Vanguard

Asset allocation report

December quarter 2024

Contents

Quarter in review

Equities slowed down over the last quarter of 2024, capping an otherwise positive year for risk assets. U.S. equities were the clear outperformers over the year, gaining 25%, boosted by the resolution of election uncertainty, robust economic activity, and moderating inflation. However, U.S. and global markets pulled back at the end of the quarter after the U.S. Federal Reserve (the Fed) became slightly hawkish in December, scaling back the number of interest rate cuts expected in 2025. Over the quarter, Japanese equities outperformed other regions, gaining 5.4%, to be the second-best performing major equity market after the U.S due to continued optimism about the end of deflation and ongoing corporate reforms (**Figure 1**).

Global growth stocks, particularly large-cap tech stocks, continued to deliver outsized returns driven by positive AI sentiment and strong earnings, with the "Magnificent 7^" returning nearly 16% for the quarter and over 67% for the year. Emerging markets equities experienced a quarter-end boost from another round of Chinese stimulus efforts and strong performance from India and Taiwan. Australian equities wavered in the final month of the year, ending the quarter down 0.8% but growing 11% over the year. Financials and industrials outperformed over the quarter, while the property sector slid and consumer discretionary took a hit. Banking benefited from strong earnings from the big four banks and optimism that inflation is now under control with interest rate cuts on the horizon, allaying fears of a significant spike in mortgage defaults. However, the materials sector recorded a decline of over 10% due to concerns over China's economic growth and inflationary pressures.

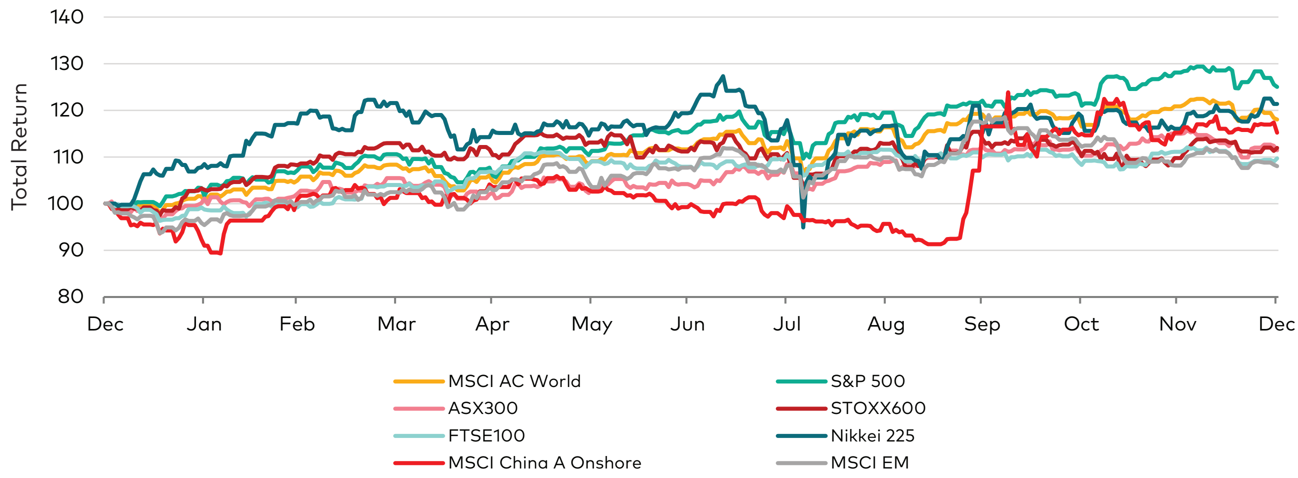
While developed markets central banks began normalising policy in 2024, resilient growth and stickier inflation meant markets pared back expectations for how quickly rate cuts would be delivered, particularly in the United States. This led to higher yields and curve steepening as long-end Treasury yields rose further than short-term yields, leading to a 1.7% fall in the Global Aggregate Index over the quarter, but a 1.5% gain over the year as higher starting yields cushioned losses (**Figure 2**).

