Topic **12**

Northern Rock

It might seem strange to have the final topic in this book devoted solely to one Financial Institution. However, since that institution came to dominate the news agenda day after day from late summer right through to the end of 2007 I am sure that you will agree that this story deserves extensive coverage. The first article in this section looks at the first signs of trouble for Northern Rock as the deepening "credit crisis" began to impact on financial markets across the World. In the second and third articles we focus on the Repo and Interbank markets where banks were no longer willing to lend to each other. In the final article we see how the UK Authorities were finally forced to act to save Northern Rock. They realised that they could not allow a major bank to go bust. Such an event would have severely undermined confidence in the UK Banking system for years to come.

The following two articles are analysed in this section:

Article 27

"Fresh turmoil in equity markets".

The Financial Times, 11/12 August 2007

Article 28

"Repo Market little known but crucial to the system".

The Financial Times, 11/12 August 2007

Article 29

"Growing sense of crisis over interbank deals".

The Financial Times, 5 September 2007

Article 30

"Bank throws Northern Rock funding lifeline"

The Financial Times, 13 September 2007

These articles address the following issues:

- The "credit crisis"
- Mortgage-backed securities
- The "sub-prime crisis"
- Retail and wholesale deposits
- The repurchase markets
- The interbank markets
- Structured investment vehicles
- Lender of last resort facility

The role of the:

- Bank of England
- Financial Services Authority
- The UK Treasury

Confidence in Northern Rock shatters!

At the start of 2007 if you had gone into the street and asked some random people to name a UK Bank you would have found that very few mentioned Northern Rock. Unless that is you carried out this survey on the streets of the North-East of England where it was based. However, just a few months later this Bank's name became World famous almost overnight. It came close to being the first UK Bank to fail in almost 141 years. The media revelled in capturing the daily drama as queues of worried savers waited patiently to remove all their money from their accounts. Their fear was that it was about to fail and they were concerned that in such an event only the first £2000 of their savings would be fully protected by the Financial Services Compensation Scheme (plus 90% of savings from £2000 to £35 000). Many of the savers had far more than this upper limit in their accounts.

There is little doubt that the resulting panic at once stage threatened to undermine confidence in the other banks and indeed the entire UK Financial system looked at serious risk of meltdown. Against that background the Government, the Bank of England and the Financial Services Authority were finally forced into action to shore up Northern Rock. On the 17th September 2007 at 6pm the Chancellor, Alistair Darling, came on TV and announced that all savings at the Bank would be 100% protected. In the analysis of these four articles we will see how the crisis developed and how it impacted on the UK's financial markets and institutions.

Article 27

Financial Times, 11 August 2007 FT

Fresh turmoil in equity markets

Jrishna Guha in Washington, Michael Mackenzie in New York, and Gillian Tett in London

Fresh turmoil gripped financial, markets yesterday with shares in London and Europe suffering their worst one-day fall in four years and Japan also tumbling sharply as the US Federal Reserve and other central banks scrambled to avert a liquidity crunch.

As worrIes spread over deepening troubles arising from credit markets, the Fed was forced to drop its "business as usual" stance to inject $35 bn (£17 bn) into the financial system to stem the risk of crisis.

The Fed also promised to provide whatever funding was needed to ensure the banks were able to continue lending to each other at normal rates.

The moves marked the most radical action taken by the US central bank to calm markets since the aftermath of 9/11 and followed similar emergency moves by the European Central Bank and the Japanese central bank in the past two days.

In another sign of its concern about the situation in the markets, the Fed started accepting high-quality mortgage-backed securities as collateral for the entirety of

these funds – something it rarely deems acceptable.

These moves were apparently triggered by signs of faltering confidence in banks worldwide, with financial stocks tumbling and interbank borrowing rates surging as institutions became more nervous of extending credit lifes to each other. Bank stocks sold off sharply, amid intense speculation over the extent of credit markets troubles.

