% year-to-date as of 20 November. However, the Brazilian real's 12% depreciation in the year through November obviously hit returns expressed in US dollars. On that basis, the MSCI Brazil was flat in price terms in the year to 20 November, but gained 3% with dividends included.

FIGURE 2. LATIN AMERICA VALUATIONS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE	DY (%)	CAPE
	US\$bn	'19E	'20E	'19E	'20E	'18E	'18E	'18E	10yr
<b>LATIN AMERICA</b>	588.6	11.2	10.2	20.1	9.4	1.8	14.3	3.4	16.6
ARGENTINA	26.8	5.2	3.4	147.9	51.6	2.0	21.9	2.0	34.0
BRAZIL	379.1	10.5	9.6	22.6	8.8	1.8	15.5	3.7	16.4
MEXICO	116.3	12.1	10.8	16.1	11.7	1.8	17.2	2.9	17.5
CHILE	58.9	14.6	13.5	14.7	7.9	1.8	11.8	2.8	16.8
COLOMBIA	17.1	10.1	9.4	13.1	7.5	1.4	19.2	3.4	14.6
PERU	17.3	12.9	11.4	15.4	13.1	2.2	15.5	2.5	15.2

Source: Factset Consensus, MSCI, as of 20 Nov 2018. Note: The above data are compiled based on companies in MSCI AC World Index. Free MC is free float adjusted market capitalization for regions, markets and sectors. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield (DY) and RoE (Return on Equity) are aggregated from Factset consensus estimates. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average inflation adjusted EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

FIGURE 3. LATIN AMERICA EQUITIES' WIDE DISCOUNT



Source: Factset Consensus, MSCI, as of 12 Nov 2018. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

We believe Brazilian equities can outperform over the coming year

For 2019, consensus forecasts are for 22% EPS growth, putting Brazilian equities on a 10.5 forward earnings multiple. We thus believe Brazilian equities can outperform over the coming year.

Mexican equity market performance will be sensitive to the new government's economic policy changes and their effect upon investor confidence. Earnings are expected to grow at 16% over the year ahead, giving a prospective earnings multiple of 12.1, but with risk of downward revisions. The combination of the resolution of NAFTA negotiations, a still strong US economy, and a competitive exchange rate may provide a positive scenario for equity performance. Policy uncertainty could overshadow fundamentals, in our view.





## Our favored Latin American sectors for 2019 are energy and financials

The oil sector should continue to benefit in Mexico, Brazil, Colombia, and Argentina

We wish to highlight the regional energy sector, which continues to undergo restructuring. While we do not expect energy prices to rally from here, we do expect them to remain well supported. The oil sector in particular should therefore continue to benefit in Mexico, Brazil, Colombia, and Argentina. Although we expect mild, below-potential growth for Latin America - and both energy and financials are cyclical sectors - we think they can perform well in 2019.

FIGURE 4. OUR FAVORED LATIN AMERICA SECTORS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE	DY (%)	CAPE
	US\$bn	'19E	'20E	'19E	'20E	'18E	'18E	'18E	10yr
ENERGY	60	7.6	7.0	26.7	7.6	1.2	14.0	2.9	14.0
FINANCIALS	194	10.8	9.6	14.2	12.1	2.0	13.5	4.2	15.2

Source: Factset Consensus, MSCI, as of 20 Nov 2018. Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from Factset consensus estimates. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average inflation adjusted EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

## Fixed income

Latin American external - or US dollar denominated - fixed income struggled in 2018. The Federal Reserve raised its policy rate by 75 basis points (bp) - and was expected to raise by another 25bp in December 2018 - and longer dated US Treasury 10-year yields widened 65bps, generating negative returns for global fixed income markets. The EM debt sell-off saw Latin American US dollar sovereign benchmarks fall 5.6% through 20 November. That said, opportunistic investors should remember that Latin America external sovereign debt previously gained 25% between 2016 and early 2018. So, it is possible that in 2019, Latin American dollar denominated debt could be a solid call.

EM assets were hit by fears that emerging markets would enter a new period of crisis. Many investors mistakenly interpreted idiosyncratic difficulties in Turkey and Argentina as symptoms of a widespread EM malaise. This fueled broader risk aversion, especially in relation to Latin America. As a result, regional benchmark spreads pushed 137bp wider to 450bp, their widest levels since the trough of the 2016 oil-price driven recession.

Local currency markets also took a beating. On the one hand, slower European growth and a repricing of Fed expectations helped fuel a rise in the US dollar. On the other, market volatility arising from broader EM risk aversion pushed local yields higher.

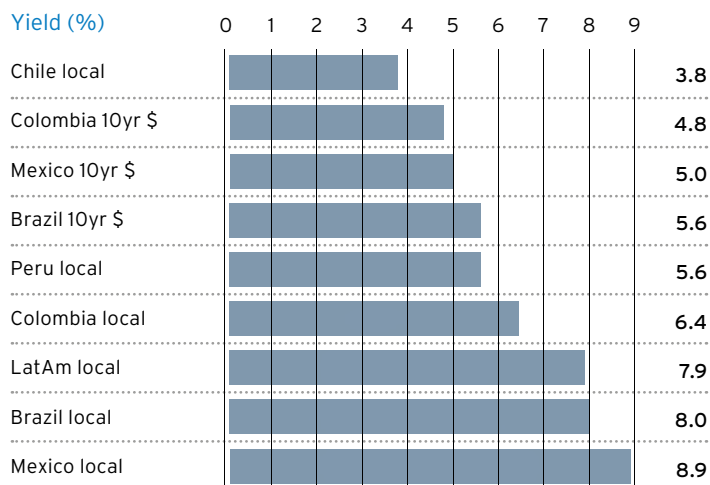


Election results in Mexico and Brazil were initially well received by investors, allowing risk assets to rebound and make up some of their earlier underperformance. Still, local Latin America bonds - unhedged to US dollars - had fallen 2.3% in the year through October. The new administrations' economic policy decisions will drive performance going forward.

Looking ahead, we see Latin America as an attractive component of global fixed income portfolios. Stable fundamentals and appealing valuations - **figure 5** - are pivotal to our overweight recommendation. Of course, selectivity and active management will remain imperative for the coming year. Despite its positive underpinnings, Latin America is still a high beta region that is susceptible to global market volatility. So, we expect periods where valuations become disconnected from fundamentals, providing tactical opportunities.

We see Latin America  
as an attractive  
component of  
global fixed income  
portfolios

FIGURE 5. LATIN AMERICA FIXED INCOME YIELDS



Source: The Yield Book, as of 20 Nov 2018. Past performance is no guarantee of future returns. Real results may vary.

In 2019, we expect a better nominal regional exchange rate performance, albeit with continued volatility

## Currencies

### Opportunistic ideas abound...

Given our focus on quality in 2019, we favor the US dollar-denominated corporate bond market, where the spread pick-up over the underlying sovereigns can be quite attractive. Brazil is a notable example, as spreads on its quasi-sovereign energy issuers can be upwards of 100bp greater than what comparable government bonds offer.

In local markets, Mexico government bonds appear to be an attractive outlier. With 5-year yields at 8.9%, Mexico is the highest yielding single-'A' rated issuer in the world. Moreover, the peso is also the cheapest currency in EM in real effective terms - see Currencies section below. Of course, there may be good reasons for these valuations. The new left leaning president has increased political uncertainty, triggering volatility in local rates and keeping risk premia high. Thus, any bouts of risk aversion over the coming year could create tactical opportunities for speculative EM investors, across both local rates and the Mexican peso.

Emerging currencies bore the brunt of global trade war fears in 2018, as investors reduced risk by selling EM assets and switching into 'safe havens', such as the US dollar. The JP Morgan Latin America Currency Index was down 13% for the year as of 20 November 2018, which contributed to many regional assets' negative returns for the year when expressed in US dollars.

Individual currency performance was quite uneven, however, highlighting the significant differences in policy and vulnerability of each country. The worst performer was the Argentine peso, which lost roughly 48%, followed by the Brazilian real, down 12%, and the Chilean peso, down 8%, all as of 20 November 2018. By contrast, the Colombian peso and the Peruvian sol shed 6.5% and 4.3% respectively, consistent with those nations' better fundamentals. The Mexican peso had outperformed until October when policy uncertainty peaked owing to the referendum on whether to complete the country's new international airport, weakening the currency by around 10% and into negative territory for the year.

In 2019, we expect a better nominal regional exchange rate performance, albeit with continued volatility. Our view is underpinned by the prospect of further regional growth, sound macroeconomic policies, and competitive real effective exchange rate valuations. For most currencies, we envisage activity largely taking place within defined ranges.



# North America: Late-cycle wisdom and actions

Charlie Reinhard | Head - North America Investment Strategy  
Kris Xippolitos | Global Head - Fixed Income Strategy

With the US economic expansion poised to become the longest on record, we get even more selective in our approach to equity and fixed income, while also encouraging US-biased investors to go global.

Leading indicators of economic activity point to continued US expansion through 2019. Having grown about 3% in 2018, US GDP growth may slow to a still-above trend pace of around 2.5% in 2019. If so, the current expansion will become the longest on record<sup>1</sup> in July 2019 when it enters its eleventh year. Beyond 2019, we see US growth facing greater headwinds – see **What to expect when you are expecting recession**.

Against this growth backdrop, we expect the Fed to raise its policy rate gradually. We believe the end of its tightening cycle may be in sight once the policy rate nears 3.25%. As long as 3-month Treasury yields remain below 10-year Treasury yields, the risks to the economy from monetary tightening should remain manageable. We also look for the Fed to keep trimming its near-\$4tr balance sheet.

<sup>1</sup> NBER business cycles for the US begin in 1854.

## Our favored markets

### EQUITY SECTORS

IT, communication services, healthcare and energy

### FIXED INCOME

IG corporate floaters, variable-rate HY bank loans, Treasury Inflation Protected Securities (TIPS), asset-backed securities and munis

FIGURE 1. KEY REGIONAL ECONOMIC DATA

	REAL GDP (% YOY)	CURRENT ACCOUNT (% OF GDP)	FISCAL BALANCE (% OF GDP)	10YR GOVT YIELD (%)	LOCAL CURRENCY (VS US DOLLAR)
	2019F	2018F	2018F	SPOT	2019F
US	2.8	-2.4	-5.2	3.06	n/a
Canada	2.1	-2.7	-0.8	2.32	1.29

Source: Bloomberg, Citi Research, as of 27 Nov 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

The fiscal deficit is an important factor in driving US rates higher. Following US tax reform in December 2017, the deficit should widen from 5.2% of GDP in 2018. Sometime in 2019, the US dollar will likely come under pressure from the prospect of both large budget deficits and a lack of support from continued Fed tightening. Major currency trends tend to last several years with pullbacks along the way. We believe a multi-year weakening dollar trend began two years ago, with 2018 seeing a pullback.

However, we do not see inflation as a clear and present danger. Inflationary risks will likely increase as continued growth reduces spare capacity in the economy. The Federal Reserve's favorite measure of inflation - the Core Personal Consumption Expenditure deflator - has firmed from 1.2% year-over-year in July 2015 to 1.8% in October 2018.

Meanwhile, Citi Research forecasts the Canadian economy to grow about 2% in 2019, with similar inflationary trends as the US. We expect gradual central bank tightening in the year ahead. Higher commodity prices could boost growth further, while downside risks include rising rates dampening housing demand.

## Trade and taxes

The recently agreed US, Mexico, and Canada Accord (USMCA) has reduced regional trade uncertainty. However, it also encourages the adoption of quotas and US-level wages for autos and related parts to avoid US tariffs. Overall, we expect the region's strong trade volumes and deeply interconnected supply chains to be maintained.

After Canada and Mexico, Japan and Germany are the largest auto exporters to the US. Trade talks with the EU and Japan still lie ahead and their resolution is not assured. To avoid 25% US tariffs, those powers may have to accept US safety standards, import quotas, and produce more in the US.

Trade talks should be considered alongside 2017's US tax code changes. A lower US corporate tax rate, the move to a territorial tax system and full expensing of investments through 2023 encourages production within the US, especially when also selling there. Meanwhile, the USMCA encourages further investment in Mexico and Canada, as both are 40% below their 2.6 million yearly car quotas to the US.

## Equities

US-China relations remain complicated. Tariffs have been imposed on imports and exports worth \$360bn annually, with flashpoints ranging from intellectual property rights to government subsidies. On 1 December, Presidents Trump and Xi agreed measures to de-escalate tensions, including the postponement of new US tariffs scheduled to come into force on 1 January, increased Chinese purchases of certain US products, and a 90-day deadline for further negotiations.

Among potential positive surprises for markets could be if the newly elected US Congress defers the fiscal drag from automatic budget caps in 2020. Another unexpected boost might come from an infrastructure spending package to improve US roads, bridges, energy, water and digital services. Both of these, however, require a level of cooperation in Congress that may be hard to come by in the present polarized environment.

Post-midterm election years like 2019 have historically been positive for US equities. The latter have risen in every year after US midterm elections since 1950, and by an average of 16.8%. Our expectations for 2019 are more modest, however, given that the market has more than doubled to record highs since 2013, and also given valuations. US equities trade on forward price/earnings and cyclically adjusted price/earnings ratios of 15.3 and 27.7 - **figure 2** - above their respective long-term averages of 15.9 and 17.8. These levels are consistent with a year of single-digit returns ahead.

We believe S&P 500 earnings are likely to grow 8% in 2019, after their estimated 23% rise in 2018. The deceleration results from 2018's corporate tax cut boost not being repeated in 2019. Higher interest rates and the US dollar's strength in 2018 provide other headwinds. Given this backdrop and still rising interest rates, we expect a single-digit return inclusive of dividends in the year ahead. We thus enter 2019 with a neutral, full weighting to US large-cap equities, which remain the single largest holding in our Risk Level 3 global benchmark allocations. Meanwhile, the Canadian equity market is not much above decade-ago levels and its valuation is in line with global ex-US equities. We are also neutral Canadian equities.

FIGURE 2. NORTH AMERICA VALUATIONS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE (%)	DY (%)	CAPE
	US\$bn	'19E	'20E	'19E	'20E	'18E	'18E	'18E	10yr
MSCI North America	24572	14.9	13.6	9.2	9.6	3.0	18.4	2.1	27.2
Canada	1753	12.2	12.2	10.9	-0.5	1.6	12.5	3.3	20.0
US	23256	15.1	13.7	9.1	10.5	3.1	18.7	2.0	27.7

Source: Factset Consensus, MSCI, as of 27 Nov 2018. Note: The above data are compiled based on companies in MSCIAC World Index. Free MC is free float adjusted market capitalization for regions, markets and sectors. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield (DY) and RoE (Return on Equity) are aggregated from Factset consensus estimates. \*CAPE stands for Cyclically Adjusted Price to Earnings, and is defined as: Current price/10-year average inflation adjusted EPS. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

FIGURE 3. OUR FAVORED NORTH AMERICAN SECTORS

	Mkt cap	P/E		EPS YoY (%)		P/B	RoE (%)	DY (%)	CAPE
	US\$bn	'19E	'20E	'19E	'20E	'18E	'18E	'18E	10yr
MSCI USA	23838	15.3	13.9	10.4	10.2	3.2	19.0	2.0	29.0
ENERGY	1394	13.7	12.2	30.5	12.0	1.8	10.2	3.0	17.3
COMM SERVICES	2326	15.9	14.3	8.6	11.4	3.2	18.2	1.5	33.6
HEALTHCARE	3540	15.6	14.3	8.3	9.5	4.0	23.5	1.6	31.8
IT	6229	16.6	14.9	9.9	11.3	5.9	39.3	1.2	38.8

Source: Citi Research, Worldscope, MSCI, Factset, as of 27 Nov 2018. \*Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from Factset consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index level data. NM = Not Meaningful; NA = Not Available. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

### Why going global will reduce risks for US-biased investors

We recommend that investors with large biases to US equities rethink their asset allocations. A US skew has proved an advantage in recent years as equities and the dollar rose together. But we believe non-US equities and currencies are likely to recover lost ground in the years ahead, which should emphasize the long-term benefits of global diversification. Although neutral on large-cap US equities overall, we favor selective areas of the market.

Information technology has been a top performer lately, returning 39.7% in 2017 and 17% through November 2018. We see further potential for outperformance. The sector's relative valuation remains below long-term averages. And it may benefit from equity repurchases, digital infrastructure spending, and growing pressure to automate as the labor market tightens. US-China trade uncertainty and the hardening European regulatory environment present risks. Consensus expectations are for 10% earnings growth in the year ahead. IT's forward price-earnings ratio of 16.6 is slightly lower than it was a year ago.

Healthcare's positive long-term prospects are consistent with its immediate prognosis as well - see **Unstoppable trends: Increasing longevity**. Healthcare has returned 14% through November 2018, but trades on a forward earnings multiple of 15.6, the middle of its range since 1997.

The energy sector has lagged in 2018, with performance impacted by the oil price's decline since early October. Consensus expectations are for 30% earnings growth in the year ahead, the highest of any major sector. The sector's free cash flow yield is also at the top end of its range since 1997.

The communication services sector - comprising the former telecom sector and certain heavyweights formerly of the technology and consumer discretionary services sectors - also offers near- and long-term growth appeal. Exposure to software and new media industries are attractive, but data privacy issues are a concern. Sector earnings growth may exceed 10% in 2019. The forward earnings multiple of 15.9 is at the low end of its post-1997 range.



## Follow the dividends!

In late-cycle conditions like today's, dividend growing equities have historically outperformed the market with less risk. Such equities are not necessarily the highest yielders but those of companies that allocate capital well - undertaking only projects expected to exceed their cost of capital - and that increase their dividends over time. Many of them also do stock buybacks, further increasing shareholder yields.

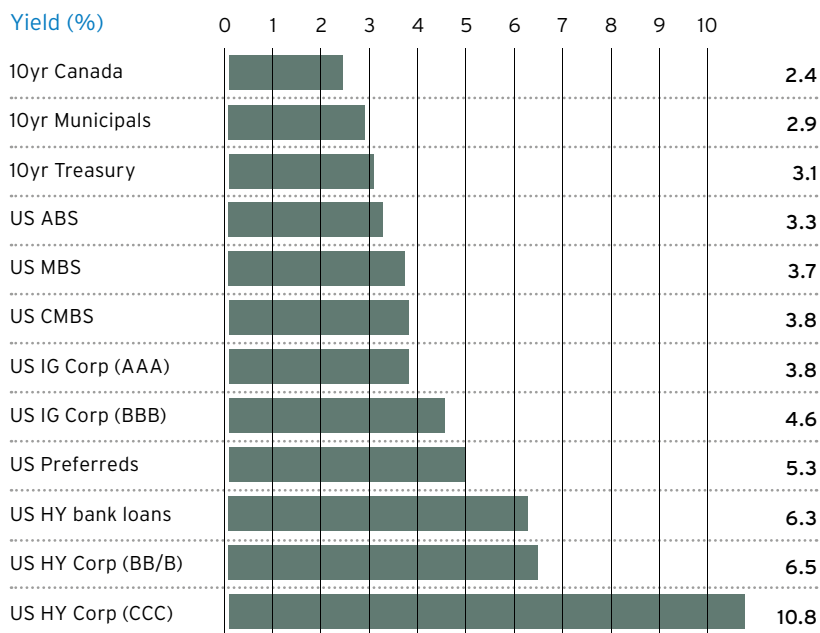
By contrast, small-cap equities have historically performed well in earlier-stage bull markets but lagged thereafter. Small-caps no longer have higher long-term earnings estimates than large-cap equities but they do have higher debt burdens at a time when the Fed is raising rates.

