Vanguard®

Asset allocation report

December quarter 2019

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A 20-year investment growth story

At the end of 2018, after a dismal fourth quarter –in fact, the worst quarterly performance in seven years – the Australian share market closed at a two-year low.

No doubt, many investors at the time were probably anticipating a mediocre year ahead.

Yet, seven months later, the Australian share market had not only recovered all its 2018 fourth-quarter losses, but had breached its all-time peak set back in November 2007.

And, while ongoing geopolitical tensions and economic fears, overshadowed by the US-China trade war, continued to rattle global financial markets through 2019, it turned out to be a relatively solid investment year.

The key for investors, as always, has been to tune out from the daily market noise, and to remain disciplined and diversified, irrespective of shorter-term volatility.

Many investor portfolios are well ahead on where they started 12 months ago. In fact, just about every major asset class barring cash delivered strong annual returns.

Driving that has been an insatiable hunt for yield. With interest rates at record lows, investors globally have been searching for investments generating higher returns. Concurrently, investors seeking a degree of safety have diverted capital into lower-risk assets such as bonds.

That's driven huge capital inflows into shares, listed property and fixed income assets. In turn, that demand has driven strong price appreciation across global financial markets.

Strong double-digit returns

Those with broad exposures to Australian, US and international shares, and to Australian and international listed property, achieved double-digit returns in 2019. Even Australian and international bonds returned close to 10 per cent.

You can see the relative returns of a range of different asset classes over the year, and all the way back to 1970, by accessing the Vanguard Interactive Index Chart at insights.vanguard.com.au/VolatilityIndexChart/ui/advisor.html.

Of course, past performance is never an indicator of future performance. The best and worst performing asset classes will often vary from one year to the next.

Australian listed property was the best-performing asset class return in the financial year to 30 June 2019, delivering 19.3 per cent. But, in 2018, the best performer was US shares, and the financial year before it was hedged international shares.

In fact, the last example of the same asset class delivering the best returns in two consecutive years was more than a decade ago, back in 2008 and 2009, when hedged international bonds returned 8.6 per cent and 11.5 per cent respectively.

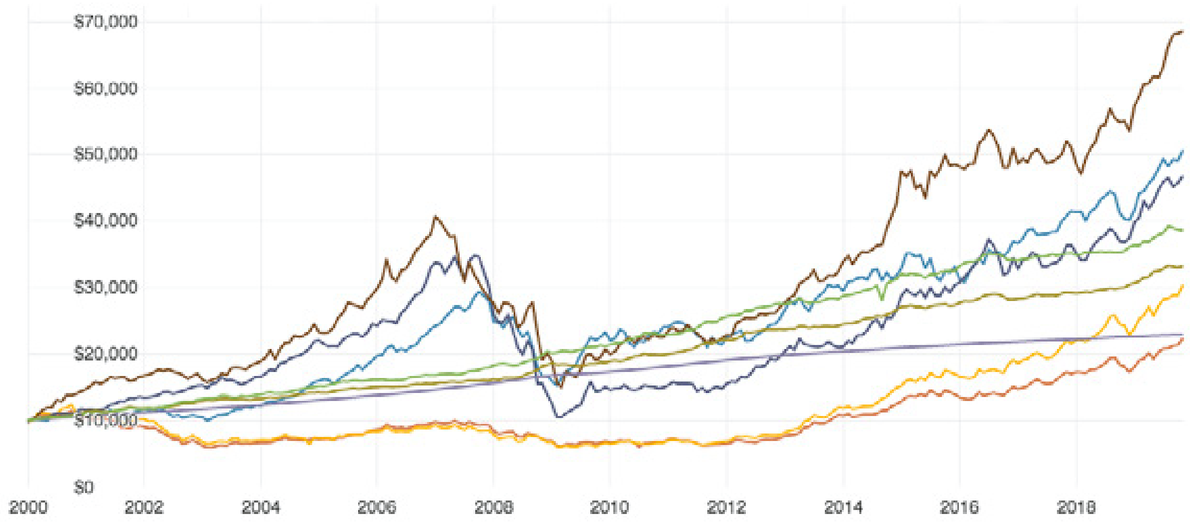
Taking a longer-term look

Although shorter-term returns analysis can be somewhat useful, it's only when one does a much longer examination of investment trends that a more meaningful picture emerges.

