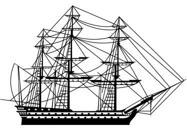

Asset Allocation Report

June quarter 2018

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Welcome to the Vanguard Asset Allocation Report

I learned one of the greatest investment lessons early in my career.

As a 20-year-old intern, I worked hard to save up a modest sum of money to invest. Rather than consulting a qualified financial adviser, I sought the advice of a trusted family member who suggested investing in a tech stock they believed would provide a great return.

So that's what I did, every cent I owned (which admittedly wasn't much) went into that one share as I dreamed of doubling, tripling my money, or more…

I subsequently lost all of my investment when the stock tanked, and boy did I learn my lesson the hard way. But it was a really valuable exercise and I feel very fortunate I gained that knowledge then rather than gambling my retirement fund or a more substantial sum later on.

It may not be what your clients' family or friends like to discuss at the BBQ, but balance and diversification are the most powerful tools investors can employ to protect their portfolios against volatility and the inevitable ups and downs of the sharemarket.

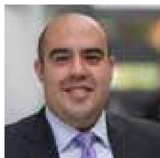
As well as reminding investors about the value that an adviser can add, we spend a lot of time at Vanguard trying to ensure they are well informed about the importance of asset allocation.

This is reflected in the way we have designed Vanguard Diversified Funds to help investors achieve success by focusing on factors within their control.

1. Create clear, appropriate investment goals.
2. Develop a suitable asset allocation using broadly diversified funds.
3. Minimise cost.
4. Maintain perspective and long-term discipline.

In this quarter's edition of the Vanguard Asset Allocation Report, we draw on our global reach and investment expertise to provide you with deep and meaningful insights into what economic and market trends mean for your investment portfolios.

So when you're developing a suitable asset allocation for your clients using diversified funds you can look back with insight and look forward with confidence—just like I can when I reflect on my earliest investment lesson about the power of diversification.



Daniel Reyes CFA
Principal, Head of Investments,
Asia-Pacific and Head of Investment Strategy Group (ISG), Asia-Pacific

Global economic outlook

Trade tensions rising

The first half of 2018 went well for most economies and markets. Broad benchmarks for equities and fixed interest ended the quarter in positive territory and decent year-to-date gains. Economic progress, as indicated by GDP and employment growth, has remained slightly above trend for most developed economies. The Federal Reserve proceeded with another 25 basis point increase in the target for the federal funds rate.

Despite the strong showing from markets, many investors grew more anxious as the rhetoric around trade policy intensified. "Trade war," "tariffs," and "impact of protectionism" were common topics of conversations in our engagements with our internal investment management teams and external stakeholders. At times, markets' daily movements pivoted on breaking-news developments surrounding the tariffs currently in play. The trade situation will remain quite fluid over the coming months. Australia's initial inclusion in – and subsequent exemption from – steel and aluminium tariffs highlights how the facts can change at a moment's notice.

Our research shows that while protectionist measures have small direct effects on economic fundamentals, their impact becomes severe when they affect sentiment; financial markets usually provide a visceral response. Below is our "what-if" analysis of possible outcomes of the ongoing trade discussions.

Scenario	No trade policy actions	Protectionism	Trade Wars	Isolationism
Signposts (not mutually exclusive)	Rhetoric against China, Mexico, NAFTA to bring them to the negotiating table No new tariffs	U.S. imposes tariffs and anti-dumping duties unilaterally Renegotiation of trade agreement Modest retaliation	Large tariff for certain countries or a border adjustment tax China significantly restricts U.S. companies from operating in China and/or FDI Widespread retaliation occurs	Withdrawal from free-trade agreements Damaged diplomatic ties with China. Geopolitical tensions escalate Major retaliation, global spillovers and financial market disruption
Probability ranges (as of Feb 2017)	20-30%	30-45%	10-20%	0-10%
Probability ranges (today)	0%	40-50%	40-50%	10%

Sources: Vanguard estimates, based on analysis using the Federal Reserve Bank of New York FRB-US model.

We are confident that the story around trade is likely to change several more times before reaching a resolution. We expect that markets will react strongly to each new development. We thus see the recent trade tensions as a great opportunity to emphasise the importance of diversification and a disciplined approach to investing, especially when uncertainty is the prevailing sentiment.

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Australian economic outlook

The dilemma continues

Consensus is firming around the view that household consumption will be the key indicator for pacing Australia's economic trajectory over the next few years. GDP reached 3.1% in the first quarter and the unemployment rate is below 5.5%, close to the RBA's estimate of 'full employment.' Economic theory suggests that if the unemployment figures dropped below 5% we would see a rise in inflation. This occurs because the shortage of labour puts pressure on wages, which is passed on as an increase in prices of goods.

