MLC's scenario insights & portfolio positioning

MLC Horizon, MLC Inflation Plus and MLC Index Plus portfolios

April 2020

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We welcome your feedback on this document.
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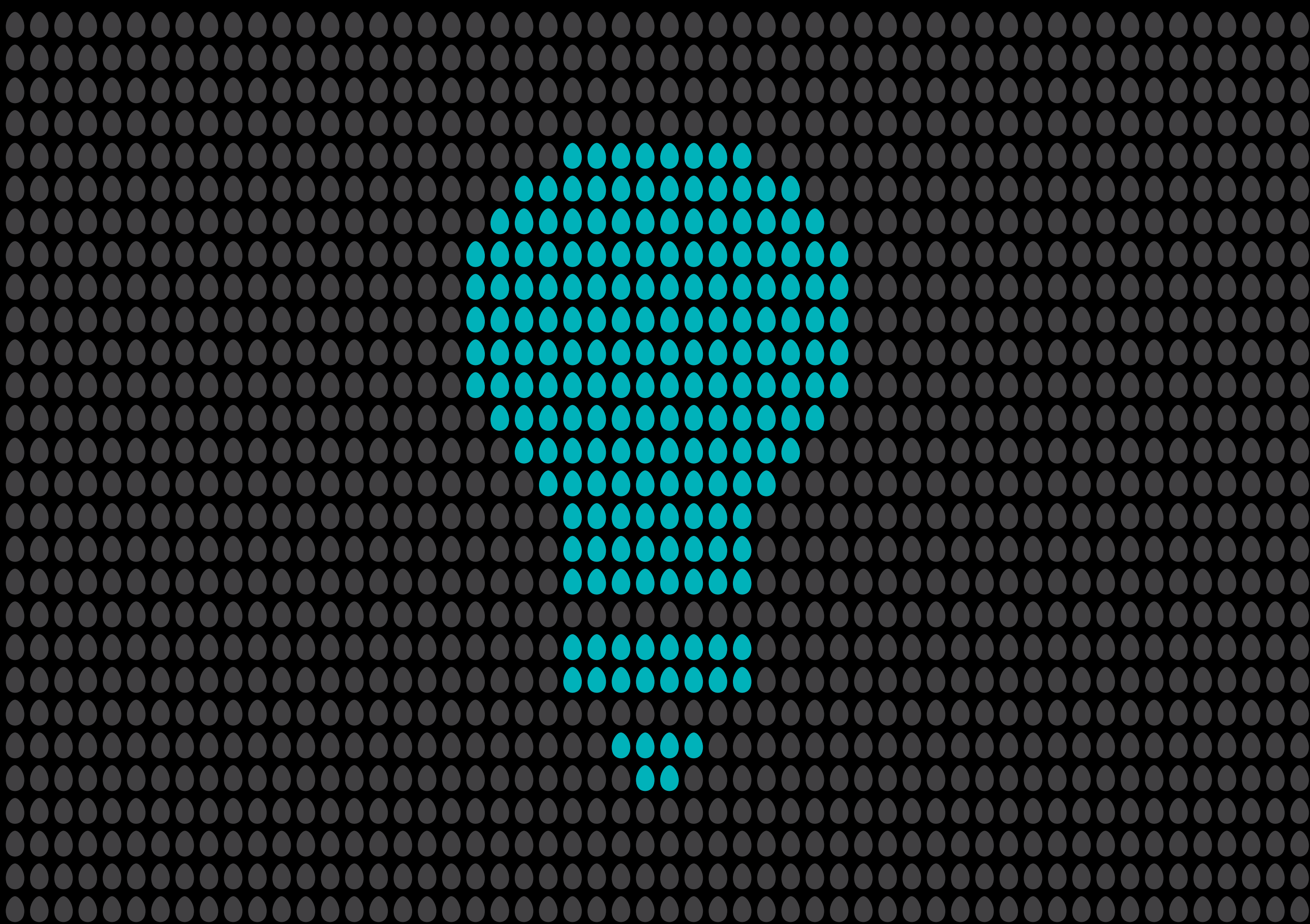


Contents

Update for the quarter ending 31 March 2020.

