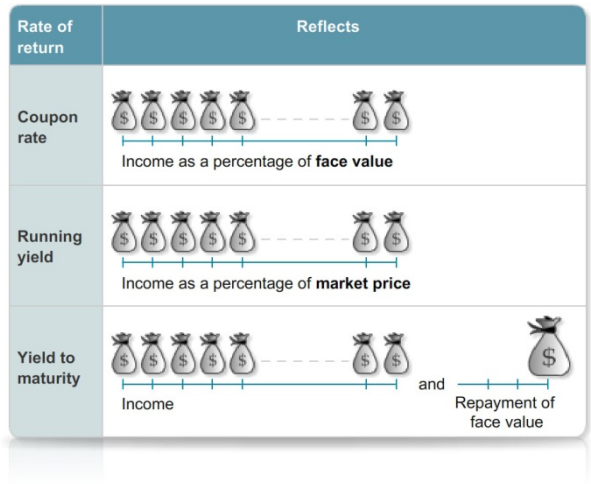
Topic 1: How to measure your return

This module is a practical guide and covers the detail you need to know before you buy a bond.



Let's look first at how to measure the investment return from a bond.

The two parts of a bond's return are:

- income payments, and
- payment of face value at maturity (or capital gain/loss from trading the bond)

Three measures used to assess a bond's return are:

- coupon rate
- running yield
- yield to maturity

Coupon rate and running yield measure the income you receive.

Yield to maturity is a measure that combines both income and payment of the bond's face value at maturity.

Let's look at these measures in more detail.

Coupon rate

This is the income paid annually, expressed as a percentage of the face value of the bond.

	Face value	Coupon payments per year	Coupon rate
Bond A	$100	$9	9%
Bond B	$200	$16	8%
Bond C	$100	$7.50	7.5%

It is set by the issuer, and specified in the prospectus.

The coupon rate of a fixed rate bond is fixed for the life of the security.

For example, a bond with a coupon of 8% and a face value of $100 pays coupons (income) totaling $8 each year.

For a floating rate bond, the coupon changes as the reference interest rate varies.

You can find a bond's coupon rate on the ASX website or on the bond issuer's website.

Running yield

This is the income paid annually, expressed as a percentage of the market price.

As the market price changes, the running yield changes.

Assume a bond with a coupon of 8% and a face value of $100 is trading at $98:

Running yield = $8/$98 x 100% = 8.16%.

If you are buying a bond on market, the running yield is a more useful measure of income than the coupon rate, as it is based on the market price, rather than the bond's face value.

	Face value	Coupon payments per year	Coupon rate	Current price	Running yield
Bond A	$100	$9	9%	$103	8.74%
Bond B	$200	$16	8%	$195	8.21%
Bond C	$100	$7.50	7.5%	$96	7.81%

Yield to maturity

Yield to maturity is generally regarded as the most useful measure of return. It is a measure that assumes the bond is held to maturity.

It incorporates:

- your regular income payments, and
- your capital gain/loss at maturity.

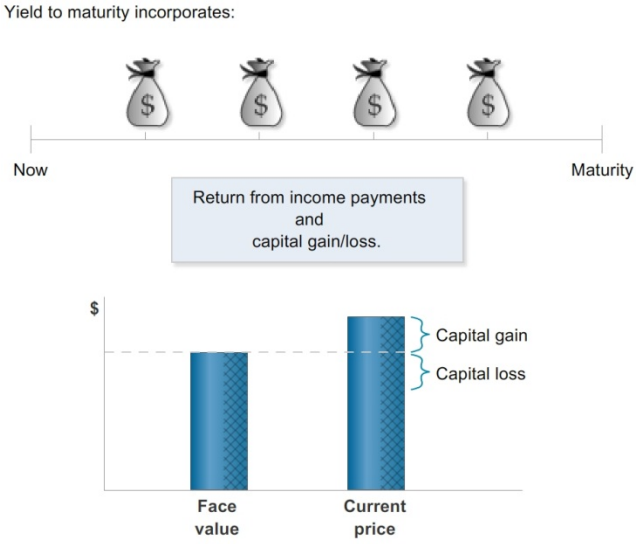
Yield to maturity is most relevant if you buy on market. This is because it takes into account the price you pay. For example, if you purchase a security for less than face value, you will make a capital gain at maturity when you are paid face value.

Yield to maturity is a more useful measure for comparing bonds than coupon rate or running yield.

This is because yield to maturity captures both income payments and capital gain/loss at maturity, enabling you to compare different bonds with different coupons and different prices.

The calculation of yield to maturity is not as simple as the calculation of coupon rate or running yield. You can get the yield to maturity from your broker.