While these signals indicate strength in the real economy, lacklustre wages growth, mild inflation, and elevated concerns over credit drive a prevailing view that economic conditions may weaken over the coming months.

Household debt is elevated and continues to flash a caution signal on our economic dashboard. As we have noted, high debt burdens reduce the margin of safety for borrowers to cover mandatory expenses if economic conditions deteriorate. However, estimating when the conditions weaken enough to create stress for households is the biggest challenge in Australian economics at the moment. The sharp appreciation in dwelling and land value makes households appear well-capitalised in the National Accounts – but whether the aggregate view is true for individuals across Australia is less clear.

Amid the uncertainty over households, market participants concede that the RBA may not raise interest rates until late 2019, having "pushed out" their collective view, as evident from overnight index swap (OIS) rates. We still view the RBA as facing a dilemma between high debt burdens and low wages, with a tightening labour market adding to the intensity. It is possible for the RBA to raise the cash rate earlier than the market expects; we would not be surprised to see a rate hike before the year ends. The precise timing of the move is less important than the pace and reasoning behind it.

If the trend forces of technology, demographics, and globalisation, are driving the economic machine, then steady growth and stable inflation will persist. Since both indicators would be lower than history, it will be easy to be pessimistic and assume that rates remain steady, too. The RBA are acknowledging that forces outside of their control (including the three mentioned) are affecting the economic picture, perhaps as a way to set up future cash rate decisions should this slow and steady environment persist. The positive global economic surprises of the first quarter have made us question whether the local market may be overconfident in its short-term view and thus apt to repeat prior missteps. As with the uncertainty surrounding trade policy, disciplined, purpose-driven investing, with ample diversification, serves as the strongest hedge against unexpected outcomes.

Market outlook

The chart below shows the Vanguard Capital Markets Model® (VCMM) return forecasts over the next 10 years for a range of asset classes and Vanguard's Diversified Funds.

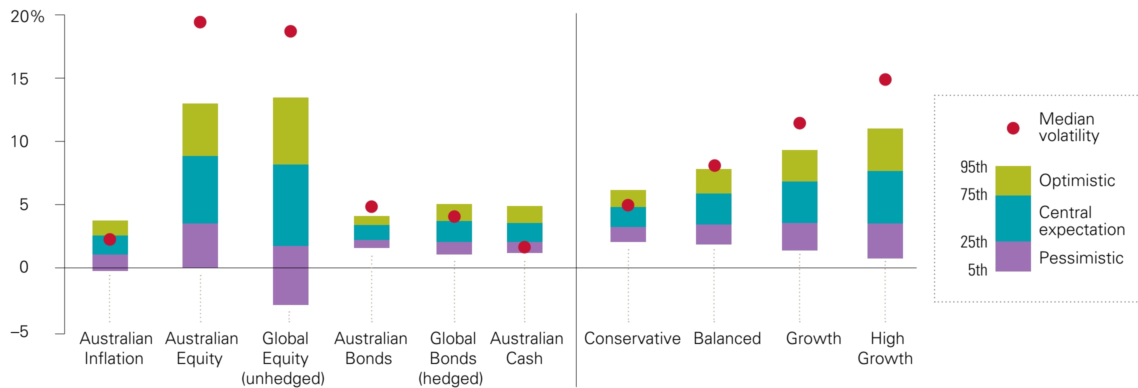
It shows two concepts: the range of annualised 10 year nominal returns and the median volatility experienced.
The bars show the range of return outcomes over a 10 year period. The central return expectations for the asset class or portfolio are shown in the middle of the bars. Observations in the optimistic or pessimistic regions should not come as a surprise though; goals and portfolios should always be positioned with these possibilities in mind.

The red discs shows the median volatility forecasts. This represents the volatility of the asset classes that can be expected over the 10 year period.

The chart shows that equities are expected to produce a higher return over a 10 year period than bonds, however the trade-off is that an investor can expect a more volatile experience and greater uncertainty over the end point, which could be a much wider range of outcomes.

An important point to remember is that asset returns are not perfectly correlated, which means that if an Australian equity return over 10 years is in the optimistic range, this does not necessarily mean that Australian bond returns will also be in the optimistic range. Combining assets can therefore present strong diversification benefits.

