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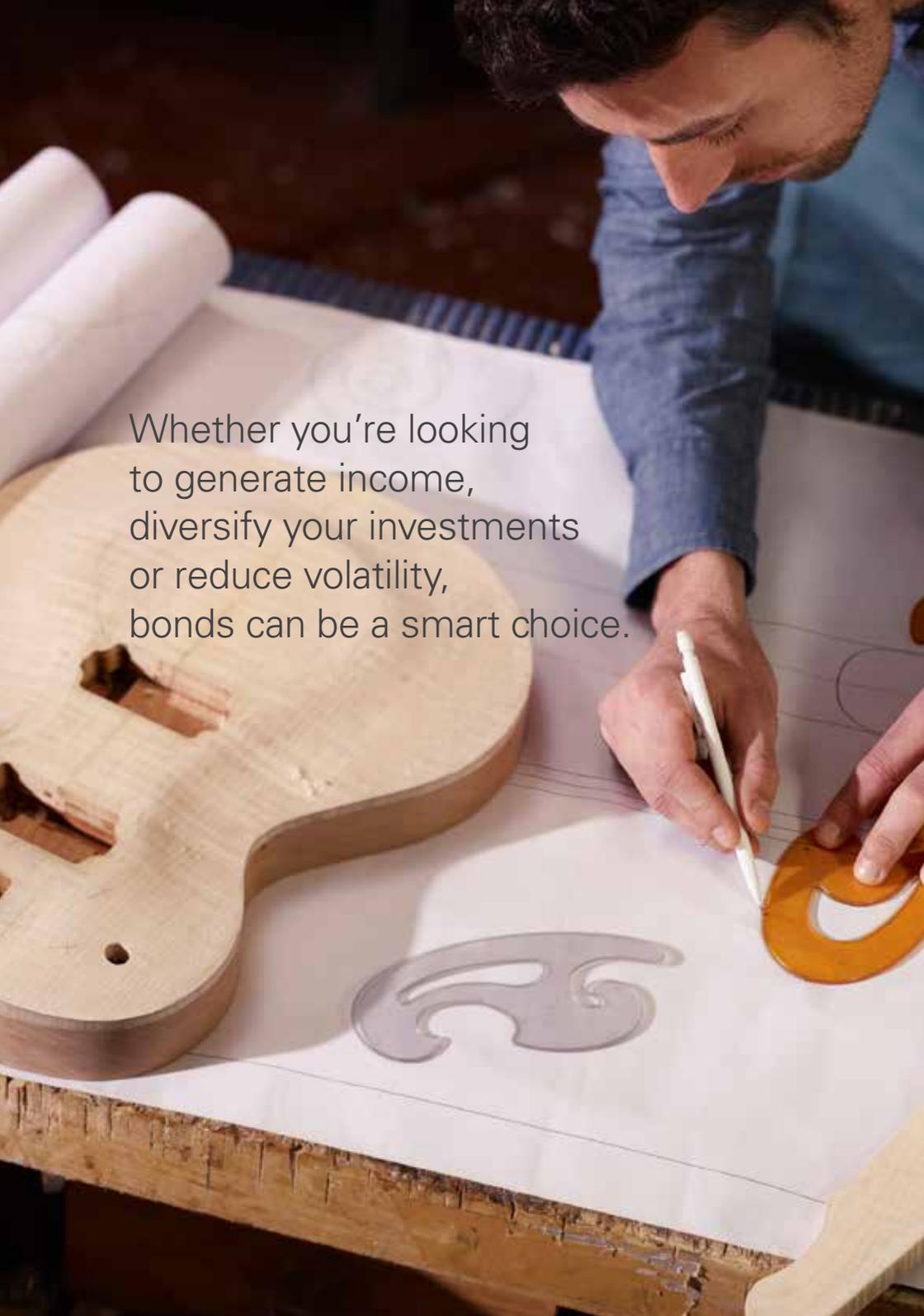
Bond investing

Plain Talk[®] Library



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Whether you're looking to generate income, diversify your investments or reduce volatility, bonds can be a smart choice.

Introducing bonds

Bonds can play an important role in your portfolio by generating income, reducing volatility and diversifying your investments.

The global bond market is much larger than the stock market and nearly every economy around the world has its own market, each with its own set of issuers, intermediaries and securities.

