



# MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

*MLC Horizon, MLC Inflation Plus and MLC Index Plus portfolios*

May 2018

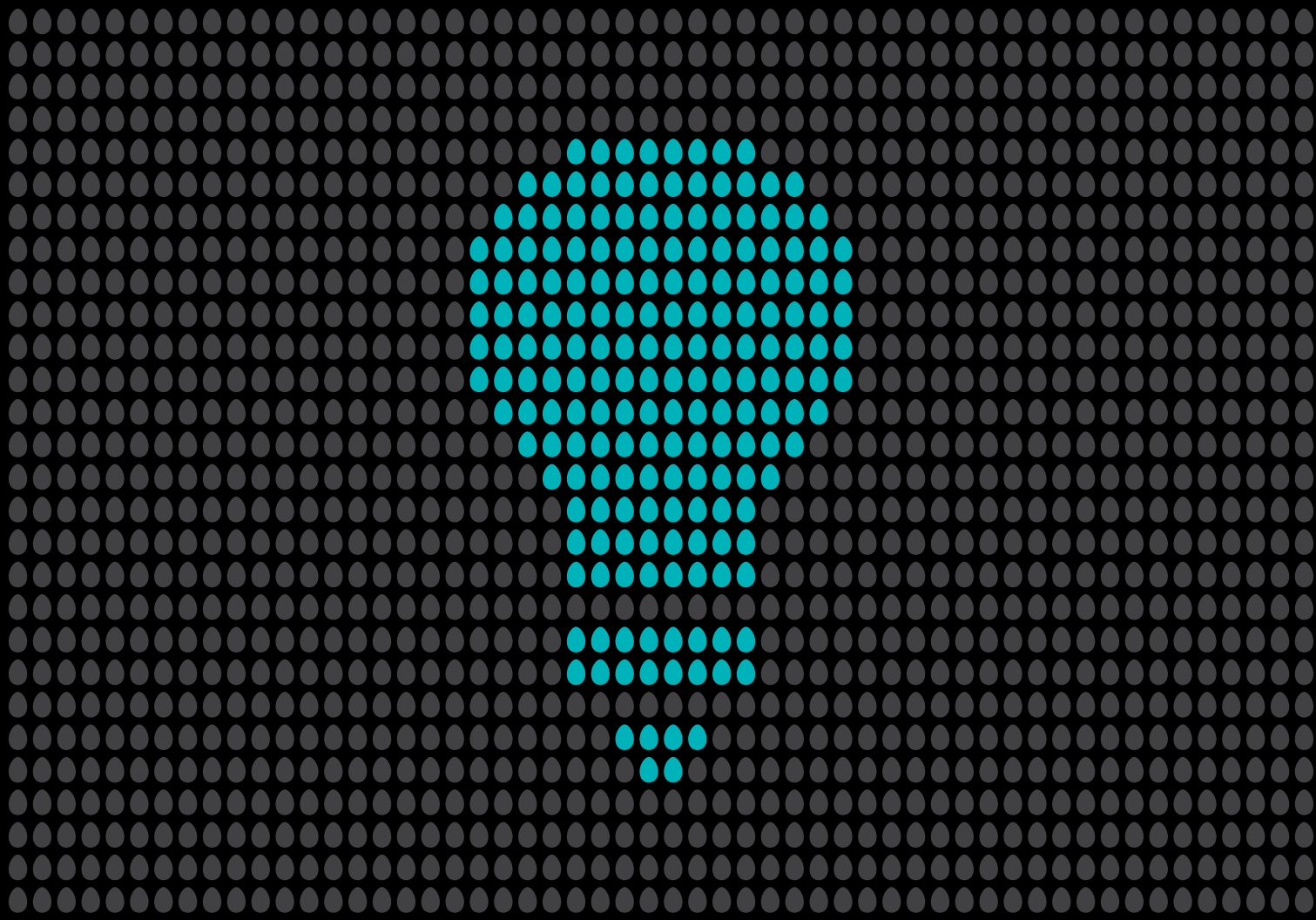
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# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

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Update for the quarter ending  
31 March 2018.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

Where will the Australian dollar (AUD) or the share market be at the end of the year? It's interesting to discuss what might happen, but any single forecast is inevitably unreliable. The future is not preordained, and so is not predictable. However, while uncertainty can't be eliminated, we can generate an understanding of what the future could hold. Our investment process aims to generate as much insight as possible from a detailed examination of future possibilities.

However, behavioural biases are a barrier to developing an understanding as to how the future could unfold. These biases tend to ground us in what's currently happening, making it difficult to imagine a future that's different from today. This encourages overreaction to new information, which helps account for the greater variability of share prices versus earnings. In other words, investors' responses to new information are out of proportion because the potential for change is underappreciated.

These behavioural biases matter. For example, they resulted in the illusion that prior to the 2008 GFC that we were in a low risk world (known as the so-called 'Great Moderation'), whereas there were clear indications that risk was high. And today, while bond yields have risen recently, there is still a tendency to presume repressed interest rates and low or modest inflation are here to stay. This has been a credible scenario, but it is also possible that the low rate environment will not persist and we believe this possibility is becoming increasingly important. But behavioural biases make it difficult to believe that rates or inflation could be significantly higher. This means, as Albert Einstein famously said, "Imagination can be more important than knowledge". Effective control of risk requires us to anticipate change.

Genuine insight into the future requires that we remain sceptical and focus on understanding the different possibilities that lie ahead, always seeking to uncover what remains to be known.

In other words, it is necessary to take into account a range of future return outcomes or scenarios. We do this by thoroughly considering a broad set of distinctive potential futures or scenarios that might eventuate. This provides a systematic way to generate genuine insight into what drives future market outcomes. This is what our scenarios framework is designed to do.

This approach to thinking about the future tends to mean that we anticipate changes well ahead of the actual event. Consequently, patience is often required. However, we are not often surprised by market behaviour. We were for instance unsurprised by the increased market volatility during the quarter. As we have foreshadowed for some time, the presumption that a lower-for-longer scenario will persist creates vulnerability. The events of February may be a harbinger of a changed investment environment which involves significant adjusts to asset pricing.

### Volatility returns

During the quarter we saw the first challenge for some time to the perception that the strong return environment will persist. Stronger than expected wages data resulted in a sharp interruption to the share market's seemingly inexorable rise. The rise in volatility that ensued was a reminder of underlying fragilities that have accumulated in the financial system. The environment of excess liquidity has changed behaviour; it has progressively pushed investors up the risk spectrum making most assets expensive at the same time. It has also driven investors to seek alternative or modified return sources, which has resulted in the build-up of complex microstructures which increase fragility.

### MLC'S ACTIVE INVESTMENT APPROACH

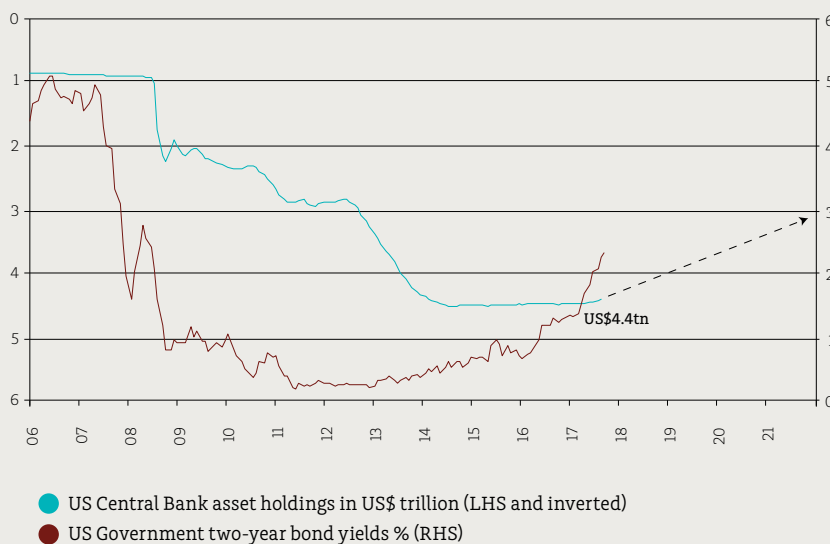
- Key to MLC's market-leading investment approach is our unique Investment Futures Framework.
- In an unpredictable world, the Framework helps us comprehensively assess what the future might hold. By taking into account the many scenarios that could unfold – positive and negative – we gain continuing insight into return potential, future risks, and opportunities for diversification.
- The information from the Framework gives us a deep understanding of how risks and return opportunities change over time for both individual assets and total portfolios.
- We can then determine the asset allocations that will help achieve our portfolios' objectives with the required level of risk control, and adjust the portfolio if necessary. We'll generally reduce exposure to assets if we believe risk is too high. We prefer exposures with limited downside risk compared to upside potential.
- More information about MLC's investment approach is in Appendix 2.

These include risk parity, volatility tracking and targeting strategies, trend following and generally the selling of volatility to generate yield. These all act to reduce market volatility and are part of the explanation for the persistence of low volatility, but they also make it more reactive to sell-offs.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

CHART 1: US TWO-YEAR BOND YIELDS ARE RISING



Source: US Federal Reserve, St Louis.