## Fixed income

Monetary policy divergence between the Fed and most other major central banks has pushed yield differentials between the US and the world to historically wide levels. Indeed, US Treasuries offer the highest government bond yields among developed economies apart from Iceland, Greece, and Italy. As a result, they offer relative value for both US and non-US investors while also potentially acting as safe havens during bouts of financial market volatility.

Policy tightening and rising US economic optimism sent 10-year Treasury yields to above 3% in late 2018, their highest in seven years. We believe continued US growth is likely to drive long-term rates. Rising hedging costs also limit the relative value of US dollar markets for some foreign investors, lessening demand. For example, Japanese investors who hedge currency risk are better off buying lower yielding Euro-denominated bonds, rather than higher yielding Treasuries - **figure 4**.

FIGURE 4. NORTH AMERICAN FIXED INCOME YIELDS



Source: The Yield Book, as of 19 Nov 2018. Past performance is no guarantee of future returns. Real results may vary.

More importantly, US Treasury supply is projected to rise markedly in order to fund a widening budget deficit. At the same time, the Federal Reserve is expected to reduce its US Treasury holdings by \$600 billion in 2019. Private savers will likely demand higher yields for purchasing these additional bonds.

That said, we do not see yields rising too sharply from here. Heightened trade tensions and tighter monetary policy leave markets susceptible to periodic bouts of volatility, which may support US Treasuries. Moreover, the shape of the yield curve should remain a significant influence on investor sentiment. While we don't expect an inverted yield curve until the second half of 2019, inversion is typically an accurate leading indicator of a US recession. As such, we feel 10-year US Treasury yields will likely be well contained under 3.75%. Meanwhile, slowly firming inflation should auger well for inflation-protected Treasuries.

Rising rates can create challenges for fixed income. That said, coupons on new issues are now 100bp higher than they were a year ago. This is meaningful, as increased interest income can help offset declining principal values from any further rise in yields. Certainly, the additional spread in investment grade (IG) and high yield (HY) corporate bond yields over Treasuries creates an even greater buffer against rising rates.

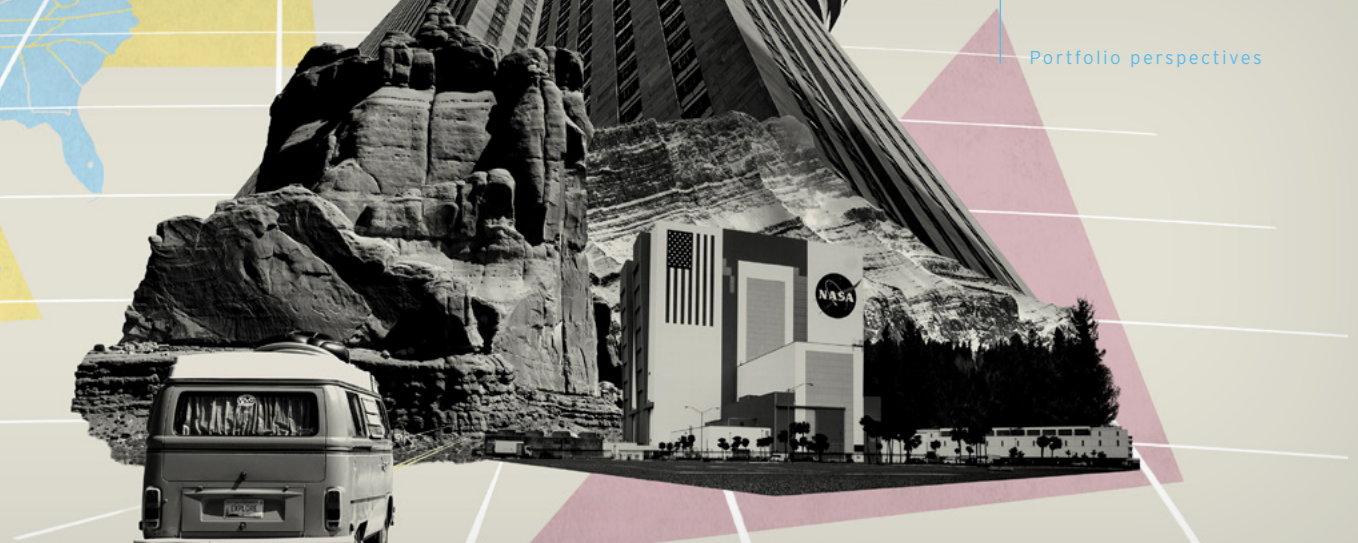
Generally speaking, corporate bond spreads are near early-2018 levels. More notably, benchmark spreads have been below longer-term averages for the last two years. To us, this is not surprising. History has shown that phases of robust economic growth can support prolonged periods of tight corporate bond spreads. Aside from industry-specific events - like the energy price collapse of 2014-2016 - spreads typically widen across the board only around economic downturns, when default rates rise. Today, however, US speculative-grade default rates have dropped from 5.1% in December 2016 to 2.6% and may fall further.

## Rising rates can create challenges for fixed income

### Be conscious of credit...

Credit markets are unlikely to have an easy time in 2019. Although leverage ratios have stabilized alongside the improvement in corporate earnings, tight spreads leave US corporates exposed to bouts of risk aversion, and subsequent profit-taking.

For now, we continue to favor risk assets, including US high yield - see **Make your cash work much harder**. However, volatility is likely to rise. As such, we favor active over passive strategies and look for ways to minimize interest rate sensitivity. Considering our strong conviction that short-term US rates will rise, floating rate assets are likely to remain in demand. IG corporate floaters, variable-rate HY bank loans, and asset-backed securities are among our favored markets for 2019.



## Our strong case for munis

US municipal bonds – ‘munis’ – were relatively strong in 2018. Cheap valuations, higher demand, and lower supply fueled performance across many higher quality issues. While rising US rates produced a -1% return through November, munis managed to outperform both US Treasuries and taxable IG corporate bonds.

Despite the top federal income tax rate falling from 39.6% to 37%, munis are likely to remain a core holding for US higher rate taxpayers. Indeed, new limits on state and local tax deductibility leave many investors with a higher effective tax rate. So, owning tax-exempt municipal bonds issued by an investor's locale is even more attractive than before the tax changes, especially in high-tax states such as New York and California.

With 1- to 3-year muni yields at their highest in ten years, we favor ‘barbell’ strategies for constructing muni portfolios. Barbells involve buying both short-term and long-term bonds to help minimize rate sensitivity, allowing investors to take advantage of potentially cheaper longer-term muni values while dampening portfolios’ overall rate volatility.

## Currencies

We believe the US dollar’s third strongest bull market of the past forty years ended in 2016. After reversing much of its 2017 decline in 2018, we expect greenback weakness to reassert itself in 2019 with further declines in subsequent years.

If so, we believe investors with strongly US biased asset allocations may benefit from taking a more global approach. Doing so might not only provide potential currency appreciation if the dollar weakens as we expect, but also exposure to markets on lower price-earnings ratios and higher dividend yields. US large-cap equities today yield 1.9% versus 3.1% in Canada, 4.2% in Europe and 3.6% in Emerging Europe.

Given the progress on regional trade, we believe the Bank of Canada will gradually tighten monetary policy. We look for the Canadian dollar to appreciate slowly against the US dollar once the current Fed tightening cycle nears completion.

# Our themes







# Themes: Important actions and forces that will drive portfolio returns

Steven Wieting | Chief Investment Strategist and Chief Economist

Our themes represent key forces that we expect will shape investments in 2019 and thereafter, with implications for many parts of your portfolio.

What are some of the key forces that are likely to shape your wealth over the coming years and decades? To help answer this vital question, Citi Private Bank every year presents a set of investment themes. These themes represent our best thinking in relation to some of the important drivers of change in the world around us, including demographics, social developments, and technological progress. We also focus on behaviors that could help make more money. Our themes seek to make sense of these often complex and overlapping forces, highlighting the potential investment opportunities that they may generate, as well as threats they pose.

## Our themes and your wealth

How do our themes relate to your core investment portfolio? One way to think of them is as areas of special focus within the long-term mix of asset classes from around the world that we recommend specifically for you. In addition to ensuring that your core portfolio has appropriate exposure to particular asset classes, countries, and industries, the themes we identify are designed to find potential alpha, the opportunity to make excess risk-adjusted returns from trends, technologies, behaviors

and events. Our investment approach includes themes within core portfolios, as well as the opportunity to add excess or opportunistic exposures to themes for investors willing to take some extra risk – see **Core and opportunistic investing** opposite.

An example of a thematic opportunistic investment might be where a market or asset related to a certain theme experiences a dislocation or a more lasting change, creating a potential entry-point. The resulting investment could be short-term or long-term, and involve almost any asset class. By contrast, thematic investments within a core portfolio tend to be longer-term and rely less upon entry at a certain price or moment. Each theme is typically global in scope and can span many asset classes. As a result, there are multiple ways to align your portfolio to our themes, depending on your specific needs and risk tolerance.

## Our 2019 themes

On the pages that follow, we set out three multi-year investment themes. In the first of these, we recommend that you consider ways to **Make your cash work much harder** by seeking out selective income-generating



opportunities that can also help diversify your portfolio. In the second, we show how you might **Safeguard your assets** in today's late-cycle environment and potentially the years thereafter. The possibilities include strategies to maintain market upside exposure while seeking to preserve against downside, managing your leverage carefully, as well as diversifying globally. Finally, we address three **Unstoppable trends** that are transforming the world: the rise of Asia, increasing human longevity, and digital disruption.

Not only do these themes have contemporary relevance, we also believe they will remain important for years or even decades to come. They build upon themes that we have presented in previous years - see, for example, **Transforming commerce**, **Core income strategies**, **Emerging opportunities**, and **Exploiting volatility** in **Outlook 2018**. Many of our messages over the years retain their significance to this day. In **Outlook 2015**, for instance, we warned of e-commerce's disruptive threat to many retail real estate assets, something that continues to impact investments in both areas to this day, and is likely to keep doing so.

### Are you aligned to our themes?

Despite our best endeavors, many clients' portfolios are not fully aligned to the allocation we recommend nor to the themes about which we feel most strongly. This can all too easily result in lower returns and increased levels of risk. In turn, this may lead families to drift below the world's wealthiest over time. To help you understand how your portfolio is aligned to our recommendations, we can prepare a personalized Outlook Watchlist report for you. We can then suggest ways that you develop customized exposure to particular themes, taking into account your return objectives and risk appetite. Please reach out to your Investment Counselor to request your report today.

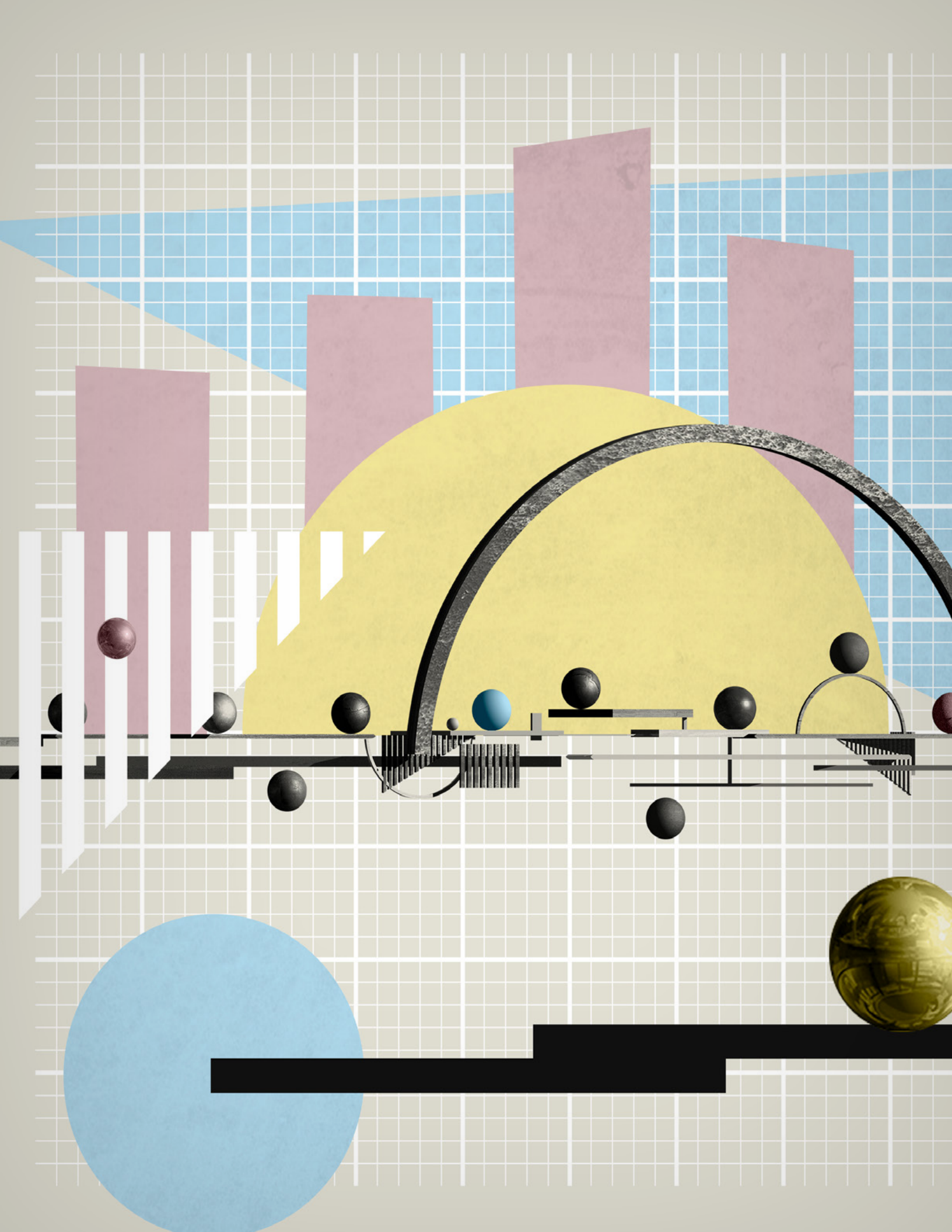
### Core and opportunistic investing

Citi Private Bank is committed to helping you preserve and grow your wealth over time. At the heart of the approach we recommend is having and maintaining a core investment portfolio. This 'core' portfolio should follow a long-term plan - or 'strategic asset allocation' - one that should be created individually for you, consisting of an appropriate mix of different asset classes from around the world. This allocation should then be tactically adjusted to reflect the advice of our Global Investment Committee, as well as being regularly rebalanced to keep it in line with your strategic allocation, including our themes.

As well as helping to preserve and grow your wealth over time, your core investment portfolio can assist in diversifying risks you may have elsewhere. Many clients have generated their wealth through concentrated positions in a single business in which they continue to have a large holding. When recommending a core portfolio for you, we therefore analyze risk exposures you may have from any businesses you own, tailoring your core portfolio's allocation accordingly.

We also recognize that many clients wish to invest opportunistically in addition to having a core portfolio. Opportunistic investments involve seeking enhanced risk-adjusted returns by exploiting short- or long-term opportunities that arise from time to time. Such opportunities can be created by market dislocations, mis-pricings, structural and cyclical changes in markets, and new issuances. They can occur in both public and private markets. However, they should not be confused with the short-term tactical adjustments that we suggest to your strategic asset allocation.

As with your core holdings, we suggest you follow a disciplined approach to your opportunistic portfolio. Potential opportunistic investments thus require analysis to help you understand how they complement or overlap your core portfolio, as well as how they relate to each other. The size of your opportunistic portfolio in relation to your core portfolio should also be determined beforehand, and rules followed when sizing each position. Depending on your risk tolerance, we believe between 5% and 20% of your overall investment portfolio might be committed to opportunistic holdings.





# Make your cash work much harder

Kris Xippolitos | Global Head of Fixed Income

Dan O'Donnell | Global Head of Citi Investment Management Alternatives

Rising rates have made cash more valuable once more. Our favored opportunities stress quality, selectivity, and diversification.

Making your cash work harder is central to building a great portfolio. Investing cash in income-yielding assets and reinvesting that income can enhance a portfolio's overall returns, preserve wealth, meet periodic liquidity requirements and improve portfolio diversification. In 2019, these will be important benefits for most global portfolios.

Admittedly, making cash work harder has been challenging over recent years. Unprecedented levels of central bank quantitative easing drove yields on many assets to record lows. As we expected going into 2018, stronger global economic growth and the Federal Reserve's normalization of policy has since pushed fixed income yields higher in many markets. But while higher yields mean higher future cash flows, they have also meant falling fixed income prices. Returns on global fixed income benchmarks have been negative in 2018 for exactly that reason.

Making cash work harder will be hard in 2019. Developed economies are likely to keep growing, along with corporate earnings, while inflation may continue its gradual rise. As a result, we expect major central banks to tighten monetary policy further. Therefore, fixed income prices are at risk of further declines. Nevertheless, we can identify numerous opportunities for generating income from fixed income and receiving distributions from alternative investments.



## High yield opportunities: be selective

As and when clients experience mark-to-market declines in the value of their bonds, cash flows will be an important driver of fixed income returns in 2019. In particular, US fixed income continues to offer some of the most compelling opportunities for preserving portfolio performance. US economic strength and Federal Reserve rate hikes have pushed up US Treasury yields well above those of most other developed fixed income markets. The higher future cash flows that many US fixed income assets now offer can help offset price falls in the event of more rate hikes or widening credit spreads.

As an asset class, US high yield (HY) fixed income has outperformed in 2018, producing a total return of 0.5% through November 2018. Average positive interest returns of 6% have more than offset an average 5.5% fall in principal values. The US HY market currently offers a yield of more than 7% - **figure 1** - and Citi Private Bank's Global Investment Committee continues to recommend an overweight position.

Of course, we are also recommending specific sectors where operations are less likely to be impacted by economic slowdowns. By contrast, we remain neutral European HY fixed income, whose average yields of below 5% may not be enough to offset principal losses.

We are also attracted to US HY fixed income's diversification potential. HY fixed income has historically been less correlated with investment-grade fixed income assets, such as US Treasuries and US agency mortgage backed securities. High yield has instead moved more in line with equities, where we expect positive returns in 2019.

One major risk associated with US HY bonds are spreads. While absolute yields are somewhat appealing, spreads over US Treasury yields have narrowed significantly. Indeed, HY benchmark spreads reached their tightest levels in the last eleven years during the last quarter of 2018. While the recent decline in oil has pushed spreads wider, valuations remain below their historical average. Indeed, it is quite possible that spreads will remain below average for longer and that defaults will remain low. (They are currently 2.6% and likely to fall further in 2019.) However, we have to be mindful that demand for yield is sometimes blind to quality. We advise investors to seek the right bonds from suitable companies.