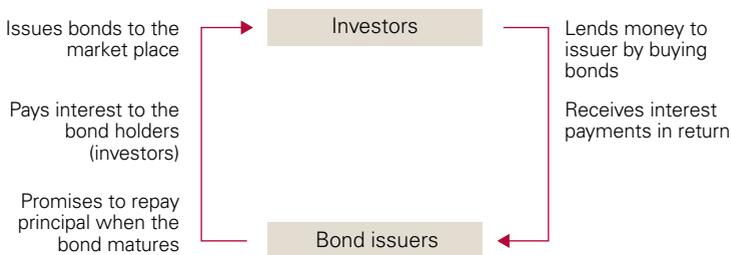
The bond market can be complex for individual investors to understand. This Plain Talk® guide explains clearly how bonds work, how to invest in the bond market and how bonds can play their part in a diversified portfolio to meet your financial goals.

What is a bond?

A bond is a fixed interest asset that can provide a reliable stream of income.

A bond is a type of debt security and operates like a loan. You lend your money to an issuer—usually a government or a company—for a set period of time. The issuer agrees to make regular payments at a set rate of interest and then pay you back in full when the bond matures at the end of the term.

Bonds: The basics



Types of bonds

The bond market is extremely diverse, ranging from relatively safe government bonds to corporate bonds that can come with more risk.

While bonds are classified as defensive assets because they are generally less risky than growth assets like shares, companies and even governments can default on their bond obligations.

Issuer	Example	Risk level
Government	In Australia the Federal Government issues Commonwealth bonds to help pay for major government projects.	Lower
State government, quasi-government or supranational	Organisations like the World Bank that have a government guarantee, issue bonds to support their members' financial needs or projects.	Varies
Corporate	Large public companies issue bonds to fund expansion and other major projects, typically offering higher interest rates.	Higher



How do bonds work?

You can hold a bond until maturity or trade it on the bond market. Bonds are continually traded and their capital value changes in line with interest rate movements and other factors. Most traders are large banks, brokers and fund managers, which buy and sell bonds to profit from price fluctuations or generate coupon income.

It's important to know that bonds have both a *face value* and a *capital value*.

The *face value* is the amount you'll receive back from the issuer when the bond matures at the end of a set term. Most bonds make regular coupon (or interest) payments over the term of the bond.

The *capital value* is what the bond is worth when it's bought and sold on the market. While the face value is fixed, the capital value can vary during the term, depending on factors such as interest rates, economic conditions and the time since the last coupon payment.

In this Plain Talk Guide, we will focus on fixed-rate bonds, where your coupon interest rate is fixed at the time of issue, as in the diagram below, which shows the lifetime of a three-year bond with a face value of \$100 and a coupon rate of 3% paid twice a year.

Example



Other types of bonds include:

Floating-rate notes

Interest payments are variable.

Perpetuals

Fixed or floating coupon payments and no specified maturity date.

Inflation-linked bonds

Coupon payments are linked to measures of inflation.

Zero coupon bonds

Sold by the issuer at a discount to the full face value but don't make any interest payments.

How to invest in bonds

Individual bonds

When you buy an individual bond you retain full control over your investment. You'll receive regular interest payments and the principal back when the bond matures. Or you can choose to sell the bond before maturity and receive the current market value of the bond.

You can buy government and corporate bonds through public offers when they are first issued or on the secondary bond market. High minimum transaction sizes may apply as these markets are considered 'wholesale markets', limiting the number of securities by the amount available you have to invest.

While some bonds are available to buy and sell on the Australian Stock Exchange with lower transaction minimums, the range can be limited, restricting your ability to build a diversified portfolio.

Bond funds

Bond funds and exchange traded funds (ETFs) can be a more flexible, less restrictive way of building a broad portfolio because they are able to purchase more securities that have high transaction minimums due to scale.

The different types of bond funds can give you access to different markets and sectors, providing greater opportunity for diversifying your portfolio, including:

- **Bond index funds.** Low-cost funds that are designed to match the performance of a particular market benchmark or index.
- **Bond ETFs.** May be more liquid and flexible than bond index funds as ETFs are traded daily.
- **Actively managed bond funds.** Active fund managers try to pick bonds to outperform a benchmark and offer the chance of higher returns, though usually at higher costs.



How do interest rates affect bond prices?

When interest rates rise, bond prices fall. And when interest rates fall, bond prices rise.