In London, the FTSE 100 suffered its worst fall in more than four years. After losing 1.9 per cent in the previous session, the index slumped a further 232.9 points – 3.7 per cent – to 6,038.3. The FTSE 100 has been the only major stock index so far to officially "correct" – having fallen more than 10 per cent from its June peak.

Northern Rock, the bank, fell 9.6 per cent to 713.5p while hedge fund manager Man Group tumbled 9.1 per cent to 479p.

The FTSE Euro first also suffered its worst day in four years, falling 3.04 per cent. In Asia, the Nikkei 225 Average relinquished its gains for the year, falling 2.4 per cent.

On Wall Street, the Dow Jones Industrial Average and the S&P 500 tumbled sharply on opening trade but were both set to close virtually flat.

The radical Fed action yesterday calmed the mood in the US interbank market. At midday, the effective Fed funds rate was trading near its target level of 5.25 per cent, after surging earlier to 6 per cent.

The analysis

How did the crisis in the credit markets start?

The downside of the increased Internationalisation of financial markets is that an economic event in one Country can now have major consequences for financial markets and institutions that are based far away. In this case the crisis at Northern Rock can be traced back to the United States. In the aftermath of the terrorist attacks in New York on September 11 the Federal Reserve Bank embarked on a series of interest rate cuts which culminated in their main short-term interest rate, the Federal Funds Rate, hitting a low of just 1% in June 2004. The result of this easing in monetary policy was that the economy boomed, fuelled by the availability of very cheap credit. The housing market benefited from these conditions with homeowners seeing sharp rises in houses prices throughout the Country. Not surprisingly this began to encourage more and more people into the housing market in the search for capital growth. Some of these were lower income borrowers and the US Banks were all too willing to lend to these groups that in the past might have been considered to be too risky. This was the birth of the "sub-prime lending market" in the US. However, this boom soon gave way to bust as the Fed's policy went into reverse with a significant tightening in monetary policy with the resulting increase in mortgage rates causing many homeowners to be forced into defaults on their loans. In the wake of record repossessions the housing market crashed and the "sub-prime crisis" was born.

During the summer of 2007 this new phenomenon started to hit the headlines across the World as the problems in the US started to impact on other Countries. The problem was that these mortgages had been pooled together and sold as "mortgage-backed securities" to International Banks across the Globe. This meant that it was not clear which of

them had the greatest exposure to the risks associated with the sub-prime crisis. In June, Bear Stearns, the US Investment Bank, were forced to admit that it had made $1.6 bn losses in its Hedge Funds who owned vast amounts of these sub-prime mortgage debts. In August the French Bank, BNP Paribas, had to suspend some of their investment funds that were also exposed to these debts. Other large banks began to calculate their financial exposure to this problem. Soon speculation mounted as the search was on for the banks at greatest risk. Stock Market investors were quick to liquidate their holdings in banking shares. In the first Article taken from August 2007 we see quite clearly the impact that this was having on financial markets as the "liquidity crisis" began to bite. As a result "the Federal Reserve was forced to inject $38 bn into the financial system to stem the risk of a crisis".

How did this crisis impact on Northern Rock?

In the wake of these developments International Banks started to get concerned about lending money to each other. Suddenly the interbank market, that is normally seen to be an almost risk-free prospect, was perceived to be potentially highly risky. If one bank lent a large amount of funds to another bank that ran into severe difficulties because of its exposure to the "sub-prime crisis" there could be a significant risk of default on these loans. The Federal Reserve attempted to calm fears in the interbank market. It did this by promising to inject enough liquidity as was necessary "to ensure that the banks were able to continue lending to each other at normal rates". In addition it began to accept mortgage-backed securities as collateral for its short-term money market operations (called repurchase operations). These actions did have the desired effect in terms of calming the mood in the money markets with the effective Federal Funds Rate falling from 6% back to 5% close to the Fed's target level. However, in the equity markets there were clear signs of nervousness with the FT-SE 100 index falling sharply to close at a little over 6000. And there was a clear sign of things to come as one Bank's share in particular was hit. The shares in Northern Rock fell by 9.6% to 713.5p. The crisis at Northern Rock was beginning.

