

Vanguard Australian Government Bond Index ETF (VGB)



Key Information	
Date of this Review	July 2012
Fund Reviewed	Vanguard Australian Government Bond Index ETF
ASX Code	VGB
Objective	To match the returns of the Underlying Index before taking into account fees, expenses and tax
ETF Inception	24 April 2012
Underlying Index	UBS Government Bond Index
Underlying Fund	Vanguard Australian Government Bond Index Fund
Size of Underlying Fund	\$308 million
Underlying Fund Inception	22 December 2008
Investment Manager/ Responsible Entity	Vanguard Investments Australia Ltd
Authorised Participants	J.P. Morgan Australia Limited Deutsche Securities Australia Limited
Market Makers	J.P. Morgan Australia Limited
Custodian	JP Morgan Chase Bank
Registrar	Computershare Investor Services Pty Ltd.
Distributions	Quarterly (Distributions may be reinvested via Distribution Reinvestment Plan)
Use of Derivatives	For hedging and risk management purposes only

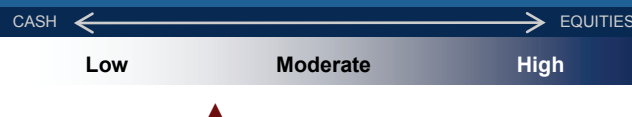
Fees & Commissions	
Management Fee	0.20% p.a.
Brokerage	Normal brokerage applies as per any transaction traded on the ASX.

Underlying Fund Holdings	
Commonwealth of Australia	
Queensland Treasury Corporation	
New South Wales Treasury corporation	
Treasury corporation of Victoria	
Western Australia Treasury Corporation	
South Australia Government Financing Authority	
Northern Territory Treasury Corporation	
Tasmanian Public Finance Corporation	
Government of Australian Capital Territory	

Fund Risk Characteristics			
	Low	Moderate	High
Liquidity Risk		▲	
Counterparty Risk	▲		
Concentration Risk	▲		
Credit Risk	▲		
Interest Rate Risk			▲

Risk categories are based on Lonsec's qualitative opinion of the risks inherent in the product's asset class and the risks relative to other products in the relevant Lonsec sector universe.

Capital Volatility



Capital volatility is defined as the risk of the unit price of the Fund fluctuating up or down during the investment timeframe outlined in the PDS. The indicator on the scale is a Lonsec assessment of the capital volatility after taking into consideration the duration, credit, structure, political and other risks of the Fund's underlying holdings.

What this Rating Means

➤ The 'Recommended^{Index}' rating indicates that Lonsec has strong conviction the product can achieve its objective. If applicable, the product has a number of competitive advantages and is considered a recommended index based entry point to this asset class or strategy.

Using this Fund

This is General Advice only and should be read in conjunction with the Disclaimer, Disclosure and Warning on the final page.

- Fixed interest funds can provide sound diversification benefits when combined with equities as part of a diversified portfolio, **although they have limited application as standalone income producing products.** Fixed interest funds generally have low default risk and high credit quality. Recommended allocations for all risk profiles are outlined in Lonsec's Risk Profile Review.
- Index-style funds are suited to investors who believe the Index provides an efficient long term return or are unwilling to pay the additional fees involved with active management.
- Investors are reminded that an investment in the Fund represents a **passive** exposure to the underlying fixed income securities. Investors may suffer losses in an environment of increasing interest rates, deteriorating credit spreads and / or decreasing liquidity in bond markets.
- The Vanguard Australian Government Bond Index ETF (the Fund) tracks the UBS Government Bond Index, a value weighted index of approximately 80 government bonds issued by the Commonwealth and State governments and territories of Australia. The Index encapsulates some the main risks of fixed interest investing, being interest rate and liquidity risk. The Index does not measure the other main risk of fixed income investing – credit risk.

Strengths

- Vanguard is a leading global manager of passive strategies, enjoying the benefits of scale, experience and resources.
- The Fund is of sufficient scale to offer Australian government bond market diversification, by indexing a widely used Australian government bond market index.
- Vanguard has shown commitment to continual incremental improvements in process, systems and implementation.

