



Case study: The financial sector

Introduction

This case study has been written by teachers for teachers to support the delivery of a new topic within the specification. It provides ideas and suggestions for teaching approaches and is not intended to provide exhaustive coverage of this topic. It is not intended to be prescriptive or indicative of content and questions in the specification and assessments. The specification must be referred to as the authoritative source of information.

This case study focuses on the financial sector. It provides research ideas and practice questions for students for use within class or as homework activities.



The financial sector

This resource sheet is designed to support the A level Economics A specification:

- Topic 4.4.1: Role of financial markets
- Topic 4.4.2: Market failure in the financial sector
- Topic 4.4.3 Role of central banks.

The Bank of England has a series of seven excellent short (approximately 2–3 minutes each) animated videos – see www.bankofengland.co.uk/education/Pages/resources/films/film2013/default.aspx – that are referred to throughout this resource sheet.

Role of financial markets

The role of the financial markets is to:

- a) facilitate saving
- b) lend to businesses and individuals (providing finance)

These are often called financial intermediation – the bank (or more generally, the financial system) brings together ('intermediates') savers and borrowers. Like banks, equity and bond markets provide finance to (corporate) borrowers.

- c) facilitate the exchange of goods and services (making payments)
- d) provide forward markets in currencies and commodities

This is when the price of a financial instrument or asset is set today but the transaction will take place at some future date. Contracts entered into the forward market are binding on the parties involved and cover financial instruments such as foreign currencies, as well as assets such as commodities (for example tin).

This is an example of 'risk sharing and insurance', another key function of the financial system. The future price of a farmer's crop at harvest is uncertain, but if the farmer buys a futures contract they can fix the price today and be certain of the price they'll get for their crop. This is a type of financial insurance where the farmer has sold (or 'shared') their risk to the futures market.

- e) provide a market for equities (and corporate bonds in which business can raise money to invest in new capacity)

This is a market in which shares are issued and traded, also known as the stock market. Shares provide part ownership in a company and provide a company with capital, which is an important source of finance for a business. Also, these are markets for government bonds where the government sells debt to raise money to finance the public sector deficit – in the UK this is the market for gilt-edged securities or 'gilts'.

You can see more about a), b) and c) by watching Part 4 of the Bank of England's animations.



Market failure in the financial sector

Speculation and market bubbles

A speculative bubble is a spike in the value of an asset, typically house prices or stock market values. They can also be referred to as a 'market bubble'. Poor lending decisions by bankers can help to fuel a market bubble, for example through irresponsible mortgage lending. A speculative bubble is normally caused by exaggerated expectations of future growth in the value of an asset. Investors believe that the value will rise and so, with heightened expectations, this causes the value to further inflate beyond what an objective assessment would suggest.

Once belief sets in that the asset has reached its peak value, investors will quickly try to sell, causing the artificially high value to fall. As the bubble bursts there is usually a fall in confidence and aggregate demand in the economy – the wealth effect on consumption. The bursting of the housing bubble in the US, combined with the risky trading in subprime mortgages, worked together to cause the Global Financial Crisis of 2008.

The trade in CDOs (collateralised debt obligations) between banks proved to be one of the prime cause of the financial crisis. Mortgages in the subprime market, originating in the US, had been given to borrowers who effectively stood no long-term chance of paying them back. This was not a problem for the lender provided house prices continued to rise, since they could recover their loan by forcing the sale of the house. These mortgages were packaged up with other loans and sold on to other banks through CDOs. Many were bought by financial institutions that did not fully realise just how poor the credit worthiness of the original mortgage borrowers had been, and to what extent their bundle was exposed to this.

When the US house prices collapsed, it became clear that many of these CDOs were 'toxic assets', meaning they were effectively worth (much) less than buyers had expected. Individual banks did not know to what extent other banks were exposed to these. The banking system requires banks to lend to each other, but the banks were worried about lending to each other since they did not know which ones were credit-worthy. Inter-bank lending collapsed and credit became scarce and more expensive for everyone.

It should be noted that a spike in the price of an asset may be the result of the normal interaction of supply and demand rather than speculation. For example, the price of a crop might spike sharply after a bad harvest. In this case, shortage of supply relative to demand is pushing up the price, with no speculation involved – bad weather is the cause of the price spike.