In February the effects of this were seen in a spike in volatility that was disproportionate to the share market decline. As volatility rises, risk parity funds, volatility targeting funds and others sensitive to volatility have to reduce their risk exposure which pushes down share prices further. The risk of such selling, and hence a correction, rose in January when volatility increased following sharp rises in share prices. This rise appears to have been related to unusually strong retail flows which generally occur in the first quarter (as investors utilise 401k tax credits) but this year were concentrated in January. The rise in share prices meant that pension funds started to trim back equity overweights. Consequently, pension funds along with volatility control funds were both tending to sell rather than buy shares. And hedge funds, which started the year with maximum leverage, also needed to adjust allocations.

Investor behaviour in the first quarter could be characterised as 'selling the top', in contrast to what has been a perennial 'buying the dip' mentality. The February decline saw a relatively muted

'buy the dip' response due to prior fund flows and positioning. The bond sell-off also reduced pension fund appetite for shares; and a breakdown in correlations further increased portfolio risk and increased hedge fund selling.

Also, since volatility has not fully retraced to prior levels, those funds which respond to changes in market volatility continue to hold lower shares allocations.

A factor slowing the decline in implied volatility is the positioning of brokers. They aggressively sold volatility in February, taking advantage of the price spike. Having utilised their risk limits, their focus was then more on buying back volatility rather than selling more. This suggests that the 'selling the top' tendency may persist - Value At Risk assumptions may take a year to revert even assuming no more risk events. More fundamentally, this period is a reminder that when markets are calm (volatility is low) some investors take on more risk - and some underlying investors have a limited understanding of the risks they are exposed to which can lead to sharp reversals.

Market volatility continued into March, this time technical flow factors appear less relevant with market analysts reporting that loss of confidence played a bigger role. With higher volatility persisting, it is difficult for investors to use options to hedge risk positions. While we still have some (though limited) derivatives exposure which locks in prior volatiles that can be used to extend tail risk hedging. As this will not be the case for most market participants, any further loss of confidence may generally translate more quickly into reduced risk asset allocations.

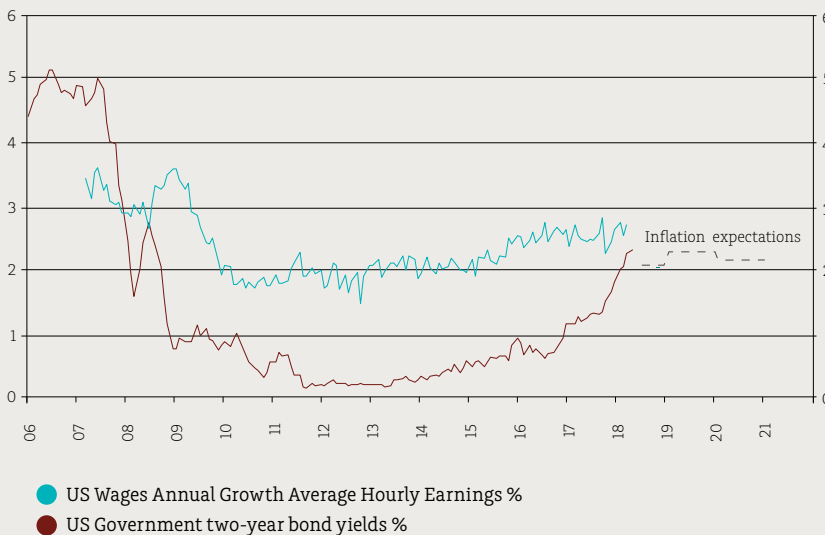
Short-term market sell-offs can simply be a function of markets getting ahead of themselves, but today they are also an indicator of the fragility of strategies' reliance on on-going low volatility and abundant liquidity. The vulnerabilities are at least as much in bonds as in shares. Some fundamental changes to the conduct of monetary policy are underway. US cash rates are rising - on current expectations by year end cash will have a positive real return for the first time in a long time. The return of a safe haven asset provides an inducement for investors to start moving back down the risk spectrum. We are only at the beginning of this process.

The bond market is starting to factor in higher borrowing costs with US two-year bonds yielding more than shares for the first time since the end of the financial crisis. The trend to ever greater accommodation which has, broadly speaking, been in place for 30 years, is starting to reverse. We are starting to see a step change in the thinking from bond investors about yields that they would expect to receive going forward. Not only are cash rates rising, but also the US Federal Reserve (Fed) has stopped buying bonds (Chart 1). New Fed chairman Jay Powell is also signalling the desire for a materially smaller balance sheet over coming years. At the same time, the funding requirements of a rising budget deficit are forcing an increase in the supply of US bonds. An increase in supply and fall in demand normally increases price, which implies higher bond yields.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

CHART 2: IMPACT OF RISING US WAGES ON INFLATION EXPECTATIONS



Source: Inflation expectations - Survey of Professional Forecasters, US Federal Reserve, Philadelphia.

There are of course flow on effects for asset prices which have been inflated by the presumption of low rates and easy money. As monetary policy changes direction, the Fed dis-saving reverses... and eventually also does the perception of abundant savings. The belief that the weight of money will support asset prices may yet be revealed as an illusion.

The sharp rise in bond yields in early February triggered the sudden sell-off in share markets, a clear warning to investors that a bear market in bonds has a negative impact on other asset valuations (unless there are offsets, for example, in the form of higher earnings). Added to this, there is finally strong evidence that wages are rising for both skilled and unskilled employees. Companies are talking more about the impact of higher wages on profit margins – US unit labour costs are rising which erodes competitiveness (whereas in Japan, while wages are rising there is a productivity offset). This challenges the common presumption that structural trends (driven by globalisation and technology) will continue to contain wages and inflation (Chart 2). In last

quarter's briefing Ben McCaw explained that some of these deflationary forces are weakening. Notably the Chinese economy is transitioning from an investment led to a more consumption led economy. This changes supply and demand dynamics in good markets in a manner which tends to increase prices. Given low unemployment rates, a boost to demand through US fiscal expansion has a significant likelihood of increasing inflation beyond current expectations and above the Fed's target. Also, to the extent that trade barriers impede the free flow of goods and services, inflation will be higher and real incomes lower.

We cannot be entirely sure how all this will play out. Accommodative monetary policy has been used to offset the deflationary impact of high levels of debt. That debt overhang remains unresolved. This means demand is more sensitive to the contractionary effects of tightening liquidity. The perception that monetary policy has reached or exceeded the limits of its power makes policy makers less inclined to reverse course until significant dry powder has been achieved via progressive rate rises. This is reinforced

by the effects of extreme monetary accommodation on inequality – that is, soaring asset prices, and company financial engineering as opposed to real investment which lowers labour demand. This makes it more likely than has been the case for some time that fiscal policy will take up the countercyclical policy slack...though this too is problematic given high levels of public debt.

While no countercyclical measures are required at present, and in fact are undesirable in the US given above potential growth and low unemployment, President Trump is nevertheless embarking on a fiscal expansion. (Paradoxically also, this is counter to his objective of reducing the external deficit which is driven by the excess of spending over earnings.) It is unclear how the announced tax cuts and any infrastructure spending will be funded. If unfunded, the tax cuts could add over \$1 trillion or 5% of GDP to the deficit over the next decade, and potentially another \$200 billion on infrastructure. Given limited slack, fiscal stimulus risks an inflation overshoot versus the Fed's target. The Fed could then face a choice between raising rates more rapidly (risking a credit crunch and recession in which the deflationary dynamics of high debt prevail) or allowing inflation to rise. Both scenarios have challenges for investors.

Importantly, our investment approach focuses on understanding the different ways the future could play out. There are multiple potential triggers to a rapid re-pricing of assets which, while painful, offers the opportunity of restored return potential from that point. This would enable portfolio re-positioning to take advantage of re-emerging opportunities to generate returns with sufficient risk control. Alternatively, multiple uncertainties (including social discontent, mis-directed populist policy, trade tensions as well as rising rate concerns) may combine to undermine confidence, growth and limit return potential. Looking forward there are many possibilities, and while it is possible that the liquidity driven strong return environment could resume, this seems increasingly difficult.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Which shares are most exposed to rising yields?

Events in early February made it clear, that rising discount rates is challenging for all asset classes. While the transmission mechanism of higher rates to the valuation of assets is nuanced and complex, one way to understand the impact is to estimate the assets' duration; ie how sensitive are asset prices to rising yields. In this section we look at the impact of rising rates on the *relative* performance of different sectors within the share market.

Applying this framework to shares generates some counter-intuitive results. Sectors like real estate and infrastructure are commonly referred to as 'bond proxies' given their price performance has been negatively correlated to changes in long-run cash rates. However, when we analyse these sectors from a duration perspective, they appear to have lower duration than most other shares – the low duration suggests they shouldn't be as sensitive to changes in rates. In fact, applying the same framework to sectors that are thought to have very little sensitivity to bond rates (like US technology companies) suggests they have a very high duration, and thus should be very sensitive to changes in bond rates.

