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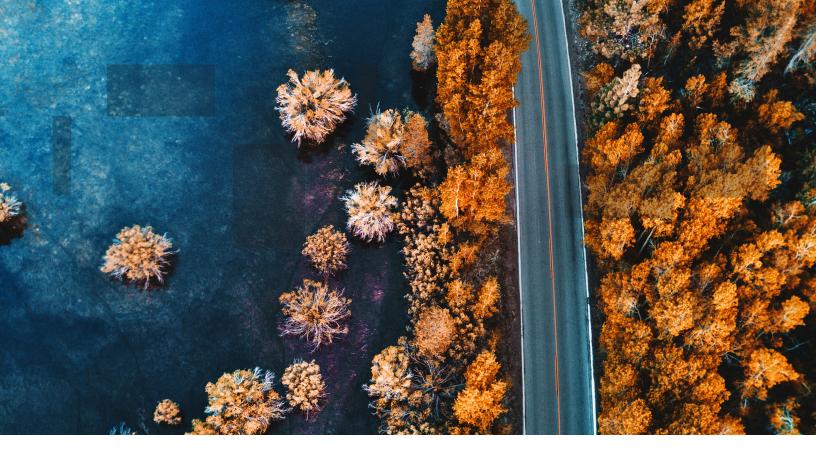


Five-Year Capital Market Outlook

Asset Research Team Asia Pacific

February 2019





Surviving and thriving in a late-cycle environment

Summary: A trilogy of challenges

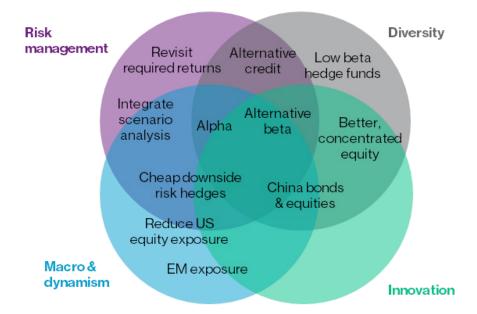
- First, we expect a material slowdown in growth in most of the major economies in 2019, with downside risks rising as we move into 2020.
 - The main driver of weaker conditions is the gradual tightening of financial conditions, as the major central banks raise interest rates and/or withdraw money from the financial system.
 - We believe that a recession in one or more of the major economic regions is likely over the next three years - a more cautious view than in 2018.
- Second, relative to our medium-term outlook, we think valuations for growth-related assets are still high and expect low returns on average over five years, putting pressure on savers' wider financial positions.
- Third, achieving fixed 'inflation plus' targets and hence meeting savers' expectations - is going to be difficult in this environment in our view, even over longer time periods.

Five portfolio priorities for a surprise-free 2019/2020

- Diversify: Relative to equity-heavy peer groups, diversification is not always painless, but we remain firmly of the view it will prove correct.
- Reduce unrewarded risks: An implication of our longerterm outlook is that the same forces pushing long-run expected returns lower are also pushing the returns required to meet savers' objectives lower; assess if required return targets are appropriate; integrate scenario analysis to manage financial and extra-financial factors.
- Macro and dynamism: Dynamically managing risk is accessible; dynamism to create long-term value is hard.
- Innovate through alpha: In these conditions, the value of skilled active management is outsized; our track record shows it can be found.
- Innovate to find diversity: China a new and diversifying set of assets for investors.

Key actions from a macro viewpoint also make sense through other portfolio construction lenses

At Willis Towers Watson, we believe no single approach to portfolio construction can yield 'the answer'. Therefore, we consider the problem through multiple lenses, four of which are displayed opposite - our delegated/outsourced-CIO portfolios capture more but we simplify for illustration. Doing so shows that ideas that make sense based on our macro views will tend to make sense anyway.





Section 1

At a glance – asset performance in 2018 and our global outlook

2018 in review: Classic late-cycle moves

In our 2018 Five-Year Capital Market Outlook, we noted that pricing for financial assets had a more optimistic view for future economic and corporate conditions than we thought likely.