Quarterly insights

Highlights

- Our Investment Futures Framework recognises a vast number of scenarios including remote possibilities like global pandemics.
- At times like this we focus on identifying uncertainty and hammering out solutions to deal with the unknown, all the while preserving as much wealth as possible.
- As daily infections fall to a low level, pressure will mount on the politicians to listen less to the experts and more the idle masses.
- Our short-term scenarios are centred around COVID-19 and the various potential outcomes. As a result of the pandemic, we've made portfolio changes.

Insights

The first quarter of 2020 will no doubt be forever enshrined in history. What had existed for more than a decade as a low-probability exogenous shock scenario within our Investment Futures Framework - the "**global pandemic**" scenario - morphed into reality and set the global economy and financial markets onto a very unfamiliar track. All of us living through this pandemic will carry forward memories and learnings, both personal and professional, from this unfamiliar environment.

It also represents a time where, understandably, complacent investors have collided head on with a disruptive force that cannot be nullified by social, economic or monetary policy. This type of event is very rare – probably no more than a 1 in 100-year phenomenon – but it and other 'left tail risk events' are omnipresent risks whose consequence should never be overlooked by either investors or policy makers. True, both the monetary and fiscal guns have been deployed to defend the real and financial economies, but the gap between what has been lost and what has been gained will remain large for pedestrians on both Main Street and Wall Street. Lives have been lost forever and the livelihoods of many put on hold for an unknown length of time. Unemployment could well rise to levels not seen since the Great Depression and balance sheets are at great risk in many sectors. That the crisis hit with valuations at extended levels did not help the 'sticker shock' that ripped through markets. Supressed volatility that had encouraged leverage quickly flipped, forcing a deleveraging that sent share markets into a decline with a velocity that rivals some of the worst moments in the history of modern listed markets.

The lessons learned by many as the pandemic took hold in dramatic fashion is that unmitigable tail risk is real, and that investment uncertainty cannot be stylised as a single summary number. In this context, focusing on the pandemic specifically as a flash point for risk is perhaps misleading – for the mayhem wrought on society need not necessarily have come by way of COVID-19 – other triggers could have been war, a severe global catastrophe, or a sudden rise in CPI for example. Instead, the learnings ought to be that risk can ignite from the non-obvious, and that low probability, high impact events should at least be considered when setting investment strategy.

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 available on our website and in Appendix 1.

The world is not short of disease modelling expertise. Yet, investors caught out by the pandemic too often scramble to build expertise in an area that requires years of education and training. This expertise resides in academic institutes, think tanks and consultancies, not amongst investment teams. At times like this, true investors, true managers of risk, need to focus on identifying uncertainty and hammering out solutions to deal with the unknown, all the while preserving as much wealth as possible.

Critical early warning signs of COVID-19 severity overlooked

To highlight the futility of rushing to rely on the obvious at the cost of ignoring key information, it is worthwhile casting back to the situation that prevailed toward the end of January 2020. At the time COVID-19 was perceived as a central China epidemic. The outbreak was concentrated in Wuhan, Hubei with small clusters of it emerging in other cities across China. The investment community quickly turned to the almanac and found SARS – the 2003 coronavirus outbreak originating in Guangdong, China that frightened the world. Using SARS as a road map, investors quickly bought the dip as case numbers in China began to plateau. Yet while investors were busy buying into the dip, a publication appeared in the world-leading independent medical journal 'The Lancet' on 24 January 2020 warning of onward transmission of COVID-19 from asymptomatic cases. This piece of overlooked information was critical. For while it did not in itself guarantee a global pandemic, the risk of widespread dissemination of what was already known to be a severe disease was now very high. The probability of the pandemic scenario had risen well out of the tail. At this point, the question should have changed from "How could COVID-19 become a global problem?" to "How could COVID-19 not become a global pandemic?"