While the results challenge the empirical experience it's hard to dispute the implications. The bond proxy sectors deliver significant cash flow to share investors each year through their dividends, while some companies in the technology sector are still not yet in a position to make dividend payments; with all the value that is expected to be delivered to shareholders at an often far off date – it's no surprise that the technology sector has a higher duration.

The implications here are driven by trying to separate out the effects of rising yields on the actual companies' operations rather than their capital structure. Very few companies outside financial services see the direct impacts of change to interest

rates. The influences of rising inflation that tend to go hand in hand with rising rates has secondary effects; but the impact of rates on the *operating* profits are more limited. Where the impact is far more acute is on the balance sheet, and the *net* profit line – for the last 10 years the cost of debt has been on a continual decline, providing a tailwind to company reported profits. Those companies with more debt benefitted most, not only through higher reported profits but also through use of debt to fund buy backs. As rates rise, this tailwind reverses and debt holders receive a higher share of corporate profit as cashflow to shareholders is reduced.

Looking at sectors like real estate the issue with rising interest rates is not first and foremost that fundamentals of the assets like vacancy rates and rental yields are suddenly challenged; rather the effects on a highly geared sector with high reliance on short-term debt can be violent. This is what we saw happen to the Australian property sector during the GFC. While some US technology companies are short on generating near-term cash flows, most have almost no debt financing – hence their net profit is less impacted by rising rates.

We must try to source returns while both shares and bonds are trading at elevated valuations. At a potential turning point for rates the value of a company with flexibility is highlighted. For a corporate with low gearing, reasonable valuations and a growing top line provides plenty of potential offsets, allowing the market to continue to ascribe it value as discount rates rise. For a highly geared company trading at expensive valuations with earnings that have been highly predictable (eg some infrastructure assets), the list of assumptions required for it to continue to remain valuable quickly become challenging. For bonds it's even harder still – they simply don't have the range of potential offsets to change their cash flows to investors, at least in a positive way.

The critical step is to dig a little deeper. Sources of reliable returns are hard to identify. The listed Australian Real Estate Investment Trusts (A-REITs) and Infrastructure sectors have underperformed. Indeed, some corporates in those sectors offer very little flexibility but others appear to have just been caught in the tide - like AGL. AGL has a balance sheet similar to an industrial (rather than an infrastructure company), however its price performance has been comparable to the more highly geared companies typifying the sector.

Near-term cash flows of low duration stocks could help to support valuations in a rising rate environment. Although, as cash rates rise, investors demanding a constant risk premium require that asset prices fall to boost future returns. Equally, some US technology companies may too be able to outgrow rising rates – but given how sensitive far off cash flows are to rising rates, we worry the assumptions about future growth quickly become unrealistic.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Investment strategy and research

During the quarter we conducted a series of meetings with strategists, economists and managers in Hong Kong, Tokyo, New York and London to review the evolution in current economic conditions, and seek different perspectives on the potential scenarios that lie ahead. The following table summarises some of these insights.

Theme	Summary	Potential implications
Overall environment	Despite strong macro fundamentals, markets are fragile due to persistent underlying vulnerabilities in the form of too much debt, and imbalances between sectors and economies. The level of interest rates at which those fragilities will be exposed is lower than normal levels of rates. It's not just the level that matters but also the speed of rate adjustment.	<ul style="list-style-type: none"> <li>• Key themes – synchronised growth, upside inflation surprise.</li> <li>• Some parallels with 1987, which was not a macro driven risk event. Both VIX and interest rate volatility are potential triggers of distress across markets.</li> <li>• Timing uncertain, though the probability of near-term adjustment likely to be rising.</li> </ul>
US economics	<p>US economy at or close to full capacity; US labour market likely has virtually no slack (limited potential for rising participation). Employment costs are rising (average hourly earnings understate this, overtime, incentives and bonuses not captured). Labour is gaining bargaining power – quit rate is high, companies less selective (eg some no longer screening for felons or drug use). Labour shortages in retail, hospitality, transportation, health care as well as higher skilled. Unit labour costs rising which means lower competitiveness. Companies are gaining pricing power. Consensus inflation expectations capped at 2% but temporary offsets to inflation will wash out this year. Fed understands inflationary pressures are building, hence flagging multiple rate hikes. Weaker US dollar (USD) and massive fiscal stimulus add to inflationary pressure. Deflationary offsets may be overstated (eg Amazonisation impact more marginal than perceived).</p> <p>Bond yields not rising more sharply because of complacency regarding inflation threat (economists lost some credibility by flagging risks too early – lags always uncertain). Risks magnified by fiscal stimulus. In the last 60 years this is the first time the US has had a large fiscal deficit and full employment. Bond issuance in 2019 is expected to be more than double the 2017 level. In the next recession limited policy degrees of freedom; fiscal stance encourages the Fed to raise rates faster.</p> <p>USD uncertainty. Strong economy and rising rates provide support - unless inflation rises faster than rates. Twin deficits push down USD. Also political uncertainty.</p>	<ul style="list-style-type: none"> <li>• Risk of higher than expected cash rates and bond yields.</li> <li>• Rising costs of hedging US investments impacts demand and at the same time bond issuance is rising sharply.</li> <li>• Will encourage those investors pushed up the risk spectrum to come back down. Risk in particular for US credit sectors which have had strong foreign flows (means wider credit spreads). Expect ripple effects across all risk assets.</li> <li>• Consequences for USD uncertain – important to map scenarios carefully. Potential for AUD safe haven remains – Australia's risks tend to be underappreciated if Chinese economy is robust.</li> <li>• Probability of adverse scenario for risk assets rising.</li> </ul>

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Theme	Summary	Potential implications
Japan economics	<p>The recovery is cyclical and structural. Profit margins of corporations rising; tight labour market is helping drive change. Scarcity drives innovation. Most expect wage increases will accelerate. Rising productivity – unit labour costs not increasing. Quit rate remains low, cultural impediments exist – this slows the translation of tight labour market into higher wages. Deeply dysfunctional labour market (and related two-tier society) and excessive corporate savings (arguably the biggest obstacles) starting to change but progress is slow. Deflationary mindset diminishing. Range of views on path of monetary policy and yen. If inflation rises, real rates will fall, tending to undermine the yen. However, yen has safe haven characteristics in volatile times. A series of political scandals are undermining the popularity of Prime Minister Abe. Potential replacements tend to have more fiscally conservative policies which could change the recovery path.</p> <p>Long-term issue of debt repayment remains – though this is a funded currency – it reduces risks. Vulnerable to global slowdown so would require fiscal policy response. Outright monetisation potential ultimately - possibly some form of debt default or inflationary erosion of debt. Financial repression already huge.</p>	<ul style="list-style-type: none"> <li>• Reflation has arrived. However there is still scepticism because of limited rise in inflation. Further time is required to see more significant change. Political risks mean that the course of policy is not assured.</li> <li>• Global factors remain a risk to the recovery.</li> <li>• Reviewing yen exposures given current strength and potential for falling real rates, but take into account safe haven characteristics.</li> </ul>
Rising risks related to US-China trade frictions	<p>China has limited response to punitive tariffs given how much less they import from the US. As expected Beijing has been very selective, targeting US products that are politically most sensitive (eg soybeans). They are also likely to consider offering some concessions, and have the 'North Korea card' as a key negotiating factor. Logic (which may not necessarily prevail in the US) suggests that an all-out trade war is unlikely, since there are no winners.</p>	<ul style="list-style-type: none"> <li>• Limited impact on economic growth unless there is a serious escalation. However, sentiment/confidence effects could be more significant. We continue to monitor developments and consider consequences for scenarios and probabilities.</li> </ul>
China – economy and deleveraging	<p>Policy reorientation away from investment to consumption and services continues. Credit led growth post GFC was increasingly ineffective. State-owned enterprise (SOE) and local government debt surged and credit was increasingly used for speculative purposes and rollover debt (particularly in the over-capacity industries). Now with the rise of the service economy and the more consumption led growth model coupled with supply side reforms, growth has become less credit dependent. Hence, the deleveraging process has had less impact on growth than might have been expected. Though looking forward a greater impact of credit tightening of growth may become more apparent.</p> <p>Banking sector consolidation is accelerating, primarily by resolution of problematic lenders via intra-provincial mergers and acquisitions. A great deal of progress has been made in recapitalising the banking sector and dealing with non-performing loans, but much more capital still needs to be raised, and some enacted bail-outs are fudged. Nonetheless, from a system-wide point of view, it is important to recognise that a process and structure is in place for recapitalisation of problem institutions. While the banking system is reforming, sentiment may be too complacent in other sectors given the vulnerability of leveraged small companies to SOE reform. Bankruptcies are rising sharply.</p> <p>There have been worries about lack of policy experience, but this is increasing (lessons learned) and they have the most competent and powerful head of the China Banking Regulatory Commission to date. Rules around financial products and relating to transparency continue to be tightened.</p>	<ul style="list-style-type: none"> <li>• Rebalancing and deleveraging reduces systemic risks.</li> <li>• Leadership changes have increased policy coordination and efficiency. However, this year there may be a bigger impact on growth from the deleveraging program.</li> <li>• Possible risks could come from a policy miscalculation with fiscal and monetary settings too tight. The biggest risk in China is still credit risk. However, ongoing structural reforms will progressively reduce risk and enhance economic outcomes.</li> </ul>



# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

Theme	Summary	Potential implications
UK and Europe	<p>Brexit uncertainty remains at high levels. Economy has been resilient, supported by a boost to exports from sterling depreciation. But rising credit card debt makes demand vulnerable. Negotiations remain complex and uncertain, some (limited) hope remains for a soft Brexit but all outcomes remain difficult and problematic.</p> <p>The real side of euro area economy is looking robust - unemployment 8.5%, only 1% or so above pre-crisis level. Should start to see higher wages and inflation but labour market reforms and rates mean the natural rate of unemployment may have declined. Euro area growth has recently cooled from robust levels (possibly weather related) but sentiment remains high and suggests above trend growth in the 3% to 4% range. Stability of Chinese growth important for export demand – while only 10% of exports, what matters is the pace of growth (as it drives investment).</p> <p>Government debt is falling in Germany but not in the periphery. If interest rates stay low, budgets can rebalance and stabilise, and debt reduce. However, there remains the possibility that debt could escalate again. The European Central Bank could resume purchases of debt. It is not outside the realms of possibility that it reinvest to eternity (monetise the debt).</p> <p>Concerns about euro area political instability have abated, but vulnerabilities remain – notably the Italian election saw the worst possible outcome with a hung parliament and two disparate anti-establishment parties (with policies for cutting taxes and extravagant spending plans) potentially forming a coalition and challenging the European Union. The situation is complex and uncertain, but maybe markets are too complacent about populist policies being implemented.</p>	<ul style="list-style-type: none"> <li>Economic fundamentals continue to improve. Higher wages should be seen first in Germany. Potential for government debt to decline as a proportion of GDP if interest rates remain low.</li> <li>Political uncertainty persists.</li> </ul>

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### The Investment Futures Framework: scenarios and changes in return potential

In managing MLC's multi-asset portfolios we assess potential future risks and opportunities. We invest by understanding what could happen as opposed to picking the single future that will unfold. The future is not predetermined; it depends on what policy makers do, how companies behave and how these things compare to investors' expectations.

By understanding the different ways in which the future might unfold we are able to make informed choices about the trade-offs between risk and return. A higher exposure to shares will increase returns in some scenarios, but reduce returns in others. Where there are assets that generate positive returns when share markets decline, we can have a higher share market weighting. Nominal bonds played an important diversification role through the GFC. But today, low starting bond yields mean they are at best poor diversifiers of share market risk and are outright risky in some circumstances.

As outlined, looking forward from today we see the potential for the strong returns that we have seen over recent years to persist, but this environment is not based on strong foundations and fragility is increasing. It may still be possible for policy makers to engineer a benign path forward, but we must take seriously the possibility of a significant market decline. Our aim is to understand the key things that could happen and then identify the most appropriate trade-off of risk and return, given the objectives and constraints for each portfolio, to find at least an acceptable outcome regardless of what happens.

#### THE INVESTMENT FUTURES FRAMEWORK SCENARIO SETS EXPLAINED

Our approach assesses and analyses a comprehensive set of possible future scenarios – this is referred to as the Investment Futures Framework. This thorough assessment of the different ways in which the future might unfold provides us with detailed insight into return potential and, most importantly, the sources and the extent of risk and the means of efficiently controlling risk. We track how future risk and return potential changes through time. The process provides a deep and detailed understanding of future risks, return potential and the opportunity for diversification. Risk is not a statistic; it arises from a range of real economic, political and business events. Using our Framework's comprehensive assessment of the potential sources of future risk we are equipped to position portfolios to extract return potential while maintaining the required risk control.

The Investment Futures Framework comprises both our **generic** broad set of 40 scenarios which pivot around the main drivers of returns – the macroeconomic drivers and investor behaviour (swings in the level of optimism or pessimism, and rational changes in risk perception) – and a **tailored** scenario set which includes as many primary distinctive scenarios as is necessary looking forward from the current starting point.

The generic set of scenarios is designed to have relevance from any starting point and provide a consistent barometer of risk and return through time. The smaller tailored set of scenarios pivot around the key characteristics and uncertainties in the current environment. The tailored set might be seen as consisting of the most obvious potential futures, though we are aware that what seems most obvious today may not be after the event – the future is only ever obvious once it has become the past.

These two scenario sets in combination are used to assess portfolio positioning. Both sets of scenarios are updated as asset prices change – as asset prices change, future return potential and possible future risks change. We take this evolution into account in positioning our portfolios.

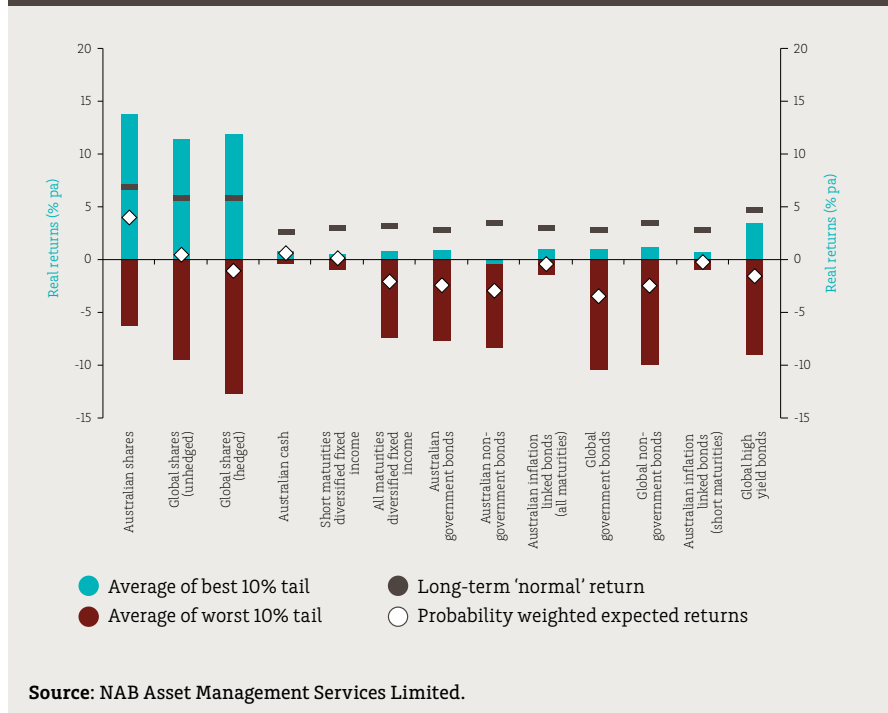
Our promise, particularly to our Inflation Plus portfolio investors, is to maintain the risk control discipline – this means that in a worst case scenario we must avoid significant negative returns over each portfolio's time horizon. However, our awareness of the possibility of an ongoing speculative rally means we need to be nimble and rapidly re-assess positioning on market pull-backs - though we suspect further strong rises have a declining probability. We also need to continue our efforts to seek new risk controlled market exposures.

Our tailored scenario set currently consists of 14 scenarios (refer to Appendix 1). Due to the prevailing distortions and policy uncertainty, these scenarios contain more complexity and cover a wider range of outcomes for assets than would be the case from a less distorted starting point. The current inflation circumstances assume an appropriately high level of importance in design of the tailored scenario set, and have been up-weighted in the generic scenario set versus 'normal' levels.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

CHART 3: 40 SCENARIO SET (GENERIC SCENARIOS) POTENTIAL REAL RETURNS (MARCH 2018) - 5 YEARS, 0% TAX WITH FRANKING CREDITS, PRE-FEES, PRE-ALPHA



Source: NAB Asset Management Services Limited.

Regardless of inflation, it remains the case that pressure persists on the real economy from widespread high debt loads. This means that outcomes will not just pivot along inflation paths, but will be heavily influenced by decisions to either save or borrow in both the private and public sectors and by the direction of policy that might or might not foster an improvement in efficiency and a pickup in potential growth. Credible outcomes range from favourable improvements in nominal prices and improvements in capital productivity (ie **Inflationary debt resolution** scenario) through to the **Stagflation** and **Extended risk aversion** environments that we expect would eventuate should today's unorthodox policies fail and fiscal stimulus disappoints or fails to materialise. The political pressures that arise from what are now multiple displays of voter discontent with the status quo reinforces the need to change the policy agenda. This is a risk point to watch closely, particularly as it has coincided with changing perceptions about monetary policy efficacy.

The potential real returns for each asset class are shown in Chart 3 on page 11.

The probability-weighted real returns are shown in the graph (diamonds). For comparison, we've provided long-term 'normal' return expectations which are set by considering a stable fair value world – these are shown by the horizontal lines. Also, as an indicator of how uncertain these returns are, we've taken the bottom (and top) 10% of the scenario real returns and calculated the probability-weighted average in those 'tail' outcomes. These are shown in the bars. Asset classes with wider ranges could have more extreme return outcomes than those with narrow ranges.

### Performance expectations

Chart 4, on page 12, shows return potential for the MLC Horizon, Inflation Plus and Index Plus portfolios based on our generic (40) scenario set looking forward from the end of March 2018.