For a floating rate bond, yield to maturity assumes the current income rate applies to maturity.



Description	Rate of return
Income as a percentage of market price	Running yield
Income as a percentage of face value	Coupon rate
Return incorporating both income and capital gain/loss	Yield to maturity

Topic 2: Choosing which type of bond

Fixed vs. floating

Some bonds pay a fixed rate of income, others pay a floating rate.

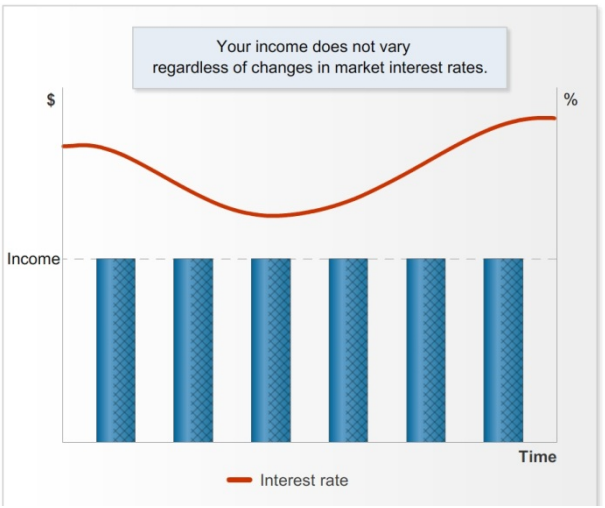
With fixed rate bonds, your payments do not vary, so you know exactly how much income you will receive.

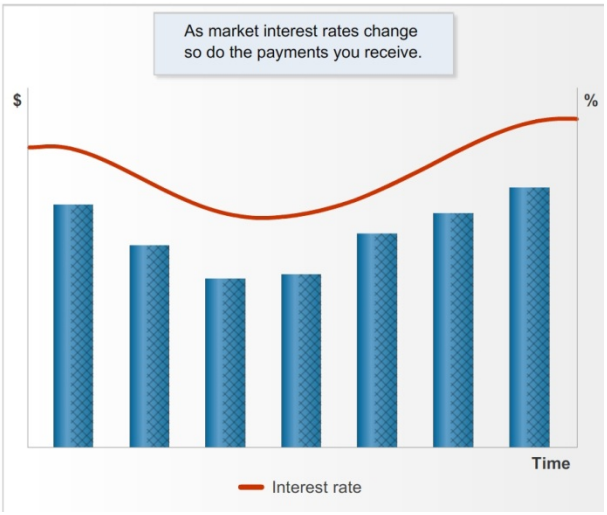
With a floating rate bond, payments are linked to a market interest rate. This is known as the reference rate.

As the reference rate changes so too do the payments. The payment rate is adjusted to reflect changes in the reference rate (usually at the start of each quarter).

The reference rate may be, for example, the 90 day Bank Bill Swap rate (BBSW).

Payments are made at the reference rate plus a margin, for example BBSW+2.5%.





Fixed or floating?

Fixed

The benefit of a fixed rate is that you know exactly how much income you will receive.

If interest rates fall, your payments stay the same. If rates rise you do not receive increased payments.

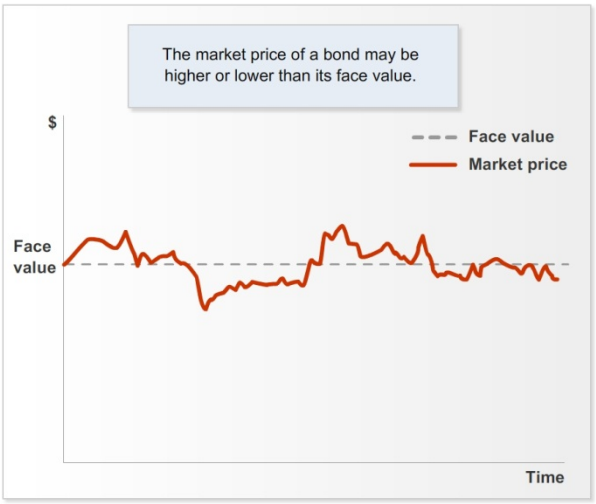
Floating

A floating rate means you are exposed to changes in interest rates.

If rates rise, you will benefit from higher payments. If rates fall, your income will be lower.

Topic 3: Why interest rates matter

Although the face value of a bond is fixed, its market price may fluctuate.



There are a range of market forces that can influence bond prices. One of the key influences on bond prices is the expectation of changes in broad market interest rates.