The higher future cash flows that many US fixed income assets now offer can help offset price falls in the event of more rate hikes or widening credit spreads

OUR  
POSITION\*

WE DON'T LIKE

WE ARE NEUTRAL

WE FAVOR

US HY BONDS

EM USD SOV

US HY BANK LOANS

US MUNI TEY

CLO (BBB-RATED)

EURO HY

US IG CORP

US SHORT-DATED CORP

10YR TREASURY

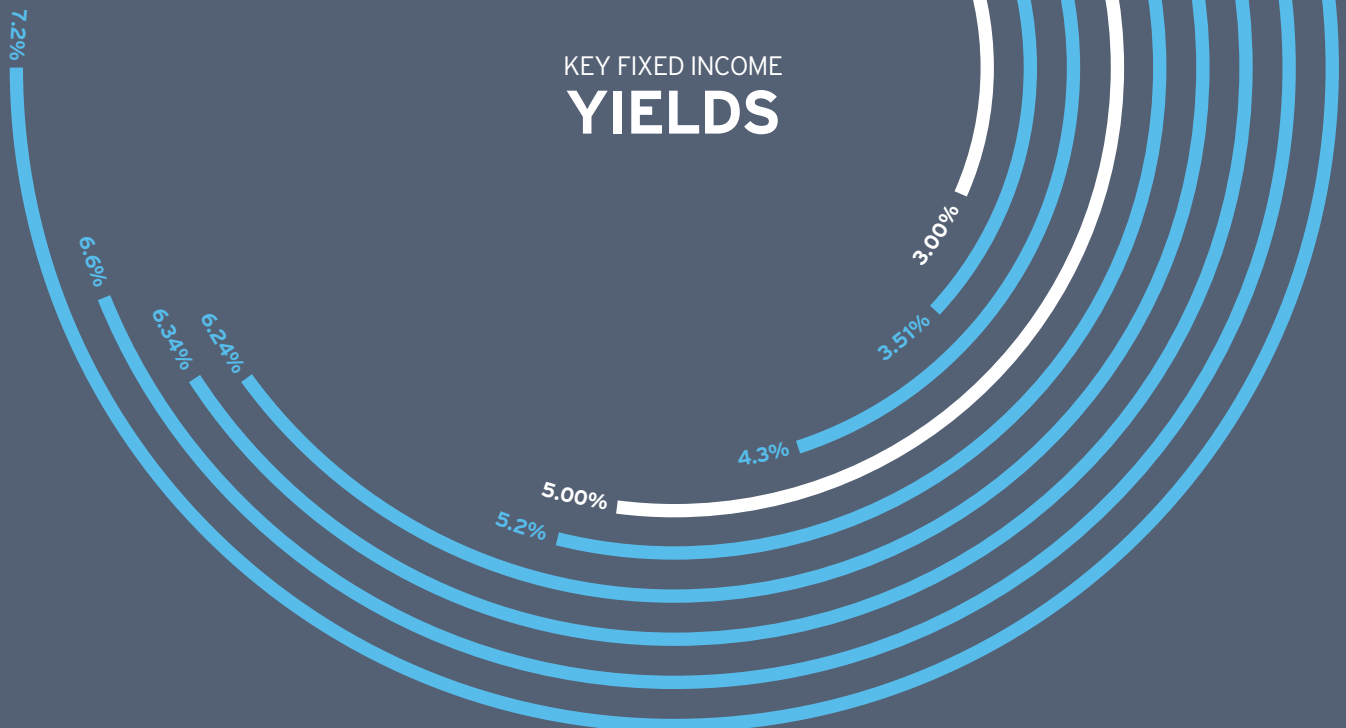
10YR UK

EURO IG CORP

10YR GERMANY

10YR JAPAN

## KEY FIXED INCOME YIELDS



\*Indicates views of the Citi Private Bank Global Investment Committee

Source: Bloomberg, The Yield Book as of 30 Nov, 2018. Past performance is no guarantee of future events. Real results may vary.

The indices are unmanaged, are not investable, have no expenses and reflect reinvestment of dividends and distributions. Index data is provided for comparative purposes only. Investors cannot invest in an index. Please see the glossary for the definition of terms.

## Floating rates provide portfolio buoyancy

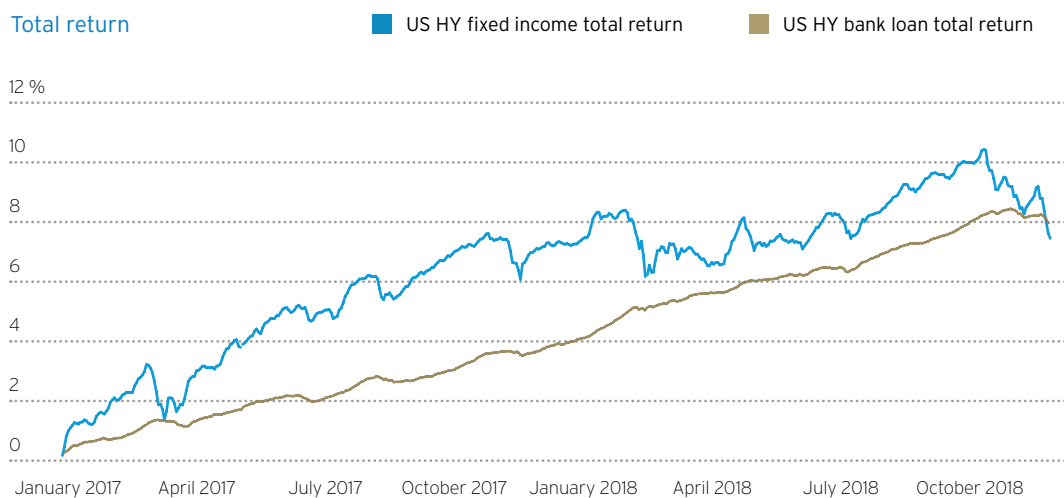
Floating rate assets may also make a useful contribution to portfolios in 2019. One variety that we favor is US HY variable rate bank loans accessed via third-party portfolio managers. Bank loans' coupon payments rise and fall with US LIBOR rates. As the Federal Reserve has hiked rates over the last twelve months, LIBOR has hit its highest levels in a decade. The appeal of earning higher rates has led to strong positive net inflows into US bank loans in each of the first nine months of 2018. Year-to-date, US HY variable rate bank loans have outperformed US HY fixed income - after underperforming in 2017 - and have generated a total return of 3%. What is more, these returns have historically been achieved with less volatility than those US HY fixed income - **figure 2**.

As of 30 November 2018, HY bank loans offer a yield of 6.5%. This is made up of 3-month LIBOR - currently 2.75% - plus a spread. As well as their floating rate income, they may also provide potential diversification benefits.

Over time, they have been negatively correlated with US Treasury debt. Nevertheless, bank loans are not without risks. For example, if corporate borrowing conditions become easier - i.e. the credit spread they have to pay narrows - many companies will repay their existing loans and refinance at lower rates. If that happens, loan investors' future cash flows get reduced, even though LIBOR rates are increasing.

Tighter credit spreads were a major feature of the bank loan market in 2018, as investor demand intensified. Indeed, nearly 60% of new supply volume was either through a repricing or refinancing of a pre-existing bank loan. With the US Fed likely to tighten policy by an additional 100 basis points (bp) over the coming year, interest in floating-rate debt may remain elevated. This may keep spreads under pressure, and could act as a drag on potential performance. However, low defaults and low price volatility can help offset any slower incremental increase in cash flow.

**FIGURE 2. HY BANK LOANS: ATTRACTIVE YIELDS, LESS VOLATILITY**



Source: Bloomberg Barclays Indices, S&P as of 19 Nov 2018. The indices are unmanaged, are not investable, have no expenses and reflect reinvestment of dividends and distributions. Index data is provided for comparative purposes only. Past performance is no guarantee of future events. Real results may vary.



## Structured credit may add portfolio strength

Structured credit, also known as 'securitized debt', involves securities backed by assets such as car loans, aircraft loans or non-agency residential mortgages. Depending on the underlying pool of assets, yields here can range from as low as 3% to 10%, or higher. Coupons generated by structured credit are typically floating-rate. They thus have the potential to outperform during periods of rising interest rates, but may suffer when rates fall.

Floating rate structured credit can also help diversify portfolios. Unlike traditional bonds, these securities do not tend to fall in price as interest rates rise. The other drivers of their returns and risks can also be rather different. For example, certain collateralized bonds can contain US residential mortgage loans. As a result, changes in US home prices may have a larger influence on the securities' price movement than any change in corporate defaults.

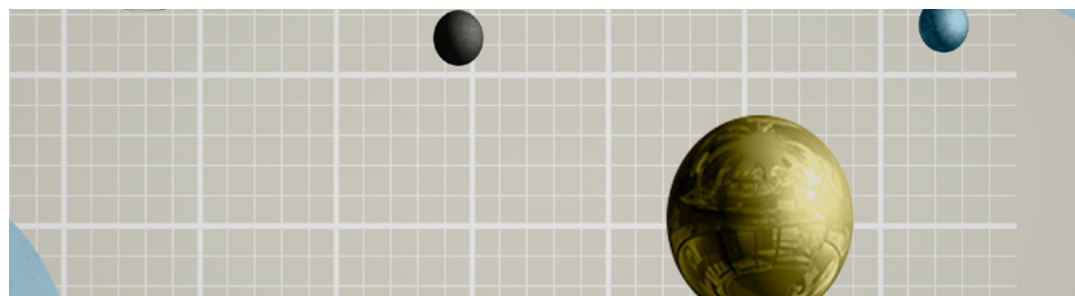
Among structured credit's main risks are relatively lower levels of liquidity. Indeed, certain securities trade less frequently, which may make them harder to exit quickly at a competitive price. However, this is not always the case. In fact, their lower liquidity may also create lower-priced buying opportunities for investors with a longer investment horizon. Given our expectation of further US economic growth and declining corporate defaults, we would expect floating rate structured credit to generate returns above aggregate bond benchmarks over the year ahead.

## Munis with allure

We see many attractive possibilities for income-seeking investors in tax-exempt US municipal fixed income (munis). Among shorter-dated maturities, rising Fed interest rates have driven up yields of both fixed and floating rate munis. The tax equivalent yield on a US muni variable-rate demand note (VRDN) for investors in a high income US state is 3.2%. That's attractive relative to equivalent taxable yields.

We advocate a 'barbell' strategy of owning both longer-dated and shorter-term maturities. Longer-dated maturities also currently offer compelling valuations because of reduced demand from banks and insurers following the US corporate tax cut. We believe that the valuations of longer-dated tax-exempt munis compared to taxable bonds can drive outperformance if interest rates continue to rise.

Munis will always be susceptible to changes in US Treasury rates. Despite outperforming US Treasuries in 2018, muni benchmarks still produced negative returns. That's why we advocate portfolios that go off benchmark and include slightly lower credits. Value can be found among lower-rated investment grade issuers. Indeed, yields on single A-rated muni issuers can exceed Treasury yields, enhancing their overall competitiveness relative to taxable bonds. This should also provide a boost to performance in the event US rates keep rising. However, investing in lower quality requires appropriate diversification and a more active approach while managing the potentially increased level of risk. Although spreading exposures across a broad variety of municipal localities can hold back returns, it can also limit idiosyncratic volatility. Using an active approach provides a good balance between preserving capital and enhancing performance.



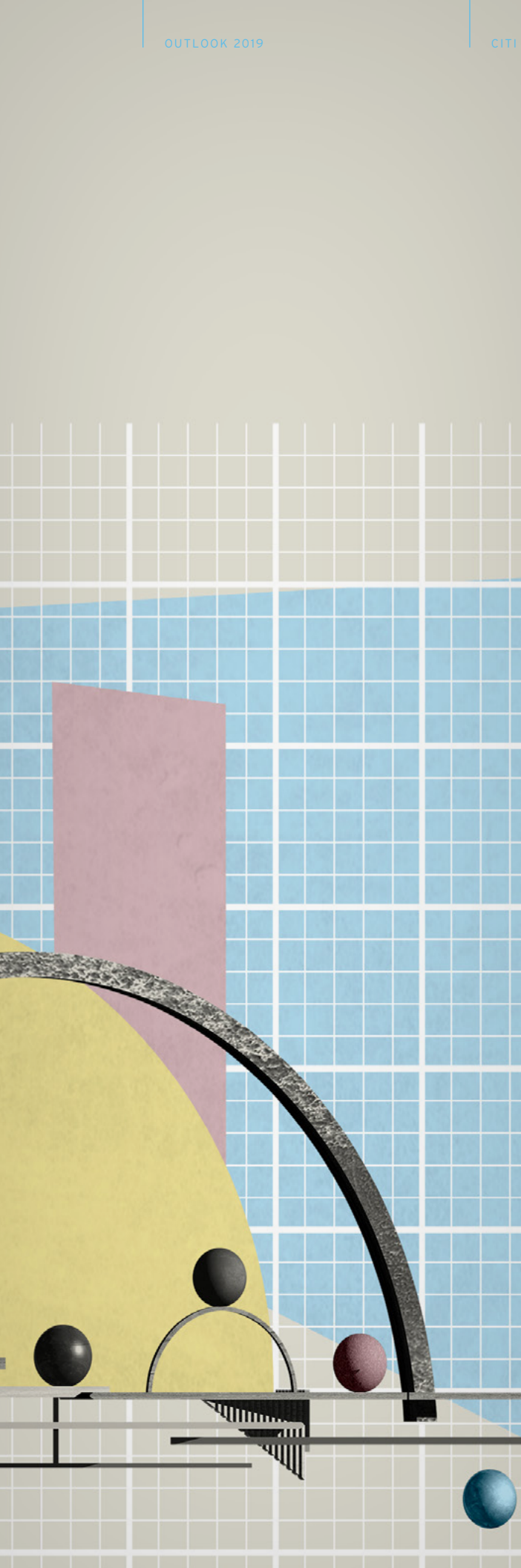
## Alternative strategies: Trading liquidity for higher yields

For investors willing to sacrifice liquidity and take more risk, certain alternative strategies may provide opportunities for receiving recurring distributions. These distributions are not income in the traditional sense, as they may be paid intermittently. One type of strategy that we favor involves investing in collateralized loan obligations (CLOs) via a private equity manager. A CLO is a security that is backed by a diversified pool of perhaps more than 150 senior-secured, liquid, corporate loans, and is managed by a CLO manager.

CLOs are split into various 'tranches' of seniority. In the event of underlying loan defaults, the most junior tranche - equity - suffers losses first. In return for taking additional risk, CLO equity holders can potentially receive higher yields. By focusing on the junior or riskier tranches, it is possible for active managers to generate gross equity leveraged returns of 10 to 14% a year. Obviously, portfolio managers and diversification are essential with CLOs.

Interestingly, actively managed CLOs have experienced lower default rates and high recovery rates - that is, lower overall loss rates - than broadly syndicated loans. Also, during difficult economic environments, CLO managers with locked-up structures - which prevent them from becoming forced sellers - can reinvest in cheaper loans, which may help offset any credit loss.

The current environment for CLOs continues to look attractive. CLO managers are still able to lock in debt financing at competitive rates and then capture a favorable spread between their financing rates and the returns on their loan assets. And, because the underlying loans and financing are based on floating rate LIBOR, CLO equity holders directly benefit as interest rates rise. With US GDP growth likely to continue in 2019, default rates could also keep declining.



## Real estate related fixed income

With the US economic expansion intact, lending to commercial real estate borrowers offers another way to make cash work harder. The US real estate market remains robust despite global uncertainty. US real estate deal volume for both August and the year to date is ahead of the equivalent periods in 2017<sup>1</sup>. So, one of our investment strategies is to participate via private real estate lenders who create diversified portfolios of mezzanine loans and mortgage participations backed by US real estate assets. These performing loans are floating-rate and offer a natural hedge in a rising rate environment. As a result, these investments may perform well in our expected scenario of continued growth and Fed rate hikes.

While rising rates tend to benefit floating rate loans, they could also dampen commercial real estate activity and thus borrower demand for debt investments. However, since interest rates are still relatively low and set to rise only gradually, a slowdown in commercial real estate transaction volume in the near term seems unlikely. Increased competition among lenders to this sector represents another risk to returns. That said, banks are still reducing their exposure to commercial real estate, while private lenders continue to grow market share and borrower acceptance as an alternative commercial real estate lender.

## Advice is critical as your cash becomes more valuable

In today's late-cycle environment, there are fewer obvious opportunities to make cash work harder than there were a decade ago. But they do still exist. We advocate a selective approach, combining strategies appropriate for each investor's individual portfolio requirements. We believe the time to put cash to work is now and the rewards could be attractive.

*Jeffrey Locke also contributed to this article.*

The current environment for CLOs continues to look attractive. CLO managers are still able to lock in debt financing at competitive rates and then capture a favorable spread over their financing rate

<sup>1</sup> Real Capital Analytics, August 2018

## NOTES

It should be noted that investing in either private equity or real estate may change the risk profile of your portfolio. There are also additional qualification requirements that need to be met prior to investing. Private equity and real estate are Alternative investments, they are speculative and entail significant risks that can include:

- losses due to leveraging or other speculative investment practices
- lack of liquidity
- volatility of returns
- restrictions on transferring interests in the fund
- potential lack of diversification
- absence of information regarding valuations and pricing
- complex tax structures and delays in tax reporting
- less regulation and higher fees than mutual funds
- and advisor risk

Investments mentioned in this document may not be suitable for all investors. Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Each investor should carefully view the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objective(s) and risk tolerance. No guarantee or representation is given that any product will achieve its investment objectives.

An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Past performance is no guarantee of future returns. Real results may vary.

All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

There may be additional risk associated with international investing, including foreign, economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets. International investing may not be for everyone.

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer may choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

### ABS/MBS products

Mortgage-backed securities ('MBS'), which include collateralized mortgage obligations ('CMOs'), also referred to as real estate mortgage investment conduits ('REMICs'), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Please read offering documents and/or prospectus information carefully for the risks associated with the particular MBS security you are purchasing. High-Yield Bond A bond with unfavorable credit characteristics that is typically non-rated or rated below investment grade. A high-yield bond trades at yields substantially higher than bonds with more favorable credit characteristics and often suffers from lack of liquidity and marketability.



# Safeguarding assets

- INTELLIGENT EXPOSURE TO A LATE-CYCLE BULL MARKET --
- MANAGE YOUR LEVERAGE --
- GLOBAL PORTFOLIOS ARE THE CORNERSTONE --

# Safeguarding assets

Steven Wieting | Chief Investment Strategist and Chief Economist

Today's late-cycle conditions are a good time to seek to safeguard your assets. They also offer opportunities for doing so.

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The US economic expansion is on course to break records. In July 2019, the recovery in the world's largest economy that began in mid-2009 is likely to become the longest since measurements began more than a century and a half ago. The bull market in US equities, meanwhile, already surpassed its previous all-time record in August 2018. In light of this - as well as high valuations across numerous asset classes - you may well be asking how long the recovery and bull market can possibly continue.

Citi Private Bank does not believe that the recovery and equity bull market are about to end. We agree with the old saying that 'bull markets do not die of old age.' Few of the economic or financial conditions that have figured around previous peaks are in evidence today. Inflation is largely contained, while US interest rates are rising only gradually by past standards.

Global growth is therefore well poised to endure through 2019 and perhaps beyond - see **Building stronger portfolios for turbulent times**. We thus remain positive on

the near-term outlook for risk assets. That said, we recognize that we are in a late-cycle environment. Monetary conditions are no longer as easy as they were, particularly in the US. The US yield curve has flattened and may invert at some point in the next year or so, something that has historically signalled a recession further down the line. Emerging markets have suffered substantial volatility and poor relative performance over the past twelve months.

In this environment, we think it is important to explore ways of safeguarding assets.

We do not want people to try to time the markets - that's a fool's game - see

**This is not the time for market timing.**

We recommend instead a number of constructive actions that you might take in order to help protect gains made over recent years while also continuing to seek opportunities. These include pursuing strategies that seek market upside while shielding against downside, managing leverage, and diversifying portfolio risks by globalizing allocations. We now explore some of these possibilities.





# Intelligent exposure to a late-cycle bull market

Iain Armitage | Global Head of Capital Markets

In today's mature bull market, you need not choose between ongoing upside potential and protecting your assets.

Today's late-cycle conditions pose a clear dilemma when positioning portfolios. Should you stay fully exposed to risk assets and seek to capture the ongoing upside that we expect? Or, should you reduce exposure, so as to preserve gains made so far? Staying over-exposed for too long risks taking a hit when the next downturn arrives. Selling now, however, means missing out if the markets continue to rise. But what if you didn't have to make this seemingly binary choice? What if you could instead maintain exposure to potential upside, while also limiting downside risks?

