

Understanding exchange-traded Australian Government Bonds (eAGBs)

Course Module 2



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Topic 1: Investing in eAGBs

This module explains how you can measure the income eAGBs pay and how their market price can change. We also introduce some bond trading concepts.

Modules 3 and 4 look specifically at the two eAGB types – exchange-traded Treasury Bonds (eTBs) and exchange-traded Treasury Indexed Bonds (eTIBs),

Module 5 will equip you with the practical knowledge to buy and sell eAGBs.

Why invest in eAGBs?



- ✓ Secure, regular and stable income stream: eAGBs provide you with a regular income stream. They have one of the lowest credit risks of any financial product
- ✓ Reduced risk through diversification: eAGBs may help you reduce risk and diversify your investment portfolio
- ✓ A highly liquid investment: Being traded on ASX, eAGBs can be sold at any time the ASX market is open, subject to there being buyers willing to pay your desired price and subject to the ASX Operating Rules and eAGB quotation conventions. This means your money is not locked away like in a term deposit. Investing in an eAGB exposes you to potential profit or loss in line with changes in the price of the eAGB
- ✓ Hedge against inflation: eTIBs have their face value (and coupons) adjusted for movements in the Consumer Price Index (CPI)

To achieve these outcomes, you may receive a lower level of return than from an investment that exposes you to a greater level of risk.

Why aren't all eAGBs the same?

The Australian Government issues bonds periodically according to their funding requirements.

In order to manage its own liquidity and risk, the Government issues bonds with different maturities and coupons. The coupon rate offered on an eAGB usually reflects prevailing interest rates at the time of first issue.

There are a large range of eAGBs available, each with its unique ASX Code, different coupon rate and maturity. The eAGBs available at June 2025 is shown in the table to the right.

The current list of eAGBs available is available on [the ASX website](#)

eAGB type	Code	Coupon rate	Maturity date
Treasury Bond - TB	GSBU25	0.25%	21 November 2025
Treasury Bond - TB	GSBG26	4.25%	21 April 2026
Treasury Bond - TB	GSBQ26	0.50%	21 September 2026
Treasury Bond - TB	GSBG27	4.75%	21 April 2027
Treasury Bond - TB	GSBU27	2.75%	21 November 2027
Treasury Bond - TB	GSBI28	2.25%	21 May 2028
Treasury Bond - TB	GSBU28	2.75%	21 November 2028
Treasury Bond - TB	GSBG29	2.75%	21 April 2029
Treasury Bond - TB	GSBU29	2.75%	21 November 2029
Treasury Bond - TB	GSBI30	2.50%	21 May 2030
Treasury Bond - TB	GSBW30	1.00%	21 December 2030
Treasury Bond - TB	GSBK31	1.50%	21 June 2031
Treasury Bond - TB	GSBU31	1.00%	21 November 2031
Treasury Bond - TB	GSBI32	1.25%	21 May 2032
Treasury Bond - TB	GSBU32	1.75%	21 November 2032
Treasury Bond - TB	GSBG33	4.50%	21 April 2033
Treasury Bond - TB	GSBU33	3.00%	21 November 2033
Treasury Bond - TB	GSBI34	3.75%	21 May 2034
Treasury Bond - TB	GSBW34	3.50%	21 December 2034
Treasury Bond - TB	GSBK35	2.75%	21 June 2035
Treasury Bond - TB	GSBW35	4.25%	21 December 2035
Treasury Bond - TB	GSBE36	4.25%	21 March 2036
Treasury Bond - TB	GSBG37	3.75%	21 April 2037
Treasury Bond - TB	GSBK39	3.25%	21 June 2039
Treasury Bond - TB	GSBI41	2.75%	21 May 2041
Treasury Bond - TB	GSBE47	3.00%	21 March 2047
Treasury Bond - TB	GSBK51	1.75%	21 June 2051
Treasury Bond - TB	GSBK54	4.75%	21 June 2054
Treasury Index Bond - TIB	GSIQ25	3.00%	20 September 2025
Treasury Index Bond - TIB	GSIU27	0.75%	21 November 2027
Treasury Index Bond - TIB	GSIQ30	2.50%	20 September 2030
Treasury Index Bond - TIB	GSIU32	0.25%	21 November 2032
Treasury Index Bond - TIB	GSIO35	2.00%	21 August 2035
Treasury Index Bond - TIB	GSIO40	1.25%	21 August 2040
Treasury Index Bond - TIB	GSIC50	1.00%	21 February 2050