The chart continues to show that on average, looking across the whole scenario

set, the potential reward for taking risk is very limited. In the event that a scenario with relatively higher returns occurs, the returns of those portfolios with larger share allocations will be sharply higher. However, looking across the range of future possibilities and using our assessment of their probabilities, it is clear that the reward for risk-taking could disappoint investor expectations.

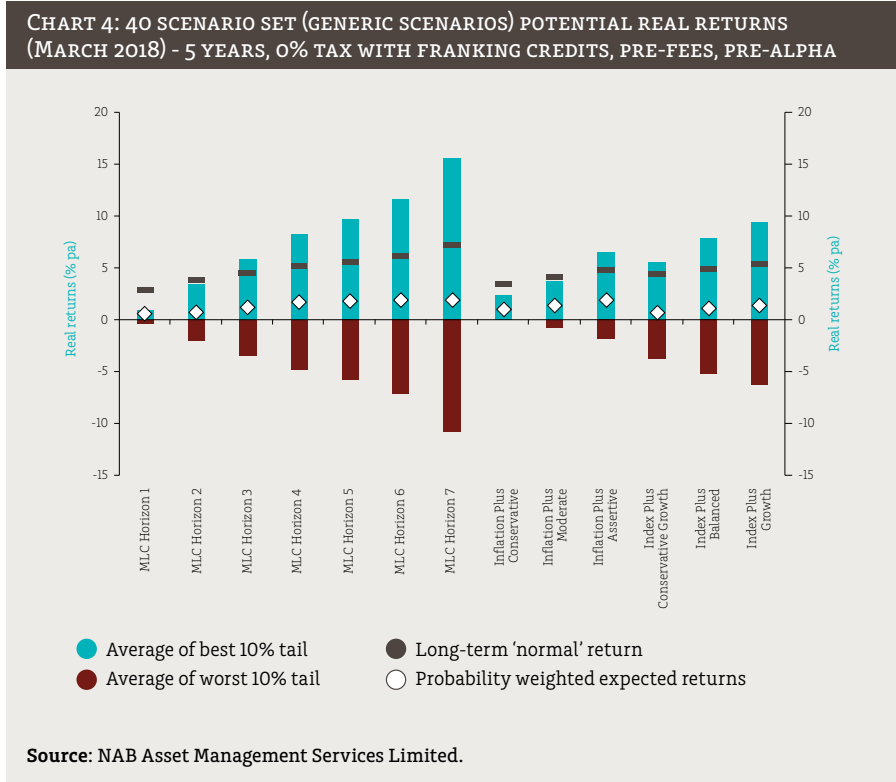
Comparing the MLC Inflation Plus to the MLC Horizon and Index Plus portfolios, the stronger risk focus of the Inflation Plus portfolios is evident. Consistent with their objectives, these portfolios have responded to shrinking return potential and weakening risk diversifiers by reducing exposures to riskier assets. This reduces the return potential in strong scenarios but provides tight risk control in the event that an adverse environment occurs.

In positioning the MLC multi-asset portfolios we take into account outcomes in all our scenarios. For the MLC Inflation Plus portfolios, our focus is on strictly limiting both the probability and most importantly the extent of negative real returns over each portfolio's time horizon in the event that an adverse scenario occurs, while extracting as much return potential as possible subject to this risk constraint.

Also, in relation to the MLC Inflation Plus portfolios, the chart suggests that with a single static asset allocation, a particularly positive scenario is required to meet the return hurdle. Of course, in practice the portfolios' asset allocations are not static. We evolve the MLC Inflation Plus portfolios' allocations dynamically through time to control risk as required and exploit opportunities as they arise. However, we will not chase returns to meet the return hurdle if that requires too great a risk exposure. If a higher level of volatility persists, this may result in new opportunities to enhance returns in an appropriately risk controlled manner.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING



The probability-weighted real returns are shown in the graph (diamonds). For comparison, we've provided long-term 'normal' return expectations which are set by considering a stable fair value world – these are shown by the horizontal lines. Also, as an indicator of how uncertain these returns are, we've taken the bottom (and top) 10% of the scenario real returns and calculated the probability-weighted average in those 'tail' outcomes. These are shown in the bars. Portfolios with wider ranges could have more extreme return outcomes than those with narrow ranges.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### MLC Inflation Plus portfolios

The MLC Inflation Plus portfolios have flexible asset allocations with few constraints which enable us to target tight control of risk over each portfolio's time horizon. In particular:

- we limit vulnerability to negative returns to preserve capital in above-inflation terms over the defined time frame – if there is higher prospective risk this triggers tighter risk control

- in other scenarios, we aim to deliver attractive inflation plus returns over the defined time frame, and
- we will not chase higher returns if the risks of doing so are inconsistent with capital preservation over each portfolio's investment time frame.

Returns over the past year have been very modest, particularly relative to those generated in prior years. The past 12 months have been challenging for our defensive positioning.

Here is a summary of the positioning of the MLC Inflation Plus portfolios.

Asset class	Change in allocation to asset classes in the MLC Inflation Plus portfolios (in MLC MasterKey's super and pension products) over the March quarter*			Comment
	Conservative	Moderate	Assertive	
Defensive Australian shares	Steady allocation	Steady allocation	Steady allocation	Our defensive shares investment process directly takes account of the risks identified in our scenarios analysis. By investing in defensive Australian shares we're able to have a higher exposure to Australian shares than we otherwise would.
Global shares (through derivatives strategies)	Zero allocation	Zero allocation	Zero allocation	Limited direct exposure to the broad global share market except through our derivatives strategy (outlined below). We have a strong preference for our defensive shares allocation in the present relatively high risk environment.
Defensive global shares (unhedged)	Steady allocation	Steady allocation	Steady allocation	Primary global share exposure is defensive. The portfolios have a strong bias to absolute, not index-relative, shares.
Foreign currency exposure	Call options protection maintained	Call options protection maintained	Call options protection maintained	<b>AUD/USD upside protection</b> maintained at a lower level and the currency basket to which the portfolios were exposed were diversified with a lower USD exposure and higher exposure to euro, yen and UK pound during the quarter.
Gold exposure (through derivatives strategies)	Zero allocation	Zero allocation	Steady allocation	Gold helps protect the portfolio against a range of shocks and inflationary scenarios. However the gold price can be volatile and the concept of fair value is nebulous.
Low correlation strategy	Steady allocation	Steady allocation	Steady allocation	High quality, transparent hedge fund strategies are a relatively important source of return potential in a world where it has become more difficult to generate returns with reasonable risk. However, these strategies are exposed to a variety of risks, and allocations are sized accordingly.
Real return strategy	Steady allocation	Steady allocation	Steady allocation	Allocation to our multi-asset real return manager, Ruffer, maintained.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### MLC Inflation Plus portfolios continued

Asset class	Change in allocation to asset classes in the MLC Inflation Plus portfolios (in MLC MasterKey's super and pension products) over the March quarter*			Comment
	Conservative	Moderate	Assertive	
Derivatives strategies	Steady allocation	<b>Increased allocation</b>	<b>Increased allocation</b>	Focus has increased on risk controlled equity exposures using derivative strategies opportunistically, taking advantage of favourable market pricing where this is consistent with our scenarios insights.  We've tailored an exposure to specific global share markets via futures on the basis of fundamental value and risk offsets via currency exposure. During the quarter a call options exposure was also put in place to provide a risk controlled exposure to share market upside with a limited and predefined downside. This strategy exploited very low levels of volatility at the start of the year making the options unusually inexpensive.
Global private assets	Steady allocation	Steady allocation	Steady allocation	Within the Private Equity portfolio some rebalancing is underway which reduces the venture capital exposure. This locks in what have been very strong returns in this part of the market and reduces the overall risk profile of the portfolio.
Global property securities	Zero direct exposure	Zero direct exposure	Zero direct exposure	In the portfolio we are limiting exposure to interest rate sensitive assets. We prefer the broader opportunity and absolute return orientation of defensive global shares and multi-asset strategies. There is potential reversion in the prices of higher yielding assets such as Real Estate Investment Trusts (REITs) in scenarios in which monetary policy normalises.
Global government bonds	Zero direct exposure	Zero direct exposure	Zero direct exposure	Deeply unattractive, with limited diversification benefit.
Australian inflation-linked bonds	Steady allocation	Steady allocation	Steady allocation	Maintaining emphasis on short duration inflation-linked bonds which helped protect returns as yields rose during the quarter.
Insurance-related investments	Zero allocation	Steady allocation	Steady allocation	Insurance-related investments are uncorrelated to other asset classes though it's a risky exposure that we believe is appropriate in portfolios with a sufficient investment time horizon.
Bank loans	Steady allocation	Steady allocation	Steady allocation	Floating rate loans offer some exposure to diversifying income-based risk premia without as much capital risk as fixed coupon bonds. While this exposure has been attractive in the current environment, tight spreads increase price risk and a tendency for low liquidity in adverse environments limits the degree to which portfolios should have exposure.
Australian non-government bonds (short duration)	Steady allocation	Steady allocation	Steady allocation	Offer some return enhancement while limiting additional risk.
Cash	Steady allocation	<b>Reduced allocation</b>	<b>Reduced allocation</b>	We continue to keep significant powder dry (in cash) waiting for better opportunities. The benefit of cash allocations comes from the optionality it provides in a risk-off environment.
Borrowings	Borrowing not permitted	Borrowing not permitted	No borrowings	Reward for risk is too limited.