Quarterly insights

Sure enough, with unsuspecting COVID-19 carriers seeding the virus wide and far, by late February 2020 the signs of a global outbreak were there and markets finally took note. COVID-19 spread rapidly through Iran and Southern Europe, before setting off infection waves in the UK and US, prompting wide-scale closures and lockdowns across many cities. The economic cost of the lockdowns is formidable and hard to measure. Some industries are essentially frozen (ie hospitality and tourism) while others are hampered and some unscathed eg supermarkets, some health care and technology businesses. Earnings' visibility is now very poor and as a result volatility is high.

With stable social distance policies in place, near-term case data has begun to improve. Infection rates are falling in Southern Europe and there are early signs that the US is beginning to achieve traction in slowing the spread of COVID-19. Ultimately, investors want to get a handle on how long the lockdowns will last and so will no doubt maintain laser focus on the day to day change in infection rates, particularly in Europe and the US. Assuming no major change to containment policy, short-term epidemiological data is relatively certain and easy to project with widely available data, hence short-term market dynamics will probably follow the optimism and disappointment brought by daily updates from health authorities.

Yet, despite focus on the short-term, it is very unlikely that COVID-19 will not be here now gone tomorrow. This is clear.

COVID-19 and the tightrope of political, economic and health care policies

Unlike influenzas, coronaviruses do not frequently challenge the human immune system. As a result, the global community lacks innate immunity and as such, the population is very vulnerable to infection by this family of viruses. Vexingly for public health policy, the only way to build innate immunity across the community is to invite infection, yet this is deliberately repressed by distancing policy itself. Social distancing policy makes a deliberate trade-off between limiting the spread of disease, so as to not overwhelm health care infrastructure, and allowing transmission to build immunity within the community.

Politicians, particularly conservative ones, are not incentivised to push back against growth. Yet, with a health care disaster unfolding in Europe, the Australian leadership had little choice but to follow the advice of experts and implement aggressive but economically restrictive social distancing policies. Marketing such bitter policy to the electorate is no mean feat, but with fear of a public health disaster and a generous stimulus package both in hand, the voting public have been corralled. At the same time, and with little to do and much time on their hands, many are paying acute attention to the daily change in infection rates. Tolerance for hardship will, almost without doubt, rise and fall with the changes in the pandemic data.

So from here, policy must walk a very taut tightrope that dynamically modulates distancing policy to balance economic, health care and immune-building outcomes, all the while placating what will likely become an impatient electorate that will lose tolerance for absorbing an economic cost as time goes by and infection rates regress.

The hazards associated with implementing policy that tries to achieve multiple difficult objectives, in the face of both popular politics and far from perfect information, are formidable and the associated risks should not be over looked by investors. A misstep by policy in one direction on the one hand exacerbates the economic cost of containing COVID-19; yet on the other, an impatient scale back risks provoking a second wave of infections.

Medium-term outlook for risk assets remains uncertain

The current plan cannot be to wait out the shutdown until a vaccine arrives. For doing so will likely mean waiting several years with no certainty of success. Vaccines are notoriously difficult to develop. While there have been large strides forward in the technology behind identification of potential vaccine candidates, the clinical testing regime for vaccines is onerous and difficult – if not impossible – to shortcut without compromising quality control and as such the end product. Emergence of a disease-modifying therapeutic already in clinical use for another indication is more plausible in the short term. But even here chances are slim given the long history of failure in treating RNA viruses.

Facing into the dual unknowables of:

- whether a second wave of infections will follow emergence from lockdown, and
- whether COVID-19 will adopt influenza-like seasonality

suggests to us that the epicentre of uncertainty lies 6-18 months away. Hence while short-term market dynamics will likely be driven by news flow relating to COVID-19 infection rates in the US, Europe and Japan etc, the trajectory of earnings, and thus the medium-term outlook for risk assets, are much harder to assess.