Now is an opportune time to capture almost a full 20 years of investment returns across eight different asset classes.

The chart data below goes up to the end of November 2019 but is broadly in line with total returns through to the end of December.

Figure 1. Vanguard Interactive Index Chart — Value of $10,000 invested from 1 January 2000 to 30 November 2019



	Value at 30 November 2019 ($A)	Return since 1 Jan 2000 (% p.a.)
Australian Shares	50,689	8.5
International Shares	22,348	4.1
US Shares	30,447	5.7
Australian Property	46,795	8.1
International Property	68,672	10.2
Australian Bonds	33,259	6.2
International Shares (A$ Hedged)	38,581	7.0
Cash	22,935	4.3

Source: Australian Bureau of Statistics, Bank of England, Bloomberg Finance L.P, Commonwealth Bank of Australia, Melbourne Institute of Applied Social & Economic Research, MSCI Inc., Standard & Poors, WM Reuters. http://insights.vanguard.com.au/VolatilityIndexChart/ui/advisor.html

You can replicate the same data using the Vanguard Index Chart above. Using a base investment figure of $10,000, and assuming all distributions are fully reinvested, the first broad observation is that investors have achieved consistent growth over time.

As expected, returns across different asset classes over the last 20 years have varied. Most notably, the 2007 to 2009 period shows the sharp deterioration in asset values stemming from the 2007 US subprime crisis that precipitated the global financial crisis.

After reaching an all-time high in November 2007, the Australian share market dropped 54 per cent over the 14 months to February 2009 before starting its long-term recovery run that finally saw the S&P/ASX 200 Index surpass its previous record in July this year.

Over the past 20 years the ASX has returned more than 8 per cent per annum, turning a hypothetical $10,000 investment made in January 2000 into just over $49,000. That's a 390 per cent return, excluding any fees, expenses and taxes.

A $10,000 investment into international listed property over the same time frame would have returned 10.2 per cent per annum and be worth more than $68,000, using the same assumptions as above. That equates to a 580 per cent total return.

Investors in any of the major asset classes would have done well over the past 20 years, and obviously those with investments across multiple asset classes would have achieved the smoothest returns.

But you didn't need '2020 vision' back in the year 2000 to know that total asset class returns would increase over time. It's a basic rule of compounding that when investment returns are reinvested over a long period that the value of a portfolio also will increase.

You can replicate this same pattern over other periods of time. Having a regular investment contributions strategy will amplify returns, in the same way as compulsory and voluntary superannuation contributions add to members' account balances in accumulation phase.

The importance of diversification

Heading into 2020, financial markets most likely will remain decidedly jittery. A US-China trade truce still appears distant, and escalating trade and cross-border tax issues between the US and other countries will add to market pressure.

Asset class returns will vary, as they always do, depending on these and other catalysts.

As can be gleaned from the Vanguard Index Chart, especially from a longer-term perspective, spreading money across a range of investments is one of the best ways to reduce exposure to market risk.

This way investors are not relying on the returns of a single asset class.

Ways to diversify are:

- Include exposure to different asset classes, like shares, fixed interest and property.
- Hold a spread of investments within an asset class, like different countries, industries and companies.
- Invest in a number of funds managed by different fund managers. For example, consider blending active with index managers.

The right mix of asset classes or investments will depend on one's goals, time frame and tolerance for risk.

Quarter in review

Anyone who read the economic tea leaves in late 2018 could have been tempted to steer clear of risk assets, only to watch painfully from afar the stellar performances on financial markets recorded throughout 2019.

The December 2019 quarter was no stranger to this global market rally, with investor spirits continuing to soar on the back of some stabilisation in the global manufacturing data as well as more positive news around Brexit talks and US-China trade negotiations.

While a Santa rally did not materialise locally as gains were capped by profit-taking at year-end, full-year returns still stand in stark contrast to prior years, where global annualised returns have averaged around 10% for equities in the aftermath of the Global Financial Crisis (Figure 2).