Let's say you bought a 10-year bond that pays 4% interest a year. If market interest rates fell, the income you receive from your bond would be more valuable to potential buyers and the capital value of your bond would increase. But if interest rates rose, the income from your bond would be less valuable and the capital value of your bond would fall.

The table below shows the relationship between interest rates, bond prices and the yield, which represents the expected return for new buyers if the bond is traded on the market.

	Bond prices	Yield	Why?
Rising interest rates	↓	↑	As interest rates rise, the coupon rate on existing bonds becomes less attractive to investors so the bond prices fall and the potential yield for buyers goes up.
Falling interest rates	↑	↓	As interest rates fall, the coupon rate on existing bonds becomes more attractive to investors so the bond prices rise and the potential yield for buyers goes down.

If you're invested in an individual bond, you only need to worry about changes in the capital value of your bond if you sell it before maturity. If you hold a bond until the end of its term, you'll receive back the face value of the bond.

If you're invested in a bond fund, you could actually benefit from falling bond prices because the fund will be able to invest in new bonds with higher yields.

What else affects bond prices?

There are a number of other factors that can affect bond prices, including:

- **Economic and market conditions.** The bond market tends to provide benefit from volatile markets as investors look to reduce their exposure to shares.
- **Time to maturity.** Bonds with more time to maturity are more sensitive to changes in interest rates.
- **Credit quality.** Bond prices can be affected by changes in the issuer's credit risk.

How is bond risk measured?

Independent credit rating agencies, such as Standard & Poor's and Moody's, evaluate the ability of bond issuers to meet their interest and principal repayments. These agencies assign credit ratings ranging from Aaa or AAA (highest quality) to C or D (lowest quality).

Bond credit ratings are important because they indicate the likelihood that an issuer will fail to pay the interest and the principal back.

Bonds with lower credit ratings tend to come with higher interest rates to compensate investors for the increased risk they are taking.

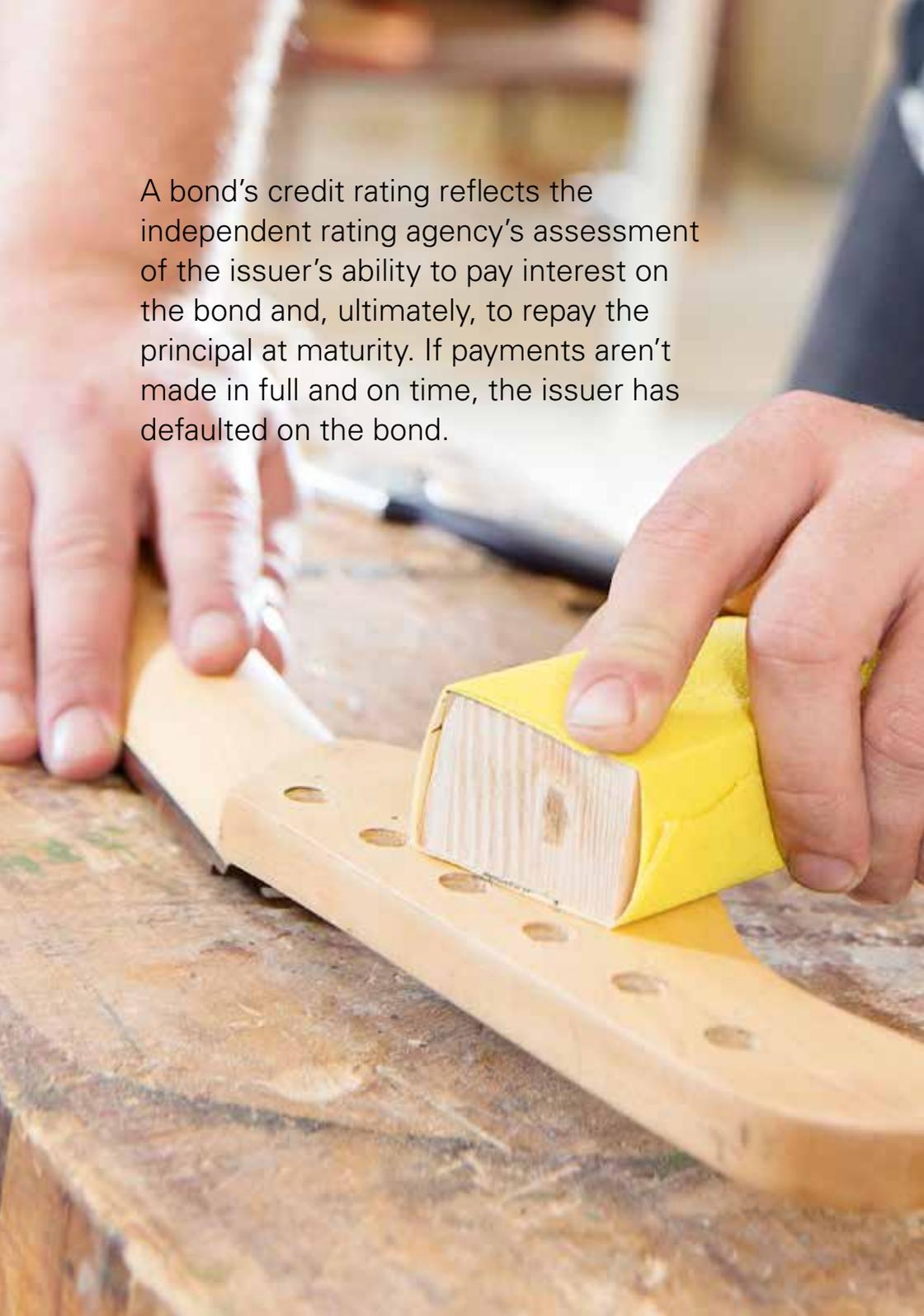
Most investors should be looking for issuers of investment grade bonds—Baa or BBB and above—because these are unlikely to default. The table below shows a complete list of Standard & Poor's and Moody's bond credit ratings.