As it happens, there are ways that you can do just that. By employing certain capital markets strategies, you can capture ongoing market gains while simultaneously helping to protect the value that your assets have accumulated. To see this intelligent market exposure in action, let's take the example of an investor who has a portfolio of developed market equities held for the long-term. In this scenario, the portfolio has delivered a total return of 95% since the financial-crisis lows of 2009. Now, though, the investor would like to protect some of this return while also keeping open the possibility of capturing more upside.

FIGURE 1. MAINTAINING EXPOSURE WHILE PROTECTING GAINS

	100% developed markets equities	50% equities 50% capital markets strategy*	Difference	POTENTIAL EFFECTS
Strategic return estimate	4.90%	4.81%	-0.09%	REDUCES RETURN
Standard deviation	16.23%	12.87%	-3.36%	REDUCES VOLATILITY
Sharpe ratio	0.16	0.19	+0.03	IMPROVES RISK-ADJUSTED RETURNS

\*Capital markets strategy is a full capital at maturity strategy, as described in the article.

Source: Citi Private Bank as of 10 Oct 2018. Past performance is no guarantee of future results. Strategic Return Estimates are no guarantee of future returns. Developed Market Equities is an asset class within our AVS methodology and indexes are used to proxy for the performance. See Glossary for definitions.

Strategies that provide a payment at maturity can be customized according to your specific needs

The investor therefore decides to sell half of this portfolio of equities - **figure 1** - crystallizing the gains made so far. The proceeds of the sale are then invested in a full capital at maturity strategy that provides the same upside exposure to developed market equities for a four-year period. If equities continue to rise, this approach delivers one-for-one gains at the end of four years. If equities fall, however, the investor still receives the full original investment back at maturity.

By taking this approach, the investor has crystallized half of the portfolio's gains, retaining full upside exposure while limiting downside exposure. This leads to a potentially enhanced risk-adjusted return, albeit marginally lower absolute returns. Of course, if markets simply rise for four years, the investor would have been better off staying fully invested in equities, as this strategy does not earn dividends, unlike the cash position it has partly replaced. Over time, reinvested dividends are an important contributor to total returns.

Strategies that provide a payment at maturity can be customized according to your specific needs. As well as replacing broad-based holdings of equities, indices or exchange traded funds, they can perform the same function for mutual fund holdings that focus on particular themes, such as Asian growth, or robotics for example, allowing access to manager alpha. They can also address various other asset classes and sectors, including fixed income, foreign exchange, and emerging markets. The individual terms of this approach can also be adjusted to reflect your views. It is possible to select, for example, the desired tenor, the amount of protection and the specific market exposure, such as enhanced growth or income orientation.

While such strategies can help mitigate portfolio risk, they also come with risks of their own. For example, if the issuer of the strategy experiences financial distress, your investment could be at risk even if your view of the market has been correct and the strategy's value has increased. Also, there is only a limited secondary market, such that selling prior to maturity may mean you do not get back the full value of what you invested. It is therefore recommended that these strategies be held to maturity.

Today's late-cycle conditions present a compelling reason for integrating payment at maturity strategies as core holdings within your portfolio

We believe that such strategies - whether with full or partial protection - can serve as core holdings within your portfolio, replacing and complementing your holdings of equities, fixed income, foreign exchange and mutual funds. (See **Core and opportunistic investing** box in **Themes: Important actions and forces that will drive portfolio returns.**) We also think they can offer a way of building resilient exposure if you have been holding cash while awaiting an entry-point into the markets.

Today's late-cycle conditions present a compelling reason for integrating payment at maturity strategies as core holdings within your portfolio. Volatility - a key determinant of their cost - is at only around one-third of what it was in 2011, when the bull market was at a much earlier stage. As a result of this - and of the rising interest rate environment - the cost of establishing these strategies remains attractive. However, the lesson of history is clear: today's pricing will not last forever. If and when markets eventually do start falling, the cost of entering may no longer be economical. The time to prepare is before it is too late.

*Benjamin Garrity also contributed to this article.*

# Manage your leverage

Kris Xippolitos | Global Head of Fixed Income Strategy



Late-cycle conditions call for smarter use of leverage rather than abandoning it altogether.

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Investing for income has become increasingly challenging over recent years. Central banks' monetary policies helped to drive down the yields on many assets towards historic lows. In response to declining investment cash flows, many investors have tried to compensate by buying longer-duration and lower credit-quality assets. Some have also taken on leverage in an attempt to enhance returns.

## Handle with care

Used prudently, leverage can be an effective tool when building a portfolio. By financing positions with borrowed money, investors can not only seek enhanced returns, but also diversify their portfolio by freeing

up capital to pursue other opportunities simultaneously. Low interest rates improved cost effectiveness, while restrained volatility in many markets reduced the uncertainty of running leveraged positions.

Of course, leverage is also a double-edged sword. Just as it magnifies returns on investments in a rising market, it magnifies their losses in a falling market. However, we do not expect a widespread fall in risk asset markets any time soon.

We remain overweight global equities and high yield fixed income. And it is not our recommendation that investors avoid using any leverage at all. Our message is to be thoughtful and selective in how leverage is deployed. We certainly advise against using too much of it.

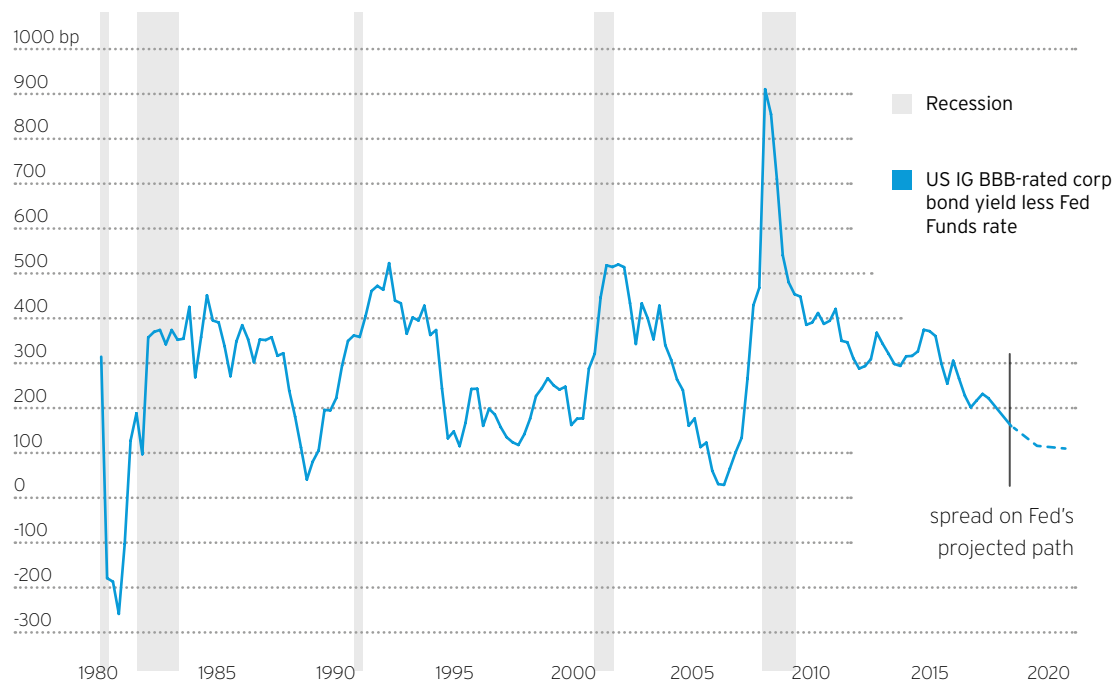
## Leverage is costing more

The cost of leverage is on the rise. The Federal Reserve's monetary tightening cycle has helped to drive up 3-month US dollar LIBOR from 0.38% to 2.38% over the three last years. More importantly, the difference between shorter- and longer-term rates is narrower than it has been in more than a decade. The cost of borrowing - determined by short rates - has thus risen by more than the yields on the longer-term assets that leveraged investors might invest in. So, leveraged returns are falling.

We expect US rate rises to continue in 2019. The Fed is expected to hike at least three times during the year and may go further if financial conditions allow. It is thus possible that LIBOR could reach around 3.5% by the end of 2019. In this environment, the spread available from borrowing at short-term rates and investing in longer-term BBB rated corporate fixed income could dip towards their post-1982 lows - **figure 1**.

If investors wish to seek to maintain leveraged returns at current levels, they are therefore likely to have either to assume more duration and credit risk, or add even more leverage. Given the lateness of the cycle, caution is required.

FIGURE 1. DIMINISHING RETURNS FROM LEVERAGED POSITIONS



Source: Bloomberg, as of 10 Oct 2018. Short-term rates are represented in the chart by the Fed Funds rate, which helps determine LIBOR pricing. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

## Be smarter with leverage

Despite the rate increases, borrowing costs remain well below long-term averages. So, we think that conservative use of leverage can still make sense. Another possibility for investors who feel comfortable doing so would be adding some lower credit quality assets to the portfolio as a substitute for leverage. For this purpose, investors might employ a specialist active manager who may be able to avoid those assets that are at most risk of encountering difficulties.

We also recommend that investors consider hedging their loan exposures. This can be done by utilizing capital markets strategies. For example, there are strategies available that can either lessen the impacts from rising borrowing costs, offset them, or even seek a profit from them. While some hedges come at an additional expense, there may also be ways to minimize the cost.

For the most leveraged investors, we would urge undertaking a review of your overall leverage. This should take into account not only your overall leverage, but also the risks of the underlying investments involved. The objective is to identify an appropriate amount of risk-adjusted leverage such that your portfolio could experience a significant decrease in market value without your getting a margin call. Citi Private Bank's Global Investment Lab stands ready to help you explore the risks and opportunities arising from your leverage, and how best you might preserve your assets.

We also recommend  
that investors  
consider hedging  
their loan exposures



# Global portfolios are the cornerstone

Steven Wieting | Chief Investment Strategist and Chief Economist

While we believe in global diversification at all times, it is of critical value in today's environment.

'Go global now' was our single most important piece of advice in Outlook 2018. We demonstrated that investing over time in a broad variety of different asset classes from across the world has helped to lower the overall risk of many portfolios, while also potentially raising returns. Global portfolios have displayed endurance through market cycles, which has helped their owners preserve and grow wealth over time. We therefore stress the importance of global portfolios for helping to preserve assets at all times, but especially now.

When global markets are moving asynchronously, this is precisely the time when diversification and rebalancing are critical. Late-cycle conditions typically see increased market volatility. Portfolios that are highly concentrated in particular regions, risky asset classes or both are obviously more vulnerable to such turbulence. After cyclical peaks, global diversification has been pivotal in helping to preserve portfolio value. Such periods have also been when concentrated local or regional portfolios have proven to be most at risk.

## Enduring through cycles

To highlight this, we explored asset class performance between 1952 and 2016. We then created historical globally diversified

allocations, using indices to proxy for equities, fixed income, hedge funds, commodities, and cash within our Adaptive Valuation Strategies methodology. The resulting global allocation would not have experienced a negative return during any five-year period during those six decades, a period that included the 1970s oil price shocks, the October 1987 stock market crash, the dot.com bust of the early 2000s, and the Global Financial Crisis of 2008.

As well as helping to preserve assets during episodes of market stress, a global multi-asset class allocation would have produced superior returns to a concentrated regional allocation. Over the entire period, a global multi-asset class allocation would have produced a 10.9% annualized return before fees. But an allocation only to equities and fixed income drawn entirely from the best performing individual region - the US - would have produced a 9.3% annualized return before fees.

The performance for each of the last seven decades of a globally diversified allocation - aligned at an asset class level to Citi Private Bank's AVS Risk Level 3 allocation in US dollars including hedge funds - is shown in the infographic. Over time, such an allocation would have produced higher risk-adjusted returns than any individual asset class. That's a big deal for a long-term investor.

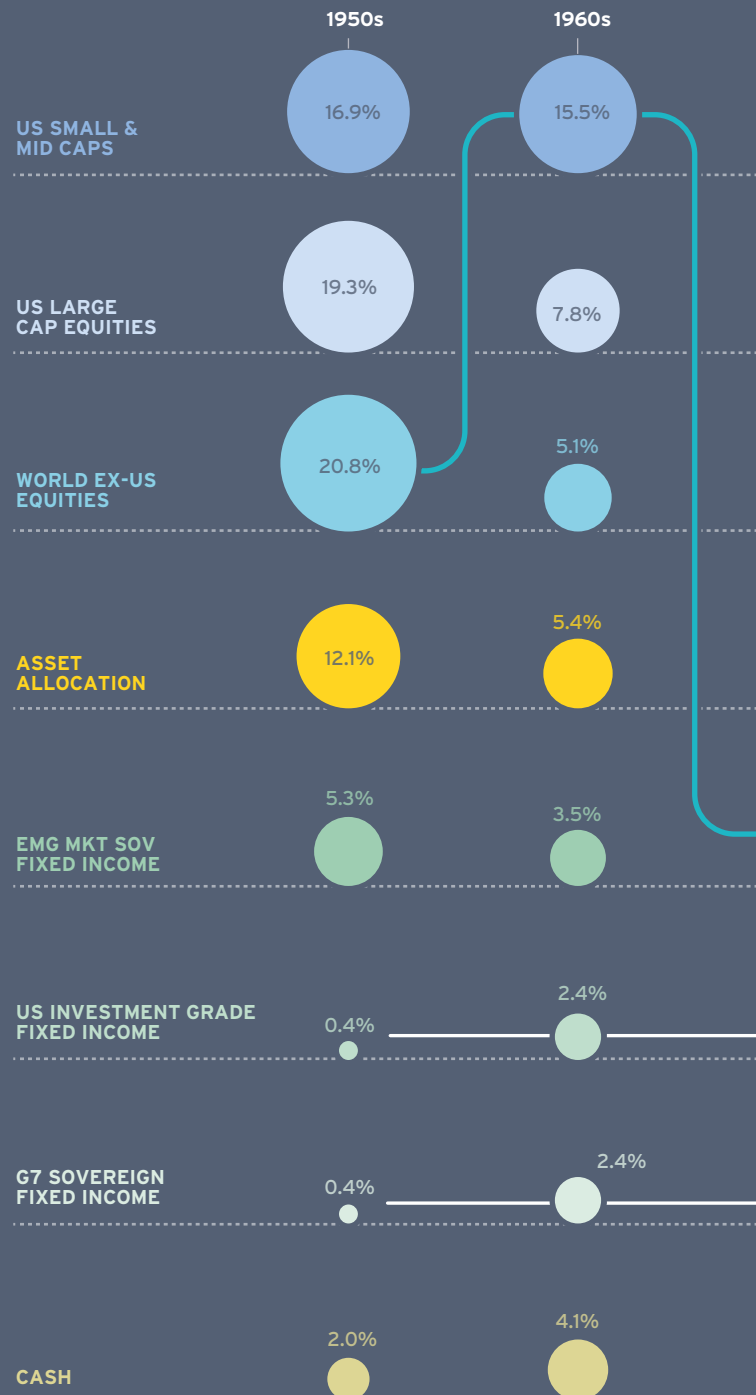
Despite the clear lessons of history, many client portfolios remain highly concentrated. In fact, we often come across portfolios that focus upon just two or three asset classes. A typical client's exposure is also concentrated 70% to 85% in a single currency. This is risky late in the cycle. After years of rising markets, it is all too easy for complacency to creep in. Allocations may have drifted from target weightings after long spells of strong performance by certain assets and weak performance by others.

Some investors believe their portfolios to be much more globally diversified than they really are simply because they are aligned to a certain benchmark. As of September 2018, two leading equity and fixed income benchmarks had respective weightings of 52% and 43% in one country alone: the US. This partly reflects the stronger relative performance of US asset prices over recent years. However, we believe that building a global portfolio demands much more than simply replicating broad benchmark weightings. The flipside of outsized weightings to individual countries is little or no exposure to others, even though these may offer attractive diversification potential.

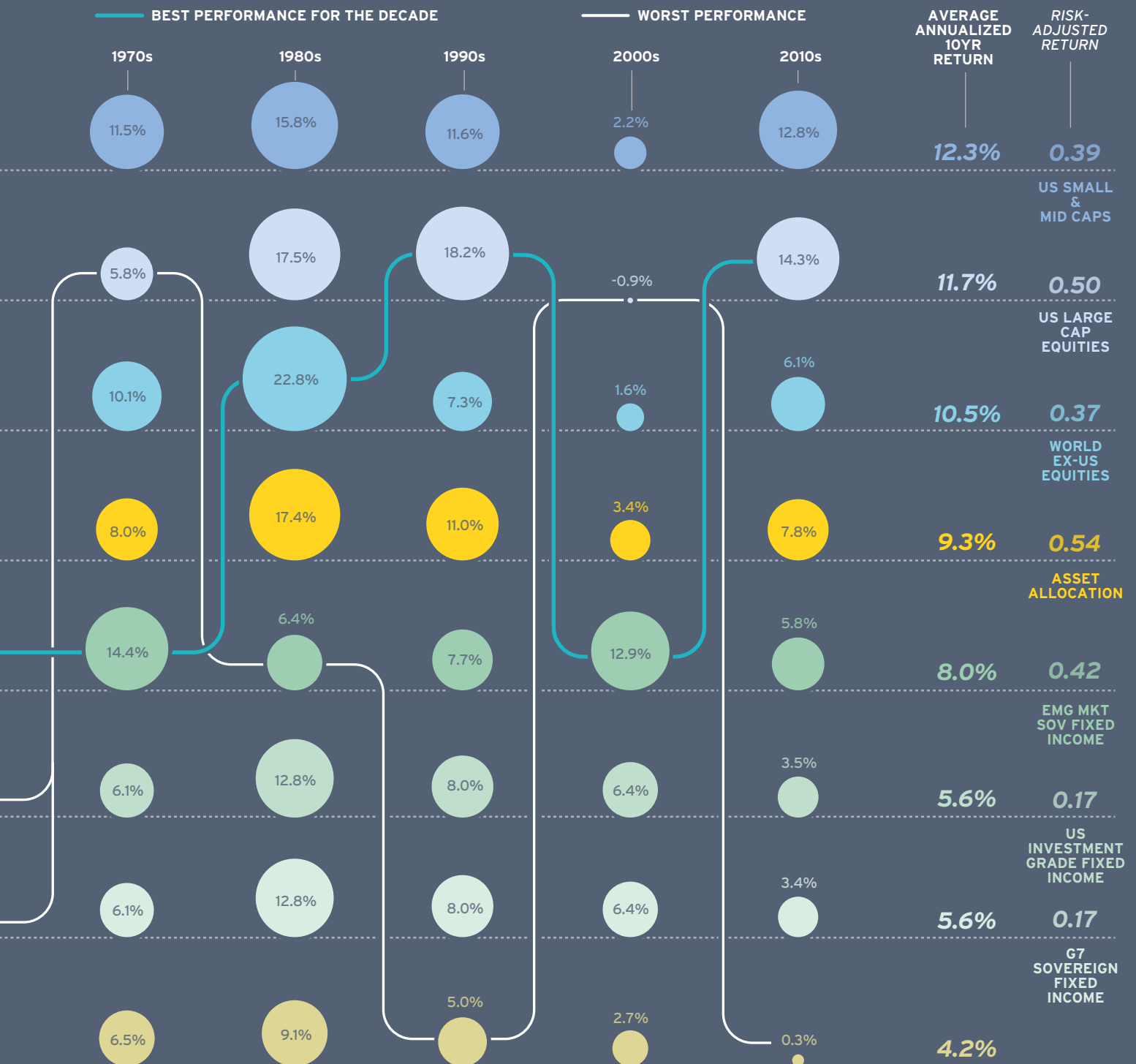
### Never too late to go global

We encourage you to revisit your portfolio and to see how it aligns to the allocation that we recommend for you. To help you do this, our Global Investment Lab can produce an Outlook Watchlist report for you, which also shows your positioning compared to our investment themes. Your Investment Counselor can then discuss with you some customized opportunities for helping to safeguard your assets by going global.