In 2018, almost immediately, this view seemed to come to fruition with nearly all risky asset markets suffering a poor first quarter. However, strong economic growth - in the US especially - and improving risk sentiment led to a rebound in returns in Q2 2018. From mid-year, monetary tightening by central banks started to have a material impact on markets, with tightening global liquidity pushing up government bond yields and putting pressure on funding conditions for emerging countries, especially Argentina and Turkey. Tighter liquidity and concerns that this would slow growth caused a broader market sell-off in Q4.

Overall, a diversified portfolio of assets outperformed an equivalent risk comparator portfolio, 60% equity/40% government bonds, reversing the outcome in 2017. This asset price behaviour is fairly typical of late-cycle environments.

Our outlook in a nutshell

Despite the fall in most asset prices in 2018, we believe markets continue to misprice rising downside risks. Over the next few pages, we highlight our forward-looking views for all major asset markets by comparing the economic and fundamental conditions implied by market pricing and our outlook for conditions.

In summary, our global outlook is as follows:

- Bonds: After recent yield declines, developed world bond markets are now pricing-in that cash rates will remain at current levels (e.g., in the US) or rise very gradually. Based on our central outlook for an economic slowdown or recession, we expect policy rates to be cut in 2020/21 below what is priced-in.
- Credit: Markets continue to price-in an average at best level of default and downgrade risk over the medium term. Our outlook is for economic conditions, corporate cash flows and funding to be weaker than markets are pricing-in, given our forecast for slower economic growth in 2019 and recession likelihood over the next three years.
- Equities: While valuations have improved after 2018 price falls, investor expectations for future earnings growth are still moderate. We expect economic growth and earnings growth to be lower than market expectations.

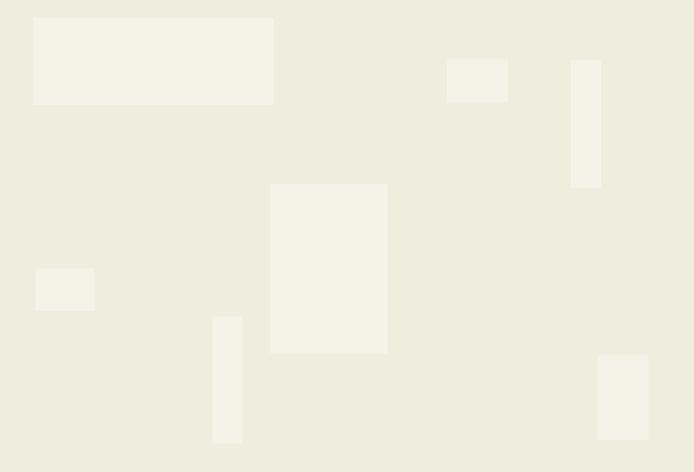
Overall, relative to our medium-term outlook, we think valuations for growth-related assets are still high and expect low returns, on average, over five years.

Investors reappraised risk throughout 2018: Ranking asset returns in 2017/18

	14	13	12	11	10	9	8	7	6	5	4	3	2	1
2017		US Gov bonds	REITs	TIPS	Global Gov Bonds	IG Credit	Commodities	High Yield	Hedge Funds	EMD (HC)	Preferred portfolio	60/40 Comparator	DM Equities	EM Equities
	0.00%	1.20%	1.80%	2.20%	2.50%	4.60%	5.80%	7.20%	7.40%	9.10%	9.20%	10.30%	15.50%	22.70%
Q1 2018	REITs	DM Equities	EM Equities	EMD (HC)	60/40 Comparator	IG Credit	US Gov bonds	TIPS	High Yield	Preferred portfolio	Hedge Funds	Global Gov Bonds		Commodities
	-7.70%	-3.00%	-2.50%	-2.10%	-2.00%	-1.70%	-1.50%	-1.20%	-1.10%	-0.90%	-0.50%	-0.50%	0.00%	2.20%
Q3 2018	EMD (HC)	EM Equities	High Yield	IG Credit	US Gov bonds	Global Gov Bonds		TIPS	Hedge Funds	60/40 Comparator	Preferred portfolio	DM Equities	Commodities	REITs
	-4.20%		-1.70%	-1.10%	-0.50%	-0.20%	0.00%	0.20%	0.30%	1.50%	2.50%	2.50%	7.80%	11.90%
Q3 2018	TIPS	US Gov bonds	EM Equities	Global Gov Bonds	Hedge Funds		IG Credit	REITs	Commodities	Preferred portfolio	High Yield	EMD (HC)	60/40 Comparator	DM Equities
	-1.50%	-1.20%	-1.00%	-0.30%	0.00%	0.00%	0.20%	0.90%	1.20%	1.60%	1.60%	1.70%	2.60%	4.50%
Q4 2018	Commodities	DM Equities	60/40 Comparator	Hedge Funds	EM Equities	Preferred portfolio	High Yield	REITs	EMD (HC)	TIPS	IG Credit		Global Gov Bonds	US Gov bonds
	-23.00%	-13.90%	-8.00%	-6.40%	-5.80%	-4.80%	-3.70%	-3.30%	-1.90%	-1.10%	-0.50%	0.00%	0.80%	2.00%

