

QUANTUM OF VOLATILITY

Semi-annual review

June 2018

In the first half of 2018, so far, we have seen volatility return to markets, a breach of the much anticipated 3% handle for 10-year US Treasuries, and an agreed summit between North and South Korea. As we continue to tread later into this cycle, investors seeking a consistent long-term real return must balance the need for returns with capital preservation. Five months into 2018, major equity markets are at levels seen at the very beginning of the year, although relative to recent years, it has been a wild ride. US equity indices may be at similar levels, but valuations have improved over this period, due to the stronger than expected earnings reported in the first quarter of 2018. However, this increase in earnings has to be balanced against higher discount rates and an increase in volatility.

In this environment, the risk allocation conundrum remains, particularly as there is an increasing acceptance that we are at a multi-decade inflection point in long term yields. Changes in regimes - such as this - will add to volatility (and opportunities) and likely play a greater role in influencing investors' asset allocation decisions.

In this semi-annual note, we provide an update on our most recent review during a period which continues to point to the need to be flexible and dynamic to achieve a real return.

Within our investment process we have two building blocks. The first, which we call Neutral Asset Allocation (NAA), sets longer-term asset allocations. The second part, which we call Dynamic Asset Allocation (DAA), allows us to exploit shorter-term opportunities in markets.

The first step of our NAA process is to set the economic climate for each country. We use the economic climate assumptions within our set of proprietary stochastic simulation models to determine forward looking risk premia and expected returns. The process of determining the NAA uses expected returns as the building blocks of the portfolio allocations, incorporating the return objectives, constraints, and investment horizon of the portfolio.

Our DAA process, on the other hand, takes into account the shorter-term market dynamics to deliver additional returns and abate portfolio risks, such as tail events. This part of our investment process, which includes our investment signals and qualitative overlay, is formally reviewed each week and looks at (among other things) markets and fundamental data to take advantage of possible dislocations.



Expected returns are slightly higher, so is volatility

The first five months of the year have seen a number of episodes where volatility has jumped; the sell off of volatility and VIX-related products; the Libor-OIS scare; volatile emerging markets (Argentina and Turkey), Italy and the trade wars. As mentioned in our last review, with valuations looking relatively expensive across a number of asset classes – financial markets are stretched and prone to volatility jumps.

However, US tax cuts and quarterly corporate earnings have provided a much needed boost to support valuations. That should give rise to some optimism, although with the money used mainly to increase share buybacks and pay-outs, rather than more investments, it is likely a one-off. Outside of the US, Brexit negotiations are moving at snail pace, credit continues to build-up in China, and the on-going threat of protectionist measures are keeping a lid on growth. Overlaying this with the complexity of geopolitics between the two Koreas and a new world of diplomacy via Twitter, it is easy to rationalise retreating from markets completely. Our role is to take all this into consideration, but also to look through the headlines to determine the opportunities to rebalance region-by-region and asset-by-asset.

The first step in our investment process is to decide on the broad outlook for the economy. This setting of the economic climate involves deciding on where we think the global economy is moving, and then for each country we determine the likely long-term values for inflation, risk free rates, long-term bond yields and earnings growth. By taking current valuations as a starting point, this allows us to determine expected returns for global assets from this point forward.¹

As an example, for Australia the following views were taken into consideration (we do this for all regions):

- **Inflation** remains at the lower end of the RBA's target range, although the weaker Australian dollar will challenge the status quo, even if wage inflation doesn't. On balance we reduced our equilibrium inflation assumptions marginally from the last review, but it still remains above current levels.
- **Risk free rate** will remain stable in the short term, both in real and nominal terms, but the RBA continues to state that the current levels are below their perceived 'long-term neutral rate'. We maintain an upward bias in our longer term assumptions.
- **Long-term bond yields** are similarly priced as at the time of the last review, and we still believe there will be a normalisation in rates over time as the term premium in Australian is influenced by global rates, particularly the US, where we have maintained our equilibrium levels.
- **Earnings growth expectations** remain stable and in line with real GDP forecasts, with the ongoing support of easy monetary policy domestically. Key commodity prices continuing to strengthen with global demand, which will lift the resources sector.

We have seen expected returns fall across asset classes for years, with bull markets in equities, government bonds and credit. While equity markets are not far from where they started this year, solid earnings means expected returns are a little higher from our last review. The same is the case for government bonds and credit; but they are still low for investors seeking real returns of 4% a year – the historical equity return over the last hundred years in the US.

As asset allocators, we look at where there are attractive opportunities. We have a broad investment universe, allowing us to choose the asset classes, regions, and sectors that offer the best risk-adjusted returns.