Article 28

Financial Times, 11 August 2007 FT

Repo market little known but crucial to the system

Michael Mackenzie in New York

The repurchase, or repo, market is a little-known part of the financial system but it acts as a crucial safety valve in times of stress. It enables the flow of cash between central banks and financial institutions, providing the plumbing that keeps markets functioning smoothly.

This week, as financiers faced higher overnight borrowing costs in the money markets, central banks came to the rescue and flooded the financial system with cash. This was done to keep in line with one another the actual and target overnight borrowing rates, such

as the US Federal Reserve's Fed funds rate.

The Fed injects cash into the money market on a daily basis so that the effective rate stays near its present target level of 5.25 per cent. Early yesterday the effective funds rate traded at 6 per cent as banks demanded higher rates to lend to each other, and then fell towards 5.375 per cent after the Fed injected $35 bn (€26 bn, £17 bn) in two separate operations.

This week, money market rates for eurodollar deposits and commercial paper rose well above normal levels. That meant banks, companies, insurers and hedge funds that rely on using short-term funding faced higher costs.

That pressure pushed the Fed funds rate higher, which, if sustained, could imperil the economy.

In the Fed's repo operation, dealers posted mortgage securities as collateral and received cash in return from the Fed. Next week, the dealers and the Fed will reverse the trade. Usually, the Fed does not accept mortgages as collateral for repo transactions but the move signals an attempt by the central bank to alleviate financing fears.

Wall Street dealers are seeking the sanctuary of government bonds and are selling their holdings of riskier assets such as mortgages.

Traders said that if the financing problems continued and the effective funds rate remained above its target level, the Fed was likely to repeat repo operations until the market settled down.

"Central banks can ultimately fix a liquidity crunch by shipping in boatloads of cash and they are effectively doing that," said Alan Ruskin of RBS Greenwich Capital.

"There is very little doubt that they will come through in the end."

Article 29

Financial Times, 05 September 2007 FT

Growing sense of crisis over interbank deals

Gillian Tett

As bankers have returned to their desks this week after the summer break, they have been searching frantically for signs that the markets are gaining a semblance of calm after the August turmoil.

However, the money markets are notably failing to offer any reassurance. While the tone of equity markets has calmed, the sense of crisis in the interbank markets actually appears to be growing – especially in London.

In particular, the cost of borrowing funds in the three-month money markets – as illustrated by measures such as sterling Libor or Euribor – is continuing to rise, suggesting a frantic scramble for liquidity among financial groups.

This trend is deeply unnerving for policymakers and investors alike, not least because it is occurring even though the European Central Bank and the US Federal Reserve have taken repeated steps in recent weeks to calm down the money markets.

"What is happening right now suggests that the moves by the Fed and ECB just haven't worked as we hoped," admits one senior international policymaker.

Or as UniCredit analysts say: "The interbank lending business has broken down almost completely . . . it is a global phenomena and not restricted to just the euro and dollar markets."

If this situation continues, it could potentially have very serious implications.

One of the most important functions of the money markets is to channel liquidity in the banking system to where it is most needed.

If these markets seize up for any lengthy period, there is a risk that individual institutions may discover they no longer have access to the funds they need.

This danger has already materialised for vehicles that depend on the asset-backed commercial paper sector – short-term notes backed by collateral such as mortgages.

In recent weeks, investors have increasingly refused to re-invest in this paper.

As Axel Weber, a member of the ECB council, admitted this weekend: "The institutions most affected currently are conduits and structured investment vehicles ... Their ability to roll these short-term commercial papers is impaired by the events in the sub prime segment of the US housing market."

This problem is affecting the wider banking system because these vehicles are now tapping other sources of finance – mainly liquidity lines from banks.

It appears that the prospect of receiving new liquidity demands has prompted banks to rush to raise funds – and, above all, hoard any liquidity they hold.

The high demand from banks to secure liquidity for the next three months, coupled with their desire not to lend out what liquidity they have, has made it virtually impossible to execute trades – even at the official prices quoted for such borrowing.