Projected 10-year nominal return outlook

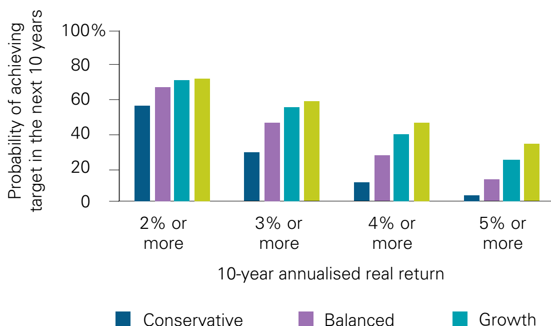


Source: Vanguard, 31 March 2018 VCMM Simulation.

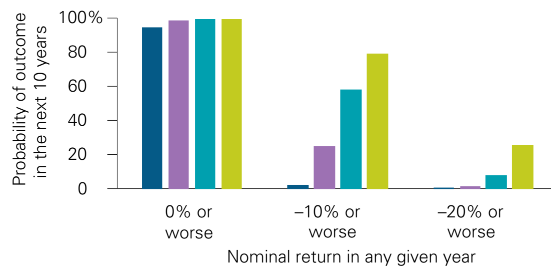
The next charts show the trade-off between targeting a CPI+ return target and the risk of a loss along the way. Taking more risk means that an investor increases the probability that they will achieve their target over 10 years. Highlighting the importance of managing expectations, it also means there is the increased probability of experiencing a negative return or a large annual loss in at least one year over the 10 year period.

Managing expectations: real return targets and downside risks

Probability of achieving real return target



Downside risks



Conservative Balanced Growth High Growth

Note: The projections or other information generated by the VCMM regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class in AUD. Simulations are as of 31 March 2018. Results from the model may vary with each use and over time.

Source: Vanguard, 31 March 2018 VCMM Simulation.

About Vanguard's Investment Strategy Group

Vanguard's Investment Strategy Group is a global team of economists and investment and portfolio construction strategists with a wide variety of specialties, ranging from monetary policy to index construction to market trends. Their research serves as the basis for Vanguard's investment principles and methodology, guides Vanguard's global leadership and influences decisions about our investment offerings and portfolio construction.

Research-based investment approach

As part of Vanguard's broader Investment Management Group, ISG plays an essential role in developing Vanguard's investment methodology, which is carried through in the implicit and explicit advice solutions available to our clients. Our global chief economist and head of ISG reports directly to Vanguard's global chief investment officer. We work closely with Vanguard's in-house portfolio managers. Notably, our global chief economist is integrated into Vanguard Fixed Income Group through our portfolio management process. Through that process, ISG advises our fixed income investment managers on the macroeconomic outlook, expected monetary policy and other factors to support day-today portfolio management. Vanguard's investors around the world benefit from our collaborative approach to investment management, research and thought leadership.

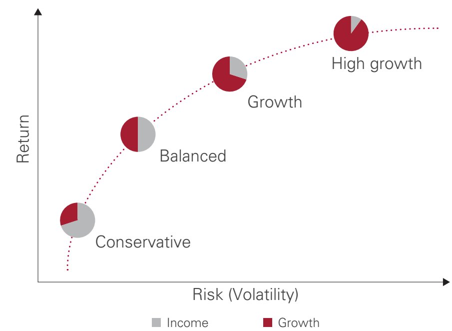
Vanguard Capital Markets Model

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based. The Vanguard Capital Markets Model® (VCMM) is a proprietary financial simulator developed and maintained by Vanguard's Investment Strategy Group. It is a long term tool that takes into account current macroeconomic conditions and equity and bond valuations to forecasts distributions of future returns for a wide range of asset classes and portfolios. The primary value of the VCMM is in its application to analysing potential client portfolios. VCMM asset-class forecasts—comprising distributions of expected returns, volatilities, and correlations—are key to the evaluation of potential downside risks, various risk–return trade-offs, and diversification benefits of various asset classes.

Asset allocation

Vanguard's approach to asset allocation is to provide long-term returns that match investors' desired level of risk. The broad allocations to defensive (fixed income) and growth (equities) are the main factors influencing the risk/return profiles of our asset allocation strategies.

Our asset allocation approach is designed with a medium to long-term investor in mind (a time horizon of at least five years), reflecting the reality that the majority of Australian investors need to accept some market risk in order to reach their investment goals.



Why diversification matters

We believe that a successful investment strategy starts with an asset allocation suitable for its objective. In practice, diversification is a rigorously tested application of common sense: Markets will often behave differently from each other—sometimes marginally, sometimes greatly—at any given time.

Owning a portfolio with at least some exposure to many or all key market components ensures the investor of some participation in stronger areas while also mitigating the impact of weaker areas.