Outlook for equities

Equity valuations in most major developed market countries remain high, with the US appearing the most expensive, even on a forward looking basis. On a relative basis, Australian equities have performed strongly, lifting the forward P/E ratio from late last year. Emerging markets and Europe look more attractive from a valuation perspective.

Estimated 2019 forward P/E ratios

Country	Index	2019 P/E
US	S&P 500	15.6
Australia	S&P/ASX 200	15.1
World	MSCI World	14.7
Japan	Nikkei 225	14.1
Europe	Euro Stoxx 50	12.5
China (A)	CSI 300	11.0
EM	MSCI Emerging Markets	10.8

Source: Bloomberg as at 31 May 18

Note: Forward P/E = Current price/next year's estimated earnings (average of forecasts).

European growth has been softer in 2018 following strong data in the previous year. A stronger Euro hampered export growth and lower confidence surveys point to lower household spending. Europe has strung together 19 consecutive quarters of growth and prospects for earnings growth remain healthy, so we still see selective value in European equities, despite political instability.

While volatility has increased in emerging markets, current levels do offer a chance to increase exposures. Historically, emerging markets have been exposed to a weaker US dollar, but over time emerging market economies have been able to borrow in their local currencies and move away from hard currency borrowing, which we believe lowers their vulnerability, relative to previous crises in those regions.

Outlook for credit

Fundamental drivers of fixed income markets in 2018 suggest that yields should continue to rise, particularly if inflation increases. Credit, in particular investment grade, has not had a positive start to 2018 within this backdrop. We do not hold any high yield exposure in the strategy after selling down this exposure in late 2017.

Within investment grade, the same drivers that are supporting equity markets this year, stronger earnings and de-escalating fiscal concerns in the US, coupled with a broad economic recovery in Europe should see a stabilisation in credit spreads from the current levels through the rest of 2018.

Emerging market credit continues to offer relatively good risk-reward, with global trade increasing and commodity prices underpinning expansion, and the higher yields offering a reasonable carry return to hold the higher volatility expected from these assets. We continue to allocate our duration exposure to emerging market bonds, both hard and local currency.

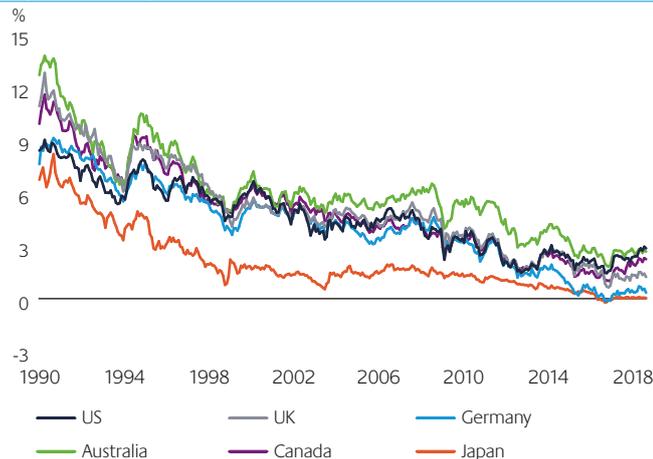
Outlook for government bonds

Developed market government bonds are breaking out of the multi-decade bull-run, and we have started to see the much anticipated rise in both short and long term yields, as evidenced by the US 10-year bond breaking through the 3% level. The path to higher yields is expected

¹For a more in-depth review of how we determine expected returns, please see our [research paper](#) on the topic.

to continue to trend higher after a period of consolidation following the recent volatility. Some inflation-linked bonds offer value, and we continue to hold these in Australia, with the risk of higher inflation than we have experienced in the last couple of years.

10-year bond yields



Source: Bloomberg, CFSGAM as at 31 May 2018

For global investors looking for a real return (i.e. a return over inflation), fixed income provides little direct help. There are few places where high real yield is available without credit risks (countries like Brazil, Mexico, and Russia). Furthermore, countries that have to borrow because they save less than they invest have to pay a higher interest rate and are often more economically vulnerable to shocks. Our global investment universe allows us to invest in countries where the return looks attractive on a relative basis.

Our neutral asset allocation as at May 2018

As a consequence of our outlook for the global economy and the current valuation levels we have made a number of changes to our Neutral Asset Allocation (NAA). Most notably, we have sold all of our remaining exposure to global developed bonds and reallocated this to emerging markets bonds (hard). We have taken the more palatable equity valuations as an opportunity to reduce our cash allocations and reallocate it to equity, including marginally increasing the proportion of global equities towards emerging markets. Finally, we have added to the allocation to commodities, which was introduced in the last review.