Australian mid- and long-term bond yields also rose, dampening the Composite Index which was down just over 2.5% but still posted close to a 3% gain over the year, while lower duration assets such as cash were positive over the quarter. High-yield bonds were the top-performing sub-sector again, benefiting from a combination of high all-in yields and tightening spreads. European government bonds also outperformed as the weaker economic outlook and political turmoil translated into greater confidence in the downward direction for interest rates.

In currency markets, the USD rallied as markets expected proposed tariff plans to provide medium-term support by narrowing the U.S. trade deficit. Among G10 currencies, the AUD was one of the worst performers, down over 10% against the USD, with iron ore prices falling by 7.5% over the quarter. Broad commodity performance was negative with precious metals, particularly gold, retreating from the all-time highs this year due to rising geopolitical tensions and market uncertainty. Brent crude oil prices strengthened due to production cuts, and energy outperformed.

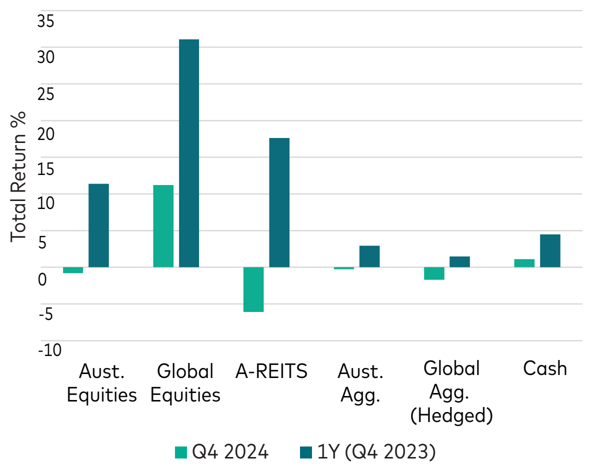
^The Magnificent Seven stocks are a group of high-performing and influential companies in the U.S. stock market: Alphabet, Amazon, Apple, Meta Platforms, Microsoft, NVIDIA, and Tesla.

Figure 1. Global equites had a stellar year with the U.S. the top performer



Note: Total return indexed to 31 December 2023. Returns are cumulative total returns denominated in local currency of each security's country of domicile with the MSCI Emerging Markets Index and MSCI All Country World Index USD denominated.
Source: Bloomberg, as at 31 December 2024.

Figure 2. A weaker AUD helped boost foreign denominated equities



Note: Returns are cumulative total returns denominated in AUD.
Source: Bloomberg, as at 31 December 2024.

Economic outlook

Global inflation has slowed sharply in the last two years and is now within touching distance of central banks' targets. But the path to disinflation has been uneven across countries, with most developed markets enduring monetary-policy-induced slowdowns to get there. The United States is a notable exception, having experienced accelerating economic growth and full employment with no discernible effect from restrictive monetary policy.

Has the U.S. achieved a soft landing? Or will the impact of high interest rates eventually lead to a hard landing? These questions have dominated the market narrative over the last two years, with the focus on whether the Fed can perfectly time the rate-cutting cycle to achieve painless disinflation.

Yet this emphasis on the "landing" may not fully explain the pairing of exceptionally strong growth and falling inflation that we've witnessed in the U.S. The forces that do explain it suggest a new narrative for the economy and markets.

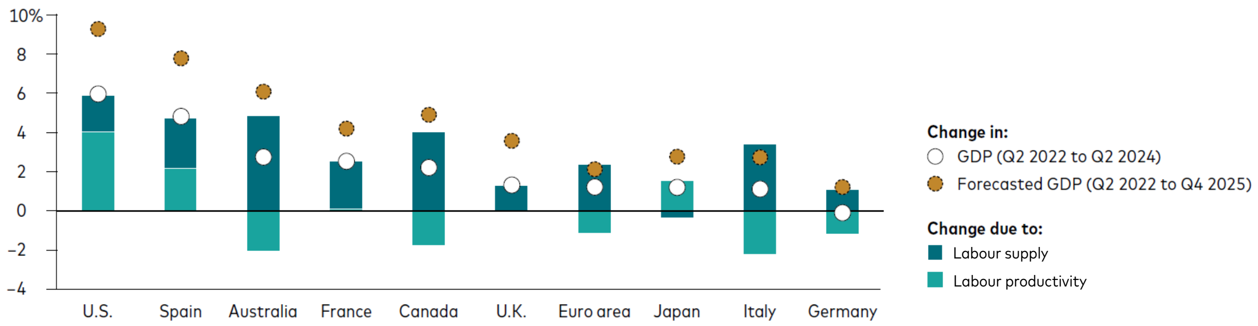
In our 2025 outlook, we adopt a framework centred on the supply-side forces that have shaped the U.S. economy. These include a surge in both labour productivity and available labour. Supply-side forces offer a more satisfying explanation for the positive growth and inflation dynamic.