That has created some extraordinary dislocations such as the fact that the cost of borrowing three-month money in the sterling Libor markets is now higher than borrowing six-month or 12-month money. "The system has just completely frozen up – everyone is hoarding," says one bank treasurer. "The published Libor rates are a fiction."

This situation could become increasingly dangerous in part because many other markets, such as swaps, are priced off the three-month Libor and Euribor rates. So the interbank freeze could have knock-on effects throughout the financial system.

A more pressing problem is the large volume of asset-backed commercial paper due to expire in coming weeks, which is set to increase the scramble for cash by the banks. "Money market stability needs to return as soon as possible," says William Sels, of Dresdner Kleinwort. Jan Loeys, of JPMorgan, notes: "The longer it lasts, the greater the risk that the current liquidity crisis will worsen."

The crucial uncertainty is what, if anything, policymakers can do to combat the sense of panic. Some observers hope the problems in the sterling market, at least, may dissipate when the current maintenance period at the Bank of England comes to an end (see left).

Others, such as Mr Weber, have suggested that banks themselves need to raise more funds in the capital markets to meet liquidity calls. However, many private sector bankers, for their part, say that radical steps from the central bankers are needed to remove the sense of panic.

Whether the central bankers are willing or able to really help – in the UK or anywhere else – remains the great question.

The analysis

What role did the Repo and the Interbank Markets play?

The Repo, or to give it its full name the Repurchase Market, lies at the heart of the banking system in most Countries. The Clearing Banks are involved in a great deal of financial activities each day that results in large amounts of cash flowing in and out of their accounts. For example, if a large number of customers withdraw cash to spend in the shops through their cash point cards this will result in that bank seeing a significant reduction in liquidity. While at the same time another Bank might see an exceptional number of customers making cash deposits which results in an increase in their liquidity. These daily cash imbalances are not a serious problem and they are largely alleviated through the commercial banks lending cash to each other to meet their short-term needs. This is done through the key money market which is the London Interbank Offered Rate (Libor). There are times, however, when the entire banking system requires a cash injection from outside. This is where the Repo market comes into centre stage. As article 28 says "the repurchase, or repo, market is a little known part of the financial system but it acts as a crucial safety valve in times of stress".

Figure 1
So how does a repo work?

Stage 1
The Central Bank
It has spare liquidity that it is willing to inject into the money markets

The Commercial Bank
It needs to make up a liquidity shortage by borrowing money.
It has plenty of collateral available in the form of high quality Government Bonds.

Stage 2
The Central Bank
Announces the availability of a 14-day Repo Facility at a fixed interest rate.
This means that it will make a short-term (14-day) purchase of high quality Government Bonds from a Commercial Bank.

The Commercial Bank
It makes a short-term (14-day) sale of £500 m of Government bonds to the Central Bank.

Stage 3 (in 14 days time).
Central Bank
It sells back the £500 m of Government Bonds to the commercial Bank at the same price that it paid for them plus an additional amount equal to the repo rate on the 14-day loan.

The Commercial Bank
It is obliged to repurchase the £500 m of Government Bonds from the Central Bank and in addition pay an extra amount equal to the repo rate for the 14-day loan.

One key function of these repo operations is to ensure that money market rates stay close to the Central Bank's desired target level. As article 28 says "The Fed injects cash into the money market on a daily basis so that the effective Fed Funds Rate stays near its present target of 5.25%". However, the impact of the credit crisis began to spread into the interbank markets with the effective Fed Funds Rate hitting 6% as the banks became increasingly reluctant to lend to each other. Effectively for a period in late August and early September 2007 the interbank markets stopped functioning. This is clear from article 29 which reports that "the cost of borrowing funds in the three-month money markets – as illustrated by measures such as sterling Libor or Euribor – is continuing to rise, suggesting a frantic scramble for liquidity among financial groups". There was particular unease about these developments as the problems were continuing in the interbank markets despite strong measures being taken by the Fed and the European Central Bank in an effort to restore normal trading in these markets.