Central bank accommodation on interest rates has had no small role in orchestrating such a strong rally, with more than half of global central banks easing monetary policy in 2019. The Reserve Bank of Australia was not excluded from this dovish tilt and cut rates by another 0.25 per cent in October.

This represented a rather marked shift from where markets started 2019, with expectations being that the US Federal Reserve would hike rates three times, the European Central Bank would end quantitative easing, and the RBA would keep rates on hold over an extended period.

The reversal of these expected tightening policies have benefited fixed income, though gains pared back somewhat towards the end of the year as expectations for further easing waned amidst the modestly improving economic landscape.

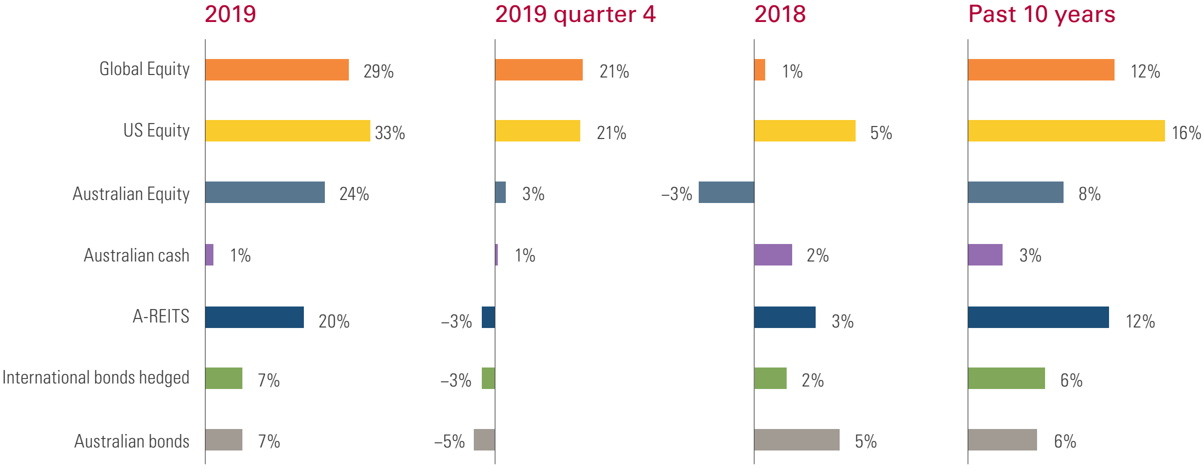
With markets on average appearing to be kinder last year than in 2018 where many received a frightening "Christmas gift", some have seen this as a golden opportunity to pile more money into risky assets, without being aware that they might be making the same mistake as they did in 2018 – this time in the opposite direction.

Just as US recession fears proved to be a false expectation even until the end of 2019, the bullish reflation theme many are banking on for 2020 may not come to fruition this year.

There is a risk that financial markets are getting ahead of themselves and are pricing in too much optimism for what remains largely uncertain outcomes. On the trade front, for instance, despite the potential phase one deal between the United States and China, the vague language of the current agreement as well as the likely difficulty in getting Beijing to make concessions for a phase two deal means the global economy will continue to reside in an environment of perpetual high policy uncertainty.

Our recently published Vanguard Economic and Market Outlook for 2020 highlights this risk, and adds that stretched valuations, weak earnings growth and late-cycle risks are unlikely to be allies of the market momentum seen in 2019, nor will they be supportive of global demand in 2020.

Figure 2. Global investment performance



Notes: All returns are annualised. Global equity represented by MSCI AC World in AUD, US equity represented by S&P 500 in AUD, Australian equity represented by S&P/ASX 300 Index, Australian property represented by the S&P/ASX 300 A-REIT Index, Australian bonds by the Bloomberg AusBond composite 0+ Yr Index, International bonds by Bloomberg Barclays Global Aggregate Index Hedged in AUD, and Australian cash by the Bloomberg AusBond Bank Bill Index. Data is through December 2019.
Source: Factset and Thomson Reuters Datastream.