Emerging risks—such as those related to immigration policies, geopolitics, or potential tariffs—also fit more naturally into this supply-side-aware framework.

Against the backdrop of restrictive monetary policy, the U.S. economy has had the favourable combination of strong real GDP growth, loosening of overly tight labour markets, and falling inflation. With headlines on Fed policy always front and centre, it is tempting to attribute this good fortune to a "soft landing" engineered by the Fed. However, a closer look suggests that this interpretation may be insufficient.

Rather, continued U.S. robustness may owe more to the fortuitous supply-side factors, including higher productivity growth and a surge in available labour (**Figure 3**). Higher output and lower inflation can generally coexist only when the supply-side forces are in the driver's seat. These dynamics have altered our baseline U.S. economic outlook and point to the primary risks on the horizon.

Figure 3. Cumulative change in GDP since Q2 2022



Note: The bars show the cumulative change in labour supply (as measured by hours worked) and labour productivity (as measured by output per hour worked) between Q2 2022 and Q2 2024. The white dots show the cumulative change in GDP for each economy between Q2 2022 and Q2 2024. The tan dots show the forecasted cumulative change in GDP for each economy between Q2 2022 and Q4 2025. **Sources:** Vanguard calculations, based on data from Bloomberg, the U.S. Bureau of Economic Analysis, Eurostat, the Australian Bureau of Statistics, Statistics Canada, the Economic and Social Research Institute (Japan), the Office for National Statistics, the European Central Bank, the U.S. Bureau of Labor Statistics, and CEIC, as of 30 October 2024.

While the positive supply-side drivers of growth may continue in 2025, emerging policy risks such as the implementation of trade tariffs and stricter immigration policies may offset gains. Under such a scenario, U.S. real GDP growth would cool from its present rate of around 3% to closer to 2%. These offsetting policy risks may also increase inflationary pressures. Therefore, we anticipate that core inflation will remain above 2.5% for most of 2025. Although we expect the Fed to reduce its policy rate to 4%, cuts beyond that would prove difficult as any weakening growth would have to be weighed against a potential inflation revival.

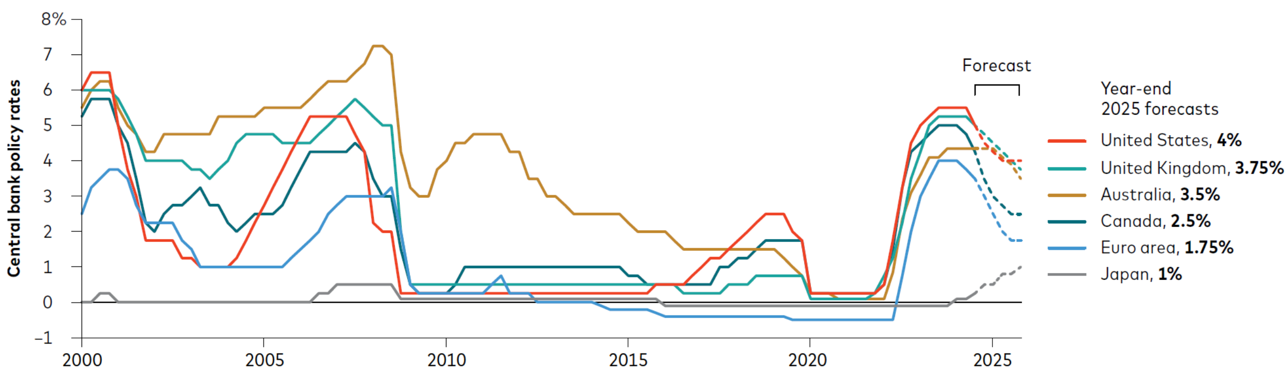
Economies outside of the United States have been less lucky on the supply side, and thus unable to achieve the same combination of strong growth alongside significantly reduced inflation. While inflation is now close to target in Europe, that has come at the price of stagnation in 2023 and 2024, with muted external demand, weak productivity, and the lingering effects of the energy crisis holding activity back. Growth is expected to remain below trend next year, as a slowdown in global trade represents a key risk. We expect the European Central Bank to cut rates below neutral, to 1.75%, by the end of 2025. In Australia, aggregate demand is likely to exceed aggregate supply, keeping the labour market historically tight and the economy operating close to, or slightly above, full capacity. Considering these dynamics, we expect the RBA to be slow in pivoting toward policy easing, with rates ending 2025 at 3.5%.