Weaknesses

- The Fund does not enjoy the potential benefits of active management.
- Unlike some index providers, the Underlying Index methodology and constituent details are not readily available to non-subscriber investors.

Lonsec Opinion of this Fund

Overall

- Lonsec has completed its initial review of the Vanguard Australian Government Bond Index ETF (VGB) and has assigned a '**Recommended** ^{INDEX}' rating. Supporting Lonsec's rating is its high level of comfort in Vanguard, should advisers choose to invest in an ETF in this asset class. Furthermore, Lonsec considers the Vanguard investment team to be well resourced and adequately experienced. Vanguard continues to display a sound business model and has remained 'true to label' in what it does best. Vanguard has demonstrated its commitment to continually improve its risk systems and investment approach.

Philosophy / Style

- Lonsec rates the long heritage of Vanguard as an index fund manager very highly, with the Vanguard Group Inc. establishing the first indexed mutual fund in 1976. The Australian team utilises their parent company by leveraging off the Vanguard global network in advancing systems and models.
- Vanguard's range of ETFs represent a separate class of units in the Underlying Fund. Vanguard believes this structure provides greater efficiencies and ultimately a better solution for investors.

People & Resources

- Lonsec considers Stephen Howard, Portfolio Manager of the Australian Fund, to be a well experienced professional with extensive experience gained with Vanguard and previous roles at Treasury Corporation of Victoria and AXA Australia Funds Management.
- The style of the manager means that resources are devoted to quantitative and systems research and development and implementation, rather than macroeconomic or credit research. Lonsec considers the fixed interest team suitably experienced for this somewhat specialised style of management.

- The team has experienced some recent turnover with Felix Sommerhalder departing the fund to return to Switzerland. Sommerhalder was one of the team's more senior members, with 13 years experience so his departure is not insignificant.
- Pleasingly, Quynh Vu has moved across from a senior position in Vanguard's Investment Risk team to fill the role. Vu is a more junior resource, with skills and experience more biased towards trading and execution, rather than portfolio management. However, Lonsec views the move positively as an example of staff promotion and development within the company.

Investment Process

- As an index fund manager, Vanguard aims to track the performance of the chosen index. Bond indices change more often than share indices due to the finite life (maturity) of bonds. Every maturity and inclusion of new issues changes the composition of the index and requires Vanguard to modify the portfolio. Instead of purchasing all securities in the respective indices, Vanguard models the risk characteristics of the indices and tries to implement a portfolio to match these risk attributes, whilst saving costs by purchasing fewer securities. Lonsec considers the Vanguard investment process to be disciplined and consistent.
- Unlike active managers of fixed interest, Vanguard does not take active interest rate positions against the benchmark, as it seeks to closely match the key rate duration structure of the index. Vanguard is not expected to outperform nor underperform the index (before fees) for any given change in interest rates. However, this is not to say that overall returns may not be impacted by a rise in interest rates, or vice versa, but rather, Vanguard will not have the potential loss (or gain) from taking an interest rate bet that is not already incurred by the market. The absence of duration risk (against the market) is a key difference of this Fund and needs to be thought of in a relative sense against other managers who may take an active bet on interest rates. Lonsec considers Vanguard's positioning on interest rates consistent with stated objectives.

Risk Management

- Vanguard adopts strict risk guidelines, including limits around duration and credit quality. Lonsec regards these tight limits positively, contributing to minimising Tracking Error.
- Vanguard has completed the implementation of the BlackRock Solutions Aladdin investment management platform to its risk management, trade execution and portfolio administration functions. Reported benefits include improvements in tighter pre-trade controls, increased trading efficiency, faster execution and overall improvement to process efficiency. Lonsec considers the introduction of this system as a positive development to risk management.
- Lonsec believes Vanguard takes adequate steps to test the portfolio under different scenarios, using industry-standard risk management software (BRS Aladdin).
- In recent years, Vanguard has established a dedicated risk team. Lonsec considers this additional focus on risk to be an enhancement to the overall

process and notes that the position matches a similar role within the Vanguard group in the US.