Economic outlook

The new age of uncertainty

At the start of 2020, weakening economic conditions, unresolved trade negotiations between the US and China, the yet-to-be-completed Brexit program, and rising global geopolitical tensions paint an uncertain outlook for financial markets.

These factors, combined with unpredictable policymaking, are all likely to weigh negatively on demand in 2020, and on supply in the long run as businesses defer new investments.

Investors should therefore expect a deterioration in the prevailing economic conditions over time, which will ultimately flow though to investment markets.

The global economy: Broader uncertainty

The global growth outlook is decidedly cloudy. Growth will remain subdued for much of the next year and, although we see US growth decelerating below trend to around 1 per cent, our expectation is that the world's largest economy will avoid a technical recession.

Meanwhile, we expect growth in China to drop below its 6 per cent target rate to 5.8 per cent and, in the Euro area, growth will likely stay weak at around 1 per cent.

For Australia, we expect a below-trend growth rate of 2.1 per cent, with the domestic economy being cushioned to some degree by recent monetary and fiscal policy actions. The pain of trade wars and other global uncertainty has been to some degree, alleviated by monetary and fiscal policy actions.

However, it is becoming increasingly clear in Australia that there are diminishing returns to further rate cuts and the overriding priority to achieve a budget surplus will likely limit the role fiscal policy plays at boosting activity in 2020.

Doubts of a meaningful near-term resolution of the trade war between the US and China, coupled with continued geopolitical uncertainty and deteriorating industrial growth have resulted in a slowdown in growth in the world's two largest economies.

Inflation in Australia, alongside the Euro area and Japan, is expected to undershoot the RBA's targets.

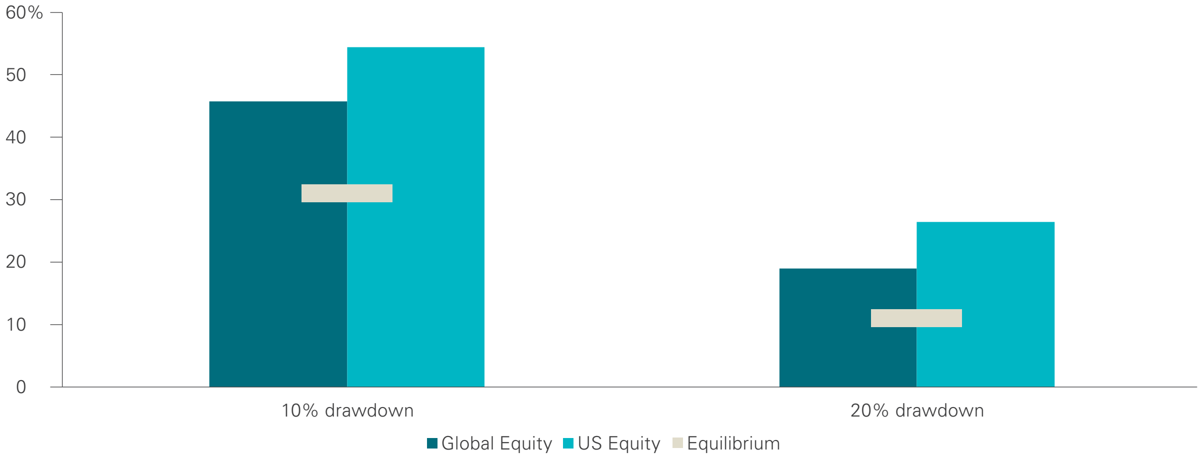
In the absence of a strong solution to boost inflation and stimulate wage growth, we see a possibility for the deployment of a small quantitative easing program (QE-lite) by the RBA or unconventional monetary policy of some form, once the cash rate hits 0.5 per cent or even lower at 0.25 per cent.

Investment markets: Subdued returns here to stay

Investors should be mindful that as global growth slows there will be periodic bouts of volatility in the financial markets, given heightened policy uncertainties, late-cycle risks and stretched valuations.

Our near-term outlook for global equity markets remains guarded, and the chance of a large drawdown for equities and other high-beta assets remains elevated and significantly higher than it would be in a normal market environment.