Topic 2: Coupon rate and yield to maturity

The coupon rate

The most basic measure of return for an eAGB is the coupon rate. For eTBs the coupon rate is the interest income it pays expressed as a percentage of its face value. For eTIBs, it is the interest income it pays expressed as a percentage of its adjusted face value, indexed to movements in the Consumer Price Index (CPI).

The coupon rate is one measure investors might instinctively look to when assessing which eAGB to purchase, but there is a more useful measure to consider.

\$100.00	x	4.50%	=	\$4.50
Face Value		Coupon Rate		Annual Coupon Payment

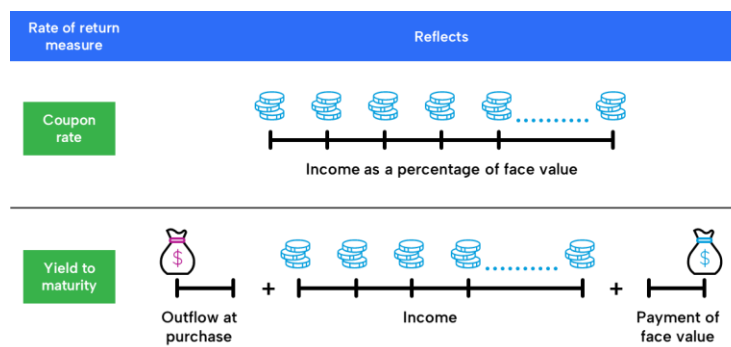
Note eTBs pay the Annual Coupon Payment in 6 monthly instalments.
eTIBs pay in quarterly instalments

Yield to maturity is important

Yield to maturity (YTM) is a total return measure. YTM assumes you buy the eAGB at the prevailing market price and hold to maturity. It measures the combined effect of the income you receive, plus any potential capital gain or loss from the time you purchase the security until its maturity. It assumes that coupon interest paid over the life of the eAGB is re-invested at the same rate as the 'yield to maturity'.

By using YTM you can compare eAGBs trading at different prices paying different coupon rates and with different maturities.

YTM for any given eAGB can be calculated using [ASX's online Bond Calculator tool](#).



Why YTM can differ from coupon rate¹

Although eAGBs are issued in units (where one unit equals \$100 face value of the bond) their market price may be higher or lower than the unit's \$100 face value.

Whether you pay a market price for an eAGB which is at a premium or discount to face value will determine whether your YTM is higher or lower than the coupon rate.

Suppose you buy an eAGB for more than its face value, you still receive the same coupons as if you had paid face value.

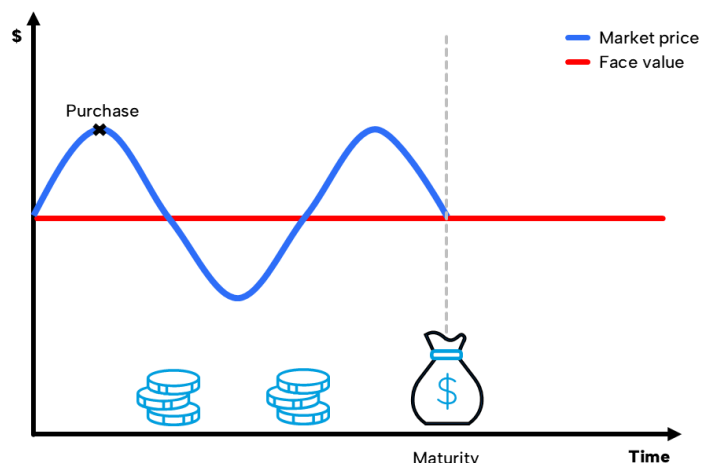
So, in this example, your income, as a percentage of your actual outlay, will be lower than the eAGB's coupon rate.