## ASSET CLASS PERFORMANCE BY DECADE



Source: Citi Private Bank's Office of the Chief Investment Strategist, Bloomberg, as of 27 Oct 2018. See glossary for asset class definitions. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. Adaptive Valuation Strategies (AVS) is the Private Bank's proprietary strategic asset allocation methodology.



"Asset allocation" in this diagram represents an AVS Risk Level 3 allocation, which includes allocations to equities, fixed income, commodities, cash and hedge funds. Risk levels are an indication of clients' appetite for risk. Risk Level 3 – Seeks modest capital appreciation and, secondly capital preservation. The returns shown were calculated at an asset class level using indices and do not reflect fees, which would have reduced the performance shown. Risk-adjusted return is defined here as the Sharpe ratio. See glossary for definition of terms.



# Unstoppable trends

- THE RISE OF ASIA --
- INCREASING LONGEVITY --
- DIGITAL DISRUPTION --





# Unstoppable trends

Steven Wieting | Chief Investment Strategist and Chief Economist



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Unstoppable trends are transforming how we live and do business, with profound long-term implications for your portfolio. We explore three of these themes and how to position your wealth to take advantage of them.

We live in an era of information overload. Data and opinions swirl around us at every moment, whether we want them or not. For investors, this can pose great challenges. The latest price move, breaking story, or outrageous tweet can all too easily distract us from what really matters to our wealth.

In spite of the noise, we don't want to miss the signs and signals that will shape the economy and our investments. These appear to be slow-moving and do not generate sensationalized headlines. Yet, these forces are what we describe as 'unstoppable trends': technologies, demographics, and behaviors that will re-shape our future and create economic opportunities.

An unstoppable trend is a major, multi-year phenomenon that has the potential to transform the world around us. By definition, it represents a fundamental challenge or threat to the status quo. Its significance is global and it has implications for almost every industry. And it is likely impacting your portfolio already, for better or for worse.



## By contrast, failing to position portfolios appropriately risks both missing out on potential growth opportunities

Three unstoppable trends that we believe to be most relevant for investors over the coming years are the rise of Asia, increasing longevity, and digital disruption.

**The rise of Asia** concerns a steady shift in global economic power from west to east. We see the region's emerging economies continuing to challenge the dominance of the US and Europe, as its middle class expands dramatically, its population migrates into cities, and its home-grown technologies advance.

**Increasing longevity** addresses how the aging of the world's population might impact future growth and consumption patterns.

**Digital disruption** looks at how digital innovation is revolutionizing companies and industries, shaking up long-established ways of doing business.

Why do we believe these trends are unstoppable? All three are shifts that have been building up over many years, and have now acquired an irresistible momentum of their own. The aging of the world's population, for example, is a result of decades of changing fertility patterns. Asia's rise reflects not only long-term demographic developments, but also investment and policy decisions taken many years ago. Digital disruption has unleashed a self-reinforcing cycle that requires businesses to adapt or die. If such trends are not unstoppable, they might nevertheless take as many decades to halt as they have to build up.

Just as we see these trends as unstoppable, we also warn investors not to ignore them. As long-term secular trends, they can persist throughout all stages of the economic cycle. Having portfolio exposure to likely beneficiaries of these trends may therefore provide resilient growth potential. By contrast, failing to position portfolios appropriately risks both missing out on potential growth opportunities and having excessive exposure to businesses likely to fall victim to these trends.

We acknowledge that some investors may have doubts about these trends. There are fears that emerging Asia might be dragged down by a slump in China. Another concern is that the tech industry may face heavy regulation from governments keen to limit its power. We do not dismiss such issues altogether. However, we do not believe they undermine the long-term case. And, indeed, they may help create buying opportunities in the near term. We recall how many investors were also doubtful when we made our case for healthcare – see **Outlook 2018** – after which the sector outperformed.

While unstoppable trends themselves are identifiable, the specific investment opportunities and risks arising from them are often much less obvious. They may be found across a variety of asset classes and markets worldwide, both public and private. They involve straightforward securities and sophisticated strategies. Given their diversity and complexity, we believe that an active approach offers the most efficient way to seek access. In the sections that follow, we explore the dynamics of three unstoppable trends and some of their likely beneficiaries.

# The rise of Asia

Steven Wieting | Chief Investment Strategist and Chief Economist  
Ken Peng | Head - Asia Investment Strategy



The powerful economic transformation of EM Asian countries has much further to go. But investors generally remain underexposed to the region's attractive growth potential.

A profound shift in global economic power is underway. The emerging market (EM) nations of Asia – see **infographic** – are ascending. The size, demographics, and vibrancy of these nations will challenge the longstanding economic dominance of the US and Europe. EM Asia is the only region to have consistently grown its share of world output over the past four decades. In 1980, it contributed less than a tenth of output, compared to almost one-third today. We believe this trend is set to continue. By 2023, EM Asia could account for almost 40% of world output – **figure 2**. We identify herein several likely drivers of EM Asia's ongoing development.

## The demographic dividend

Asia has the largest population of any global region. Four out of ten people on earth today are either Chinese or Indian. The United Nations forecasts that the region's population may swell from 4.5bn to 5.1bn between now and 2040.<sup>1</sup> Of course, population expansion itself tends to raise economic output. But we believe that the forecast changes to the make-up of EM Asia's population will be even more influential.

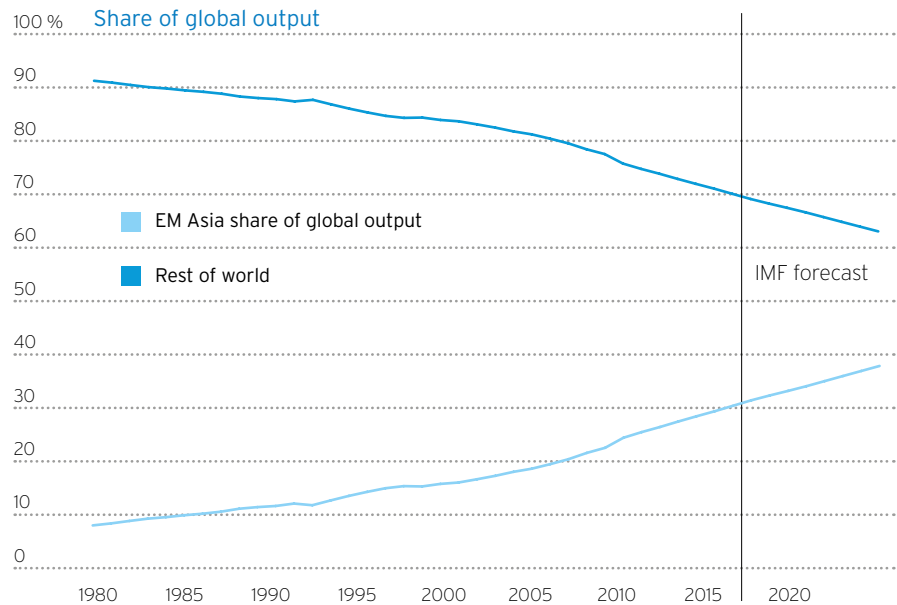
Specifically, EM Asia's middle class appears to be on the verge of unprecedented growth. Today, around 1.9bn people in the region are defined as middle class: belonging to households with annual incomes of between US\$14,600 and US\$146,000. By 2030, however, the region's middle class population is set to rise to 3.5bn. In terms of the middle class population worldwide, therefore, almost 90% of the growth over this period is forecast to occur in Asia – **figure 3**.

## Asia's cities of the future

The new EM Asian middle class will predominantly live in cities. Just under half of the region's inhabitants are currently urban dwellers, compared to more than four-fifths of North Americans. However, this is changing rapidly. By 2030, it is forecast that five of the six world cities with more than 20 million residents will be in EM Asia: Delhi, Shanghai, Mumbai, Beijing, and Dhaka. Delhi's population alone may have grown from 25m to 36m. By 2050, another 1.2bn people may live in cities across the region.<sup>2</sup> EM Asian urbanization could potentially create numerous benefits. The necessary upgrades to infrastructure – housing, utilities, and warehousing – to

1, 2 United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, DVD Edition.

FIGURE 2. EM ASIA'S RISING OUTPUT SHARE

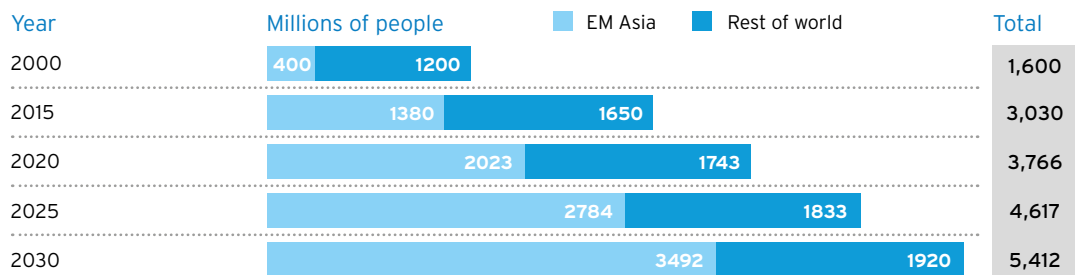


Source: Brookings Institute, as of 10 Oct 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

accommodate the burgeoning urban population may itself be an important driver of growth, as well as providing investment opportunities. The transition of people from rural areas to cities should also boost productivity. A high proportion are likely to end up working in service industries. Output

per worker in services can be several times higher than in agriculture, where many EM Asians still work today. Higher productivity may then feed into higher real wages, and in turn, into stronger consumer spending. We believe India and Indonesia could be among the main beneficiaries of urbanization.

FIGURE 3. EM ASIA'S RISING MIDDLE CLASS



Source: Brookings Institute, as of 10 Oct 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

## Innovation's new frontier

As well as migrating to cities, we expect the EM Asian population of the future to be even more highly educated. For example, China and India are increasing their spending on public education. The region as a whole is producing large numbers of graduates in science, technology, engineering, and mathematics. The clustering of technologically savvy graduates in large cities typically helps to foster innovative businesses.

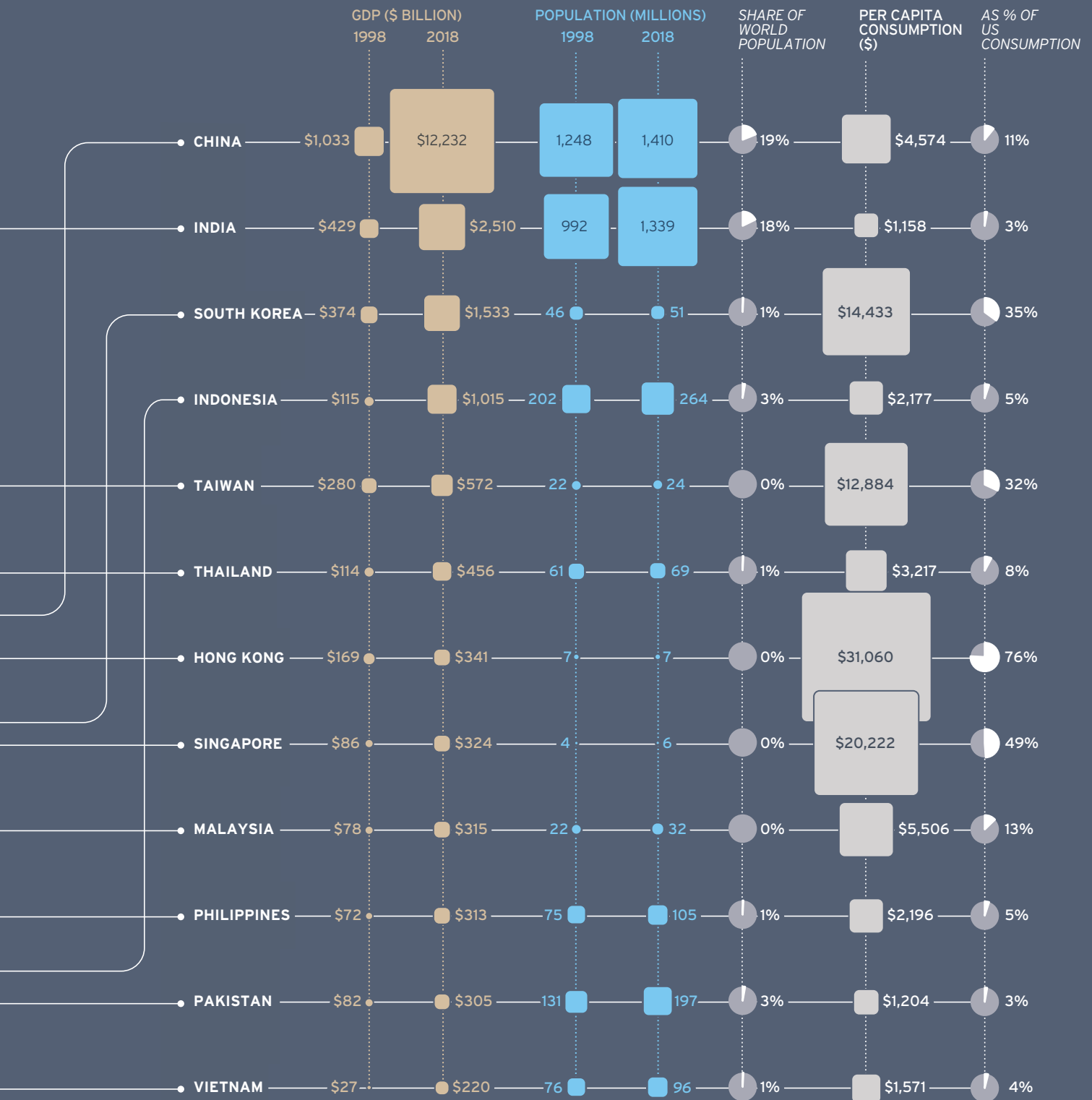
Home-grown innovation is already transforming the EM Asia region. The region's increasingly digitally connected population is generating vast amounts of data. Thanks to looser regulatory environments in key markets - particularly China - it is easier for companies to

exploit this precious resource. As the digital revolution continues - see also **Unstoppable trends: Digital disruption** - we believe that parts of EM Asia's technology industry may have key advantages over rivals in the US and elsewhere, and thus potentially offer attractive opportunities.

By global standards, we see Chinese tech giants in particular as being highly innovative and diverse. Heavy Chinese investment in areas such as artificial intelligence, virtual reality, autonomous driving, and biotech is likely to create future industry leaders. The country was also the world's biggest buyer of industrial robots in 2017, accounting for one in every three installations.



## EASTERN PROMISE



Source: Haver Analytics, as of 10 Oct, 2018

## Underappreciated Asian development

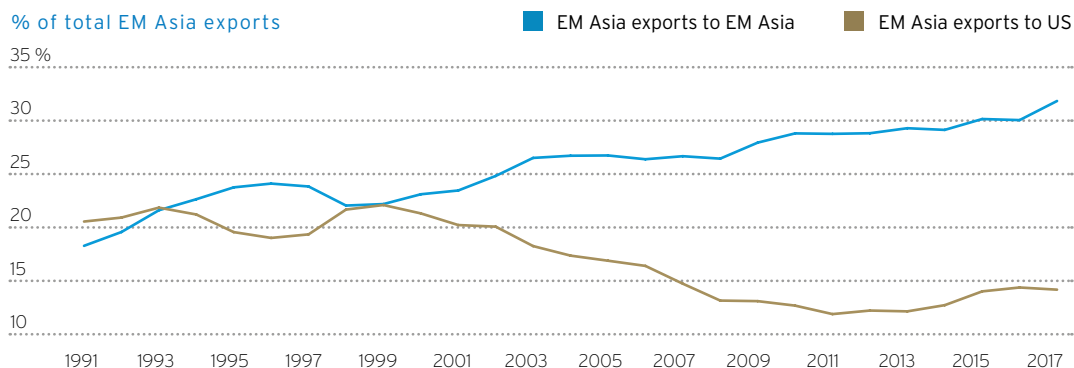
Our advice is to seek out lasting tech disruptors in China and across EM Asia, where longer-term prospects may be stronger than those in other regions.

The combination of demographic change, urbanization, and technological progress could create opportunities for a wide variety of Asian and other consumer businesses. The regional middle class's consumer spending is likely to more than double from US\$12trillion between now and 2030.<sup>3</sup> Likely beneficiaries of rising regional incomes include the makers of a wide variety of branded goods, including personal electronics, alcoholic beverages, sportswear, cosmetics, homewares, and cars. Demand for healthcare treatment and for financial products – such as insurance and pensions – is also set to increase.

We believe that the unstoppable trend of Asian development is not sufficiently appreciated by investors as a whole. We frequently encounter portfolios that have little or no exposure to this trend, or indeed to the region more generally. There may be a number of possible reasons for this. In particular, investors may be overestimating the region's challenges, particularly after EM Asia assets' poor performance in 2018.

Recent worries have focused in particular on the effects of rising trade tensions with the US. EM Asia has indeed been one of the main beneficiaries of freer global trade over the last few decades. However, its dependency on export-driven growth has actually been falling.

**FIGURE 4. EM ASIAN INTRA-REGIONAL TRADE ON THE UP**



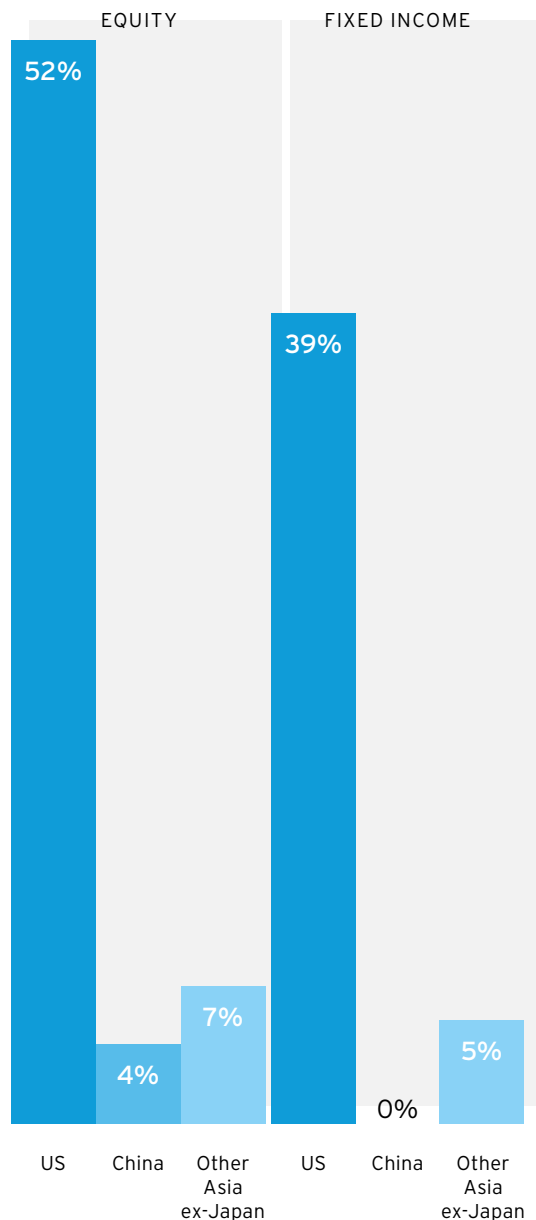
Sources: IMF, Haver Analytics, as of 10 Oct 2018.

