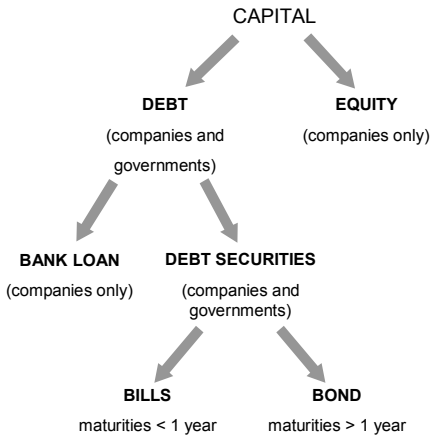
FitchLearning

Chapter 6
Debt: Types and Features

4-6 questions

2. Debt: Types and Features

Debt types: summary



2. Debt: Types and Features

Gilts: UK government bonds

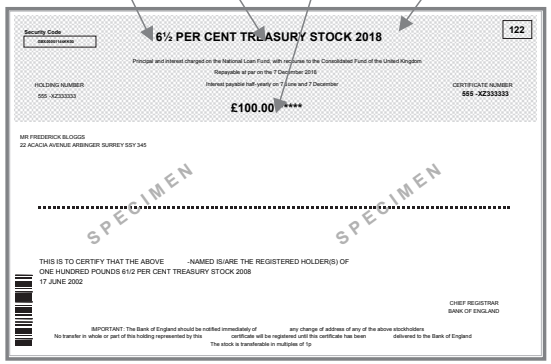
Features of gilts

Coupon
Expressed as an annual percentage of the nominal value

Name
The name given at issue

Nominal value
The capital payment the holder receives at redemption

Redemption
The year when the gilt is repaid



Further information

Characteristics

Name – to act as an identifier.

Coupon – generally paid semi-annual and the quoted coupon of a gilt represents the annual amount of interest paid per nominal value.

Coupons are received gross (before tax) but are taxable (subject to income tax for individuals).

Redemption – the specified date on which the capital is repaid by the DMO. Normally, redemption is at par, i.e. £100 for each £100 nominal value held.

Benchmarking – The yield available on UK gilts is considered the risk-free rate for sterling denominated bonds – UK gilts are effectively credit risk-free.

Further information

The Debt Management Office (DMO) – ensures that the government can borrow the money it requires to fund the Public Sector Net Cash Requirement (PSNCR). Issues by the DMO may be for a new gilt with a coupon/maturity dissimilar to any existing issues.

2. Debt: Types and Features

Gilts: UK government bonds

Categories of gilt:

- Conventional
  - Shorts (< 5 years)
  - Mediums (5-15 years)
  - Longs (> 15 years)
- Non-conventional
  - Undated
  - Index linked
    - Coupon and redemption linked to retail prices index (RPI)
  - Double dated
  - Convertible
  - Floating rate gilts

Further information

Double dated gilts – have two dates, e.g. Treasury 3 $^{3}/_{4}$% 2015-2018. The Government has the option of redeeming after the first date, but no later than the last date. Double dated gilts are categorised as shorts, mediums and longs by using the latter date.

Convertible gilts – give the owner the right to convert the gilt into predefined amounts of a different gilt at some time in the future. Convertibles are usually short- to medium-term bonds which may be converted into a longer issue at the discretion of the investor.

Floating rate bonds – the rate is adjusted in line with published, market interest rates. At present there are no floating rate gilts in existence.

Keeping on target

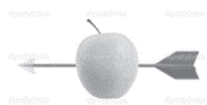
What is the fair value of a 5% irredeemable bond if the investor requires a 3% p.a. return?

A. £60

B. £3333

C. £167

D. £2000



Strippable gilts

Gilts designated as strippable by the DMO. A five-year strippable gilt may be stripped into 11 **zero coupon bonds**.

Hints

The coupons from different gilts can be grouped together to create a larger value zero coupon bond.

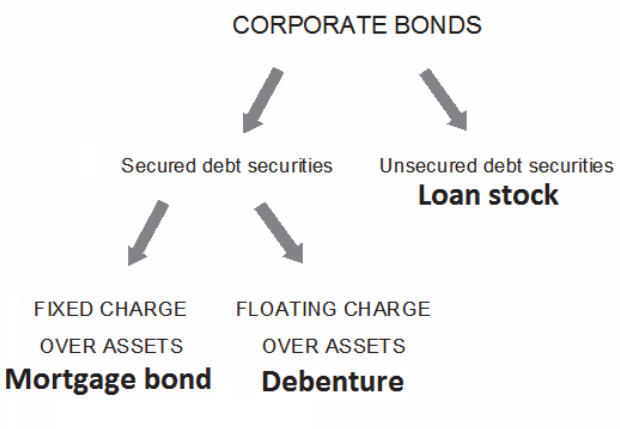
Answer to the question on the previous slide:

C

$$\frac{£5}{0.03} = £166.67$$

2. Debt: Types and Features

Corporate bonds: security



Further information

Debentures

Fixed Charge Over Assets – A fixed charge is security over a certain specific company asset, e.g. a building or land, and is the most common form of secured bond. A mortgage charge is a type of fixed charge.

Floating Charge Over Assets – A floating charge is security over a class of assets, e.g. plant and machinery, fixtures and fittings, trade debtors.

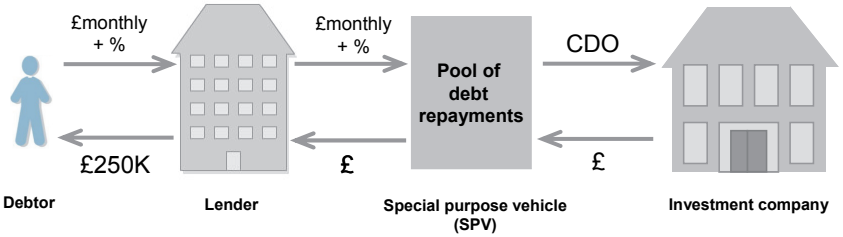
Fixed and floating charges need to be registered and this is usually done through a trustee.