At a minimum, tourism and other sectors that rely on the free movement of passengers across international borders will suffer a drawn out and severe collapse in earnings. Banks will endure the cost of a deterioration in loans and ever lower interest rates and flat yield curves, while most other businesses outside of supermarkets, health care and some segments of technology, will feel pain while economies remain in full lockdown. But even after clearing the first hurdle of virus suppression, the risk of a second wave or establishment of seasonality will hang over the medium-term outlook for the foreseeable future. Once the initial lockdown is lifted there is no guarantee that the virus is beaten and that social restrictions are gone for good. The world is currently watching China for signs of a COVID-19 resurgence after the first phase of infections has been supressed. So far, the signs are encouraging, but it is early days and the Chinese are playing a predictably conservative hand.

So for now, the outlook continues to remain very cloudy. There are simply too many unknowables and not enough clues to form a robust central case for economic growth, inflation and corporate earnings. The only real certainty is that uncertainty is extreme and caution warranted. Yet, we should not shy away from the fact that within volatile markets lies opportunity. The key to success during these times is to remain vigilant, take sensible measured steps and avoid any temptation to make 'all or nothing' bets in the pursuit of being 'right'.

The Investment Futures Framework: Scenarios, changes in return potential, and portfolio positioning

Scenarios

In managing MLC's multi-asset portfolios using our Investment Futures Framework, the following are the short-term scenarios that we have assessed as currently providing the highest potential future risks and opportunities.

This is a highly unusual time. While at most points in time the outlook relies on multiple sources of uncertainty, the next 12 to 18 months pivot around the COVID-19 pandemic. As a result, our thoughts on short-term scenarios are all sub-versions of the main global pandemic scenario (within our generic broad set of scenarios):

- **Global pandemic: Short disruption: No second wave**
  - The northern hemisphere summer helps rid the community of COVID-19. No substantial second wave of infections arise and seasonality does not emerge.
  - Lockdowns end with only mild implications for whole of year FY+1 earnings.
- **Global pandemic: Drawn-out lockdown with mild second wave of infections**
  - A mild second wave of infections arises across the globe. Partial lockdowns are re-established.
  - Earnings suffer in both FY0 and FY+1.
  - Hospitality and other impacted sectors are severely disrupted.
- **Global pandemic: Drawn-out lockdown with severe second wave**
  - A severe second wave of COVID-19 emerges. Full lockdowns are re-established.
  - Fiscal and monetary stimulus near the point of exhaustion.
  - Populism.
  - High risk of global depression.

Changes in return potential for asset classes

Due to a strong sell-off in risk assets, the return potential of all share market sectors has increased, particularly over longer time horizons (chart 1). From a shorter-term perspective however, the lower starting prices and improved valuations are somewhat offset by higher levels of uncertainty, particularly over a one to two year horizon. This is because the chance of a highly adverse scenario for earnings, precipitated by a drawn-out lockdown, has risen materially.

Core bond return potentials have fallen due to lower starting interest rates, but there has been some offset to this due to the increase in likelihood of low growth scenarios. Credit return potentials have improved slightly due to higher spreads offsetting lower core yields.

The return potential and diversification benefit of foreign exchange (FX) exposure has declined due to a substantial devaluation of the Australian dollar (AUD).

Combined, the changes in return potential across shares, interest rates, credit and FX have prompted some measured changes to both the MLC Horizon and Inflation Plus portfolios. In Inflation Plus we have made a measured increase to quality, defensive domestic and global shares as well as reducing FX exposure and considering adding offshore credit to the strategies at some point soon.

In the MLC Horizon portfolios, we have reduced the overweight to FX but maintained a cautious overweight to global shares (unhedged). While the AUD and global share markets tend to move in the same direction, after the sharp falls in the AUD, foreign currency may not provide the same level of diversification to share market movements in the future. We prefer to reduce foreign currency than add to interest rate exposures for diversification as further rate cuts by central banks in March increased the downside risk of most fixed income sectors.

Portfolio positioning

Key recent portfolio activity and positioning has been directed at MLC Inflation Plus portfolios. MLC Horizon portfolios inherit these exposures through investments in Inflation Plus, and MLC Index Plus portfolios through the real return strategy which is managed similarly to Inflation Plus.