<sup>3</sup> Source: Brookings Institute, as of 10 Oct 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events



**FIGURE 5.**  
**EM ASIA UNDERREPRESENTED IN BENCHMARKS**

Share of total % of index benchmark



Source: World Federation of Exchanges, Haver Analytics, Bank of International Settlements and Bloomberg Barclays Indices, as of 30 Sep 2018.

In China - the region's largest exporter - exports as a percentage of GDP have halved to 18% over the last decade. Whereas in 1999, EM Asia's exports to the US were 22% of GDP, they stand at 15% today. Trade within the region, by contrast, has expanded to 32% of GDP - **figure 4**. While we believe that new constraints on global trade would be bad for everyone, EM Asia might weather them better than some think.

There is also a belief among some investors that allocating to EM Asia assets and currencies might somehow increase a portfolio's riskiness. But while EM Asian investments themselves have a higher risk profile, adding them to a diversified portfolio may help enhance risk-adjusted returns. We therefore see EM Asia as offering one way to help implement our recommendation to go global - see **Safeguarding assets: Global portfolios are the cornerstone.**

When it comes to global asset benchmarks, EM Asia assets are currently underrepresented. Some 24% of equities and 16% of fixed income in existence globally were issued in the region. However, regional equities and bonds make up just 11% and 5% of global benchmarks - **figure 5**. We therefore expect EM Asian assets to be given greater weightings within such benchmarks over time.

However, we do not advocate merely having passive holdings and waiting for benchmarks to increase their EM Asia weightings. Instead, our favored approach is to seek out individual securities and actively managed strategies that focus upon the most attractive opportunities. Besides the long-term rationale for this, it also makes sense from a shorter-term perspective. The strength of the US dollar and trade war fears caused many EM Asian asset prices to struggle in 2018. This may have created an attractive entry-point for positioning portfolios for ongoing Asian development.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

# Increasing longevity

**Rob Jasminski** | Head of Global Equities - Citi Investment Management

**Wietse Nijenhuis** | Global Head - Equity Strategy

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The aging of the world's population presents a major challenge for society and opportunities to boost your portfolio's immunity

None of us are getting any younger and that's a fact. What most people do not know, however, is that the world's population is aging at an unprecedented rate. Around the globe, there are almost one billion people aged 60 and above - more than at any other time in human history. By 2050, more than two billion people will be over 60 years of age. And the 'very senior' population, the number of over-80s, is projected to more than triple, from 137m to 425m over the same period, concentrated in developed nations.<sup>1</sup>

## Longer lives, fewer children

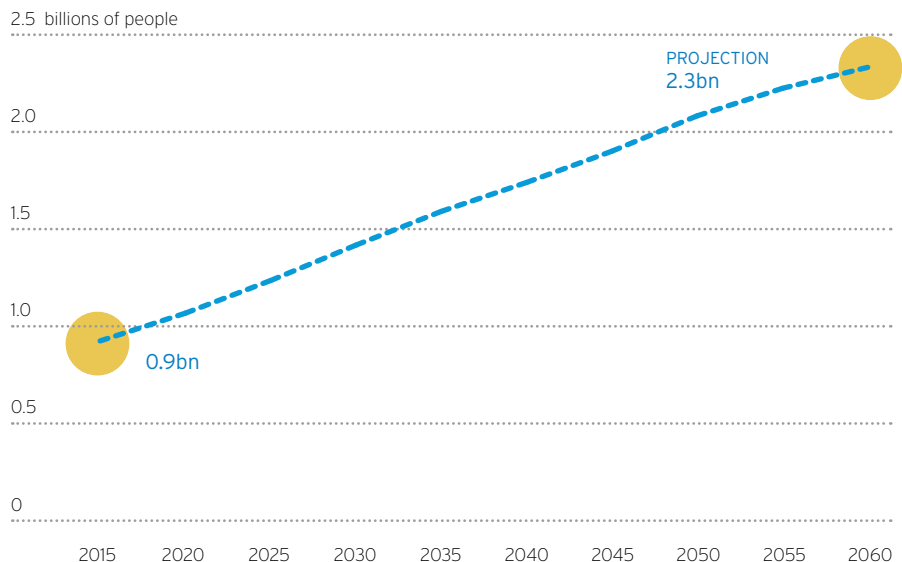
The origins of today's aging populations lie in decades-old patterns of improving life expectancy and deteriorating fertility. Life expectancy has been steadily rising since the late nineteenth century. The United Nations forecasts that this will continue - **figure 1**. Meanwhile, many societies have been producing progressively fewer children per family, reflecting profound social changes including urbanization, increased participation of women in the workforce, higher disposable incomes and a decline in the institution of marriage itself. Even if these long-established trends were to reverse - which we do not expect - they would likely take many decades to do so. For these reasons among others, we consider aging and its associated impacts to be an unstoppable trend.

## Unprecedented challenges

The implications of a global demographic transformation of this magnitude are enormous. A shrinking supply of new workers to replace retirees poses challenges for businesses and for overall economic growth. While technology and increased worker productivity may offset some of the shortfall, fewer workers mean less tax revenue and higher social costs, straining government finances due to pensions and healthcare costs. Illness and chronic conditions become increasingly prevalent with advancing years. Spending per capita on healthcare in developed nations for someone aged over 85 can be as much as six times greater than for a 59-year old.<sup>2</sup>

**FIGURE 1. LENGTHENING LONGEVITY**

Global over-60s population forecast



Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Ageing 2017 - Highlights (ST/ESA/SER.A/397). All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future results.



Having already risen sharply in recent years, public spending on healthcare is set to swell inexorably over coming decades. Across the European Union, for example, public spending on healthcare as a proportion of GDP is projected to grow from around 7% to 7.9% by 2050. Additionally, public spending on long-term care – day-to-day support like washing, dressing, and cooking for elderly people – may grow from 1.7% to 2.7% of GDP.<sup>3</sup>

We expect that the unprecedented challenge posed by longevity will demand unprecedented responses. With a growing amount of economic output likely to be devoted to treating and supporting the elderly, we see growth potential for healthcare, both medical and services, as well as housing and other forms of support. Companies that develop innovative treatments for some of old age's most prevalent illnesses may offer attractive prospects. As well as the potential investment opportunities they may create, we can envisage possible benefits for the economy as a whole. For example, an aging workforce may remain healthier and more productive for longer as more illnesses are treated, in turn helping to sustain economic growth.

### Cancer's heavy cost

Cancer is one of the worst blights upon human life. The World Health Organization estimates that the disease will kill around 9.6m people globally in 2018, equivalent to about one death in every six.<sup>4</sup> Advancing age is the biggest risk factor of all for cancer. The median age for cancer diagnosis according to one study is 66, with more than three-quarters of all new cancers diagnosed in those aged 55 and over.<sup>5</sup>

Aside from human suffering, the economic and social costs of cancer are high and rising. Global spending on cancer medicines may already be somewhat in excess of \$100bn. As the world's population ages further over the coming decades, the cost of treating cancer is at risk of spiraling. Against this backdrop, we believe that

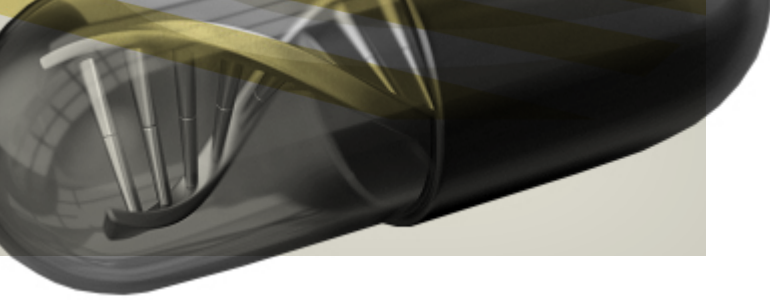
companies working to deliver innovative new cancer treatments may offer an investment opportunity. One such therapy is based on immunology, harnessing a patient's own immune system to fight cancerous cells. It is already playing a role in saving or extending certain cancer patients' lives and could become the main way of addressing advanced cases of cancer, potentially becoming a \$35bn-a-year market.<sup>6</sup> The next stage of immunotherapy's development may lie in refining today's treatments and combining them with others to seek greater effectiveness still. Furthermore, immunological treatments are likely to be useful in thwarting other age-related illnesses, such as dementia.

### Aging's ailments

Of course, cancer is far from the only condition that often accompanies old age. Alzheimer's disease, rheumatoid arthritis, osteoporosis, and diabetic retinopathy are just a few of the other illnesses whose incidence will rise alongside longevity. Some of the leading treatments for these conditions are biologics: big brand-name drugs made from biological rather than chemical sources.

While effective, biologics tend also to be very costly. A year's course of certain treatments can cost tens or even hundreds of thousands of dollars. Biosimilars are synthetic, copycat versions of biologics, which perform the same clinical function but at a fraction of the price. Citi Research believes that biosimilars could take more than \$110bn in revenues from biologics makers in the decade to 2025.<sup>7</sup> Producers of biosimilars may thus offer an attractive investment profile.

Aside from drugs, medical devices will likely see greater demand as populations continue to age. These include replacement hips, knees, and other orthopedic fittings. We also expect the surgical procedures associated



with these and other treatments to be increasingly carried out with the assistance of robots. Both companies specializing in medical devices and medical robotics may thus have solid growth potential.

### Earlier warnings

Of course, while older people as a whole are more susceptible to many diseases, each individual is different. Today, most conditions are identified only after they have developed and produced symptoms. However, tests that can identify a person's genetic predisposition to particular diseases are increasingly becoming available.

Driving such developments is progress in genomics: the study of the structure, evolution, mapping and editing of our entire DNA. Various governments worldwide - notably in the UK, US, and China - are trying to sequence the genomes of large segments of their populations. The aim is to enable fresh understanding of the causes, diagnosis, and treatment of disease. This in turn may lead to powerful new treatments, including genetic or other interventions for previously undiagnosed or untreatable conditions.

As well as government initiatives, individuals are increasingly taking advantage of commercially available personalized tests. These can indicate, for example, the likelihood of later developing older age diseases including Parkinson's, Alzheimer's, breast cancer, and rare blood diseases. Testing enables an individual to determine alongside a health practitioner what steps might be taken to lower the risks, slow a disease's onset, or stall its progression.

Taking preventative steps against potential old age and other diseases could generate important savings for patients and health systems. In parallel, such steps also raise important moral, legal, and financial issues, particularly around allocation of resources and confidentiality.

Patients and insurers, for instance, have diametrically opposing interests when it comes to the disclosure and use of test results. While regulatory issues will require close monitoring, we believe that the companies that provide genetic sequencing instrumentation offer attractive exposure to the long-term secular theme of genomics.

### Wearable care

Innovative devices may also play an important role in treating and caring for aging populations. Wearable technologies - such as smart watches - are already helping to give early warnings of health and fitness issues, as well as monitoring existing conditions and events. These include cardiovascular disorders, diabetes, epileptic fits, and falls suffered by the elderly in their homes.

The potential benefits of wearable technologies for elderly users and for society as a whole are numerous. They can monitor for the correct and timely ingestion of medicines and allow for early identification of silent, but potentially fatal changes in patient function, including arrhythmias and pre-stroke brain activity. Through early interventions, treatment costs and hospitalizations may be reduced. They could help older people to stay living independently in their own homes for longer, by guiding their daily activities, monitoring their medication intake, encouraging exercise and calling for help in the event of falls or other difficulties.

We see the wearables market as having significant growth potential. According to ResearchandMarkets, global wearable electronics volumes could expand from 115.8m to 289.5 million units compound annual growth of 16.5% between 2017 and 2023.<sup>8</sup> Aside from further improvements in technology, a key driver may be the insurance industry. Increasingly, health and life coverage may be made contingent upon wearing a device and sharing its data with an insurer. In addition, monitoring and service agency businesses may benefit from sustained use of wearable devices.

## Risks to our case

Serving the needs of a relentlessly aging population clearly offers potential investment opportunities for companies in the healthcare industry and beyond. However, there are also risks. We expect continued advances in medical treatments and technologies to cause disruption, making some existing treatments and technologies redundant. Having significant exposure to such victims of disruption risks underperformance and perhaps losses. An active and diversified approach to investment selection may help mitigate this risk.

Another risk derives from regulation. Faced with rising healthcare costs, governments may intervene more heavily in the marketplace in order to bring down prices. As well as price controls, measures may be taken to increase competition, which could negatively impact certain innovative firms. Political pressure for these and other measures may mount given the rising number of elderly voters and their tendency to turn out and vote.

## Boost your portfolio's immune system

Given these unstoppable aging trends and the resulting investment opportunities, we believe that diversified allocations should include exposure to the potential growth companies in the industries we have discussed. Although ours is a multi-year view, we also stress the potential benefits over shorter horizons. The performance of the US healthcare sector, for example, has been positively correlated with increased economic uncertainty, outperforming most other sectors in each of the three last recessions - **figures 2 and 3**. In a late-cycle environment such as today's, therefore, such investments may potentially improve risk-adjusted returns, boosting your portfolio's immune system now and in the future.

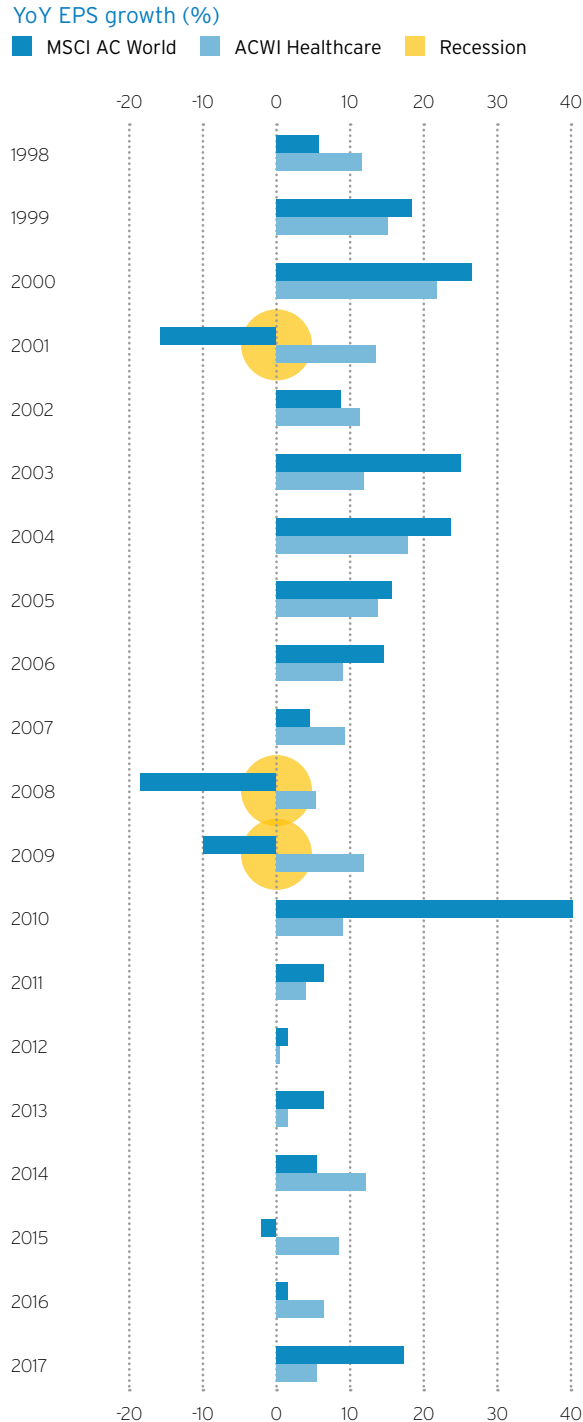
**Healthcare industry risks:** The healthcare industries are subject to government regulation and reimbursement rates, as well as government approval of products and services, which could have a significant effect on price and availability, and can be significantly affected by rapid obsolescence and patent expirations.

**Biotechnology industry risks:** The biotechnology industry can be significantly affected by patent considerations, intense competition, rapid technological change and obsolescence, and government regulation.

1. Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Ageing 2017 - Highlights (ST/ESA/SER.A/397).
2. OECD, Estimating Expenditure by Disease, Age and Gender, 2016
3. OECD, Health at a Glance: Europe 2016 - OECD 2016
4. World Health Organization: Cancer – Key Facts, 12 Sep 2018
5. Age and Cancer Risk was originally published by the National Cancer Institute, April 29, 2015
6. Citi Research, Immunotherapy – The Beginning of the End for Cancer. Important disclosure: [https://www.citivelocity.com/cvr/epublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/epublic/citi_research_disclosures). For details on the CR ratings system, please refer to the attached link: <https://ir.citi.com/PuXs6xELNHau7UqkjvWxnihtUeLtAtDxeEh%2B2qaPpPb7uukpx8Qw1vzcuidtMtqgn1BWqJqak8%3D>
7. Citi GPS, Disruptive Innovations
8. Research and Markets, "Wearable Electronics Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2018-2023"



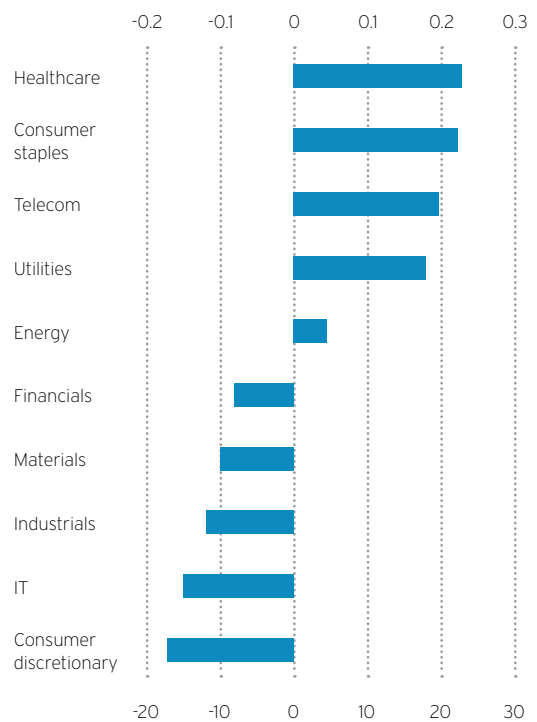
**FIGURE 2. HEALTHCARE'S OUTPERFORMANCE IN RECESSIONS**



Source: Bloomberg, as of 10 Oct 2018. Past performance is not indicative of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

**FIGURE 3. ECONOMIC UNCERTAINTY HAS HELPED HEALTHCARE**

Correlation with US economic policy uncertainty



Source: Bloomberg, as of 10 Oct 2018. The chart shows the relationship between sector performance and US economic policy uncertainty. Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time. Past performance is not indicative of future returns. Real results may vary.

# Digital disruption

Phil Watson | Chief Innovation Officer and Head of the Global Investment Lab



The advance of digital technologies continues to revolutionize business and improve our daily lives, with profound implications for your portfolios.

Digital technologies continue radically to transform the world of business as we know it. Companies just five or ten years old are deploying digital technologies to produce and deliver goods and services in innovative ways that meet customers' needs more effectively than before. In many cases, these companies are disrupting the structure of industries, seizing market leadership from those that have dominated for generations. Incumbent competitors in many sectors will either rise to this digital challenge or suffer decline and perhaps destruction.

The benefits of digital disruption to customers are all around us. The ways we make purchases, send payments and borrow money, communicate with each other, and enjoy entertainment have been revolutionized. In the workplace, a growing number of straightforward and sophisticated tasks - from shifting boxes to life-saving medical procedures - are now undertaken partly or wholly by intelligent machines.

In manufacturing, the way goods are made and even the supply chain for materials is being permanently altered.