2. Debt: Types and Features

Collateralised debt obligations (CDO)

Secured by a pool of assets, e.g. property, loans

Underlying assets **securitised**



Summary

- The debtor agrees to a monthly payment reflecting capital plus interest for a fixed time period, e.g. 25 years
- The lender sells the repayments on to a SPV
- The SPV pools the debt with others and securitises them by producing an ABS
- The CDO is sold on to an investment company
- The money raised is passed on to the lender as payment for the debt repayments

2. Debt: Types and Features

Floating rate notes (FRNs)

- Coupon floats in line with market interest rates
- Trade near par
- Capital protection

Callable/putable bonds

Callable/putable bonds

- Callable – can be redeemed early at the discretion of the issuer
- Putable – can be redeemed early at the discretion of the holder

Further information

Indenture

Formalises the terms and conditions for a corporate bond. It may include the following provisions:

- **Call provision** – entitles the issuer to redeem early
- **Put provisions** – entitle the holder to redeem early
- **Sinking fund provisions** – enables the issuer to pay off some of the capital each year
- **Protective covenants** – protects the income streams for bond holders
- **Convertible provisions** – shows the terms of conversion to equity

2. Debt: Types and Features

International bonds (also called eurobonds)

- Bearer documents
- Gross annual coupon
- Issued by international placing
- Denominated in a **eurocurrency**
  - Any currency held in a country from where it does not originate
    - E.g. UK company raises $ on the Japanese debt markets
- Regulated by International Capital Markets Association (ICMA)

Immobilisation

- Where bearer documents are held, protected and administered by an international central securities depositary (ICSD)
  - For example Euroclear or Clearstream

3. Other bonds

Convertible loan stock

- Convertible trading at £125 per £100NV
- Conversion ratio £100NV = 50 shares
- Current share price £2.30

- Conversion price

$$\text{Conversion Price} = \frac{\text{Par value of the bond}}{\text{Conversion ratio}}$$

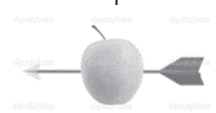
- Conversion premium

$$\text{Conversion Premium} = \frac{\text{Market price of bond}}{\text{Conversion ratio}} - \text{market price of share}$$

Keeping on target

A convertible is trading at £140 per £100NV and converts into 30 shares. If the current share price is £3.50, what is the conversion price?

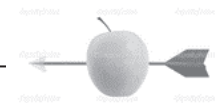
A. £4.67
B. £1.17
C. £2.10
D. £3.33



Keeping on target

A convertible is trading at £140 per £100NV and converts into 30 shares. If the current share price is £3.50, what is the conversion premium?

A. £4.67
B. £1.17
C. £2.10
D. £1.56



3. Other bonds

Convertible loan stock

- Conversion value
  - The current market value of the shares that can be received on conversion

$$\text{Conversion value} = \text{Market price per share x Conversion ratio}$$

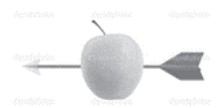
- Theoretical price of convertible

$$\text{Theoretical Price} = \text{Price of bond} + \left[\frac{\text{Premium on call option}}{(1 + \%\ \text{increase in stock})} \text{ x Conversion ratio}\right]$$

Keeping on target

A convertible is trading at £140 per £100 N.V and converts into 30 shares. If the current share price is £1.50, what is the conversion value?

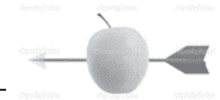
A. £4.67
B. £45.00
C. £105.00
D. £72.00



Keeping on target

The price of ABC's non convertible bond is £40.00, an American call on ABC has a value of £1.50. If all of ABC's convertible bonds have a ratio of 20 and would result in ABC's shares increasing 10%. The theoretical price of the convertibles is closest to:

A. £48
B. £58
C. £68
D. £78



Answer to the questions on the previous slide:

D

£100NV / 30 = £3.33

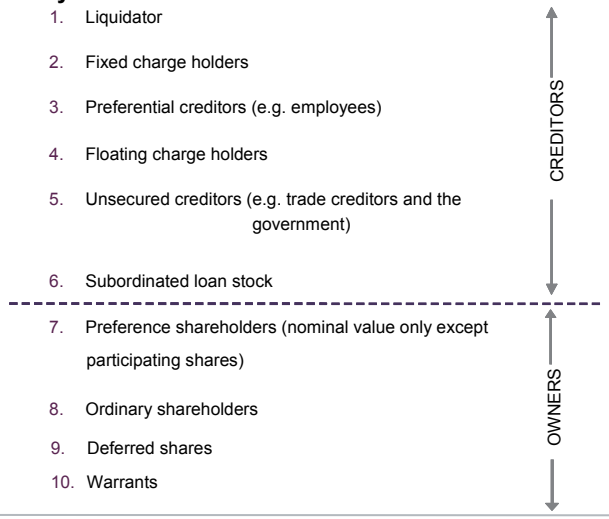
B

£140 / 30 = £4.67

£4.67 - £3.50 = £1.17

4. Debt Seniority

Impact of security



Further information

Key risks faced by bond investors

- Interest rate risk
- Inflation risk
- Liquidity risk
- Default risk

Answer to the questions on the previous slide:

B

30 x £1.50 = £45

C

£40 + £1.50 / 1.1 x 20 = £67.27