You would also incur a capital loss if you then held the eAGB till maturity (your capital gain/loss will be the difference between the price you paid to purchase on market and the face value you receive at maturity)

The net effect means YTM will be lower than the coupon rate.

¹This section applies only to eTBs, not eTIBs

If you purchase for a price above Face Value you will receive coupon payments, plus you will make a capital loss at maturity leading to a lower YTM than the coupon rate



YTM for eTBs will be different from eTIBs

Calculating YTM for an eTB does not provide an inflation adjusted figure.

However, the YTM for an eTIB does provide an inflation adjusted figure.

YTM calculations for eTIBs includes an assumption about future rates of inflation as the final face value is unknown.

When you calculate the real YTM for an eTIB the amount may look quite low – if you add inflation rate expectations, you will get a YTM that is a better comparison with that of an eTB.

If you are mathematically inclined and are interested in the detail in the assumptions and calculations of yield to maturity the [Reserve Bank has a useful webpage on the subject](#).

Example assuming 2.0% inflation rate:

eAGB type	YTM	Return in real terms
eTIB	0.4%	0.4%
eTB	2.5%	0.5%

Topic 3: Why *eAGB* prices move

What drives *eAGB* prices?

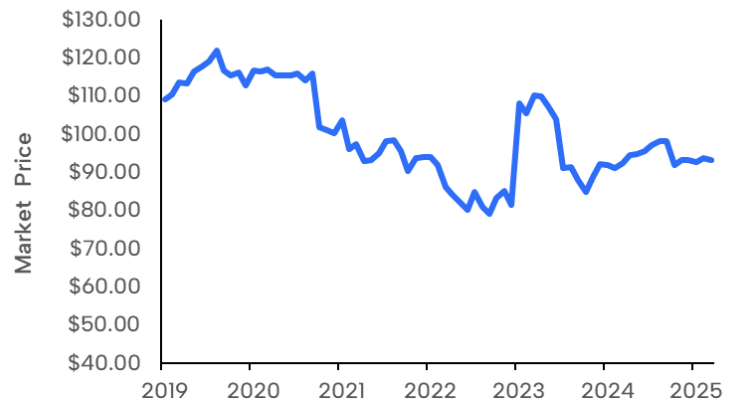
eAGB prices, like most financial securities, go up and down.

The price buyers and sellers will be willing to accept is influenced principally by interest rate expectations – which in turn are affected by a range of economic considerations.

Also relevant is

- time to maturity; and
- eligibility to receive the next coupon.

10-year AGB price chart



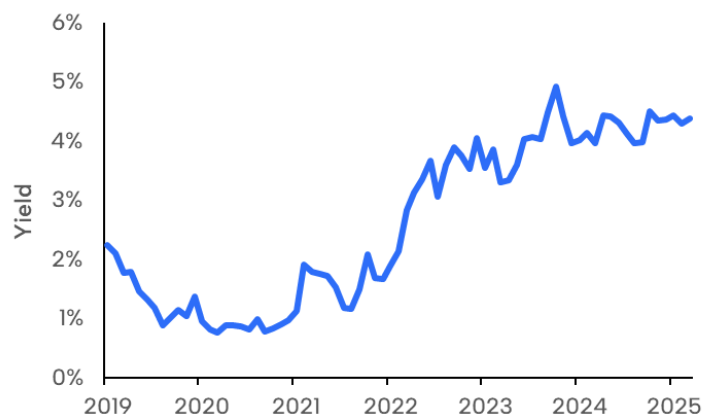
eAGB prices and interest rates

eAGB prices are highly sensitive to changing views on the likely direction of interest rates.

If there is an expectation that interest rates will rise, investors will demand higher yields. If the expectation is the opposite, investors are more likely to accept lower yields.

The YTM of each *eAGB* adjusts to these revised expectations by a change in its market price.