Investments in leading digital disruptors have contemporaneously delivered rewards. The equity prices of Facebook, Amazon, Netflix, and Google have outperformed the rising S&P 500 Index by an annualized average of 23% over the last five years – **figure 1**. In the process, such firms are eclipsing longstanding incumbents. In September 2018, Wirecard – a fintech firm founded less than two decades ago – replaced the 148-year old Commerzbank in Germany's DAX 30 Index, of which it had been an original member.

The benefits of digital disruption to customers are all around us

FIGURE 1. MEGA-BITES: FANG OUTPERFORMANCE

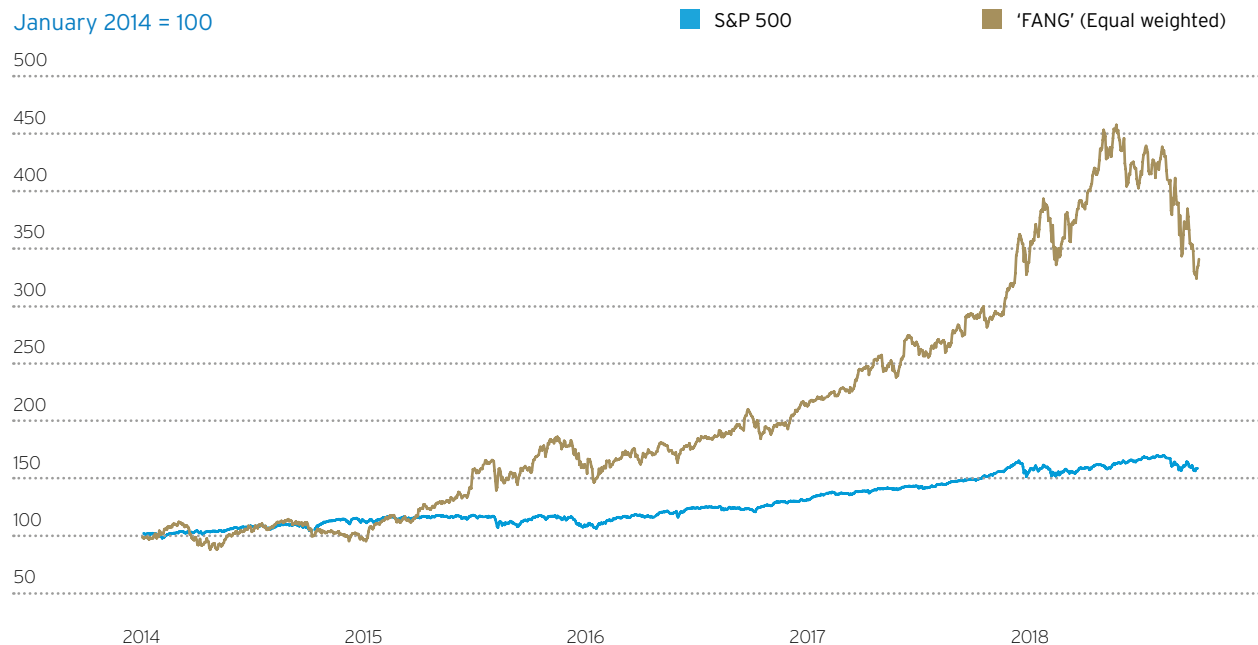
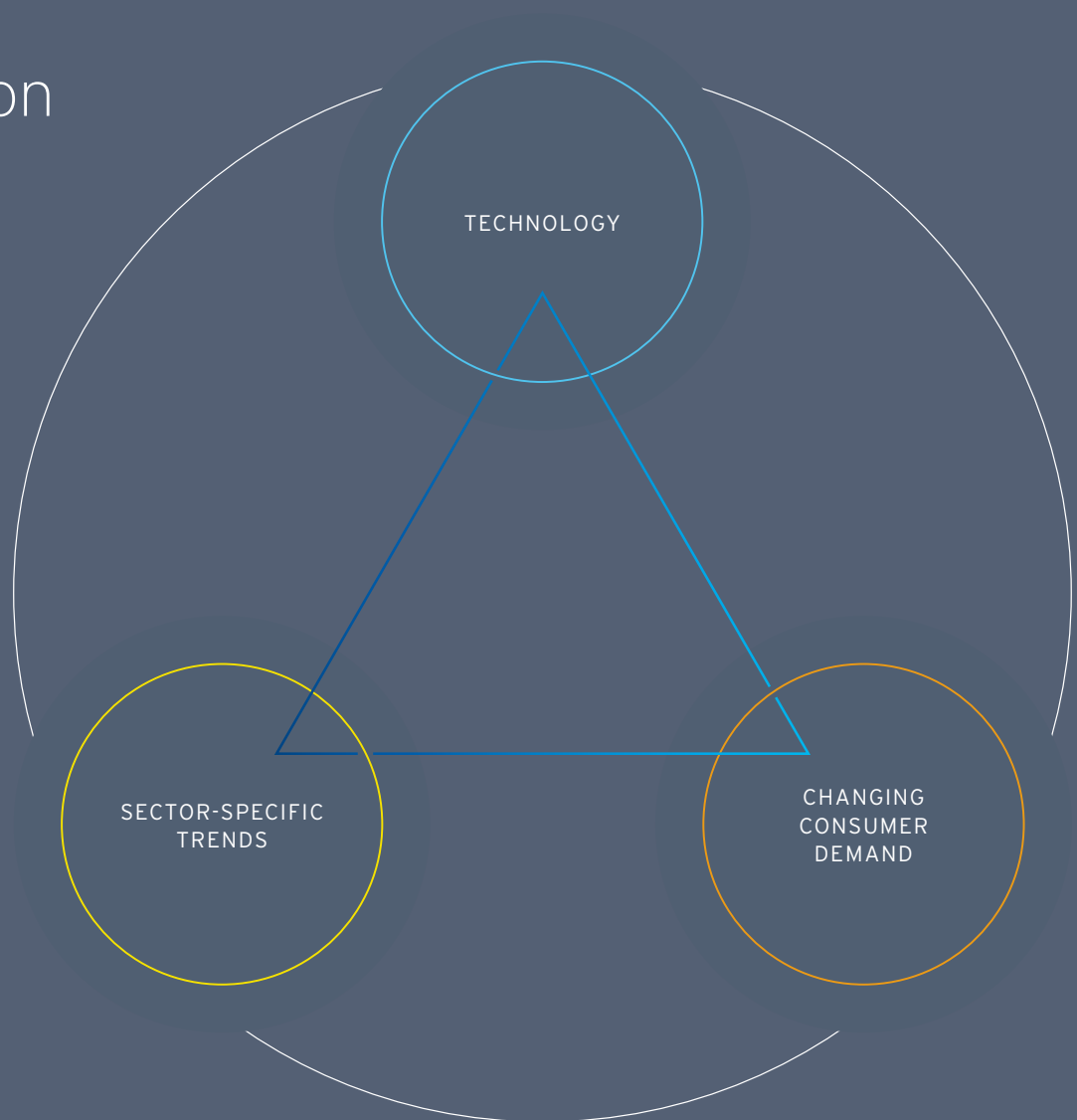


Chart shows average performance of Facebook, Amazon, Netflix, and Google. Source: Haver, as of 28 Nov 2018. Past performance does not guarantee future results. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

# Core innovation catalysts



We believe there is much more digital disruption to come. Venture capitalists, sovereign wealth funds, and family offices are investing hundreds of billions of dollars in early- to late-stage private companies, powering research and development, as well as building new digital infrastructure. Fresh digital technology hubs are opening up, particularly in China, where the government aims to turn the nation into a tech superpower. Crucially, different digitally disruptive forces are converging and reinforcing one another. And yet, there remain many businesses and industries still

only in the early stages of digital disruption. These are just some of the reasons why we believe digital disruption represents an unstoppable trend and a major, long-term investment theme. Here, we consider the importance of three digitally disruptive technologies – artificial intelligence (AI), robotics and automation, and blockchain – as well as the opportunities and risks they may create for your portfolio.

## Artificial intelligence

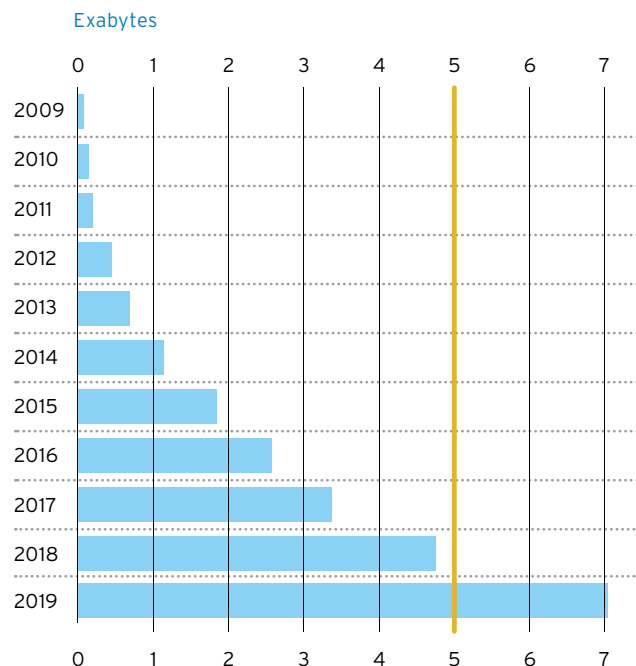
Machines are getting smarter by the day. Artificially intelligent technologies - those that perform work by developing and applying human-like reasoning - are tackling a growing number of ever more complex tasks. From inventory management to counter-terrorism, AI is at the cutting edge of business transformations. Big data is enabling AI's rise. Some 90% of the data in existence today has been created only in the last two years - **figure 2**. AI is already helping to detect illnesses, spot fraud, optimize energy use, compose music, predict and influence purchasing behavior and uncover investment opportunities, to name but just a few. However, AI is in its early stages.

The benefits to the world economy of AI's ongoing advance are likely to be far-reaching. Looking at nineteen broad industry groups, the McKinsey Global Institute believes that AI could create as much as \$5.8 trillion of value annually, with some of the largest potential gains available in retail, transport and logistics and travel. The functions within industries where AI could unlock most value are in marketing and sales, followed by supply-chain management and manufacturing.<sup>1</sup>

While we expect AI to disrupt many areas within the economy, certain industries look likelier to be affected, to a greater extent, and sooner than others. For example, personal mobility might be on the verge of its biggest disruption since the advent of the motor car. The world's roads today remain dominated by vehicles powered by combustion engines, and controlled by human drivers, who are typically also their owners. However, autonomous vehicles - those that can drive themselves without the intervention of a human controller thanks partly to AI - could be about to change that.

Google estimates that all human data from pre-history to 2003 was roughly 5 exabytes

FIGURE 2. HOURLY MARGINAL DATA STORAGE DEMAND



Source: Haver Analytics, Citi Research, and Bloomberg, as of 22 Aug 2018. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

<sup>1</sup> McKinsey Global Institute - Notes from the AI frontier, Michael Chui, James Manyika, and Nicolaus Henke, Rita Chung, Pieter Nel, Sankalp Malhotra, April 2018. The value potential estimate includes consumer surplus. <https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-applications-and-value-of-deep-learning>.

## The road ahead

Tomorrow's transportation systems are likely to look radically different to today's. Combining disruptive technologies including AI, robotics, internet connectivity, advanced computing power and electric batteries, the driverless car of the future might offer many potential benefits. These include reduced emissions, saving many of the lives lost in road traffic accidents globally each year, and easing road congestion, thus enhancing productivity.

The transformation of road transport may also involve a revolution in how vehicles are used and owned. Today, not only are vehicles predominantly owned by their drivers, but they often spend most of the time parked in a driveway. By contrast, the driverless car market of tomorrow may be typified by people hiring RoboTaxis for individual trips, much as they do with Uber-type services today, as well as subscribing to driverless car services. Subscriptions would allow them to summon a vehicle whenever needed, with that vehicle serving other subscribers the rest of the time. In other words, people might not own cars anymore, nor drive them, nor stop at gas stations along the way.

Citi Research estimates that the total addressable RoboTaxi market in the US alone may be worth some \$900bn in revenues. It expects RoboTaxis to begin US commercialization from around 2019, with subscription services potentially accelerating rapidly from the mid-2020s. It also estimates that each fleet of autonomous vehicles with 100,000 subscribers might be able to generate gross lifetime profits of \$2.5bn.<sup>2</sup> Among potential victims of this disruption are people who currently earn a living from driving - like truck and taxi drivers - as well traditional businesses that are unwilling or unable to embrace AI.

The transformation of road transport may also involve a revolution in how vehicles are used and owned

## Smarter healthcare

Another industry that we believe may reap the benefits of AI and other disruptive technologies in the coming years is healthcare. Combining AI with big data creates various possibilities. Detecting disease, analyzing scans, processing insurance claims, and ensuring patients are in the right place at the right time are just a few of the present and potential uses. Quicker, cheaper, and more accurate diagnosis could improve and save lives, as well as limiting rising healthcare costs.

Further ahead, Citi Research believes that applying AI to big data could help perform predictive diagnosis, estimating the probability of a patient having particular condition. This would involve AI rapidly analyzing a far greater volume of historic data worldwide than a human practitioner could do in several lifetimes, and using this information to predict diagnoses. The healthcare data resources upon which AI could draw have already grown exponentially in recent times. Between 2013 and 2020, healthcare data production is forecast to have grown from 153 Exabytes to 2310 Exabytes.<sup>3</sup> Of course, this also creates new challenges, especially around maintaining the security and confidentiality of personal information, itself an industry opportunity.

<sup>2</sup> Disruptive Innovations VI, Citi GPS: Global Perspectives & Solutions, August 2018

<sup>3</sup> Big Data and Healthcare, Stephanie Demko, Citi Research, August 2018. (One Exabyte is 1, 000,000,000,000,000 bytes.)



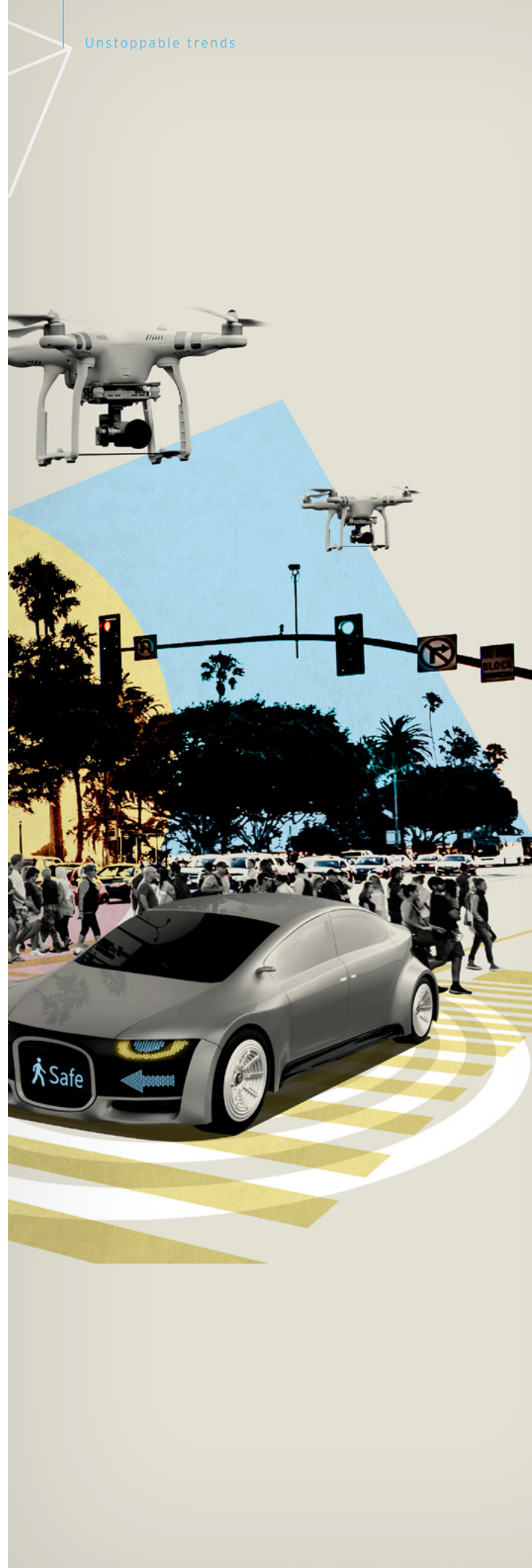
## Blockchain

Blockchain is another disruptive technology that we are evaluating. In essence, blockchain is a distributed database, in which information is shared among all users of the network, rather than being held and controlled by a central administrator. All users can store their own copy of the database and all are required to validate new information added to it. Its core characteristics include immutability, validation by consensus, and security.

### Chain reaction

We see blockchain's characteristics as adaptable to multiple uses across the economy and society, especially those where trust between users is important. These include automating manual checking processes, eliminating many layers of intermediate steps and middlemen. The recording, storage, and processing of data could thus become simpler, streamlined, cheaper, more accurate, and more trustworthy. As a result, companies across various sectors - as well as governments - are currently looking at how blockchain might help boost their revenues, cut costs, reduce risk, and enhance their processes and output.

We see blockchain's  
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The **Blockchain: Users & uses** graphic opposite shows an ongoing Citi Research study into the sort of companies that have announced that they are employing blockchain, as well as how they are applying the technology. The evidence suggests that blockchain is being trialed for processes where verification is critical, but where data does not tend to change significantly. Examples of these include supply chain management, trade finance, and registration of identities and land registration. Smart contracts – blockchain-based contracts whose coding enables them to execute and enforce themselves without human intervention – may have applications in a broad range of contractual transactions, including insurance, securities trades, and the transfer of owned assets, from cars to phones. By maintaining the integrity of data, ownership can be ascertained and assured, from transaction to transaction.

The payments and banking industry is showing interest in blockchain for business-to-business (B2B) payments. Such payments are typically accompanied by a great deal more data, as well as involving much larger amounts of money. Reconciling data – particularly in cross-border transactions – can be complicated, time-consuming, and subject to error, especially since paper-based payments are often involved. Industry insiders believe the potential scope for savings could be substantial when it comes to reconciliations.