This had very serious implications because of the number of financial institutions and markets that were dependent on this form of short-term funding. The World Economy faced the risk of a sudden collapse into recession if the liquidity in the money markets continued to drain away. As article 29 notes there were serious concerns especially in the markets for commercial paper, short-term asset-backed securities, as investors become increasingly reluctant to re-invest in these instruments. Liquidity in the Banking system was virtually non-existent with banks unwilling to lend funds while at the same time they were desperately searching for additional three-month borrowing themselves. As a result even the published interbank interest rates were largely irrelevant as traders could not execute deals at these levels.

The key question facing financial markets at this time was whether the Central Banks would be able to inject enough liquidity to restore normal trading in the money markets? The Article ends with the question of "whether the central bankers are willing or able to really help – in the UK or anywhere else remains the great question. This would soon be answered.

Article 30

Financial Times, 13 September 2007 FT

Bank throws Northern Rock funding lifeline

Peter Thal Larsen and Neil Hume

The Bank of England will on Friday throw a lifeline to Northern Rock by providing emergency funding to the beleaguered mortgage lender that has fallen victim to the liquidity squeeze in the banking sector.

In an unprecedented move, the Bank, working with the Financial Services Authority and the Treasury, will step in to bail out Northern Rock by providing it with a short-term credit line that will allow it to carry on operating. The rescue, approved by the Chancellor of the Exchequer, is the most dramatic illustration to date of how the British banking sector is being hit by the wave

of turmoil that has paralysed the money markets.

It will lift the uncertainty that has been hanging over Northern Rock's future for much of the past month because it could not access the wholesale funding upon which it is heavily dependent. The Bank is also expected to reassure thousands of Northern Rock's customers that their deposits are secure.

Northern Rock is the first institution to be propped up since the Bank, in 1998, revised the rules under which it will act as a lender of last resort to banks in financial difficulty. The Bank is expected to say on Friday that a similar facility is available to any other institution facing short-term difficulties. However, it is understood that no other banks have asked for financial support.

The Bank is understood to be confident about the quality of Northern Rock's mortgage book, which has no exposure to subprime borrowers and which will provide collateral for the emergency facility. But the bank, one of the UK's largest mortgage lenders, has proved particularly vulnerable to the liquidity squeeze because it has a smaller deposit base than other lenders.

Northern Rock approached the Bank at the end of last week to discuss using the facility, people familiar with the situation said. The bank made its decision because it faced pressure to refinance obligations, including mortgage-backed securities that will mature in the next couple of weeks.

Northern Rock executives are expected to say on Friday that it will try to trade through its difficulties with the help of the Bank of England facility.

However, the move is likely to make it harder for Northern Rock to remain independent.

The bail-out is a devastating blow for the bank, which grew from its roots as a building society in the north-east of England to become the most efficient mortgage lender in the UK, winning wide praise for its business model and its ability to take advantage of the innovations in the capital markets.

The bank is set to issue a trading update on Friday describing the impact of the recent market turmoil on its business.

Northern Rock, the Bank of England, the FSA and the Treasury all declined to comment.

Since hitting their peak in February, shares in Northern Rock have lost half their value amid concerns that the rising cost of wholesale funding would squeeze margins and limit the bank's growth. On Thursday, the shares closed down 33p, or 4.9 per cent, at 639p.

The turmoil will fuel speculation that Northern Rock could end up being taken over by a bank with a larger retail funding base. The bank, which derives almost all its revenues from the UK market, would be an attractive takeover target for several UK lenders or European banks seeking to establish a foothold in the UK. However, any buyer is likely to take a careful look at Northern Rock's balance sheet before making an offer.

About a quarter of Northern Rock's balance sheet is funded by retail deposits, with the rest coming from various sources of wholesale funding.

It raised £10.8 bn in mortgage-backed securities in the first half of the year. But any further securitisation is thought to be on hold until market conditions improve.

Additional reporting by Neil Hume

The analysis

How did the Government and the Bank of England act to save Northern Rock?