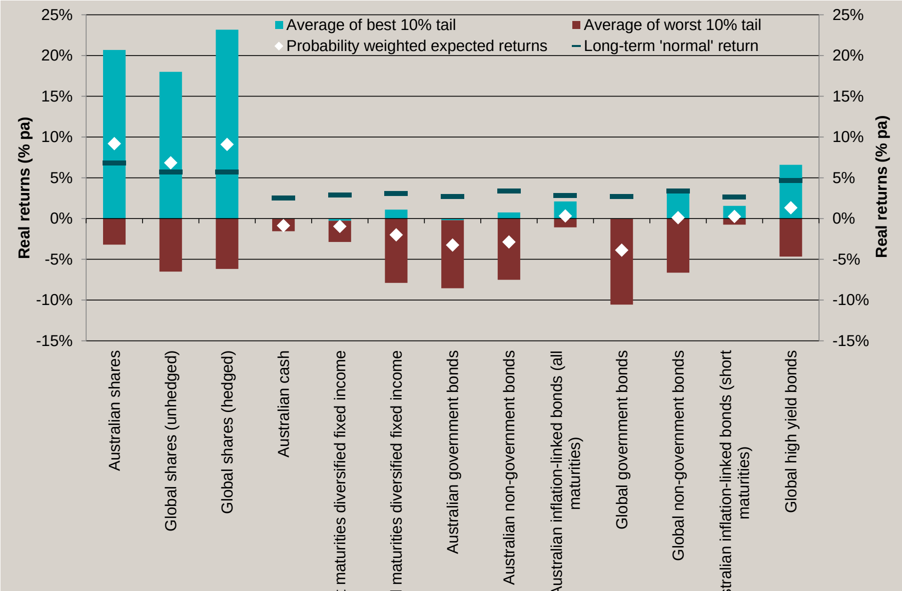
Summing up, the changes to MLC Inflation Plus portfolios include:

- The portfolios were defensively positioned prior to the COVID-19 outbreak. Share market exposure was low and directed at defensive strategies, defensive foreign currency exposure was high, and we held tail risk protection and gold.
- Prior to the slide in the gold price, we sold our exposure and bought call options. This locked in substantial profit and retained exposure to further gold upside.
- During the share market sell-off and rally in volatility we sold tail risk protection at levels in excess of 100x cost.
- We have taken small but opportunistic steps to increase risk exposure by adding to defensive/quality global and domestic shares.

More information on portfolio positioning is in the sections: MLC Inflation Plus portfolios, MLC Horizon portfolios, and MLC Index Plus portfolios.

The Investment Futures Framework: Scenarios, changes in return potential, and portfolio positioning

Chart 1: 40 scenario set (generic scenarios) potential real returns (March 2020) - 5 years, 0% tax with franking credits, pre-fees, pre-alpha



Source: MLC Asset Management Services Limited.

The potential real returns for each asset class are shown in chart 1. The probability-weighted real returns are shown as diamonds. For comparison we've included 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.