Asymmetric information

Asymmetric information exists in any transaction where one party has less information than the other. Examples include:

- subprime mortgages – a lender does not know how likely a borrower is to repay their loan
- insurance – a car insurance company cannot tell the risks associated with each single driver
- the buyer of a financial product who is unaware of the true level of risk, as in the case of CDOs or shares on the stock exchange.
- regulators in the financial sector who may have insufficient information compared with the bankers about the true level of risk associated with different financial products.



Asymmetric information can give rise to both moral hazard and adverse selection. A good example of adverse selection is late in the credit cycle during a boom when a lender makes loans too readily available and in doing so lends to (or 'selects') borrowers who are not credit-worthy and who may default once the economy slows down. This means that adverse selection leads to the accumulation of bad risks on the lender's balance sheet.

Moral hazard

Moral hazard is about incentives, for example providing a safety net for banks incentivises more risk taking. Moral Hazard is a situation where a person or business is more willing to take risks to benefit themselves because any negative costs or consequences which result from a course of action will be felt by someone else. They can do this because there is asymmetric information between the parties, so the risk taker has superior information over the one who might potentially have to bear the costs – so they can effectively get away with it!

For example, to ensure economic and financial stability, governments offer banks an *implicit guarantee* that they will step in with extra funding to prevent a bank collapsing (an insolvency crisis). However, this creates a moral hazard since bankers will have a strong incentive to take on riskier lending behaviour since they know that, whatever happens, the bank will be bailed out (by the taxpayer in this case). Sometimes this is referred to as the 'too big to fail' problem. Much of the regulatory reform of recent years has been aimed at solving this problem by 'bailing-in' bond investors in the banks who then share the losses with bank shareholders. This is intended to protect the taxpayer from funding the bank's losses.

Mervyn King, then governor of the Bank of England, said in 2007 that 'the provision of such liquidity support undermines the efficient pricing of risk by providing ex post insurance for risky behaviour. That encourages excessive risk-taking, and sows the seeds of a future financial crisis.'

Bank employees and managers have often had asymmetric compensation structures. In good years, they stood to make huge amounts of money because their bonuses were often linked to the banker's performance in generating profits for the bank; in bad years, even if the bank lost money, they would still bring home a decent salary. This gave bankers the incentive to take excessive risks because they could shift their potential losses to shareholders, who would see the share price and dividend payouts fall.

Membership of the euro could also create a moral hazard. A country in the eurozone may assume that if it gets into difficulties other countries will bail it out to prevent a euro crisis. Therefore members may have higher budget deficits than they would have done, since the cost of defaulting is passed on to the eurozone as a whole. Greece is a good case study of this problem since the recent general election there.

Externalities

Bankers in their lending behaviour did not fully take into account the 'external costs' of managing risk. The financial sector imposed massive negative externalities on the real economy as the financial crisis triggered significant falls in GDP, rising unemployment and falling incomes across the world economy, particularly in Europe and the US. Banks enjoyed the upside (profits) during the good years, but taxpayers had to make good the losses after the crisis – on account of the too big to fail problem.



Market rigging

Market rigging is illegal since it prevents a fair working of the market. There is prudential regulation and conduct regulation, which is the responsibility of Financial Conduct Authority, the sister regulator to the PRA. Conduct is about regulation of how financial institutions do business with their customers. See www.fca.org.uk for more information.

Foreign exchange market rigging

In November 2014, UK and US regulators handed out £2.6 billion in fines to specific banks for rigging the £3.6 trillion-a-day foreign exchange market. They found a 'free for all culture' on trading floors at RBS, HSBC, Citibank, JPMorgan and UBS. Tight-knit groups of bankers colluded on forums to share information on client activity to make cash. They bragged about making 'free money and bonuses', since making money for the bank led to the bankers making money for themselves.

Rigging works if traders obtain confidential information about client activity that is about to happen which could change the value of a currency. The traders can then place their own orders or sales in order to profit from the subsequent movement in the value of a currency.

Research ideas

1. See BBC News Business, 18 December 2012, for a very clear summary on what **LIBOR (London Interbank Offered Rate)** is and why it matters, linked to the LIBOR rate-fixing scandal which led to large fines and a tightening of regulation.
2. Find out about the causes of the financial crisis which link closely to market failure in the financial sector. *The Economist* article 'The origins of the financial crisis – crash course', 7 September 2013, from the print edition, is useful. Group the causes between failures in the financial sector and failures in regulation.