According to the head of global payments at SWIFT – which provides secure financing messaging services – 30% savings may be available on reconciliation

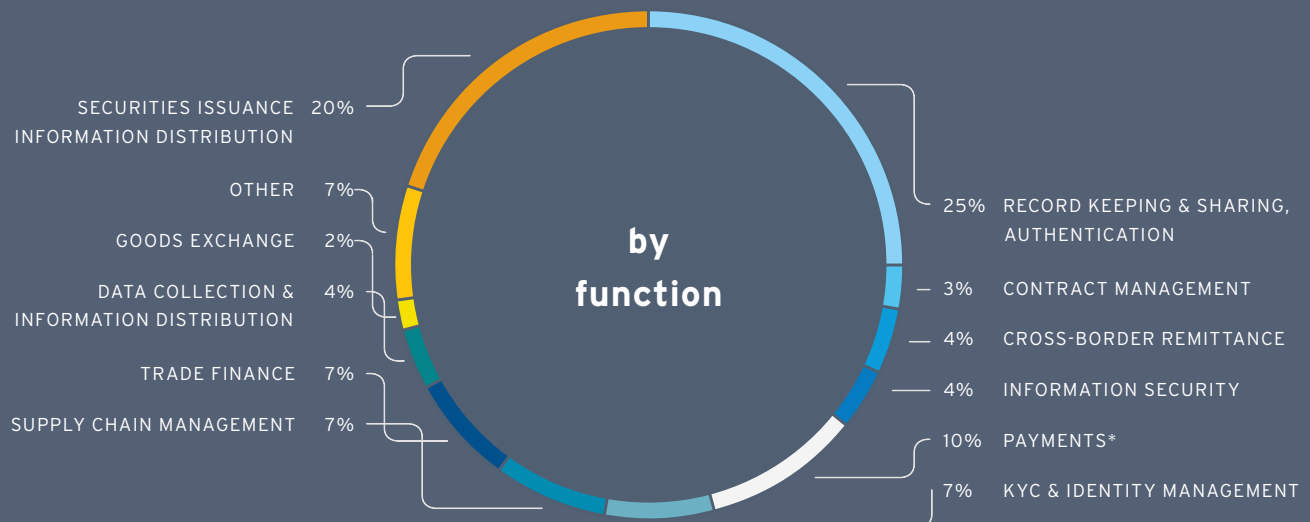
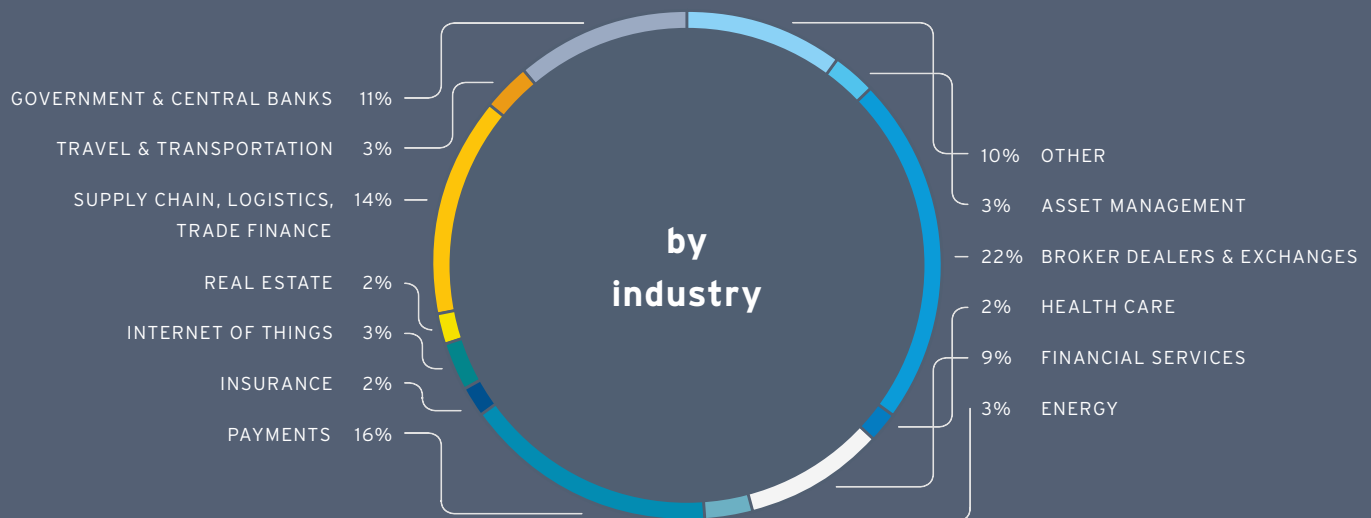
costs of cross-border B2B payments. Among the major challenges faced are keeping data held on blockchain safe from cybercriminals and keeping the blockchain records stored properly.

Likewise, the healthcare industry is assessing blockchain's ability to help manage the burgeoning amounts of patient information. Currently, healthcare records are highly fragmented. Family doctors, healthcare providers, and insurers often use different record-keeping systems, making it hard for them to share critical information. Storing data on blockchain might promote interaction between providers. Records could then be shared and analyzed by AI, drawing upon sources across the world. One risk here is that highly personal data could become compromised. Another is that even if blockchain based systems do emerge, they do not interact effectively, thus replicating today's fragmentation.

While the potential benefits of blockchain are diverse, we would stress that they are likely to take time to be realized. Citi Research sees few signs that this technology is going to have a material impact on public companies' earnings in the near term. They nevertheless maintain a target list of companies exposed to the potential disruption of blockchain that deserve monitoring. These companies are drawn from across the IT, financial, oil & power trading, leisure and restaurants, metals and mining, telecom communications infrastructure industries. We expect this list to increase over time, with blockchain providing competitive advantages to those companies and industries that adopt it.

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# Blockchain: Users & uses



Cumulative announcements from early 2016 to the first half of 2018.

Source: Citi Research, CoinDesk, Finextra, and Company Reports, as of 31 Oct 2018.

## Robotics

Programmable machines that can perform work automatically have existed for decades. In this time, their range of uses has multiplied, as has the complexity of the work they can do. Robotic technologies today play a vital part in many industries and increasingly in our everyday lives. Nonetheless, we believe that the growth potential of robotics remains substantial. Much of this may derive from the combination of robotics and other disruptive technologies, such as AI.

Robotics adoption is proceeding rapidly. Global sales of industrial robots reached a new record of 387,000 units in 2017, up 31% over the previous year. Much of the growth is occurring in Asia, specifically in China, Japan, and South Korea – see also **Unstoppable trends: The rise of Asia**. Among industries, the automotive sector – which has long been a heavy user of robotics – continues to account for growth, along with the metal, electrical and electronics, and food industries.<sup>6</sup>

We believe that replacing and complementing human labor with robotic labor is not only desirable, but essential. Productivity gains have been disappointing across many economies over recent years, which has limited overall growth and standards of living. With a rapidly aging global population – see **Unstoppable trends: Increasing longevity** – certain nations and industries now face a large shortage of labor and skills.

The economic and human benefits of increased robotics deployment might be particularly great in medicine. An existing shortage of medical personnel – from specialists to nurses – threatens to worsen over the coming years. Automated help may be at hand, though. Robotic involvement in invasive surgery is still in its infancy,

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perhaps covering only 2% of applicable procedures. However, Citi Research believes that surgery and invasive diagnostics is poised to see an acceleration in adoption. By 2030, it forecasts that robotic deployment may be more than five times greater than today, growing the medical robotics market from \$4bn to \$18bn.<sup>7</sup>

### Prepare your portfolio for digital disruption

We believe the unstoppable trend of digital disruption has far to go. While digitally disruptive technologies including the three we have examined here may continue to evolve fairly fast, however, their effects upon businesses may take longer to make themselves felt fully. Disruptors and the disrupted can coexist for many years. The video store's demise did not occur as soon as DVD-by-mail and streaming services emerged. Likewise, we were able to identify the vulnerability of many out-of-town malls and other retail assets several years ago – see **Outlook 2015: Transforming commerce** – well before much of the actual distress began.

6 World Robotics Report 2018 - the International Federation of Robotics (IFR).

7 The Future of Medical Robotics, A Deep Dive into the Procedures, Technologies, and Companies Shaping the Coming Revolution, Citi Research. Citi Research, June 2018.

While digital disruption can take its time, however, you cannot afford to do so in relation to your portfolio. Just as we believe that companies must address the challenge posed by digital disruption, so must their investors. This calls for continual monitoring of your portfolio exposure both to digital disruptors and to their likely victims. At present, we observe that digital winners are under-owned in client portfolios. Citi Private Bank's Global Investment Lab can help you to understand your present exposures to digital risks and opportunities and the possibilities for allocating accordingly. A good first step is to obtain your own personalized Outlook Watchlist report.

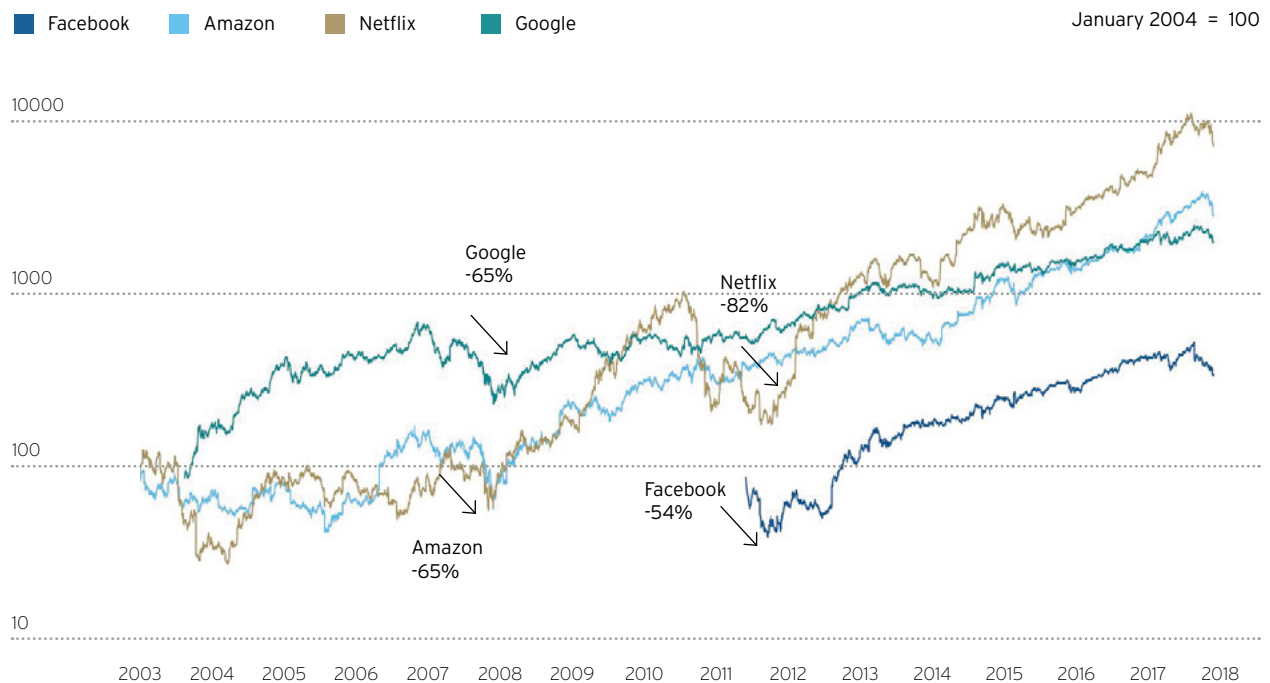
Keeping informed about the overwhelming variety and volume of developments within digitally disruptive technologies poses a further challenge. Also, much of what companies are doing in this regard cannot be understood via conventional sources, such as annual reports. Citi Private Bank's Innovation Office was established specifically to address such issues. Working in partnership with

other teams across Citi's global network, we can be your guide to the forces of innovation that are shaping business and investments, both in the digital space and beyond.

Our approach stresses identifying both the risks and the opportunities. As well as the uncertainties associated with new technologies and how companies use them, we are mindful of greater volatility and drawdowns that typical investments in early-stage digital disruptors often entail. And, with such companies frequently staying private for longer nowadays, accessing such opportunities may indeed require taking illiquidity risk.

Even the largest and successful disruptors come with substantial risks. Facebook's volatility, for example, between January 2015 and October 2018 has been double that of the S&P 500 index. It has also suffered more than six drawdowns of more than 10% since 2015 - **figure 4**. We seek not only to help you manage such risks, but also to turn them to your advantage. Digital disruption is here to stay - is your portfolio prepared?

**FIGURE 4. DISRUPTORS' DRAWDOWNS**



Source: Haver, as of 10 Oct 2018. Past performance does not guarantee future results.



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# OUTLOOK 2019

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# Glossary

## ASSET CLASS DEFINITIONS

**Cash** is represented by US 3-month Government Bond TR, measuring the US dollar-denominated active 3-Month, fixed-rate, nominal debt issues by the US Treasury.

**Commodities** asset class contains the index composites – GSCI Precious Metals Index, GSCI Energy Index, GSCI Industrial Metals Index, and GSCI Agricultural Index – measuring investment performance in different markets, namely precious metals (e.g., gold, silver), energy commodity (e.g., oil, coal), industrial metals (e.g., copper, iron ore), and agricultural commodity (i.e., soy, coffee) respectively. Reuters/ Jefferies CRB Spot Price Index, the TR/CC CRB Excess Return Index, an arithmetic average of commodity futures prices with monthly rebalancing, is used for supplemental historical data.

**Global Developed Market Corporate Fixed Income** is composed of Bloomberg Barclays indices capturing investment debt from seven different local currency markets. The composite includes investment grade rated corporate bonds from the developed-market issuers.

**Global Developed Market Equity** is composed of MSCI indices capturing large-, mid- and small-cap representation across 23 individual developed-market countries, as weighted by the market capitalization of these countries. The composite covers approximately 95% of the free float-adjusted market capitalization in each country.

**Global Developed Investment Grade Fixed Income** is composed of Barclays indices capturing investment-grade debt from twenty different local currency markets. The composite includes fixed-rate treasury, government-related, and investment grade rated corporate and securitized bonds from the developed-market issuers. Local market indices for US, UK and Japan are used for supplemental historical data.

**Global Emerging Market Fixed Income** is composed of Barclays indices measuring performance of fixed-rate local currency emerging markets government debt for 19 different markets across Latin America, EMEA and Asia regions. iBoxx ABF China Govt. Bond, the Markit iBoxx ABF Index comprising local currency debt from China, is used for supplemental historical data.

**Global High Yield Fixed Income** is composed of Barclays indices measuring the non-investment grade, fixed-rate corporate bonds denominated in US dollars, British pounds and Euros. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt. Ibbotson High Yield Index, a broad high yield index including bonds across the maturity spectrum, within the BB-B rated credit quality spectrum, included in the below-investment-grade universe, is used for supplemental historical data.

**Hedge Funds** is composed of investment managers employing different investment styles as characterized by different sub categories – HFRI Equity Long/Short: Positions both long and short in primarily equity and equity derivative securities; HFRI Credit: Positions in corporate fixed income securities; HFRI Event Driven: Positions in companies currently or prospectively involved in wide variety of corporate transactions; HFRI Relative Value: Positions based on a valuation discrepancy between multiple securities; HFRI Multi Strategy: Positions based on

realization of a spread between related yield instruments; HFRI Macro: Positions based on movements in underlying economic variables and their impact on different markets; Barclays Trader CTA Index: The composite performance of established programs (Commodity Trading Advisors) with more than four years of performance history.

**High Yield Bank Loans** are debt financing obligations issued by a bank or other financial institution to a company or individual that holds legal claim to the borrower's assets in the event of a corporate bankruptcy. These loans are usually secured by a company's assets, and often pay a high coupon due to a company's poor (non-investment grade) credit worthiness.

**Private Equity** characteristics are driven by those for Developed Market Small-Cap Equities, adjusted for illiquidity, sector concentration, and greater leverage.

## INDEX DEFINITIONS

The **Bloomberg Barclays Global Aggregate Bond Index** is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

The **Bloomberg-JP Morgan Asia Currency Index** is designed as a spot index of the most actively traded currency pairs in Asia's emerging markets valued against the US dollar.

The **CSI 300** is a capitalization-weighted stock market index designed to replicate the performance of top 300 stocks traded in the Shanghai and Shenzhen stock exchanges. It was considered as a blue chip index for mainland China stock exchanges

**Citi US Broad Investment Grade Index (USBIG)–Corporate**, is a subsector of the USBIG. The index includes fixed rate US dollar denominated investment grade corporate debt within the finance, industrial and utility sectors. This index includes US and non-US corporate securities (excludes US government-guaranteed and non-US sovereign and provincial securities).

**Citi Emerging Markets Sovereign Bond Index** includes local currency sovereign bond indices for 14 emerging markets countries. These indices comprise fixed-rate sovereign debt with at least one-year until maturity. They are market capitalization-weighted and rebalanced monthly for Brazil, Chile, Colombia, Hungary, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Thailand, Turkey, and South Africa.

The **Citi Euro Broad Investment Grade Index** is a multi-asset benchmark for investment-grade, Euro-denominated fixed income bonds. It includes government, government-sponsored, collateralized, and corporate debt.

**Citi's US High-Yield Market Index** is a US dollar-denominated index which measures the performance of high-yield debt issued by corporations domiciled in the US or Canada. Recognized as a broad measure of the North American high-yield market amongst all Citi's fixed income indices, it includes cash-pay and deferred-interest securities. All the bonds are publicly placed, have a fixed coupon, and are non-convertible.

The **Citi World Broad Investment Grade Index** is a multi-asset, multicurrency benchmark which provides a measure of the global fixed income markets.

The **Euro Stoxx 600** represents large-, mid- and small-cap companies across 17 countries across Europe including: Austria, Belgium, Czech Republic, Denmark, Finland, Germany, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The **MSCI Emerging Markets Index** captures large- and mid- cap representation across twenty-four Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **MSCI Emerging Markets (EM) Latin America Index** captures large and mid-cap representation across five Emerging Markets (EM) countries in Latin America. With 113 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **MSCI World Index** represents the performance of more than 1,600 large- and mid-cap stocks across 23 developed markets countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country

The **MSCI World ex-USA Index** represents the performance of large and mid-cap representation across 22 of 23 developed markets countries excluding the United States. With 1,005 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **Standard & Poor's 500 Index** is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.

## OTHER TERMINOLOGY

**Adaptive Valuations Strategies** is Citi Private Bank's own strategic asset allocation methodology. It determines the suitable long-term mix of assets for each client's investment portfolio. Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time.

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**LIBOR** - The London interbank offered rate is the rate of interest at which banks offer to lend funds to each other. It is used as a reference rate for large amounts of financial contracts.

**Price-to-book ratio (P/B)** compares the capitalization of an individual stock or of an index of stocks to the value of that stock or that index's combined shareholder capital. It is calculated by dividing the current closing price of the stock by the most recently reported book value per share. A low P/B can indicate a lowly-valued company or index, while a high P/B can indicate high valuation.

**Price-earnings ratio (P/E)** measures a company's or an index of companies' current share price relative to its earnings per share. A low P/E can indicate a lowly-valued company or index, while a high P/E can indicate high valuation.

**Return on equity (ROE)** is the amount of net income earned as a percentage of shareholders equity. It captures a company's profitability - or aggregate profitability among numerous companies - by showing how much profit is achieved with shareholders' capital.

**Sharpe ratio** is a measure of risk-adjusted return, expressed as excess return per unit of deviation, typically referred to as risk.

**Strategic asset allocation** is the process of creating a long-term investment plan by assembling an appropriate mix of equities, fixed income, cash and other investments. It can potentially enhance portfolio returns and help manage risk. Strategic Return Estimates are Citi Private Bank's forecast of returns for specific asset classes over a 10-year time horizon. The forecast for each specific asset class is made using a proprietary methodology that is appropriate for that asset class. Equity asset classes are forecast using a proprietary methodology based on the calculation of valuation levels with the assumption these valuation levels revert to their longterm trends over time. Fixed Income asset classes are forecast using a proprietary methodology based on current yield levels. Other asset classes have other specific forecasting methodologies. Please note that hedge funds, private equity, real estate, structured products and managed futures are generally illiquid investments and are subject to restrictions on transferability and resale. Each SRE is gross of actual client fees and expenses. Components of the methodology used to create the SREs include the rate of return for various asset classes based on indices. Termination and replacement of investments may subject investors to new or different charges. Past performance is not indicative of future results. Future rates of return cannot be predicted with certainty. Investments that pay higher rates of return are often subject to higher risk and greater potential loss in an extreme scenario. The actual rate of return on investments can vary widely over time, especially for long-term investments. This includes the potential loss of principal on your investment. It is not possible to invest directly in an index.

**Tactical asset allocation** looks to adjust the strategic asset allocation of a client's investment portfolio to incorporate shorter-term market insights.

**Volatility** - is a statistical measure of the variation of returns for a given security, market index, or asset class. It is most often measured by way of standard deviation. The higher the volatility, the riskier the underlying asset is considered to be.

**Yield-to-Maturity (YTM)** is the total return received on a bond or index of bonds when held to maturity. The total return includes both the payment of coupons and the return of the principal at maturity.

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Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support

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MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

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