In China, policymakers still have work to do despite their coordinated policy pivot in late 2024. Growth should pick up in the coming quarters as financing conditions ease and fiscal stimulus measures kick in. But more decisive and aggressive measures are needed to overcome intensifying external headwinds, structural issues in the property sector, and weak confidence in both the household and business sectors. We maintain our weaker-than-consensus secular view on Chinese growth, and thus expect additional monetary and fiscal loosening in 2025.

Although central banks are now easing monetary policy, we maintain our view that policy rates will settle at higher levels than in the 2010s (**Figure 4**). This environment sets the foundation for solid cash and fixed income returns over the next decade, but the equity view is more cautious. This structural theme holds even in a scenario where central banks briefly cut rates below neutral to allay temporary growth wobbles. The era of sound money—characterised by positive real interest rates—lives on.

The investment challenge is a growing point of tension in risk assets between momentum and overvaluation. Assets with the strongest fundamentals have the most stretched relative valuations, and vice versa. The economic and policy risks for 2025 will help determine whether momentum or valuations dominate investment returns in the coming year.

Figure 4. Most policy rates will likely settle lower but above inflation

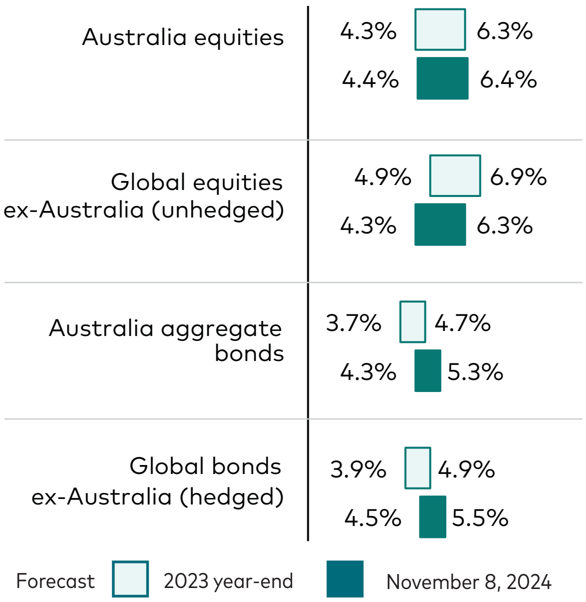


Note: The chart shows central banks' nominal monetary policy rates for each quarter through 4 November 2024, and forecasts thereafter. Most major central banks have target inflation rates around 2%. **Sources:** Vanguard calculations, using data from Macrobond, as of 4 November 2024.

Market outlook

Higher starting yields have greatly improved the risk-return trade-off in fixed income. Bonds are still back. Over the next decade, we expect 4.3%–5.3% annualised returns for Australian bonds and 4.5%–5.5% for global ex-AU currency-hedged bonds **(Figure 5).** This view reflects a gradual normalisation in policy rates and yield curves, though important near-term risks remain.

Figure 5. Setting reasonable expectations: 10-year market outlook



Important: The projections and 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 modelled asset class. Simulations are as of 31 December 2023, and 8 November 2024. Results from the model may vary with each use and over time. For more information, please see the Important information slide.

