

New A Level
Economics
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**Financial
Markets**



Teacher Instructions

This resource will help students to understand the process by which bond yields can change. It is a simple sequencing exercise in which students need to put the steps in the correct order. It will help to develop the skills of analysis, through the development of an analytical chain of argument. It can then also be used as the basis for an evaluation exercise, in which students can discuss whether each step in the chain is “inevitable” and the assumptions being made that underpin each link in the chain.



Task 1 – analysing the bond market

Put the steps below in the correct order, to explain how yield rates on bonds can change.

The bonds can be bought and sold (i.e. traded) on the financial markets

For example, following this increase in the bond price, we can now calculate the yield as follows:

$$\text{Yield} = \text{£}250 / \text{£}1250 = 20\%$$

*The yield is calculated using the formula: **yield = coupon rate / price of bond***

A bond is effectively an “IOU” note, in which the government promises to pay back the amount that it has borrowed within a certain period of time, along with an additional reward known as the yield

The yield on a bond is a bit like an interest payment

*When a government runs a **budget deficit**, it must borrow in order to pay for its spending*

The coupon value is the annual amount that an investor receives if they buy a bond

A government could issue a 10 year £1000 bond with a coupon value of £25

This is because investors can be sure that the government will pay back the money that they have borrowed when they issued the bond

*The **coupon rate** is the total sum of annual coupons divided by the initial price of the bond*

*Governments borrow money by issuing **bonds**, and selling them on **financial markets***

In this example, the coupon rate is $(25 \times 10) / 1000 = 250 / 1000 = 25\%$

When the bond is first issued, the coupon rate will be identical to the yield rate

Investors like to buy government bonds when their confidence in the government is high

In our example, the bond price might rise, therefore, from £1000 to £1250

When confidence in the government is high, demand for bonds therefore rises

The bond market operates like any normal market, so when demand for bonds rises, the price of bonds rises

This means that the person buying the bond effectively lends the government £1000 and will get their £1000 back in 10 years time; as a reward for lending to the government, they will receive £25 every year in the meantime

This increase in the bond price will change the yield on the bond

We can see that the increase in the price of the bond has pushed down the yield rate from 25% to 20%

This is good for the economy because it means that the government does not need to raise taxes in order to pay off high levels of interest on its debt, and there is a lower opportunity cost of debt interest

This means that when confidence in the government is high, the government can effectively borrow at a lower interest rate

Task 2 – calculations

- 1 Calculate the coupon rate for a 5 year £500 bond that has a coupon value of £10.
- 2 Calculate the price of a 2 year bond that has a coupon value of £25 and a coupon rate of 5%.
- 3 Calculate the coupon value of a 10 year bond that has a coupon rate of 10% and an initial selling price of £2000.

Task 3 – true or false

Statement	True/False
<i>The market price of a bond will rise if confidence in the government falls</i>	
<i>The yield on a bond will fall if demand for the bond rises</i>	
<i>The coupon rate is the same as the bond yield, when the bond is first sold on the financial markets</i>	
<i>Bonds cannot be resold</i>	
<i>A decrease in the price of a bond pushes up the yield on the bond</i>	

Strong

Bonds

Task 1 – analysing the bond market

*When a government runs a **budget deficit**, it must borrow in order to pay for its spending*

*Governments borrow money by issuing **bonds**, and selling them on financial markets*

*A bond is effectively an “IOU” note, in which the government promises to pay back the amount that it has borrowed within a certain period of time, along with an additional reward known as the **yield***

*The **yield** on a bond is a bit like an **interest** payment*

*The **yield** is calculated using the formula: **yield = coupon rate / price of bond***

*The **coupon value** is the annual amount that an investor receives if they buy a bond*

A government could issue a 10 year £1000 bond with a coupon value of £25

This means that the person buying the bond effectively lends the government £1000 and will get their £1000 back in 10 years time; as a reward for lending to the government, they will receive £25 every year in the meantime

*The **coupon rate** is the total sum of annual coupons divided by the initial price of the bond*

In this example, the coupon rate is $(25 \times 10) / 1000 = 250 / 1000 = 25\%$

When the bond is first issued, the coupon rate will be identical to the yield rate

The bonds can be bought and sold (i.e. traded) on the financial markets

Investors like to buy government bonds when their confidence in the government is high

This is because investors can be sure that the government will pay back the money that they have borrowed when they issued the bond

When confidence in the government is high, demand for bonds therefore rises

The bond market operates like any normal market, so when demand for bonds rises, the price of bonds rises

In our example, the bond price might rise, therefore, from £1000 to £1250

This increase in the bond price will change the yield on the bond

For example, following this increase in the bond price, we can now calculate the yield as follows:

$$\text{Yield} = £250 / £1250 = 20\%$$

We can see that the increase in the price of the bond has pushed down the yield rate from 25% to 20%

This means that when confidence in the government is high, the government can effectively borrow at a lower interest rate

This is good for the economy because it means that the government does not need to raise taxes in order to pay off high levels of interest on its debt, and there is a lower opportunity cost of debt interest

Task 2 – calculations

- 1 Calculate the coupon rate for a 5 year £500 bond that has a coupon value of £10.

$$\text{Coupon rate} = \frac{5 \times £10}{£500} = £50 / £500 = 10\%$$

- 2 Calculate the price of a 2 year bond that has a coupon value of £25 and a coupon rate of 5%.

$$5\% = \frac{2 \times 25}{\text{Bond price}}$$

$$5\% = £50 / \text{bond price}$$

$$\text{Therefore the bond price} = £1000$$

- 3 Calculate the coupon value of a 10 year bond that has a coupon rate of 10% and an initial selling price of £2000.

$$10\% = \frac{10 \times \text{coupon value}}{2000}$$

Therefore (10 x coupon value) must equal 200.

$$\text{So the coupon value} = 200 / 10 = £20$$

Task 3 – true or false

Statement	True/False
<i>The market price of a bond will rise if confidence in the government falls</i>	F
<i>The yield on a bond will fall if demand for the bond rises</i>	T
<i>The coupon rate is the same as the bond yield, when the bond is first sold on the financial markets</i>	T
<i>Bonds cannot be resold</i>	F
<i>A decrease in the price of a bond pushes up the yield on the bond</i>	T