 $\textbf{Sources:} \ \textbf{Bloomberg/Barclays, JP Morgan, MSCI, HFRI, S\&P, FTSE, ICE BofAML, Willis Towers Watson}$

Notes: The 60/40 comparator represents a portfolio of 60% DM equities/40% global government bonds in each period. Our preferred portfolio is represented by Willis Towers Watson's Partners' Fund, gross of top-level management fees; returns are excess returns above cash.



Section 1

At a glance – our outlook for markets



Notes: The columns above disaggregate our view on forward-looking returns.

The first column contains our assessment of the future economic conditions that markets are pricing-in relative to trend (green equates to above-trend conditions). Higher priced-in interest rates than our assessment of neutral imply a positive view of nominal GDP growth vs. trend. Similarly, higher priced-in real interest rates than neutral embed a positive view of real GDP growth vs. trend. Low credit spreads embed a positive view of expected credit losses (and therefore of GDP growth vs. trend). High discounted earnings growth in equities imply above-trend GDP growth. In FX, high interest rate differentials and/or spot rates above long-term measures of fair value imply positive economic conditions.

The second column summarises how our economic outlook translates onto these

economic conditions. In effect, this is our view of 'what should be priced-in'. The third column, compares the economic conditions that are priced-in with our outlook and summarises our view on market attractiveness (risk-adjusted returns relative to local cash). Note that, absent a strong view on inflation, if our view of economic conditions is more negative than that implied by market pricing, this is bad for equity returns but good for bond returns.

Global equities	Economic conditions priced-in	Our outlook for economic conditions	Asset return outlook				
Developed				■ Recent equity price falls have left levels of discounted sales growth at or			
US				slightly below average for the cycle.			
Eurozone				The major outlier to this picture is the US, where market prices imply a			
Japan				continued above-average outcome age.			
UK				We expect earnings growth to come under pressure in 2019 and the next three years.			
Australia							
Canada				 Again, the US stands out as being the most likely to suffer poor growth relative to expectations due to downside risks from the 2018 fiscal 			
Emerging				stimulus rolling over, declining buybacks and pressure on tech earnings.			
Foreign exhange (vs USD)			■ Interest rate differentials between the US and other developed				
Developed				markets imply that the US dollar will depreciate against all major			
EUR				currencies.			
JPY				We see the dollar as modestly overvalued.			
GBP				 However, the dollar provides tail-risk hedging characteristics, and 			
AUD				we advise investors to retain a strategic weight, balancing these two			
CAD				points.			
Liquid alternatives	S			Portfolios of well-constructed alternative beta strategies will, by			
Alternate betas				design, be less sensitive to the macro cycle.			
Low beta				 Skilled, low beta hedge funds will add meaningful uncorrelated return. 			
hedge funds				3 · · · · · · · · · · · · · · · · · · ·			
Private markets (d	developed v	vorld)		Years of liquidity creation has compressed illiquidity risk premia to low			
Illiquidity premium (avg.)				levels. In general, returns from taking illiquidity risk are unattractive.			
				However, this is only part of the picture for illiquid assets. For example:			
Core real estate				 Despite historically rich pricing and some exposure to the economic cycle, core real estate and infrastructure benefit from exposure to declining risk-free rates. 			
Core infrastructure				 Large-cap private equity valuations are high, but there remains value in niche areas. 			
Private equity (US)				 Direct lending spreads are low and under-discount the prospects for economic weakness driving credit losses higher. 			
Direct lending				 Note, the assessments opposite are the average across developed world markets. Important local differences will exist. 			