10-year AGB yield chart



How does the market price of an *eTB* affect its yield?





If expectations are that interest rates will fall, *eTB*s become more attractive. As investors bid up the prices of *eTB*s, their yield will fall until they reach the new equilibrium expectation.

For example, suppose the yield on a 5-year *eTB* falls to 3.25% and a 5-year *eTB* has a coupon rate of 4.25%.

You might be prepared to pay a price higher than its face value of \$100, provided the yield to maturity is not less than 3.25%.

Your annual total coupon payment will still be \$4.25 (coupon rate multiplied by face value) but you will have paid more than face value.

If you hold to maturity, you will incur a capital loss as you will only receive \$100 back, despite having paid more than \$100 to purchase the *eTB*.

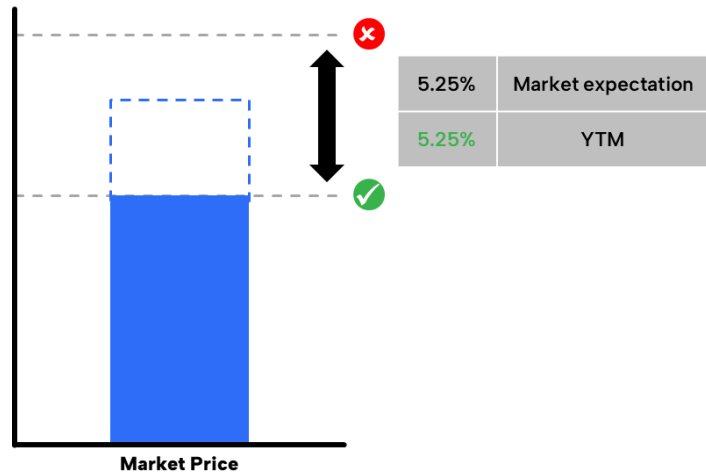
<i>eTB</i> price	<i>eTB</i> yield
	
	

Example of interest rates rising

Assume a 5-year *eTB* has a fixed coupon rate of 4.25%. With a face value of \$100, the *eTB* holder expects to receive \$100 at maturity plus a total of \$4.25 in annual income.

If the 5-year interest rate rises to 5.25%, the bond now pays a coupon rate lower than the prevailing market rate.

The market price of the *eTB* will decline such that the price equates to a yield to maturity of 5.25%.



When interest rates fall

If expectations are that interest rates will fall, *eTBs* will become more attractive. As investors bid up the price of *eTBs*, their yield will fall until they reach the new equilibrium expectation.

For example, suppose the market rate for a 5-year *eTB* falls to 3.25% and a 5-year *eTB* has a coupon rate of 4.25%.

You might be prepared to pay a price higher than its face value of \$100, provided the yield to maturity is not less than 3.25%.

Your coupon payments will still be \$4.25 (coupon rate multiplied by face value) but you will have paid more than face value.

If you hold to maturity you will incur a capital loss as you will only receive \$100 back, despite having paid more than \$100 to purchase the *eTB*.

Which way will prices move?

- Current yield (coupon) is 4.25%
- Expected new yields are 3.25%



Up



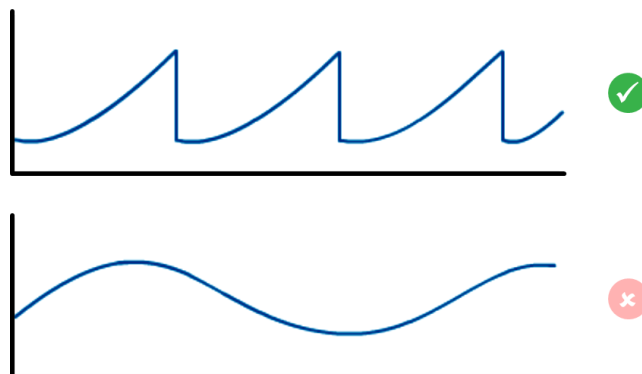
Down

Accrued interest is one factor that affects price

The market price of an *eAGB* includes the interest that has accumulated since the last coupon payment. This means you can expect the price of an *eAGB* to increase incrementally each day as a coupon payment approaches and then fall by the value of the coupon on the ex-interest date.