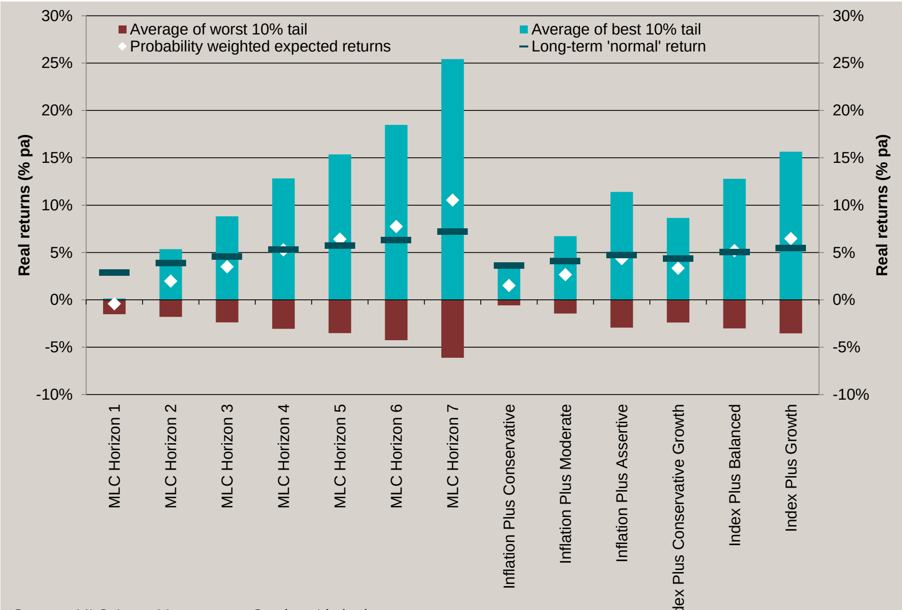
Performance expectations

Chart 2 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 2020.

The return potential of all the MLC multi-asset portfolios have improved relative to last quarter, particularly when viewed over a five-year time horizon (chart 2). As described earlier, this is due to a contraction in starting valuations for shares, but with offsets from lower expectations for core fixed income and currency. The outlook is not as clear over shorter time horizons due to the uncertainty created by the ongoing COVID-19 pandemic. We will continue to monitor the environment and assess the trade-off of making portfolio shifts as return potentials change.

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, the Inflation Plus 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.

Chart 2: 40 scenario set (generic scenarios) potential real returns (March 2020) - 5 years, 0% tax with franking credits, pre-fees, pre-alpha



Source: MLC Asset Management Services Limited.

The probability-weighted real returns are shown in chart 2 (diamonds). For comparison we've included 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 Inflation Plus portfolios

The MLC Inflation Plus portfolios were defensively positioned prior to the COVID-19 outbreak. Share market exposure was low and directed at defensive strategies, defensive foreign currency exposure was high, and we held tail risk protection and gold. All of these strategies have helped to preserve investors' capital during the market sell-off.

Key portfolio activity during the March 2020 quarter, including up until the time of writing, is:

- Prior to the slide in the gold price, we sold our gold futures exposure and bought call options. This locked in substantial profit and retained exposure to further gold upside which protects the portfolios from further falls in real rates.
- During the share market sell-off and rally in volatility we sold tail risk protection (S&P500 put options) at levels more than 100x cost. We rolled the remainder to a lower strike to retain future protection. We will look to reinstitute portfolio protection as markets rally, particularly if volatility cheapens.
- We have taken small but opportunistic steps to increase risk exposure by adding to defensive global and Australian shares. The post-crisis landscape is still unknowable, so we're cautious in allocating our available capital.

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.

- We took profit on a portion of our foreign currency holdings as the AUD fell to 60c. We've increased exposure to the AUD and the portfolios still hold USD, yen, euro and pound positions.
- We restructured our mandate with one of our defensive global shares managers, IVA, to limit cash and other non-equity holdings within the manager's portfolio. Prior to the restructure, IVA held approximately 60% in shares with the remainder in cash and gold. Post restructure, looking through to the underlying assets, Inflation Plus' exposure to defensive global shares was maintained despite a drop in IVA's allocation and increase in cash and gold.

Here is a summary of the changes to positioning of the MLC Inflation Plus portfolios over the recent quarter.