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 more negative than that implied by market pricing, this is bad for equity returns but good
 for bond returns.

ey Highly negative Neutral Positive Highly positive



Section 2

Implications for portfolio strategy

Portfolio construction is a multi-dimensional problem. Not only are we seeking to maximise the return per unit of risk spent, we must also manage the impact of the plan on the sponsor and increasingly extra-financial impacts. The size of those impacts is one thing, but perhaps as important is minimising the chances of negative surprises.

A trilogy of challenges

The macroeconomic and market outlook implies a trilogy of challenges for asset owners:

- 1. Slowing global growth in 2019 with growing downside risk beyond threatens the operating environment for the global economy and hence savers' wider financial positions.
- 2. A weakening macro environment is likely to cause returnseeking asset values to fall. For equities, in particular, there is a good chance of a 20 to 30% decline within the next three years.
- 3. This weak macro environment combined with low starting cash rates and continued low risk premia means achieving fixed 'inflation plus' targets - and hence meeting savers' expectations - is going to be difficult in our view, even over longer time periods.

Overall, these challenges suggest an increased chance of nasty surprises at a time when savers are less able to absorb them. However, the good news is portfolio strategy can help.

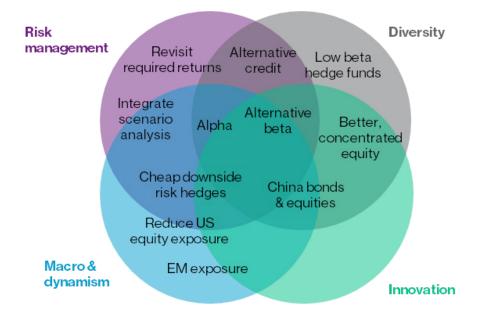
Surviving and thriving in a late-cycle environment

We summarise the key portfolio strategy actions we believe investors should take in the diagram shown, with the following pages adding more detail. They are positioned through some of the lenses we use when constructing portfolios to indicate that: a) these actions are good ideas independent of the macro outlook, and b) are supported by it. After all, good ideas should make sense from multiple perspectives. What all these ideas share is a focus on achieving savers' objectives while controlling uncertainty and in some cases the nonfinancial impact on wider society.

In closing, we repeat our observation from last year's outlook: Doing some of the suggestions on the following pages should add value but may struggle to 'move the dial' in isolation. Building a portfolio that delivers all these things in combination is the key and we believe will deliver improvements in investment efficiency of 30 to 40% over a less complex and static portfolio. For most, capturing this efficiency improvement requires more delegation – either to an internal body or to aligned external decision makers - but the rewards of doing so can be significant.

Key actions from a macro viewpoint also make sense through other portfolio construction lenses

At Willis Towers Watson, we believe no single approach to portfolio construction can yield 'the answer'. Therefore, we consider the problem through multiple lenses, four of which are displayed opposite - our delegated/outsourced-CIO portfolios capture more but we simplify for illustration. Doing so shows that ideas that make sense based on our macro views will tend to make sense anyway.





Five portfolio priorities for a surprise-free 2019

We think the chances of nasty surprises has grown. How can we deliver needed returns, whilst controlling the impact of these nasty surprises?

1. Diversify

Why? Diversification is always a good idea and is an especially good idea now. Relative to equity-heavy peer groups, it is not always painless, but we remain firmly of the view it will prove correct.

How? It doesn't (always) have to be. Ideas that are consistent with our macro outlook are discussed below.