The growing crisis in the World's financial markets increasingly focused on one UK Bank in particular. That Bank was Northern Rock which had enjoyed a rapid rise since its Stock Market Flotation in October 1997. The obvious question is why it impacted on them especially? The answer is that they had a particularly aggressive business model. Unlike other banks that get most of their funds from their savers, Northern Rock had raised its finance largely from the financial markets. As the Financial Times Article says "about a quarter of Northern Rock's balance sheet is funded by retail deposits, with the rest coming from various sources of wholesale funding". In the first half of 2007 this amounted to some £10.8 bn in mortgage backed securities. This is where large amounts of mortgages are pooled together and then sold on in the form of financial market securities. And they made up any short-term funding needs by accessing the wholesale money markets. In the wake of credit crisis both these avenues of funding were effectively shut down. Northern Rock had run out of cash and it was heading into a financial meltdown.

The story was finally broken by Robert Preston, the BBC's business correspondent, on Thursday 13th September on their Channel News 24 service. The next day queues started to form outside all their branches as worried customers tried to remove their cash deposits. The final Financial Times Article in this case study reports that "the Bank of England will today throw a lifeline to Northern Rock by providing emergency funding to the beleaguered mortgage lender that has fallen victim to the liquidity squeeze in the banking sector". The article discloses that in a unique operation the Bank would be combining with the Financial Services Authority and the Treasury in an attempt to reassure investors and to stop any further casualties among the UK Banking industry.

The Bank's lending to Northern Rock comes under its key function as "the Lender of Last Resort". This means that if a bank is in financial difficulty it can always go to the Central Bank to obtain emergency funding. Despite this intervention by the Bank of England the queues continued to grow each day. Finally on the 17th September at 6pm in the evening the Chancellor used the opportunity of a televised press conference with the US Trade Secretary, Henry Paulson, to make an announcement that the Government has agreed to guarantee all the deposits held at Northern Rock. This action effectively ended the run on the bank and the queues outside their branches gradually disappeared. In a twin move a few days later the Bank of England announced that it would inject £10 bn into the UK Money markets to try to reduce the cost of interbank borrowing. It also allowed for the first time Banks to use a wider group of assets to act as collateral for these loans including mortgages. In the immediate term these actions calmed savers and rebuilt some confidence in financial markets. However, there are longer-term worries that the actions of the UK authorities in bailing out Northern Rock might have encouraged other banks to attempt to adopt a similarly risky business model. This is termed moral hazard and it is quite possible that this has been injected into the financial system but in reality the Government and the Bank of England had little choice but to act. The risk of a major UK bank going bust was simply too great for any Government to take.

Key terms

Federal Reserve The Federal Reserve is the Central Bank of the United States. The key part of the Fed is the Federal Open Market Committee (FOMC) that decides on changes in US monetary policy. It is made up of twelve individuals. The core seven come from the Central Federal Reserve Bank (based in Washington) and the other five represent the various Federal District Reserve Banks. One of these, New York, has a permanent place on the FOMC. The other eleven banks share the remainder of the votes on a complex rotation system. The FOMC reviews the outlook for the economy before deciding on the next move in interest rates.

Credit Crunch This refers to the cost and availability of credit. It might be a Government borrowing (in the government bond market), a company borrowing (in the corporate bond market), a house owner (with a mortgage) or a consumer (with a credit card). We have a "credit crunch" when the cost of borrowing is considered to be prohibitively expensive by historic standards or it is simply very difficult for more risky borrowers to obtain finance at all.

Mortgage-backed securities This is where a large amount of mortgage debt is pooled together and then sold to a different set of investors in the form of a securitised financial market instrument

Collateral This refers to any property or other assets that can be given as security on a loan. If the borrower fails to make timely interest payments or return the principal these assets can be seized.

FTSE100 We start with the FTSE-100 which the most is widely quoted UK Stock Market index. It is based on the value of the 100 largest UK companies in terms of their market capitalisation. It started with a base level of 1000 in January 1984. This index is now quoted in real time on the various news information systems that serve the city traders.