Many investors lack the time, interest, or skills, and can become overwhelmed by the choice of investment options, asset classes, and other implementation hurdles such as choosing between index and active management. Investors also face behavioural risks in adhering to their investment plan over time due to the temptation of performance chasing or overreacting to market events.

Vanguard Diversified Funds provide professionally managed portfolio solutions designed to help medium to long-term investors achieve their goals and overcome these challenges.

Risk and return overview

Vanguard Diversified Funds peer group comparison

30 June 2018

The shaded boxes display the total return percentile rank of the Vanguard Fund within its peer group*, as shown by the colour code, with the number reflecting the Vanguard Fund return in excess of the peer group median return (%). The numbers below the shaded boxes indicate the number of funds in the peer groups across each time period.

Vanguard fund Median peer group MER (% p.a.)	3 mts	6 mts	1 yr	3 yrs	5 yrs	7 yrs	10 yrs
Conservative 0.73	0.17 56	0.20 56	0.86 56	1.05 51	1.27 50	1.05 48	0.95 47
Balanced 0.76	0.18 62	0.57 62	1.13 59	0.94 52	1.26 48	1.02 43	1.11 37
Growth 0.87	0.32 89	0.69 89	1.32 88	1.11 81	1.39 78	1.28 70	1.23 65
High Growth 0.98	0.65 74	0.98 73	1.39 71	0.71 62	0.99 57	1.14 51	0.99 46

Peer group percentile
5th
25th
50th
75th
95th

* The peer groups were constructed by first sourcing a universe of funds from Morningstar having the same category as the Vanguard Funds, but excluding Vanguard strategies. An automated filter was then applied to these original peer groups with the aim of removing identified duplicate investment strategies and retain unique strategies.
Past performance is not an indication of future performance. All returns are net of fees and assume reinvestment of income distributions.
Returns greater than 12 months are annualised.
Sources: Vanguard calculations using data from Morningstar Inc.

Understanding Vanguard’s SAA process

For multi-asset funds, such as Vanguard Australia’s Diversified Funds, Vanguard’s Investment Strategy Group (ISG) conducts an annual review of the strategic asset allocation (SAA) of the funds. The team considers new asset classes, currency exposure, home bias, regulatory and tax impact, investment costs, investor behaviours, and implementation factors amongst others. The ISG team presents a recommendation to maintain or change the SAA to Vanguard’s global Strategic Asset Allocation Committee (SAAC), which oversees all of Vanguard’s multi-asset funds. The SAAC is comprised of senior leaders from the Investment Management Group and Vanguard’s advice businesses and is co-chaired by Vanguard’s global Chief Investment Officer and global chief economist. Upon approval of a change to the SAA, Vanguard assesses the feasibility, tax impact, and costs of the recommended changes and presents to the Board of Vanguard Australia for approval prior to implementing the changes.

Vanguard Diversified Funds return contributions for the quarter

Month end: 31 March 2018	3 Month Gross	3 Month Return Contribution (%)			
Fund	Return (%)	VCIF	VBIF	VGIF	VHIF
Vanguard Cash Plus Fund	0.52	0.1	0.0	0.0	0.0
Vanguard Australian Fixed Interest Index Fund	0.79	0.1	0.1	0.1	0.0
Vanguard Australian Shares Index Fund	8.37	1.0	1.6	2.3	3.0
Vanguard International Shares Index Fund	5.60	0.5	0.8	1.1	1.5
Vanguard International Small Companies Index Fund	7.34	0.1	0.3	0.4	0.5
Vanguard Emerging Markets Shares Index Fund	–4.43	–0.1	–0.1	–0.2	–0.2
Vanguard International Shares Index Fund (Hedged) - AUD Class	3.71	0.2	0.3	0.5	0.6
Vanguard Global Aggregate Bond Index Fund (Hedged)	0.08	0.0	0.0	0.0	0.0

*Figures in the return contribution table are calculated as the product of the monthly gross return and the corresponding actual asset allocation.

Underlying fund asset allocation

The strategic asset allocation (SAA) is provided in the table below. The Diversified Funds leverage Vanguard’s international expertise in investment research and utilise a global investment methodology. This approach starts with market capitalisation weightings and from this local market factors are then also considered.