\* Based on target asset allocations.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### MLC Horizon portfolios

For the active management of the MLC Horizon portfolios, risk is primarily benchmark-related. Benchmarks have been designed to efficiently generate above inflation outcomes on the basis of long-term investment assumptions. Target allocations deviate from the benchmark when (as is typically the case) the prospective medium-term investment environment differs from these long-term assumptions.

Our scenarios analysis is used to identify target allocations which are more risk-return efficient than the benchmark which, because these portfolios must remain true to label, have constraints on the extent to which they can deviate from the benchmark. In particular, these traditional multi-asset portfolios have

constraints to the mix of fixed income and shares which they can hold. This provides a level of certainty to investors about where their money will be invested, however it also means that portfolio risk is primarily a function of market risk.

As the riskiness of assets changes through time, we vary the asset allocation to position the portfolios to achieve a higher reward for risk than the benchmark. The risk aware nature of our investment process tends to mean that value is added via the adoption of defensive positioning when risk is high, which reduces loss exposure.

For MLC Horizon portfolios we are maintaining a relatively defensive orientation, in part this comes from exposures to Inflation Plus but also through significant deviations from

benchmark debt allocations. We continually test our thinking, and we retain high conviction in the appropriateness of this positioning. While the flexibility is more limited and exposure lower, we are utilising similar derivative strategies, as for Inflation Plus portfolios, to enhance the defensiveness of equity exposures and manage exchange rate risk.

Here is a summary of the positioning of the MLC Horizon 4 Balanced Portfolio.

	MLC Horizon 4 Balanced Portfolio (in MLC MasterKey's super and pension products) weights at end of the March quarter*			Comment
	Under	Benchmark	Over	
<b>Growth assets</b>		•		
Australian shares		•		Retained benchmark allocation.
Global shares (unhedged)			•	We continue to be overweight foreign currencies (underweight the AUD), with an overweight allocation to unhedged global shares at the expense of hedged global shares. While foreign currency remains an important source of risk control, its power as a risk diversifier has reduced as the AUD declined significantly from peak levels.
Global shares (hedged)	•			
Global property securities		•		Retained benchmark allocation – the benchmark allocations are underweight versus peers.
<b>Defensive assets</b>	•			
Cash			•	To further reduce interest rate risk in MLC Horizon 2 to 5 portfolios we've increased the overweight to cash and decreased exposure to Australian and global bonds. We've made these changes in response to low bond yields, gradually rising risks of higher inflation and potential headwinds from a slow tightening in monetary conditions.
Australian bonds – All maturities	•			Underweight to longer duration Australian bonds increased for MLC Horizon 2 to 5 portfolios, to further reduce interest rate risk.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### MLC Horizon portfolios continued

	MLC Horizon 4 Balanced Portfolio (in MLC MasterKey's super and pension products) weights at end of the March quarter*			Comment
	Under	Benchmark	Over	
Australian inflation-linked bonds		•		This allocation to inflation-linked bonds in MLC Horizon 2 to 5 portfolios includes exposure to both short and all maturities duration inflation-linked bonds. The portfolios are underweight all maturities exposure, and overweight the short duration exposure which reduces interest rate risk. To further reduce interest rate risk in MLC Horizon 2 and 3 portfolios we reduced their allocation to all maturities inflation-linked bonds this quarter.
Global bonds – All maturities	•			Underweight to longer duration global bonds increased for MLC Horizon 2 to 5 portfolios, to further reduce interest rate risk.
Global non-investment grade bonds (high yield bonds and loans)		•		Retain benchmark allocation.
<b>Alternatives</b>			•	
Global private assets		•		Retain target benchmark allocation.
Real return strategies (including Inflation Plus)			•	MLC Horizon 4 and 5 portfolios remain overweight real return strategies, other portfolios are at benchmark. We believe the allocation to real return strategies provides the portfolios with a greater potential ability to preserve investors' capital in volatile markets and provides our investors with potentially better investment returns for the level of risk we take.
Low correlation strategy		•		This fund of hedge funds strategy aims to generate a return above cash and deliver returns that are mostly independent of share market performance.

\* Based on target asset allocations.



# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### MLC Index Plus portfolios

Risk is primarily benchmark-related for the Index Plus portfolios. Benchmarks have been designed to efficiently generate above inflation outcomes on the basis of long-term investment assumptions. Target allocations deviate from the benchmark when (as is typically the case) the prospective medium-term investment environment differs from these long-term assumptions.

Our scenarios analysis is used to identify target allocations which are more risk-return efficient than the benchmark which, because these portfolios must remain true

to label, have limitations in the extent to which they can deviate from the benchmark. In particular, these traditional multi-asset portfolios have constraints to the mix of fixed income and shares which they can hold. This provides a level of certainty to investors about where their money will be invested, however it also means that portfolio risk is primarily a function of market risk.

As the riskiness of assets changes through time, we vary the asset allocation to position the portfolios to achieve a higher reward for risk than the benchmark. The risk aware

nature of our investment process tends to mean that value is added via the adoption of defensive positioning when risk is high, which reduces loss exposure.

For MLC Index Plus portfolios we are maintaining a relatively defensive orientation, this is through adjustments made to the fixed income strategy and allocation to the Simple Real Return strategy. We continually test our thinking, and we retain high conviction in the appropriateness of this positioning.

Here is a summary of the positioning of the MLC Index Plus Balanced Portfolio.

	MLC Index Plus Balanced Portfolio weights at end of the March quarter*			Comment
	Under	Benchmark	Over	
<b>Growth assets</b>	•			
Australian shares		•		Retained benchmark allocation.
Global shares (unhedged)			•	We continue to be overweight foreign currencies (underweight the AUD), with an overweight allocation to unhedged global shares at the expense of hedged global shares. While foreign currency remains an important source of risk control, its power as a risk diversifier has reduced as the AUD declined significantly from peak levels.
Global shares (hedged)	•			
Global property securities		•		Retain benchmark allocation – the benchmark allocations are underweight versus peers.
<b>Defensive assets</b>			•	
Cash			•	To further reduce interest rate risk in all Index Plus portfolios we've increased the overweight to cash and decreased exposure to Australian and global bonds. We've made these changes in response to low bond yields, gradually rising risks of higher inflation and potential headwinds from a slow tightening in monetary conditions.
Australian bonds – Short maturities			•	Overweight maintained.
Australian bonds - All maturities	•			Underweight to longer duration Australian bonds increased for all Index Plus portfolios, to further reduce interest rate risk.
Australian inflation-linked bonds		•		This allocation to inflation-linked bonds includes exposure to both short and all maturities duration inflation-linked bonds. The portfolios are underweight all maturities exposure, and overweight the short duration exposure which reduces interest rate risk.
Global bonds - Short maturities			•	Overweight maintained.
Global bonds - All maturities	•			Underweight to longer duration global bonds for all Index Plus portfolios, to further reduce interest rate risk.
<b>Alternatives</b>		•		
Real return strategies		•		We believe the allocation to real return strategies (through the Simple Real Return strategy) provides the portfolios with a greater potential ability to preserve investors' capital in volatile markets and provides our investors with potentially better investment returns for the level of risk we take.

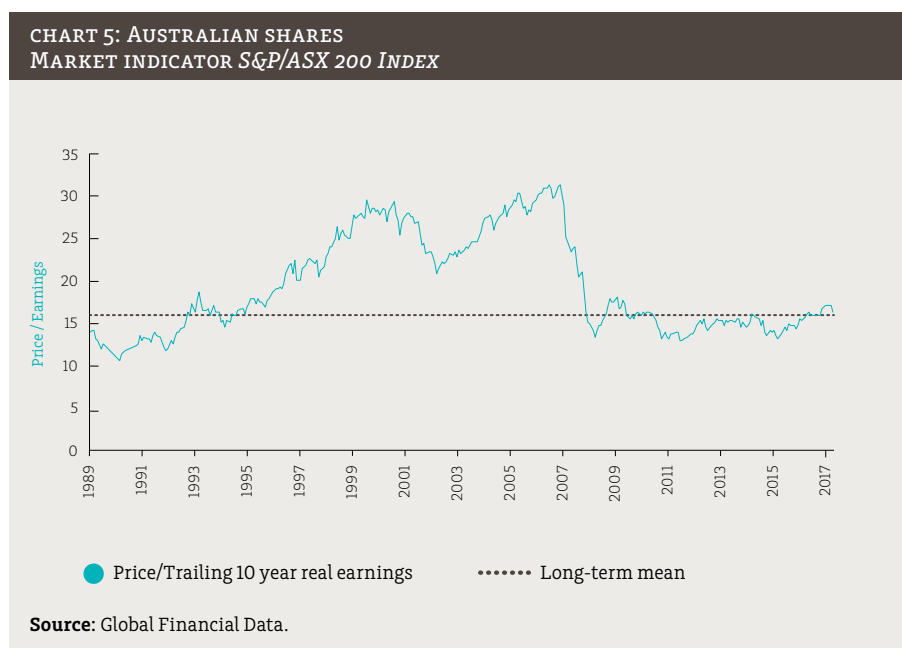
\* Based on target asset allocations.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Asset class indicators

Commentary on the main asset classes follows.