Moody's and Standard & Poor's bond-rating codes

	Moody's	S&P	Rating
Investment-Grade Bonds	Aaa	AAA	Highest quality with lowest risk; issuers are exceptionally stable and dependable.
	Aa	AA	High quality, slightly higher degree of long-term risk.
	A	A	High-medium quality, many strong attributes but somewhat vulnerable to changing economic conditions.
	Baa	BBB	Medium quality, adequate but less reliable over the long term.
Below Investment-Grade Bonds	Ba	BB	Somewhat speculative, moderate security but not well safeguarded.
	B	B	Low quality, future default risk.
	Caa	CCC	Poor quality, clear danger of default.
	Ca	CC	Highly speculative, often in default.
	C	C	Lowest rating, poor prospects of repayment.
		D	In default.

Sources: Standard & Poor's and Moody's Investors Service.

A bond's credit rating reflects the independent rating agency's assessment of the issuer's ability to pay interest on the bond and, ultimately, to repay the principal at maturity. If payments aren't made in full and on time, the issuer has defaulted on the bond.



Where do bonds fit in your portfolio?

Bonds are often described as defensive assets. While the capital value of bonds can fluctuate along with changing economic conditions and interest rates, they are generally less volatile than growth assets like shares and property.

The chart below shows where bonds (fixed interest) sit in terms of risk and return compared with other assets. Unlike more defensive assets like term deposits, bonds offer regular income and unlike growth assets like shares and property, they offer limited potential for capital growth.

The risk spectrum



To work out the right amount of bonds to include in your overall investment mix, you should:

- establish your investment goals
- work out how long you have to invest
- evaluate your risk profile
- review regularly to keep your investments on track
- speak to a financial adviser.

Your risk profile relates to how comfortable you are with risk. It depends on your personal financial situation and what stage you're at in your life. A good financial adviser can add significant value by considering your overall financial situation and working out your tolerance for risk.

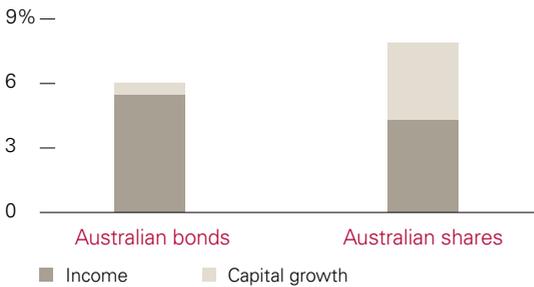
Bonds vs shares and property

Bonds can play an important role as a counterweight to riskier assets like shares and property by generating regular income, helping reduce volatility and diversifying your portfolio.

1. Generate income

Interest in the form of coupon payments can deliver a reliable stream of income for a broad portfolio of bonds. The chart below shows that in contrast to shares, which have historically provided income and capital growth, the total return for bonds has mainly come from income.

Components of total return, June 1997 to September 2017



Note: Vanguard® Australian Fixed Interest Index Fund and Vanguard® Australian Shares Index Fund
Past performance is not an indication of future performance.