Note: Figures are based on a 2-point range around the 50th percentile of the distribution of return outcomes for equities and a 1-point range around the 50th percentile for fixed income.

Source: Vanguard.

We believe that yields across the curve are likely to remain above 4% in the U.S. A scenario where supply-side tailwinds persist will be supportive for trend growth and thus real rates. Alternatively, the emerging risks related to global trade and immigration policies would also keep rates high due to increased inflation expectations. These risks must be balanced with the risk that a growth shock, and any associated monetary easing or "flight to safety", would cause yields to fall meaningfully from current levels. In Australia, we expect long-term yields to remain above 4%.

Higher starting yields, which imply a "coupon wall", mean that future bond returns are less exposed to modest increases in yields. In fact, for investors with the time horizon to see coupon payments catch up, interest rates that rise further would improve their total returns despite some near-term pain. We continue to believe fixed income plays an important role as a ballast in long-term portfolios. The greatest downside risk to bonds also pertains to stocks—namely, a rise in long-term rates due to a resurgence in inflation. These are the dynamics we are most closely monitoring. U.S. equities have generally delivered strong returns in recent years. 2024 was no exception, with both earnings growth and price/earnings ratios exceeding expectations. The key question for investors is, "What happens next?"

In our view, U.S. valuations are elevated but not as stretched as traditional metrics imply **(Figure 6)**. Despite higher interest rates, many large corporations insulated themselves from tighter monetary policy by locking in low financing costs ahead of time. And more importantly, the market has been increasingly concentrated toward growth-oriented sectors, such as technology, that support higher valuations.

Nevertheless, the likelihood that we are in the midst of a valuation-supporting productivity boom, akin to the mid-1990s, must be balanced with the possibility that the current environment may be more analogous to 1999. In the latter scenario, a negative economic development could expose the vulnerability of current stock market valuations.

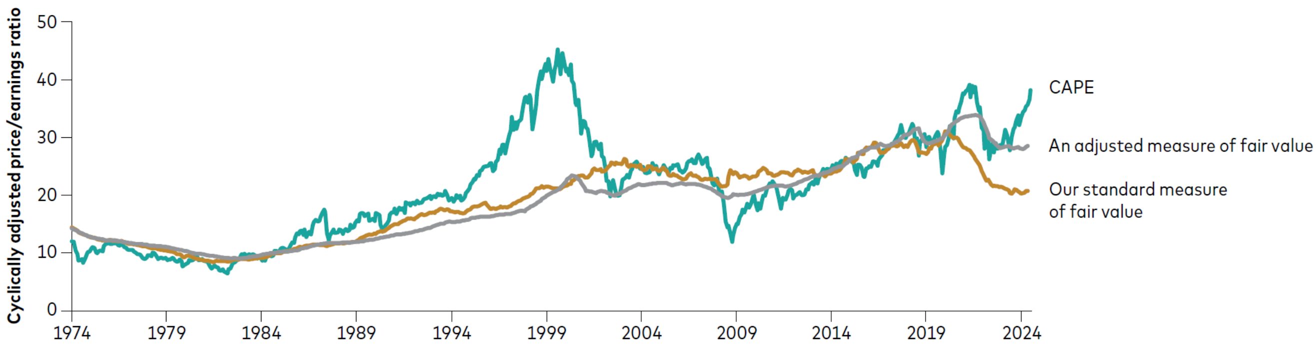
While the median of the U.S. return outlook over the next decade at 2.9%–4.9% appears overly cautious – as does the outlook for global ex-AU equities at 4.3%–6.3%—the range of possible outcomes is wide, and valuations are rarely a good timing tool. Ultimately, high starting valuations will drag long-term returns down. But history shows that, absent an economic or earnings growth shock, U.S. equity market returns can continue to defy their valuation gravity in the near term.

Valuations of non-US equity markets are more attractive. We suspect this could continue as these economies are likely to be most exposed to rising global economic and policy risks. Differences in long-term price/earnings ratios are the biggest driver of relative returns over five-plus years. Over the next decade, we expect Australian equities, developed markets ex-US equities and emerging market equities to return 4.4%–6.4%, 7.4%–9.4% and 5.4%–7.4%, respectively. However, economic growth and profits matter more over shorter horizons.