### Comment

Australian economic data has been mildly positive. Strong jobs growth and robust business surveys suggest a significant pickup in economic activity. However slow wages growth and low inflation has allowed the Reserve Bank of Australia to keep the official cash rate steady at 1.5%.

Australian shares posted a weak return of -3.9% for the quarter. The Telecommunication sector fell sharply (-11.0%) due to intense competitive pressures. The Utilities sector was weak (-6.9%) given its sensitivity to rising global bond yields. Also disappointing was the Resources sector (-4.2%) due to weaker iron ore and metal prices.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Asset class indicators continued



### Comment

Global shares (hedged) made a disappointing return of -1.9% over the past three months to March 2018. However a lower AUD boosted the unhedged global shares return to 1.1%.

US shares achieved record highs in January 2018 with the benefit of strong corporate profit reports and President Trump's tax cut. US economic data has also been very positive in terms of jobs growth and encouraging business surveys.

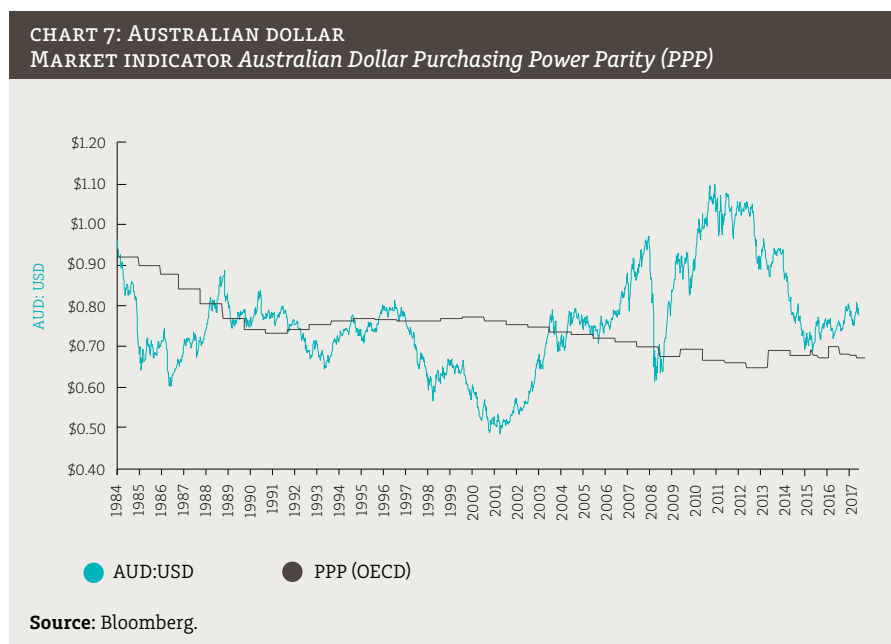
However stronger wages growth and concerns over inflation risks then started a sharp correction for Wall Street. These concerns intensified in March when President Trump announced tariffs on steel and aluminium as well as imports from China. Asian and European share markets were also adversely impacted by these concerns over trade.

Emerging markets (unhedged) were more resilient and made strong returns of 3.5% for the quarter. Stronger economic activity and lower interest rates has caused investors to favour emerging markets more than their developed counterparts.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

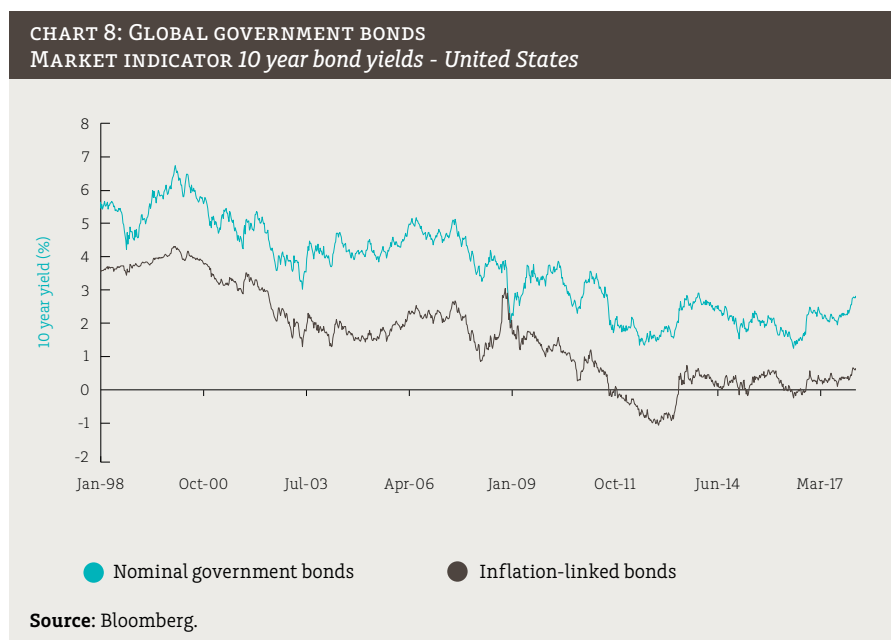
## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Asset class indicators continued



### Comment

The AUD continues to drift lower with falling commodity prices and modest economic activity data for Australia in the March quarter. Concerns over US tariff announcements and the Fed raising US interest rates in March also weighed on the AUD.



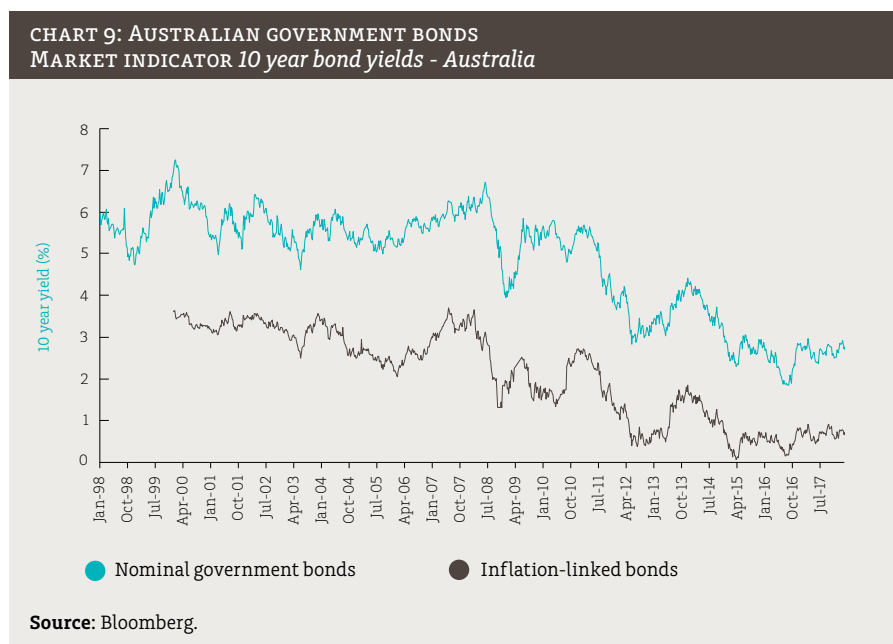
### Comment

Global bonds (hedged) delivered a flat return of -0.1% for the quarter. US and European government bond yields rose due to concerns over future inflation risks.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

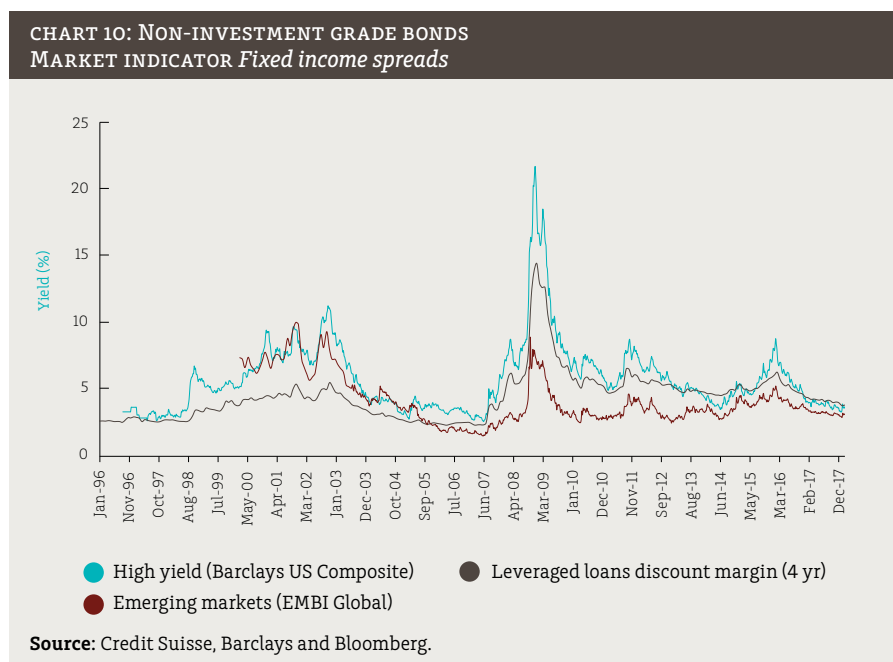
## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Asset class indicators continued



### Comment

Australian government bond yields were volatile given global concerns but managed to make a positive return over the quarter of 0.9%.