Many investors could still benefit from diversifying equity risk. Simple ways of doing so include investing in:

 Alternative credit: Many institutions have added credit to their return-seeking portfolio through relatively vanilla loans, high-yield or multi-strategy alternative credit mandates. We strongly believe success in alternative credit is driven by a consistent and persistent focus on manager and strategy selection. Over the past few years, new and better strategies are available in niche, undercapitalized areas of the market. Private debt (bridge financing) and parts of securitized markets are key examples.

- Alternative beta: Some hedge fund strategies are just expensive, but novel, forms of beta. Over the years we have sought to strip away the complexity and fees and provide these betas to investors cheaply. These strategies include reinsurance and momentum, which have the benefit of being much less macro sensitive than equities. Selectivity, innovation and scale - if it doesn't exist, create it - are required.
- Low beta hedge funds: (See priority #4, Alpha).
- For investors with strong domestic or regional focus in their portfolios, we recommend continuing to diversify equity and bond exposure internationally.
- We advocate a 'whole-portfolio' approach to the additional FX exposure this creates, which itself can add important diversity. The USD deserves special consideration given its downside hedging characteristics (see priority #3, Dynamism).

2. Reduce unrewarded risks

Why? Because risk should only be taken if it is required and rewarded.

How? An implication of our longer-term outlook is that the same forces pushing long-run expected returns lower are also pushing the returns required to meet savers' objectives lower. Might you be targeting a level of return and risk that is high relative to what members actually need? We suggest assessing overall risk employed in the portfolio to assess if required return targets are appropriate.

We also encourage investors to integrate scenario analysis into risk management. This has two dimensions:

Macro scenarios: We believe we are approaching an inflection point in the business cycle and have passed it in the capital cycle. This creates additional uncertainty that traditional risk management approaches will struggle with. Considering the impact of, for example, a Japan-style deflationary equilibrium emerging in the developed world will provide an intuitive understanding of macro risks.

• Climate change scenarios: Climate change is, in our view, an important form of systemic uncertainty that long-term investors face. Grappling with its impact on a portfolio is daunting, but we strongly believe scenario analysis is the answer. Even an approximate understanding of portfolio exposures to climate risk factors can help indicate the easy wins to reducing financial exposures and, for those inclined, to improving the nonfinancial impacts that are likely to become more important.

Finally, all these and other risk metrics can be combined to form a Portfolio Quality Scorecard. This embeds beliefs about expected returns and risk under different scenarios. dynamism, diversity requirements, illiquidity, fee tolerance, peer risk and sustainability factors (among others) and quantifies the current portfolio's standing relative to them. The result is a holistic view of risk and portfolio resilience that can be used to assess future portfolio changes.

3. Macro and dynamism

Why? Understanding the range of outcomes is an important way to reduce uncertainty. That understanding can be used to dynamically manage risk or to create value. The latter is hard and should only be undertaken by those with the governance budgets and beliefs required. But using dynamism to manage risk is more widely accessible.

How? In most cases, effective dynamic risk management means focusing on downside risk and introducing intelligent protection. Diversity is the first answer here, but there are others:

- Increase exposure to high-quality bonds: Return-seeking assets tend to do well when GDP growth does well. The flipside is they don't, when growth expectations deteriorate. Adding exposure to US, or possibly Chinese, bonds is typically diversifying in 'normal' times, and returns are especially good in the downside economic outcomes we expect. Our preferred approach is levered exposure through interest rate futures but a less capital-efficient version of this would be to dynamically underweight the credit portion of global aggregate portfolios in favour of treasuries.
- Controlled unhedged FX exposure: For investors with pro-cyclical base currencies, unhedged exposure to currencies like the US dollar and Japanese yen can add downside protection in significant market sell-offs.