All else being equal, the ex-interest date is important to understand. To be entitled to the current coupon payment you must hold the *eAGB* before the ex-interest date. If you purchase the *eAGB* on or after the ex-interest date you are not entitled to the current coupon payment.

Bond market professionals sometimes use the term the 'dirty price' to refer to this market price



that includes accrued interest, as opposed to the 'clean price' that does not include accrued interest.

Market price moves as maturity nears

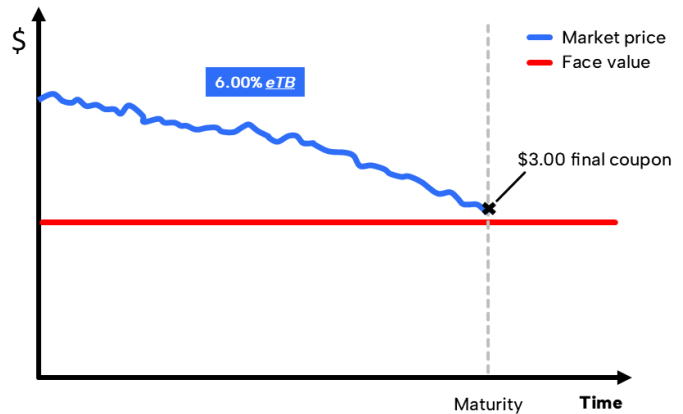
As the maturity date for an eAGB approaches, its market price can be expected to trend towards a specific value:

- for eTBs this will be face value (\$100) plus the final coupon
- for eTIBs this will be the adjusted face value plus the final coupon

For eAGBs that have been trading at a significant premium to their face value or adjusted face value this change in market price could be significant.

In the graph to the right, the 6.00% eTB trading above face value would indicate that its YTM is lower than the coupon rate. Therefore, the price of the bond will fall as it approaches maturity.

In this instance, the fall in the price as maturity approaches is offset by the income received from the eAGB's coupon payments.



Topic 4: The yield curve

We have learnt that each eAGB has a different coupon rate and maturity date.

These features are key reasons why different series of eAGBs will trade at different market prices to each other.

We also know that as the market price for an eAGB changes, its yield to maturity also changes.

We can compare the yields to maturity of all eAGBs by graphing their yields against their respective maturity dates to create a "yield curve".

The yield curve is a fluid representation

The yield curve is not a picture of historical price movement – the yield curve reflects an eAGB's current market price via the yield to maturity.

Because YTM takes account of current market prices, the shape of the yield curve is dynamic and adjusts with changes in eAGB market prices.

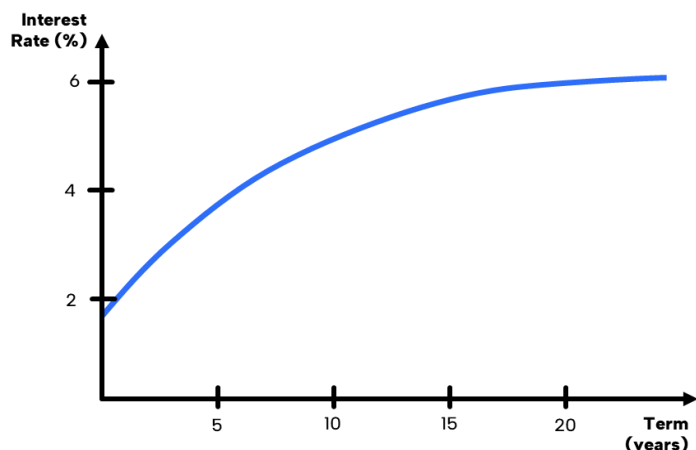
The shape of the yield curve provides insights into the market's outlook on interest rates, economic growth and inflation.

The normal yield curve

If the market expects interest rates to be stable or rise in the medium to long term, this will be reflected in long term interest rates being higher than short term interest rates.