Over the past few years, persistently lacklustre growth in the economies and earnings outside the U.S. kept global ex-US equity returns lukewarm relative to the remarkable return in the U.S. market. Within emerging markets, China is the sole reason valuations are below fair value, but the risks of rising trade tensions and insufficient fiscal stimulus in China pose additional headwinds.

The strong outlook for fixed income together with a more cautious long-term view for U.S. equities means that—for investors with an appropriate risk profile—more defensive portfolios may be appropriate, given that the extra compensation for taking on more risk remains low relative to history. We expect a 60/40 portfolio to return 4.9%–6.9% over the next decade.

Figure 6. Fair value may not be that far away



Notes: The chart shows the CAPE ratio for U.S. equities, measured by the MSCI USA Index until 30 April 30 2003, and the MSCI US Broad Market Index thereafter. It also depicts our "standard" fair-value estimate based on a statistical model considering interest rate and inflation, and an adjusted fair-value estimate taking into account the recent divergence between companies' after-tax cost of debt and market yields, and the rising share of the technology sector in the overall equity index.

Source: Vanguard calculations, based on data from Refinitiv, Bloomberg, and Global Financial Data. Fair-value estimates as of 30 September 2024, and actual data as of 8 November 2024.

Long-term market outlook

The charts 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.

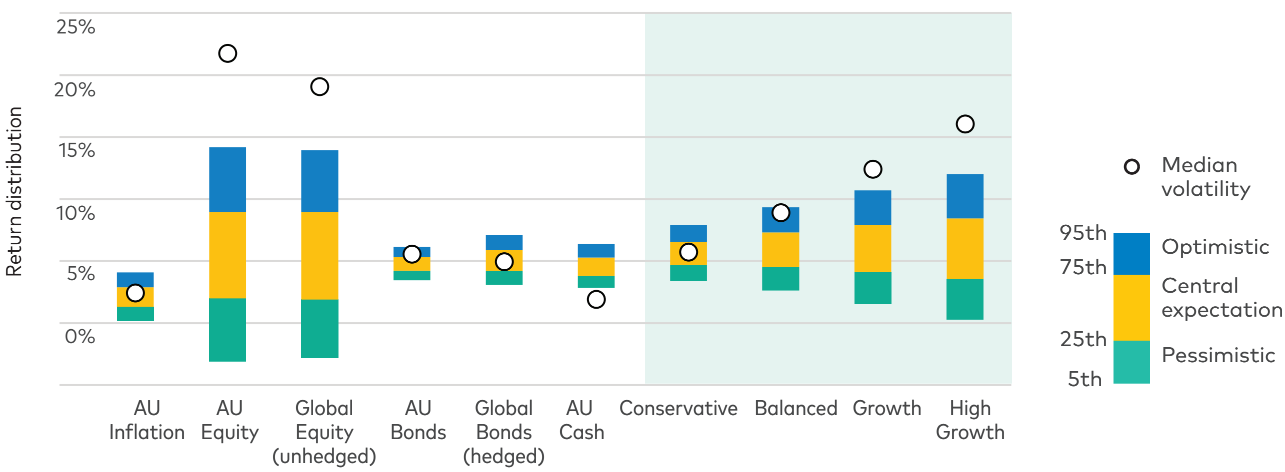
It shows two concepts: the range of annualised 10-year nominal returns and the median volatility experienced.

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 white 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.

Figure 8a. Projected 10-year nominal return outlook



Notes: 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 modelled asset class in AUD. Results from the model may vary with each use and over time.
Source: Vanguard, December 2024 using 8 November 2024 VCMM Simulation.