Asset class	**Change in target allocation to asset classes in the MLC Inflation Plus portfolios (in MLC MasterKey's super and pension products) over the 3 months ended 31 March 2020**		
	Conservative	**Moderate**	**Assertive**
China A-shares with downside limit of -20% (through derivative strategies)	Zero allocation	Steady allocation	Steady allocation
Emerging market shares (through derivative strategies)	Zero allocation	Steady allocation	Steady allocation
Defensive Australian shares	**Up**	**Up**	**Up**
Global shares (through derivative strategies)	Steady allocation	Steady allocation	Steady allocation
Defensive global shares (unhedged)	**Up**	**Up**	**Up**
Foreign currency exposure	Call options protection maintained	Call options protection maintained	Call options protection maintained
Gold exposure (through derivative strategies)	Steady allocation (took profit and converted exposure to call options)	Steady allocation (took profit and converted exposure to call options)	Steady allocation (took profit and converted exposure to call options)
Low correlation strategy	Steady allocation	Steady allocation	Steady allocation
Real return strategy	Steady allocation	Steady allocation	Steady allocation
Global private assets	Steady allocation	Steady allocation	Steady allocation
Global property securities	Zero direct exposure	Zero direct exposure	Zero direct exposure
Global government bonds	Zero direct exposure	Zero direct exposure	Zero direct exposure
Australian inflation-linked bonds	Steady allocation	Steady allocation	Steady allocation
Insurance-related investments	Zero allocation	Steady allocation	Steady allocation
Global high yield bonds and loans	Steady allocation	Steady allocation	Steady allocation
Global non-government bonds	Steady allocation	Steady allocation	Steady allocation
Australian non-government bonds (short duration)	Steady allocation	Steady allocation	Steady allocation
Cash	**Down**	**Down**	**Down**
Borrowings	Not permitted	Not permitted	No borrowings

MLC Horizon portfolios

This quarter the MLC Horizon portfolios achieved a relatively defensive orientation partly from exposures to Inflation Plus (explained above) and also through deviations from benchmark fixed income allocations eg underweight to duration.

In addition to the changes we've made to the Inflation Plus strategy, we've reduced the overweight to FX but maintained a cautious overweight to global shares (unhedged). While the AUD and global share markets tend to move in the same direction, after the sharp falls in the AUD, foreign currency may not provide the same level of diversification to share market movements in the future. We prefer to reduce foreign currency than add to interest rate exposures for diversification as further rate cuts by central banks in March increased the downside risk of most fixed income sectors.

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 and taking into account that over time a broad range of scenarios could play out.

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) target asset allocation at 31 March 2020		
	Under	**Benchmark**	**Over**
Australian shares	•		
Global shares (unhedged)		•	
Global shares (hedged)		•	
Global property securities		•	
Cash			•
Australian bonds - all maturities	•		
Australian inflation-linked bonds		•	
Global bonds - all maturities	•		
Global non-investment grade bonds (high yield bonds and loans)		•	
Global private assets		•	
Real return strategies (including Inflation Plus)			•
Low correlation strategy		•	

MLC Index Plus portfolios

This quarter the MLC Index Plus portfolios achieved a relatively defensive orientation partly from exposures to the real return strategy which is managed similarly to Inflation Plus (explained earlier), and also through deviations from benchmark fixed income allocations eg underweight to duration.

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

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 and taking into account that over time a broad range of scenarios could play out.

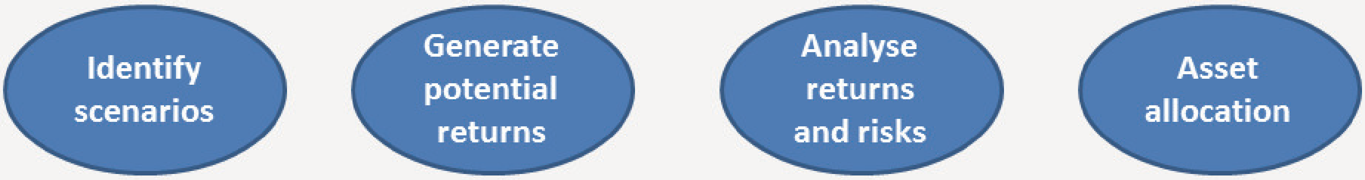
	MLC Index Plus Balanced Portfolio target asset allocation at 31 March 2020		
	Under	**Benchmark**	**Over**
Australian shares	•		
Global shares (unhedged)			•
Global shares (hedged)	•		
Global property securities		•	
Cash			•
Australian bonds – short maturities			•
Australian bonds – all maturities	•		
Australian inflation-linked bonds		•	
Global bonds - short maturities			•
Global bonds - all maturities	•		
Real return strategies			•

Appendix 1 – 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.

We welcome your feedback on this document.
If you have any comments, please email us at ben.mccaw@mlc.com.au or al.clark@mlc.com.au