People & Resources

Corporate

The Vanguard Group Inc was established in 1975 as a mutually owned organisation and as at December 2011 had over A\$1.7 trillion in funds under management. The company is not listed and therefore does not publish gearing levels and does not have a credit rating. Globally, Vanguard employs over 12,000 staff throughout global offices located in the Americas, Europe and the Asia-Pacific.

Vanguard Investments Australia Ltd (Vanguard) was established in 1996 as a wholly owned subsidiary of Vanguard Group Inc (US). In Australia, Vanguard has over 200 staff managing over \$62.9b (March 2012).

Investment Team

As the Fund aims to replicate the Underlying Index, there is considerable emphasis placed on process and automation, requiring fewer staff to maintain the portfolio than an actively managed fund.

Vanguard’s fixed interest team is located in Melbourne and led by Stephen Howard. The team has experienced some recent turnover with Felix Sommerhalder departing the fund to return to Switzerland. Sommerhalder was one of the team’s more senior members, with 13 years experience so his departure is not insignificant. Quynh Vu has moved across from a senior position in Vanguard’s Investment Risk team to fill the role. Quynh has previously held a number of middle office quantitative roles at Vanguard.

The investment team members are:

Name	Years Experience	
	Industry	Firm
Stephen Howard <i>Head of Fixed Interest/Portfolio Manager</i>	18	5
Russell Papst <i>Domestic fixed interest, currency overlays</i>	15	13
Eddie Stolfa <i>International fixed interest, currency overlays</i>	17	1
Celine Whiting <i>Cashflows/repos/ port mgt systems</i>	12	7
Nisha Van Reyk <i>Repos/asset allocation/ rebalancing</i>	16	5
Quynh Vu <i>Asset allocation/ rebalancing / futures overlays</i>	6	6
Team Average	14	6

Resources

The BRS Aladdin portfolio management system is used to facilitate portfolio construction and risk management. This system provides risk analytics and identifies the characteristics of bonds needed for the fund to closely match the primary key risk factors of the index. Some other systems have been developed in house to maximise efficiency and minimise operational errors. YieldBroker, Bloomberg and FXConnect are used to trade electronically with external counterparties such as banks.

Investment Process

The Fund invests into the same pool of assets as the Underlying Fund and issues a separate unit class to investors.

Vanguard believes indexing provides a cost efficient exposure to Fixed Interest which outperforms active managers (after fees) over the long term. Unlike other fixed interest managers Vanguard do not undertake macro rates research. Efforts focussed on building a portfolio (using optimiser) which behaves like index with very low tracking error and reasonable liquidity.

Vanguard constructs an optimal portfolio which closely reflects the underlying index. The Fund typically holds fewer securities than the index but largely reflects the key risks.

Cost minimisation is also a key feature of the Vanguard investment approach, given the performance objective as described above.

Practically, in terms of portfolio construction and management this translates to:

- optimal portfolio construction (fewer holdings = lower transaction costs)
- buy and hold (lower turnover = lower transaction costs)
- Minimised staffing overheads - no team of analysts to forecast interest rates

Vanguard may enter into repurchase ('repo') agreements however it has not done so since January 2010 due to unfavourable market conditions.

The approach is based on matching primary risk factors such as duration, yield curve, sector and credit quality of the portfolio with the index. Security selection is then undertaken by the portfolio managers within those constraints. The aim of this process is to minimise tracking error by balancing the need to reduce tracking costs with reducing transaction costs.

Vanguard Australian Government Bond Index Fund ETF

Fund Benchmark UBS Australian Government Bond Index

Tracking Error 0.10% ex ante

Sub-Investment Grade Nil

Holdings as at March 2012 78 (Underlying Fund) / 83 (Index)

Given market issues including liquidity and transaction costs, there is some discretion by portfolio managers to choose different securities than the model suggests whilst closely adhering to the risk characteristics of the respective benchmark.

Liquidity

The Fund offers investors liquidity via the ASX.

Given the Fund's holdings are predominantly invested in highly liquid Australian government bonds, liquidity is not expected to be of concern during normal market conditions. Market maker quotes are updated continually throughout the day to reflect price changes in the underlying securities.