Role of central banks

The key functions of central banks, such as the Bank of England, are:

- as banker to the government (in the UK, the national debt is managed by the Debt Management Office www.dmo.gov.uk)
- as banker to the bank, as a lender of last resort. When a financially troubled bank gets into short-term difficulties and is unable to raise enough cash, the central bank will lend to them to provide the liquidity needed. The reason for this is to preserve the stability of the banking and financial system so that a run on a panic-ridden bank is prevented and individuals' deposits are protected. See parts 5 and 6 of the Bank of England animations, which also cover the role of regulation
- as part of regulation of the banking industry – see parts 5 and 6 of the Bank of England animations, with part 6 particularly targeted at regulation (note that not all central banks may be financial regulators – this varies from country to country)
- implementation of monetary policy – see parts 2, 3 and 7 of the Bank of England's animations. Parts 2 and 3 provide excellent revision of monetary policy, while part 7 gives an overview of:
 - monetary policy – Monetary Policy Committee (MPC)
 - macroprudential policy – Financial Policy Committee (FPC)
 - microprudential policy – Prudential Regulation Authority (PRA).

The PRA supervises the largest banks and the FPC monitors risk to the entire financial system.



For more information visit the following links:

<http://www.bankofengland.co.uk/financialstability/Pages/fpc/whatis.aspx>

<http://www.bankofengland.co.uk/monetarypolicy/Pages/default.aspx>

<http://www.bankofengland.co.uk/pru/Pages/about/default.aspx>

Research ideas

1. In March 2013, the FPC of the Bank of England recommended that regular stress testing of the UK banking system should be developed to assess the system's capital adequacy.

Research these stress tests from newspaper articles and identify what their objectives are and what risks they can assess. 'What is a Bank Stress Test?', an IMF Survey magazine article (29 July 2010 – see

www.imf.org/external/pubs/ft/survey/so/2010/POL072910A.htm) is a good article explaining the key threats to financial health which a stress test normally includes.

Review the results of the Bank of England's December 2014 stress tests here:

<http://www.bankofengland.co.uk/financialstability/Pages/fpc/stresstest.aspx>

2. Find out what macro prudential regulation is and why it matters. Part 6 of the Bank of England's animations will be useful as well as *The Economist* article 'What macroprudential regulation is, and why it matters' (4 August 2014 – see www.economist.com/blogs/economist-explains/2014/08/economist-explains-1).

Short-answer questions

1. a) Explain one role of a central bank.
b) Explain one reason why the UK central bank lowered interest rates from 5 per cent in October 2008 to 0.5 per cent in March 2009, despite inflation being above its target of 2 per cent in 2008.
c) Which one of the following is **not** a cause of market failure in the financial sector?
 - A Lenders of subprime mortgages in the US underestimating the ability of their borrowers to pay back their loans.
 - B Banks being prepared to invest in high-risk securities, to make a high return, because they know that they will be 'bailed out' if it all goes wrong.
 - C Banks charging low interest on lower risk loans.
 - D Activities in the banking sector causing external costs on the economy as a whole.
2. Explain how the Bank of England can better maintain financial stability after 2013 – see part 6 on the Bank of England website.
3. Explain three ways market failure in the financial sector was responsible for the Global Financial Crisis of 2008.
4. Give one reason why a housing market bubble may be bad for an economy.
5. Explain how asymmetric information between bankers and regulators may lead to market failure.
6. The UK used £65 billion of taxpayers' money to prop up RBS and Lloyds Banking group, and billions more to keep the financial system afloat during the financial crisis. Explain how reckless banking activities in the financial sector created significant external costs to society and the economy as a whole.



Essay questions

1. With reference to the information provided and your own knowledge, evaluate the likely microeconomic and macroeconomic effects of market failure in the financial sector.
2. 'Many voters would like to see the government promoting a stronger UK manufacturing base as a means of rebalancing the UK economy. If there is a case for the UK government and central banks spending billions propping up the financial sector during the Global Financial Crisis of 2008, then there is a strong case for the government increasing its spending to support the manufacturing sector in the UK.'

To what extent do you agree with this view?