### Comment

Despite the more cautious risk taking environment, global high yield bonds (hedged) delivered a positive 1.3% return for the quarter.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Appendix 1 – Tailored scenario set

Scenario	Probability ranking (previous rank)	Description
Inflationary debt resolution	1 (2)	Central banks err on the side of supporting growth while economic reforms do not occur fast enough to entirely offset inflationary pressure, resulting in an orderly rise in inflation. Upward pressure on skilled wages supports demand but squeezes profits. Widespread USD, GBP, JPY and EUR liquidity support asset prices, but this is offset by earnings reversion in the US. Bond markets are reasonably well behaved, but yields do rise. Inflation is high enough to help inflate away the debt burden and global productivity levels decline. Emerging markets experience more severe inflation than the developed world, slightly normalising the growth differential across the emerging markets and developed markets.
Three speed global economy (China soft landing)	2 (3)	The world continues to split into three distinct economic growth zones. Emerging markets led global growth with some rebalancing and moderation in China; the US and UK grow at or above trend; while Europe continues to stagnate. Japan struggles to escape stagnation for now. Strong USD and AUD vs JPY and EUR.
Reform (path to growth normalisation)	3 (1)	A growth upside scenario contingent upon coordinated reforms that address inefficiencies that are idiosyncratic to particular economies (eg labour in the many European economies and Japan, infrastructure in the US, sector contribution to growth in China and structural issues in the eurozone). This scenario is increasingly more likely in light of recent policy initiatives. The US and UK grow at or above trend, reforms and stimulus in Japan boost growth to above trend; reforms continue in the eurozone which start to increase growth potential and easing of austerity reduces growth constraints.
Synchronised moderate growth	4 (4)	Japan's and Europe's growth approach trend levels, while the US, UK and China moderate resulting in a synchronised modest global growth scenario.
Slow global growth deleveraging	5(6)	A prolonged and slow consumer deleveraging. Slowing consumption growth and falling nominal prices extend the deleveraging cycle. There is global growth convergence as persistent slow growth and further disinflation in the developed world spills over into the now highly indebted emerging world.
Inflation shock	6 (8)	Similar to <b>Stagflation</b> , though assumed growth is higher. Sharp rise in inflationary expectations.
Australian stress	7 (9)	This vulnerability increases as China's growth slows - a more pronounced slowdown is a potential trigger for this scenario. A consequence of moderating demand for Australia's mineral exports is deteriorating terms of trade which erodes national income. In this scenario, positive real growth could disguise an income recession. Since interest payments must be made in nominal rather than real terms, this stress becomes more acute at higher levels of foreign debt. Where this occurs, coincident with an unravelling of the over-extended residential property market, a worst case scenario loss of confidence in Australia causes funding stress to banks which requires central bank intervention.
Extended risk aversion	8 (13)	A generic scenario to capture prolonged aversion to risk. The probability of a <b>Eurozone slow disintegration</b> scenario was previously included in this generalised risk aversion scenario. Potential triggers include policy disappointment, in particular a protectionist Trump presidency with rising tension with China.
Rise in USD risk premium	9 (10)	Low starting yields are a valuation risk for bonds. Yields could rise to more normal levels even in the context of low growth/inflation expectations. High government debt burdens (UK/core Europe/Japan/USA) provide the potential for a bond-vigilante style re-rating of sovereign yields that undermines key safe haven currencies including the USD. This is not a likely near-term scenario, but given the low yields and high level of indebtedness as a starting point, there is a risk that the environment could progress to one where apparently safe paper becomes compromised. This in turn increases the cost of funding and reduces corporate activity. At the same time, government spending is curtailed by enforced austerity in an effort to limit yield increases, remain liquid and stay solvent. This may be a precursor to a <b>Prolonged stagnation</b> scenario. AUD strong but does not re-visit highs vs USD.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Appendix 1

#### – Tailored scenario set continued

Scenario	Probability ranking (previous rank)	Description
Stagflation	10 (12)	With no clear roadmap for the withdrawal of policy stimulus, the inflation risks from quantitative easing may be much bigger than are currently appreciated. In this scenario, policy stimulus is not withdrawn fast enough, perhaps coupled with increased policymaker tolerance for an inflationary work-out (due to a much stronger aversion against deflation than inflation) which gets out of hand. Run-away inflation in this scenario is likely to be negative for real growth, which could in turn lead to <b>Stagflation</b> . The scenario is likely to involve monetary policy reversals reminiscent of the 70s. The US economy is getting closer to the point at which an inflationary policy mistake could occur.
Early re-leveraging	11 (7)	Low yields and a period of policy stability prompt a resumption of credit growth in developed economies. Economic growth picks up more quickly than expected and unemployment recedes. Debt imbalances begin worsening again as the developed world quickly re-levers and Asia focuses on investment. This scenario could precede an <b>Inflation shock</b> , a second crisis or, if policy makers are nimble enough, a transition to a mild <b>Inflationary debt resolution</b> .
Negative nominal interest rates	12 (5)	Central banks of Japan and Europe move further into negative deposit rates with the Fed and the Bank of England inching towards negative policy rates. This scenario includes the impact of expanded USD, GBP, JPY and EUR liquidity which principally finds its way into asset prices, rather than spurring consumption. The character of this scenario has changed as further extensions of monetary policy have less impact on asset market pricing. Important drivers to change include rising confidence on robust US growth, and moderation in Chinese resources demand with consequent flow-on effects for the Australian economy and interest rates. Consequently it is not anticipated that the AUD would re-visit recent peaks in this scenario, though could remain elevated versus measures of fair value particularly versus the EUR and JPY. China's economy continues to rebalance and growth moderates. China accepts more foreign direct investment. Sourcing these funds externally - rather than from within China - could act as a 'backdoor bailout' of China's poorly performing projects from the 2008/9 stimulus.
Eurozone slow disintegration (possibly leading to reform)	13 (11)	Rising risk of anti-eurozone politicians gaining power, most notably in France with consequent loss of confidence in the stability of the eurozone periphery. A worst case version of this scenario is most likely expressed in the form of withdrawal of cash from banks in countries where an exit is feared, potentially prompting capital controls and raising questions about the union. The path a <b>Eurozone slow disintegration</b> might take is highly uncertain. A positive version of this scenario occurs if existential fears lead to a meaningful policy change including on the contentious issues of closing the output gap which requires a significant shift from Germany, and external immigration. In a best case situation there is meaningful reform which potentially influences Brexit - this possibility is captured in the <b>Reform</b> scenario.
Monetary failure	14 (14)	A distinctive and hence important scenario that accounts for the possibility of unorthodox monetary policy to fail. Ineffective or stop-go policy, in the absence of meaningful fiscal stimulation, could result in this scenario that could lead to global stagnation, recessionary or even hyperinflationary conditions. In this scenario investors and consumers lose faith in the ability of monetary policy to resolve critical imbalances within the global economy. Developed market economic expansion is negligible and emerging markets slow down significantly, running the risk of a crash. Shares perform poorly. Commodities fall. Nominal yields rally further and remain low.

# MLC HORIZON, MLC INFLATION PLUS AND MLC INDEX PLUS PORTFOLIOS

## MLC'S SCENARIO INSIGHTS & PORTFOLIO POSITIONING

### Appendix 2

#### – MLC's market-leading investment process

### Step 1

#### Scenario analysis and portfolio construction

##### The Investment Futures Framework



- We can never be certain what the future will hold. To adequately understand risk we must take into account the things that *could* happen.
- We do this by building a comprehensive understanding of the possible future investment environments or scenarios that could occur. This includes not just those things most likely to occur, but also unlikely but very distinctive environments (such as financial crises and other 'tail risk' environments).
- The Investment Futures Framework builds a detailed understanding of how returns vary in each scenario. This also provides detailed information about the nature and extent of investment risks, the means to diversify those risks and how these change through time.
- Understanding how returns and risks can change over time means we can determine the best combination of assets, strategies and managers to generate returns while controlling risks in all scenarios - the asset allocation.

### Step 2

#### Implementation

We implement the asset allocation as efficiently as possible to minimise costs.

### Step 3

#### Review

We continuously apply our Investment Futures Framework to determine if portfolio adjustments are appropriate.





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#### **Important information**

This information has been provided by MLC Investments Limited (ABN 30 002 641 661 AFSL 230705) and NULIS Nominees (Australia) Limited (ABN 80 008 515 633, AFSL 236465), members of the National Australia Bank Limited (ABN 12 004 044 937, AFSL 230686) group of companies (NAB Group), 105–153 Miller Street, North Sydney 2060.

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