Asset class	Nov 17 NAA		May 18 NAA
Cash	10.00%	decrease	5.00%
Australian Government Bonds	20.00%	–	20.00%
Global Bonds (hedged)	2.00%	decrease	0.00%
Credit – Investment Grade	15.00%	–	15.00%
Credit – High Yield	0.00%	–	0.00%
Emerging Market Bonds – Local	3.00%	–	3.00%
Emerging Market Bonds – Hard	10.00%	increase	11.00%
Australian Equities	14.00%	increase	15.00%
World Equities	16.00%	increase	18.00%
Emerging Markets Equities	5.00%	increase	6.00%
Commodities	5.00%	increase	7.00%
Total	100.00%		100.00%

Source: CFSGAM as at 31 May 2018.

Our NAA has exposures to markets we think are still attractive on a risk and reward basis and offer a good expected return for the level of risk looking out five years. With valuations where they are, we do not have to be invested in any asset class in our NAA, and although increasing the exposure to equities, we still have the opportunity to add risk in the portfolio further should volatility continue in the manner in which it has in 2018 to date.

The NAA is only the first step in setting our overall portfolio allocation. To ensure that we maximise the probability of reaching our five-year real return objective, we use our Dynamic Asset Allocation (DAA) to add alpha to the Fund via long-only exposures to supplement the return from the NAA.

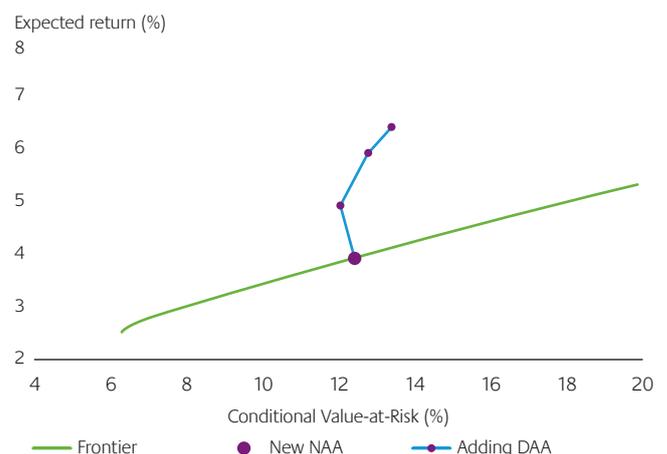
How do we determine the right mix of NAA (beta) and DAA (alpha)?

Based on our assumptions for the economic climate and our expected returns, we can determine the likelihood of meeting the portfolio's investment objective over the investment horizon. It is becoming increasingly likely that relying solely on the NAA in a constrained long-only, un-levered environment, will not be sufficient to meet the return objectives. This is where we use our DAA process to take into account shorter-term market dynamics to deliver additional returns and abate portfolio risks, such as tail events. By adding an uncorrelated return source (alpha) we can improve the portfolio's likelihood of meeting the investment objective.

The combination of NAA and DAA requires the consideration of the current allocations; as the extent to which active management may be used is managed through the portfolio's risk budget to avoid unwanted additional risks. We consider both the tracking error (as well as other risk metrics) and the expected return, in assessing the portfolio's ability to meet its investment objective.

The ability to add scalable alpha to portfolios provides flexibility to deliver on the investment objective; even in a lower return environment. We incorporate this analytically and the chart below illustrates the impact that both tracking error and alpha can have on the risk and return characteristics of the portfolios on the efficient frontier.

The investment objective of the strategy is Australian Consumer Price Inflation (Trimmed Mean) +4.5% gross of fees. The NAA strategy, shown in the following chart, provides a nominal return of just under 4%, leaving a shortfall in required returns to meet the Fund's objective. Based on this NAA and the required return for the Fund, we have maintained the DAA tracking error risk budget at 5% to maximise the probability of reaching our investment objective, as outlined below.



Source: CFSGAM as at 31 May 2018.

Therefore, even in a lower return environment, by allowing the blending of alpha and beta strategies to be more dynamic within the framework described above, we still have the potential to deliver on our client's investment objectives.

In the current low return environment, it is critical to have the flexibility to blend beta and alpha to deliver a real return of 4.5% for the strategy over five years. Our investment process and philosophy provides our clients the highest probability of obtaining a real return, with the current outlook making our DAA paramount.

Why Colonial First State Global Asset Management?

Our investment strategy blends the qualitative views and experience of the team with the discipline and rigor of quantitative analysis resulting in a flexible approach to design and implementation of investment portfolios.

Investment decisions are taken with respect to the overall portfolio objective, unconstrained by conventional benchmarks or fixed asset allocation.

Our flexibility to blend alpha and beta strategies is a key differentiator and essential to deliver on the investment objective over time.

Risk management is integral to our investment process. We continually seek to balance the trade-off between upside potential (meeting our investment objectives) and downside risk (capital loss), which we believe can generate consistent results.

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