Figure 3. Downside risks and volatility likely to stay elevated in risk assets
Probability of global correction over the next three years seems elevated



Notes: Probability corresponds to the percentage of global equity in USD VCMM simulations that declines over the next three years.
Source: Vanguard.

High-quality fixed income assets, whose expected returns are positive only in nominal terms, remain a key diversifier in a portfolio.

Returns over the next decade are anticipated to be modest at best. The fixed income return outlook has fallen further because of declining policy rates, lower yields across maturities, and compressed corporate spreads.

The outlook for equities has improved slightly from our forecast last year, thanks to mildly more favourable valuations, as earnings growth has outpaced market price returns since early 2018.

Annualised returns for Australian fixed income are likely to be between 0.5–1.5 per cent over the next decade, compared with a forecast of 2.0–4.0 per cent last year. The outlook for global ex-Australia fixed income returns is slightly higher in the range of 1.0–2.0 per cent, annualised.

For the Australian equity market, the annualised return over the next 10 years is in the 4.0–6.0 per cent range, while returns in global ex-Australian equity markets are likely to be about 4.5–6.5 per cent for Australian investors, because of slightly more reasonable valuations elsewhere.

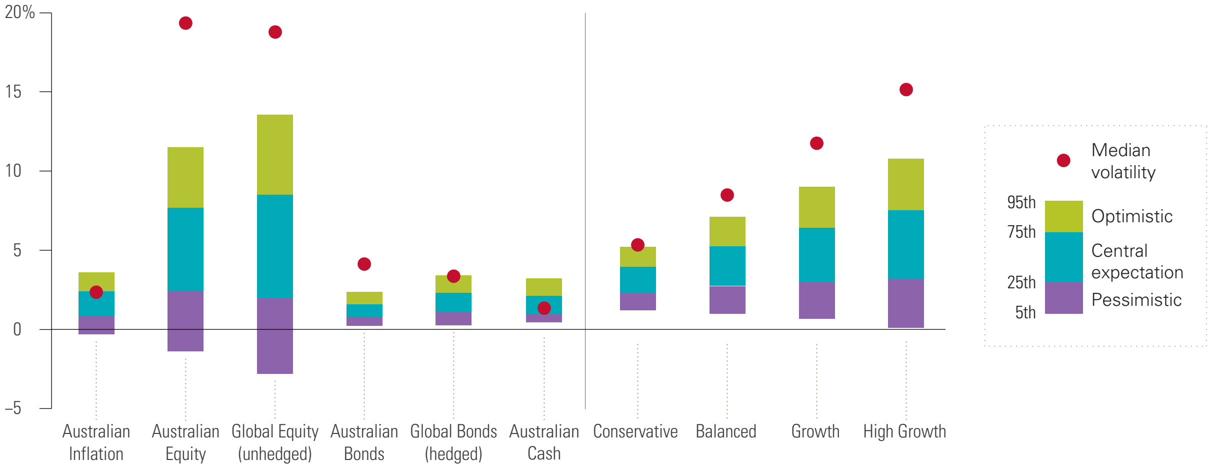
Over the medium term, we expect that central banks will eventually resume the normalisation of monetary policy, thereby lifting risk-free rates from the depressed levels seen today.

So, broadly speaking, given our outlook for lower global economic growth and subdued inflation expectations, risk-free rates and asset returns are likely to remain lower for longer compared with historical levels.

Long-term 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.

Figure 4. Projected 10-year nominal return outlook



Source: Vanguard, 30 September 2019 VCMM Simulation.

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 circles show 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.

The next two charts show the trade-off between targeting a CPI+ return target and the risk of a loss along the way.