Figure 8b. Projected 10-year nominal return outlook

	RETURN PERCENTILE					MEDIAN
	5TH	25TH	MEDIAN	75TH	95TH	VOL.
Australian Inflation	0.2%	1.3%	2.1%	2.9%	4.1%	2.4%
Australian Equity	-3.1%	2.0%	5.4%	9.0%	14.2%	21.8%
Global Equity (unhedged)	-2.8%	1.9%	5.3%	9.0%	14.0%	19.1%
Australian Bonds	3.5%	4.2%	4.8%	5.3%	6.2%	5.6%
Global Aggregate Bonds (hedged)	3.1%	4.2%	5.0%	5.9%	7.1%	5.0%
Australian Cash	2.8%	3.8%	4.5%	5.3%	6.4%	1.9%
Conservative	3.4%	4.7%	5.6%	6.5%	7.9%	5.7%
Balanced	2.6%	4.5%	5.9%	7.3%	9.3%	8.9%
Growth	1.5%	4.1%	6.0%	7.9%	10.7%	12.4%
High Growth	0.3%	3.5%	6.0%	8.4%	12.0%	16.1%

Notes: 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 modelled asset class in AUD. Results from the model may vary with each use and over time.
Source: Vanguard, December 2024 using 8 November 2024 VCMM simulation.

The next two 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.

Figure 9a. Probability of achieving real return

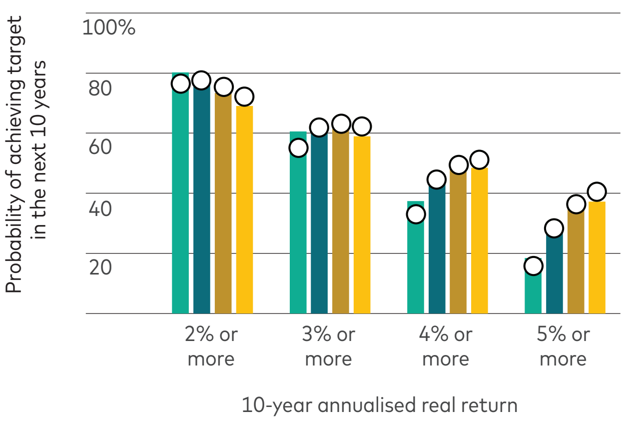
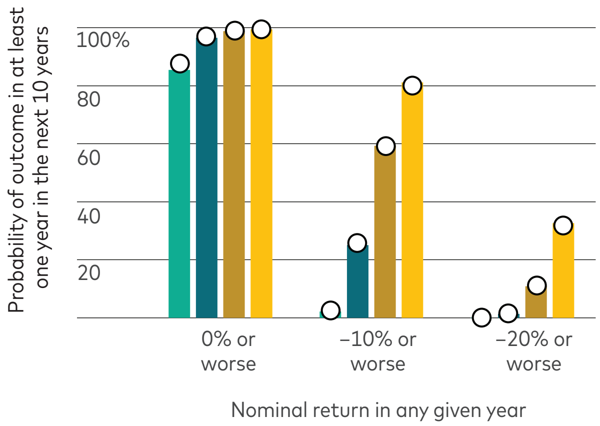


Figure 9b. Downside risks



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Source: Vanguard, December 2024 using 8 November and 31 December 2023 VCMM Simulations.

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-to-day 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 Vanguard Capital Markets Model® (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 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 forecast 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.

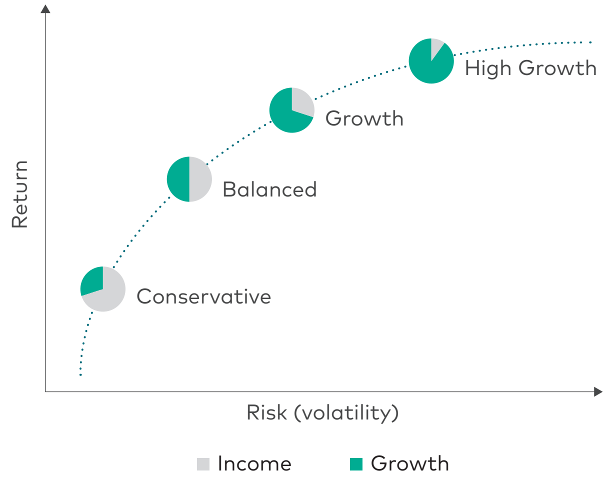
Why diversification matters

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.



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 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.

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The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. 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.

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