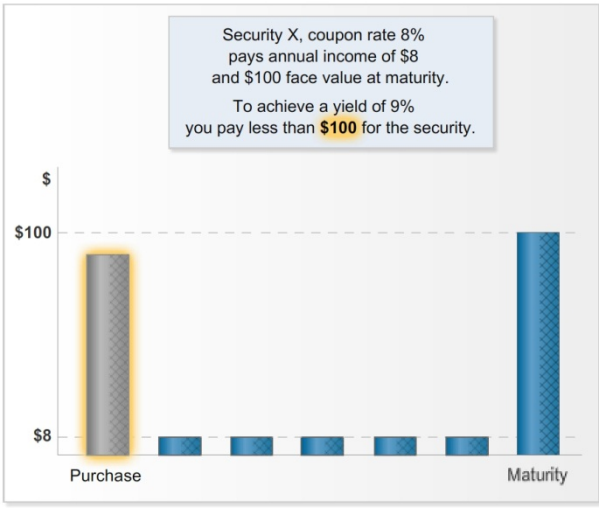
If interest rates go up

A company issues a bond with a fixed coupon rate of 8% and a face value of $100.

Investors get $100 back at maturity and along the way receive income of $8 annually.

Assume market interest rates then rise by 1%.

The coupon rate of 8% is now not as attractive because new issues of similar bonds are likely to have a coupon around 9%.



You might be prepared to buy the 8% bond but only if it is trading at less than face value.

If you pay less than face value:

- your annual income of $8 will be a return of more than 8%, and
- you will make a capital gain if you hold the bond to maturity.

If the market price you pay is low enough you can achieve a yield of 9% from a bond that is paying an 8% coupon.

If rates go down

After the issue of an 8% coupon bond, assume market interest rates fall by 1% to 7%.

The coupon rate of 8% is now more attractive than similar bonds being issued at 7%.

To buy the 8% bond you would be prepared to pay more than face value.

If you pay more than face value:

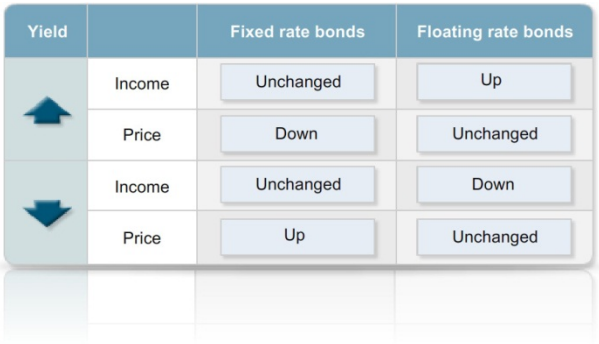
- your running yield will be closer to 7%, and
- you will make a capital loss if you hold the bond to maturity.

If the market price you pay is high enough, you can achieve a yield of 7% from a bond that is paying an 8% coupon.

The inverse relationship between yields and price

Bonds paying a fixed rate of income have an inverse relationship between yield and market price:

- as yields rise, prices fall, and
- as yields fall, prices rise.



Yield		Fixed rate bonds	Floating rate bonds
↑	Income	Unchanged	Up
↑	Price	Down	Unchanged
↓	Income	Unchanged	Down
↓	Price	Up	Unchanged

Income payments do not vary, so the market price changes when interest rates change.

Income payments do not vary, so the market price changes when interest rates change. It is important to note that in reality prices tend to change with expectations of rate changes. Bond prices are also influenced by other factors such as market sentiment and the performance of the issuer.

The market price of floating rate bonds is not affected in the same way. Income payments adjust when there is a change in interest rates.

Topic 4: Buying, selling, and holding to maturity

When a series of bonds is first issued, you can subscribe for bonds directly from the company issuing them - in the same way you buy new shares in a float.

Once the bonds are trading on ASX, buying and selling is no different to shares. You instruct your broker to place an order. Brokerage will be payable on the transaction.

Settlement of the trade takes place three business days after the transaction (T+3).

If you are broker-sponsored, you receive a CHESS statement recording your holding, just as you do when you buy shares on-market.

If you choose to be issuer-sponsored you will receive a holding statement from the issuer's share registry.

Codes and prices

You can get prices from your broker or the ASX website.

Fixed and floating rate bonds are separated into two different price tables on the ASX website, one labelled, Corporate Bonds and the other "Floating Rate Notes".

Corporate Bonds quoted on ASX have a unique code of either four or five letters.

The first three letters identify the issuer. The fourth letter will be "H".

While hybrid securities and convertible notes are similar to bonds, they are not bonds and will have a fourth letter "P" (hybrids) or "G" (convertible notes). (Always double check the terms of issue as some securities quoted on ASX with the fourth character H are not simple bonds, but are closer to hybrid securities.)