Figure 5. Probability of achieving real return target

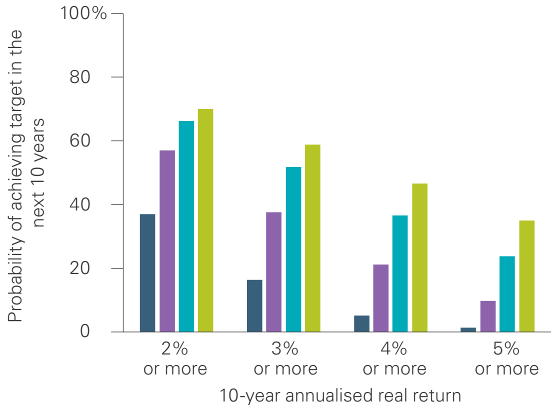
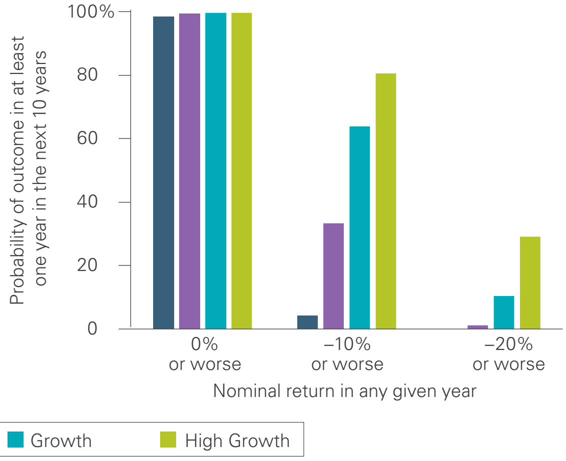


Figure 6. Downside risks



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. Results from the model may vary with each use and over time.

Source: Vanguard, 30 September 2019 VCMM Simulation

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.

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.

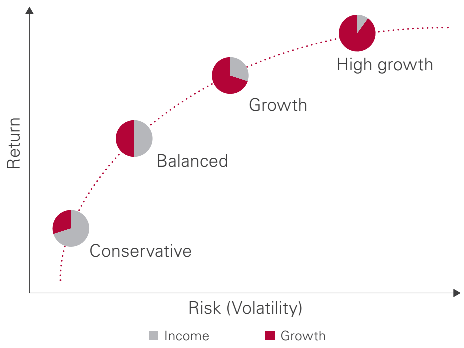
Vanguard Capital Markets Model

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

31 December 2019

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 Asset weighted peer group MER (% p.a.)	3 mths	6 mths	1 yr	3 yrs	5 yrs	7 yrs	10 yrs
Conservative	0.11	0.76	2.52	1.27	1.37	1.53	1.05
0.69	59	58	57	56	50	49	45
Balanced	0.20	0.70	2.89	1.29	1.27	1.48	1.14
0.85	68	67	66	61	54	50	38
Growth	0.47	0.87	2.82	1.35	1.42	1.60	1.34
0.80	89	88	86	83	77	74	64
High Growth	0.55	0.87	2.88	0.99	0.98	1.27	1.01
0.94	74	74	73	69	60	57	48

Peer group percentile
Top 5%
1st quartile
2nd quartile
3rd quartile
4th quartile

Sources: Vanguard calculations using data from Morningstar Inc. 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. There has been no adjustment for survivorship bias.
* 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.

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.

Figure 7. Vanguard Diversified Funds return contributions for the quarter
31 December 2019

Fund	3 Month Gross Return (%)	3 Month Return Contribution (%)			
		VCIF	VBIF	VGIF	VHIF
Vanguard Cash Plus Fund	0.26	0.0	0.0	0.0	0.0
Vanguard Australian Fixed Interest Index Fund	–1.32	–0.2	–0.2	–0.1	0.0
Vanguard Australian Shares Index Fund	0.72	0.1	0.1	0.2	0.3
Vanguard International Shares Index Fund	4.32	0.4	0.6	0.9	1.2
Vanguard International Small Companies Index Fund	5.49	0.1	0.2	0.3	0.4
Vanguard Emerging Markets Shares Index Fund	7.19	0.1	0.2	0.3	0.4
Vanguard International Shares Index Fund (Hedged) – AU Class	7.56	0.4	0.7	0.9	1.2
Vanguard Global Aggregate Bond Index Fund (Hedged)	–0.82	–0.3	–0.3	–0.2	–0.1
Total Return Contribution (%)		**0.6**	**1.3**	**2.3**	**3.2**

*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.