A normal yield curve is formed as a result of uncertainty and expectations about the future direction of inflation and interest rates. Investors demand a risk premium for longer-dated bonds due to the greater risk that changes in interest rates and/or inflation could impact their value. This leads to lower demand and to higher yields at the long end of the curve.

Therefore, the shape of the yield curve throws light on the market's expectations for future interest rates.



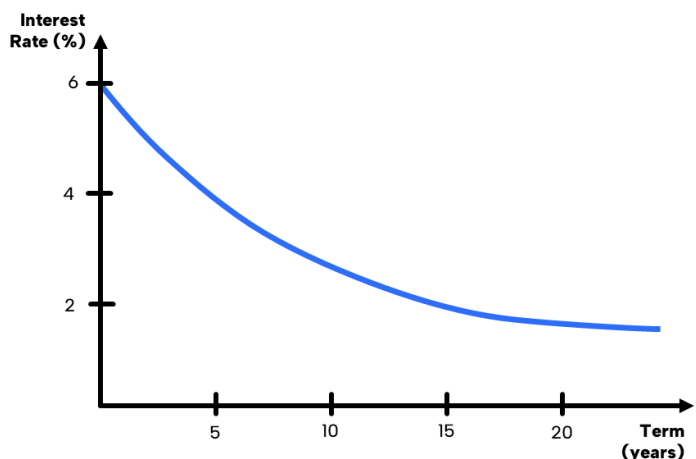
The inverted yield curve

If investors believe that interest rates will fall in the future, they will be keen to invest in longer-dated bonds offering a higher yield to maturity than those they expect to be issued in the future.

Accordingly demand for longer-dated bonds will be high, their price will rise and their yields to maturity will fall.

The result is an inverted yield curve.

Again, the shape of the yield curve tells a story about the market's expectations.



Topic 5: AGB investing

In this module you have learnt that:

- *eAGBs* are traded on ASX.
- YTM is a useful measure for comparing different AGBs.
- The range of *eAGBs* and their different YTMs can be plotted on a yield curve.
- The market price of *eAGBs* can change in response to interest rate expectations.
- Changing market prices will affect the YTMs of *eAGBs*

This knowledge is essential when putting together an investment strategy for *eAGBs*.

eAGBs can be bought and held to maturity as well as being actively traded.

Trading the yield curve

Investors use the pricing relationship between bonds and their view on future interest rates to actively manage their bond portfolio.

A change in the market's view on the likely direction of interest rates will cause a change in the price of short versus longer dated bonds.

Investors will seek to take a position in advance of the new market view, hoping to profit from the change in price relationships.

Being able to take advantage of these changes can be tricky as the market can move very quickly to price-in the anticipated changes.

Remember, there are many factors influencing the direction of interest rates. Investors contemplating bond trading will need to have a strong understanding of these factors and the bond market.

Summary

- The holder of an *eAGB* has beneficial ownership of an Australian Government Bond in the form of a CHESS Depositary Interest (CDI).
- *eAGBs* offer the following investment features;
 - secure, regular and stable income stream
 - reduced risk through diversification (when held as part of a portfolio of other financial products)
 - liquid investment
 - potential profit or loss in line with changes in the price of the *eAGB*
 - hedge against inflation (for *eTIBs* only)
- To achieve these outcomes you can expect to receive a lower level of return than from an investment that exposes you to a greater level of risk.
- The basic measure of return for an *eAGB* is the 'coupon rate'. This is the income it pays expressed as a percentage of its face value.
- Yield to maturity (YTM) is a total return measure, which means it takes account of both capital gain (or loss) and income earned.
- There is a range of *eAGBs* with different maturities and yields. You can use these two variables and plot the range of *AGBs* on a graph to create a 'yield curve'.
- *eAGB* prices go up and down.
- The price buyers and sellers will be willing to accept is influenced principally by interest rate expectations
 - which in turn are affected by a range of economic considerations.
- Also relevant are
 - time to maturity, and
 - eligibility to receive the next coupon payment