Ideas to dynamically create value, which we consider for the portfolios we manage, include:

- Reduce macro risk temporarily: Our outlook suggests taking less risk now in order to take more later. The difficulty of this decision is not to be underestimated, but underweighting equities in favour of less macro sensitive assets (e.g., alternative credit, alternative beta, low beta hedge funds) or derisking through options should be considered.
- Reduce exposure to tighter liquidity: Some emerging countries are vulnerable to tighter US liquidity; lower risk corporate debt is another area of concern. For example, in our view, vanilla leveraged loans face a set of mediumterm fundamental pressures.
- Reduce exposure to 'great expectations': At the time of writing, earnings growth expectations in the US remain excessive. Consequently, forward-looking returns for US equities in particular are weak. We remain underweight versus the rest of the world.
- Look to the next cycle: Risk premia will not remain unattractive forever, creating an opportunity to redeploy capital when they are reasonable. While the near-term pathway for some emerging nations is risky, medium-and long-term prospects are strong. Understanding and managing the macro, in particular FX exposure, is critical though.
- Selectivity in illiquid allocations: While illiquid assets are a powerful diversifier, our outlook suggests being very selective when deploying fresh capital at this stage in the cycle.

4. Innovate through alpha

Why? The reality investors face is, in our view, one of generally low returns - due to low cash rates and low starting risk premia - and elevated volatility as the business and capital cycles move through their late phases. In this environment, the value of genuinely skilled active management is outsized.

How? Finding skilled managers is not easy and requires a relentless focus on achieving truly 'best in class' skill. However, with best-in-class alpha in your toolkit you can consider the following:

- Reduce beta risk by replacing foregone return with alpha.
- Better, more concentrated equity portfolios: Diversifying exposure to specific risk premia or the economic cycle is one thing, but stock diversification is another and often goes too far within active equity portfolios. Provided you can find a number of truly skilled equity investors with complementary styles to run your portfolio, concentrating your holdings in their 10 to 20 best ideas and combining those portfolios together captures their alpha, controls

- costs and delivers superior equity returns in most environments.
- Differentiated, low beta hedge funds: In general, hedge fund performance disappointed over the global financial crisis. However, we remain committed to our approach to hedge fund investment, which prioritises differentiation, low beta and value for money as well as all-out skill. In our view, many portfolios would benefit from exposure to these managers.
- Skilled fixed-income managers can help you navigate the late stages of the business and debt cycles in bond markets, within alternative credit strategies or within sovereign debt (including FX) mandates.

Finally, we are acutely aware of the tension between alpha and fees. Our focus as advisors may be value for money, but inevitably investors will face increased scrutiny and pressure on outright fee levels. This means prioritising the fee spend to focus on maximising alpha per unit of fee and capital invested. The ideas in the section are presented in the priority order we would suggest.

5. Innovate to find diversity: China

Why? The world economy can increasingly be simplified to three centers of gravity:

- 1. The US: a \$20 trillion economy, growing at c.4% nominal
- 2. The Eurozone: a \$14 trillion economy, growing at c.3% nominal
- 3. China: a \$14 trillion economy, growing at c. 8 9% nominal

These centres of gravity operate in economic terms (quantified above), political terms and, more recently, investment terms. Until now, locally listed Chinese assets have been significantly inaccessible to foreign investors. But China's gradual financial liberalization means this is no longer true. This third opportunity set is now open to European institutional investors and in our view cannot be ignored.

How? From an opportunity set perspective, it makes sense to access this large and growing set of cash flows. But, the attraction of China's markets is not about stellar returns but stellar diversity. Because its economy and capital markets are still relatively closed, its economy and its assets will operate on a different (albeit not entirely decoupled) cycle to the rest of the developed world economies and capital markets. Assets that behave differently mean

diversity, which is what China's local capital markets attractive to investors.

However, capturing that diversity is not that straightforward:

- China's economy will continue to liberalize and manage its reliance on debt growth, which creates a manageable but challenging economic outlook.
- That, and the wish to capture economic diversity and a broad range of asset risk premia, means we want to own exposure to both positive Chinese economic outcomes and negative ones.
- Moreover, there are a variety of issues with existing equity and fixed-income benchmarks - concentration, patchy accounting disclosure, volatile prices - which suggests being highly selective when investing passively.

Therefore, we want exposure to both risky assets (e.g., equities and private markets) and bonds. In some cases these assets will need to be actively managed or have some form of cost-effective smart beta overlay, so the governance demands are not inconsiderable. But, the diversity on offer from local Chinese assets is high.

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