Target asset allocations effective from July 2017	Conservative	Balance	Growth	High Growth
Asset Classes		Asset Allocation (%)		
Vanguard Cash Plus Fund	10.0	0.0	0.0	0.0
Vanguard Australian Fixed Interest Index Fund	18.0	15.0	9.0	3.0
Vanguard Global Aggregate Bond Index Fund (Hedged)	42.0	35.0	21.0	7.0
Total Income	**70.0**	**50.0**	**30.0**	**10.0**
Asset Classes				
Vanguard Australian Shares Index Fund	12.0	20.0	28.0	36.0
Vanguard International Shares Index Fund	8.5	14.5	20.5	26.5
Vanguard International Shares Index Fund (Hedged)	5.5	9.0	12.0	16.0
Vanguard International Small Companies Index Fund	2.0	3.5	5.0	6.5
Vanguard Emerging Markets Shares Index Fund	2.0	3.0	4.0	5.0
Total Growth	**30.0**	**50.0**	**70.0**	**90.0**

Portfolio matters
Every quarter we'll focus on an area of interest to you and your clients.

Investing with factors

Factor-based investing has gained greater attention in recent years, in part because of the rise of alternatively weighted indexes and "smart-beta" products.

However investing in factors is nothing new.

In fact, Benjamin Graham and David Dodd published ideas on what we now call value investing in their book Security Analysis published back in 1934.

Today, value investing is considered one type of factor strategy - with minimum volatility, quality, momentum and liquidity being other common factors. By tilting towards or away from certain factors clients can adjust the risk return profile of their investment according to their goals and preferences.

We like to think of factors as the DNA of an investment – the underlying attributes that explain and influence how an investment behaves.

Factor strategies leverage the positive effects of factor exposures through systematic, diversified, and disciplined tilts. With an increasing array of factor funds on offer, deciding what's right for your portfolio can be difficult. By keeping some fundamentals in mind, investors can work out what might genuinely assist in reaching their financial goals.

Align your goals with your investment choices

How to use factors when constructing a portfolio depends on your goals. Rather than targeting pure outperformance with factor funds, you might be better off considering the kind of characteristics a certain factor can add to your portfolio.

And your goals may involve specific time-horizon constraints, or varying risk profiles.

For example retirees worried that a large allocation to fixed interest could jeopardise the capital growth needed to protect them against outliving their assets might instead benefit in using a factor fund focused on minimising volatility to replace part of their equity exposure.

Historically, an investor may have looked towards equity funds that emphasised "defensive" sectors or those with higher dividend yields for volatility reduction. However, while lower volatility can be a by-product of these strategies; it is not their objective. Additionally, products like these may lack proper diversification and not provide the downside protection when needed the most.

On the other hand, a minimum volatility strategy is optimised to provide equity returns with lower volatility than the broad markets in a diversified portfolio.

Alternatively, a growth-oriented investor might analyse their portfolio to conclude that the style characteristics of their total global equities portfolio are not appropriate for the level of risk they are comfortable taking. With that in mind, an increased exposure to value factor could be warranted.

If the investor wishes to maintain the outperformance potential of their existing funds while reducing the active risk relative to global equities they could allocate a portion of their international equities portfolio to a value fund providing a value equity factor tilt.

Active or index?

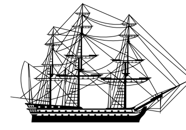
Historically, investors may have accessed factor exposure through non-market capitalisation, index-weighted strategies. However, we view any portfolio that uses a non-cap-weighted scheme as an active portfolio.

Factor based investing uses factors like value, minimum volatility or a tilt to a certain sector to outperform the broader markets from which they draw their securities.

Using an active approach to factor implementation can provide greater control to factor exposure and reduce factor drift in the portfolio, with the flexibility to change portfolio holdings as needed. This is because positions can be adjusted as needed in order to maintain continual dynamic exposure to targeted factors.

Adopting lower cost active management to replace higher cost traditional active funds can remove one of the most persistent headwinds to active outperformance.

Michael Roach
Head of Quantitative Equity Group, Australia



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Vanguard Capital Markets Model
IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The Vanguard Capital Markets Model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include Australian and international equity markets, several maturities of the Australian Treasury and corporate fixed income markets, international fixed income markets, money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

Although central tendencies are generated in any return distribution, Vanguard stresses that focusing on the full range of potential outcomes for the assets considered, such as the data presented in this paper, is the most effective way to use VCMM output.

The VCMM seeks to represent the uncertainty in the forecast by generating a wide range of potential outcomes. It is important to recognise that the VCMM does not impose "normality" on the return distributions, but rather is influenced by the so-called fat tails and skewness in the empirical distribution of modelled asset class returns. Within the range of outcomes, individual experiences can be quite different, underscoring the varied nature of potential future paths. Indeed, this is a key reason why we approach asset-return outlooks in a distributional framework.

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