A fifth letter can be used if there is more than one series of bonds e.g. A or B.

A bond's name may help you understand its characteristics. Each debt (and hybrid) security has a unique code and three different security descriptions:

1. Long form description - a maximum of 50 characters;
2. Abbreviated description - a maximum of 18 characters; and
3. Short description - a maximum of 8 characters.

You will find one or more of these descriptions on your CHESS Statement, trading screen, broker advice, financial newspaper report such as in the Australian Financial Review and other places where ASX debt and hybrid securities are referred to.

To understand what each description or letter means, refer to the Guide to the naming conventions and security descriptions for ASX quoted debt and hybrid securities. The Guide also includes a glossary of terms.

For example the corporate bond from Heritage Bank with ASX code: HBSHA has the following 'Long form description': **BOND 10.00% 25-10-19 QLY CUM RES**. Using the Guide (PDF), you can determine what the security description means.

BOND	A debt security issued by a corporate issuer that does not convert.
10.00%	The interest rate payable on the security set at a fixed rate by the issuer.
25-10-19	25-10-19 The security's maturity date.
QLY	The security has a quarterly coupon payment.
CUM	Coupons are cumulative obligations on the issuer if unpaid.
RES	The coupon can be reset a pre-specified date.

Note: Due to character constraints, some features may not be able to be included in a security's description.

You can review the full list of securities and their descriptions.

For more information on ASX's security descriptions for debt and hybrid securities, please go to http://www.asx.com.au/prices/security-descriptions.htm

Information on interest payments

The price search table on the ASX website contains information about upcoming interest payments.

You can get more specific information about each payment by checking the recent market announcements from the issuing company.

Corporate bonds

Buy	Sell	Last	Coupon	Maturity date	Payment frequency	Next ex-date	Next payment date
HBSHB - HERITAGE BANK LIMITED							
106.71	107.00	106.71	7.25%	20/06/17	4	10/06/15	22/06/15

Note - because bonds pay interest not dividends, the dividend search function on the ASX site won't have information about bond payments.

The prospectus

The primary source of information about a bond is the prospectus produced by the issuer.

The prospectus contains information about the offer including:

- features of the securities
- information about the issuer
- risks
- taxation information
- how to apply
- detailed terms and conditions.

The prospectus can be found on the issuer's website, or on the ASX website, via the market announcements search function. You should read the prospectus before investing in the securities.

What happens at maturity?

If you are holding a bond to its maturity, make sure you review the prospectus for details on arrangements for payment of face value.

If you are CHESS sponsored and your broker has your bank account details, you should not have to take any action, the bond holding will be removed from your CHESS holdings and the corresponding dollar amount will be transferred to your bank account.

If you are issuer sponsored, review the process to ensure if you are being paid by cheque or direct debit.

Topic 5: An example

An example of a hypothetical Floating Rate Note - let's look at your income stream and payment at maturity.

Floating Rate Note details:

Issuer: A Great Aussie Company

Coupon: 90 day BBSW + 2.0%

Coupon Frequency: Quarterly

Maturity date: 11 February 2025

Face value: $100

This security promises to pay income every 3 months and will pay $100 for each security held on 11 February 2025.

Income

Each quarter income will be paid at a rate of 2.0% plus the Bank Bill Swap Rate.

Assuming the BBSW is 4.25%, the coupon rate for that payment period would be 6.25%.

Remember - the payment is quarterly so the actual payment amount would be a quarter of this rate.

The income calculation = $100 x (6.25%/4) = $1.56

For the quarter when the BBSW is 4.25% your income would be $1.56 per floating rate note.

Payment at maturity

The maturity date is 11 February 2025 when you will receive the face value of the bond plus the final coupon payment.

Let's assume that the BBSW has fallen since the example on the previous screen and is now 2.75%.

Payment at maturity = income + face value

= [$100 x (4.75%/4)] + $100

= $1.19 + $100

= $101.19

Summary

- In evaluating a bond, it's important to look at how much income you will receive, and in what form.
- A bond may be:
    - fixed rate, with payments that do not vary, or
    - floating rate, with payments linked to a market interest rate such as the Bank Bill Swap rate (BBSW).
- There are three different rates of return commonly used to evaluate bonds:
    - coupon rate
    - running yield, and
    - yield to maturity.
- Yield to maturity is the most important of these as it captures both income payments and capital gain/loss, enabling you to compare securities with different coupons and different prices.
- There is a link between the potential return from a bond and the risk it involves. Risk is linked to:
    - creditworthiness of the issuer, and
    - particular features of the security.