Figure 8. Target asset allocations effective from July 2017

Fund	Asset Allocation (%)			
	Conservative	Balanced	Growth	High Growth
Asset Classes				
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**

What negative bond yields mean for investors

The value of global bonds with negative yields stood at $13.4 trillion at the end of October, having risen as high as $17 trillion a few months earlier. That means investors around the world have been willing to pay a premium to corporations or countries for the privilege of lending them money.

This strange turn of events is part of a trend in which government bonds across much of the developed world yield less than 2%.

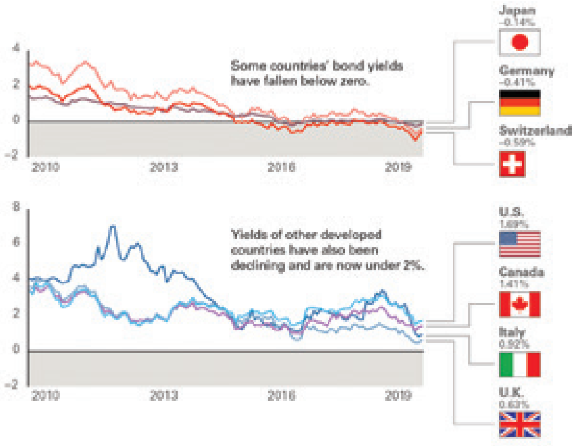
Although prospects for bond returns have dimmed as yields have fallen, it's important to remember the role that bonds play in a portfolio, Vanguard experts Paul Jakubowski and Alexis Gray note.

A quick look at how we got here

Since the global financial crisis, central banks have cut their targets for short-term interest rates, seeking to make borrowing cheap in hopes that consumers and businesses would boost economic growth by buying cars, taking trips, hiring more workers, or investing in equipment. These short-term rate cuts can weigh on longer-term yields as well when investors interpret them as a sign that policymakers are worried about the economy's health.

Investors buying bonds in anticipation of even lower yields have also played a role. After all, bonds' prices rise when yields fall. So even bonds with negative yields can generate positive returns. "To realise a positive return, an investor must opportunistically sell the bonds prior to maturity, which may not be desirable or feasible for some investors," said Mr. Jakubowski, Vanguard's head of global fixed income indexing.

Figure 9. Government bond yields' steady downward trend



Sources: Vanguard, using Bloomberg monthly data for 10-year government bond yields for October 2009 through October 2019.

Fear has also driven yields lower, said Ms. Gray, a Vanguard senior economist. Some risk-averse investors—worried about the prospects of an economic slowdown or lofty stock valuations, for example—have chosen bonds' near-zero returns over the risk of a significant stock market downturn of 10%, 20%, or even more.

Where yields might go, and what investors should consider

Yields are already low, but uncertainty about global growth and trade tensions in particular could well result in further easing by central banks. So it's a difficult call. Yields could rise and normalise—or continue to go lower.

Because yields are a good proxy for bonds' potential annualised rate of income, the bond environment is likely to remain challenging. Mr. Jakubowski and Ms. Gray offer some tips on how to navigate it:

Diversify globally. Negative yields in some markets shouldn't deter investors from holding a global bond allocation. "If the exposure is hedged, the income return along with the resulting hedge return tends to produce total returns in line with those of local bonds but still offer the benefits of diversification," Mr. Jakubowski said.

Resist the urge to reach for yield. Tilting your portfolio away from high-quality bonds for investments with potentially higher yields might be tempting in this environment, through either lower-quality bonds or high-dividend-yield stocks. More yield and more risk are a package deal, however. "Keep in mind why high-quality bonds are in your portfolio in the first place," Ms. Gray said. "Their primary role is not to boost your portfolio's return, but to act as a cushion for the higher volatility and downside of the riskier assets you hold in your portfolio such as stocks."

Be realistic. Base your financial goals—such as sending your children to private schools or providing for your retirement—on realistic return expectations, Mr. Jakubowski cautioned. Starting to save if you haven't already, saving slightly more of your pay every month, or extending your time horizon by, for example, planning to work a little longer are all more reliable ways of meeting those goals than counting on a hoped for level of market returns.

Keep an eye on costs. All else being equal, well-designed, low-cost investments provide more of an asset's return to investors. By simply keeping costs low, you can boost income without an increase in portfolio risk.

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