2. Lower volatility

If you hold a bond until the end of its term, you know exactly how much you'll receive back at maturity (the face value) and how much you'll receive along the way (coupon payments).

If you buy or sell bonds before maturity, you are exposed to more volatility as the capital value can fluctuate along with interest rates and market conditions.

Bonds generally provide more capital stability for medium to long-term investors than shares, which don't offer an agreed schedule of dividend payments or the full principal repayment at the end of a given term.

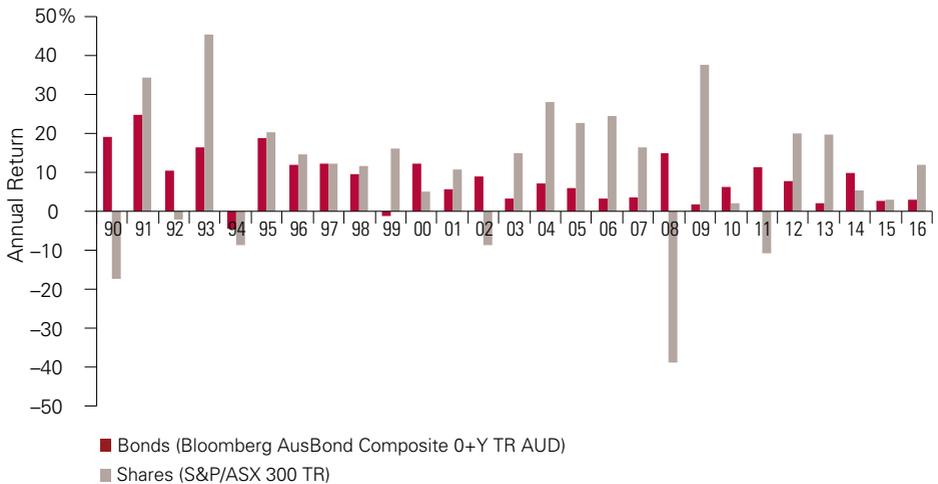


3. Diversify your portfolio

Investing in a broad range of bonds can help diversify your returns. As you can see in the chart below, bond returns tend to be positive when share returns have been negative. This inverse relationship between bonds and shares can provide balance to your investment portfolio.

Calendar year returns for Australian shares and bonds

From 31 December 1989 to 31 December 2016



Note: Past performance is not an indication of future performance.
Sources: Morningstar Direct, Vanguard calculations, October 2017.

Bonds vs cash and term deposits

Cash and term deposits are often talked about as an alternative to bonds. While they are all defensive assets, there are significant differences.

Cash and term deposits can be better described as savings vehicles rather than investments. They are better suited to help meet short-term liabilities.

But while they are low risk, term deposits are not completely risk-free.

1. Term deposits can lead to reinvestment risk because your principal is fully returned at the end of the term so you are exposed to any interest rate changes. This can have a substantial impact on your future income if attractive interest rates are no longer on offer.
2. If you're holding term deposits while you wait for the 'ideal' time to enter the sharemarket, this introduces liquidity risk because there are usually penalty fees if you need quick access to your cash.
3. If your money is invested with a single term deposit provider you're exposed to concentrated issuer risk.

Investing in a broad portfolio of bonds can help offset these risks. Bonds generally suit medium to long-term investors. They offer higher potential returns for investors willing to take on slightly more risk than cash or term deposits.



The Vanguard difference

When you invest with Vanguard, you have more than 40 years of investing experience behind you. So no matter which investment products suit your needs, you can feel confident that Vanguard investments are built on a rigorous investment philosophy that stands the test of time.

Since launching the first index mutual fund for individual investors in 1976, Vanguard has strived to be the world's highest-value provider of investment products and services. We have an unwavering focus on our clients with a commitment to champion what's best for investors by offering outstanding service, while keeping costs low.

Low-cost investing

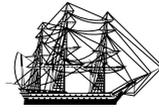
We know we can't control the markets, but we can control the costs of investing. To that end, providing low-cost investments isn't a pricing strategy for us. It's how we do business.

We can keep our costs low because of our unique ownership structure in the United States, which allows us to return profits to investors through lower costs so investors can earn more over time.

Our range of managed funds and ETFs

Vanguard offers a complete range of funds across all asset classes.

To see our complete product offerings, visit vanguard.com.au.



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