Marking guidance

Essay questions

Essay 1 (likely to link market failure in the financial sector to recent 2008 Global Financial Crisis)

Microeconomic effects:

- Individual homeowners may suffer negative equity if a housing bubble bursts and their mortgage debt becomes greater than the value of their property. This means the homeowner cannot sell their house without owing money to their mortgage lender, unless they have extra cash. This will be a particular problem if they need to move to find work – a cause of geographical immobility. As a result it may increase poverty and reliance on state benefits.
- A housing bubble in the US gave banks an incentive to over lend in the subprime market because these loans were then sold on in a repackaged bundle. In turn this caused many individual banks to have a high risk of insolvency when the bubble burst. Consequently bank share prices dropped significantly – so having a negative impact on shareholders, as well as job losses in the banking sector.
- Excessive risk taking by bankers in their lending decisions was partly caused by banks knowing they can never be allowed to fail if all goes wrong, ie a central bank acts as lender of last resort (moral hazard). This makes the 'price' of risk cheaper than it should be and so encourages more risk-taking behaviour. This meant bankers were making loans to people who couldn't pay.
- Bankers did not fully take into account the external costs of managing risk in their lending decisions. The bailing out of banks was effectively paid for by the taxpayer. This created significant opportunity costs. Individuals might have gained by that money being spent on other areas of public expenditure, eg more NHS care, better social services, improved education etc.
- Market failure in the financial sector caused a shortage of liquidity, making it hard and/or more expensive for individual consumers and firms to gain access to credit.
- Many individuals lost their jobs as a result of the recession or have had to take on zero hour contracts. Underemployment, youth unemployment and long-term unemployment were consequences of the recession which would all impact negatively on an individual's wellbeing.

Macroeconomic effects:

- Global rise in unemployment – a fall in banking confidence and a lack of availability of credit all caused aggregate demand to fall, setting off a negative multiplier effect.
- Governments largely reacted by providing a stimulus boost to revive the economy and this, combined with automatic fiscal policy, that meant fiscal deficits and national debts soared. This then triggered the austerity debate and the importance of reducing fiscal deficits – costs and benefits associated with this should be considered.
- Monetary policy loosened in response to the crisis – interest rates came down to record low levels and quantitative easing was launched. Some critics remain worried about possible inflationary impact.
- Economic growth fell – the UK experienced a 6 per cent fall in real GDP peak to trough. Impact on living standards, unemployment. Some groups more affected than others, eg different impact on different regions, industries.
- Many countries globally were affected so firms reliant on the export market were also significantly affected.



Evaluation generally can include short run versus long run effects, impact more significant on some groups/regions, costs depend on government policy response to these issues, effects depend on how significant the market failure is and effectiveness of regulation.

Essay 2

Case for spending billions on propping up the banking sector:

- Bank of England has always acted as 'lender of last resort' since the ramifications of a full-scale banking crisis would be a severe depression (could make a reference to 1930s' Great Depression where banking panics created a severe depression, particularly in the US).
- Financial institutions underpin the whole economic system – they facilitate savings, they lend to individuals and firms, they facilitate the exchange of goods and services, they provide a market for equities and they provide forward markets in currencies and commodities. In other words, they provide the framework through which capitalism can work and economies can successfully operate.

However, in the long run, better regulation is needed to address some of the market failure issues which created the Global Financial Crisis 2008, eg requirements for banks to hold more reserves to prevent the need for a taxpayer bail out; macroprudential regulation designed to spot weaknesses and risks in the system as a whole so preventative measures can be taken; capping bonus payments to bankers so there is less incentive to take excessive risks; letting individual banks fail but managing this better so the whole system does not collapse. This means less money should be needed by future taxpayers to prop up the financial sector. This is important since it represents a significant opportunity cost.

Case for government spending on the manufacturing sector:

- Investment may enable the sector to gain comparative advantage in certain areas in the long run, eg 'infant industry' argument.
- Investment in high-tech research and development may ensure the industry can compete globally and will then provide highly skilled, well-paid jobs which match the increase in productivity that would be gained from such investment. This is particularly relevant since many of the jobs which have recently been created have been low-skilled, limited hours jobs which have created a problem of underemployment.
- Would rebalance the UK economy and reduce the reliance of the UK on the financial sector.
- May help regional unemployment and raise standard of living across a broader range of regions in the UK.

However, unless the sector can achieve comparative advantage in the long run, allocating resources to this sector would be inefficient. There is also an issue of opportunity cost – could the government spending be better spent on other components?