Fees and Indirect Costs

Lonsec indexed Australian Fixed Interest comparison

Fund Name	MER	Bid/ask spread *
BlackRock Indexed Australian Bond Fund	0.20% p.a.	0.05%/0.08%
iShares UBS Composite Bond ETF	0.24% p.a.	0.31%/0.31%
Russell Australian Government Bond ETF	0.24% p.a.	0.52%/0.52%
Vanguard Wholesale Australian Fixed Interest Index	0.29% p.a.	0.10%/0.10%
Vanguard Australian Government Bond Index ETF	0.20% p.a.	n/a

* Source: PDS, ASX Monthly average bid-ask spread 30 April 2012.

Performance

Lonsec will provide commentary on the performance of the Fund when the Fund has at least 12 months of history.

That said, Underlying Fund has successfully tracked the Underlying Index since inception within what Lonsec considers to be an acceptable Tracking Error.

Risks

An investment in the Fund carries a number of standard investment risks associated with domestic and international investment markets. These include, but are not limited to, economic, political, legal, tax and regulatory risks. These and other risks are outlined in

the relevant PDS and should be read in full and understood by investors prior to investing.

Lonsec considers the major risks of the Fund to be:

Interest Rate Risk

The risk that the capital value falls as interest rates rise, or conversely that capital value rises as interest rates fall. Generally, of greatest consequence to these types of funds is the rise and fall of longer term interest rates such as the 3 year and 10 year bond yield, though shorter term interest rates (RBA cash rate) are interrelated.

Derivative Risk

Vanguard may utilise derivative instruments, including futures and FX currency forwards for hedging and risk management purposes. **Derivatives will not be used to leverage the portfolio.**

In addition to any risk associated with the underlying asset (or index) for which a derivative is valued, derivative prices are affected by other factors including:

- Market liquidity;
- Interest rates; and
- Counterparty risk.

Tracking Error Risk

Vanguard seeks to minimise the tracking error against the Underlying Index which VAS aims to match. There is no guarantee that this objective will be met.

Taxation

Distributions

The payment of distributions to Australian investors will be made quarterly. Arrangements can be made to have full dividends reinvested. Generally, for Australian resident investors, distributions will be assessable for taxation purposes on the net income of their entitlement.

Tax Efficiency

Vanguard ETFs are low turnover funds relative to many actively managed funds, with turnover reflecting changes to the Underlying Index, on a quarterly basis.

These comments constitute 'General Advice' only and Lonsec advises investors to consult a taxation specialist before making a decision to invest (or not to invest) based upon these taxation considerations. Investors should refer to the Fund PDS for further information.

Further Information

Further information can be obtained by calling Vanguard on 1300 655 205 or visiting <http://www.vanguard.com.au/>

Glossary	
Absolute Return	Top line' actual return, after fees
Bid-ask spread	The amount by which the ask price exceeds the bid price. Average % Spread = (ask-bid /midpoint as measured daily from 10.30am - 3.45pm)
Daily absolute deviation from NAV	The absolute average difference between the Fund's market price and its NAV. It is a measure of variability. The market price is determined by using the last price of the day on the listed exchange. The valuation time for NAV ETFs is generally the close of trading on each trading day, but may vary depending on ETF product provider.
Daily Premium / Discount to NAV	The amount that the Fund's market price is above the reported NAV is called the premium. The amount that the Fund's market price is below the reported NAV is called the discount. The market price is determined by using the last price of the day on the listed exchange. The valuation time for NAV ETFs is generally the close of trading on each trading day, but may vary depending on ETF product provider.
Excess Return (Alpha)	Return in excess of the benchmark return
Information Ratio	Relative reward for relative risk taken (Excess Returns / Tracking Error)
Outperformance Ratio	A measure of the 'consistency' of excess returns.
Sharpe Ratio	Absolute reward for absolute risk taken (outperformance of the risk free return (Bank Bills) / Standard Deviation)
Standard Deviation	Volatility of monthly Absolute Returns
Time to Recovery	The number of months taken to recover the Worst Drawdown
Tracking Error	Volatility of monthly Excess Returns against the benchmark (the Standard Deviation of monthly Excess Returns)
Worst Drawdown	The worst cumulative loss ('peak to trough') experienced over the period assessed

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Analyst: Adrian Hoe

Release Authorised by: Elizabeth Newman

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