Hedge Funds This refers to a particular type of investment management where the fund manager will employ a range of different investment tools in an attempt to maximise the returns or try to make gains even in a falling market. The fund will rely on large amounts of borrowing and will use derivative markets and short selling to achieve these aims.

FTSE Eurofirst (300) This is one of the FT's more recently created Stock Market Indices. It attempts to track the performance of the leading European Stock Markets. It is shown on the Front of the FT each day in the World Markets Data section.

Nikkei 225 This is the most-closely followed index of Japanese share prices. The index is quite broad as it is based on Japan's top 225 blue-chip companies quoted on the Tokyo Stock Exchange.

Dow Jones Industrial Average The DJIA is the main US Stock market index. It is based on the market movements of 30 of the largest blue-chip industrial companies that trade on the New York Stock Exchange. The selection of these companies is revised regularly. It includes companies like American Express, Boeing, Disney, General Electric, Honeywell, Intel, JP Morgan Bank, Procter and Gamble.

Fed Funds (effective) This is the most important short-term interest rate in the United States. It refers to the overnight inter-bank lending that takes places in the United States money

markets. The money that one bank lends to another comes from any excess reserves held at the Fed. A target level for the official Fed Funds Rate is set by the Federal Open Market Committee.

Repurchase Market The term repo is a shortened version of the term "repurchase" agreement that is used with this instrument. So that a commercial bank that is short of liquidity can obtain some cash by selling high quality financial market securities (normally bonds) to the Central Bank usually for a period of just 14 days. At the end of these 14 days the bank must repurchase the securities from the Central Bank at the same price. However, it also has to pay an additional amount which is determined by the current level of the repo rate.

Eurodollar deposits These are simply deposits of US dollars that are held outside of the US. Despite their name Eurodollars do not have to be held in Europe.

Commercial Paper This is a form of very short-term financing instrument used by companies. The normal maturity of commercial paper is 270 days.

Interbank Markets This refers to activities that take place in the Money Markets. There will be some banks that have too much money and other banks with a lack of funds. This leads to a very active interbank market where the banks borrow and lend short-term funds between themselves. The key financial market instrument traded here is the London Inter-Bank Offered Rate (Libor).

Sterling Libor or Euribor This is the rate used for loans made to low risk banks in the London money markets. You can get a Libor rate for a wide range of money market maturities. It starts with overnight money and then goes to one month, three months, six months and one year. The Euribor rate is the equivalent interbank rate but now for borrowing and lending Euros in the money markets.

ECB Council This is the key part of the European Central Bank system. It is made up of a President of the ECB plus five other members they are responsible for the ECB's day to day activities including determining the daily money market operations.

Structured Investment Vehicle (SIVs) These are large programmes created by Investment Banks who seek to take advantage of the differences that exist between the cost of borrowing short-term funds and the cost of borrowing long-term funds. SIVs will typically raise their cash in the short-term commercial paper markets and then invest the proceeds in much longer-dated securities such as bonds and mortgage debt. SIVs came to prominence during the "sub-prime crisis" as many of them invested heavily in large amounts of collaterised debt obligations (CDOs). These CDOs are packages of debt with various degrees of risk. Some CDOs invested heavily in the sub-prime mortgage debt. As a result of the default of some of these mortgages there are large numbers of CDOs that will be worth much less than they are currently perceived to be worth. The Investment Banks that own the CDOs were forced to write-off a significant part of the value of these SIVs.

Bank of England The UK's Central Bank. It was made independent from the UK Government in 1997. Since then it has been in charge of setting short-term interest rates in the UK money markets. The main official interest rate in the UK is called the Repo Rate. The target for this rate is set by the Bank of England's Monetary Policy Committee. At the time of the Northern Rock crisis, the Bank of England's Governor was Mervyn King.

Financial Services Authority This is an independent non-governmental body that has a key role in regulating the performance of financial services institutions. It is made up of a FSA Board with a Chairman, a Chief Executive Officer, three Managing Directors and nine non-executive Directors. The FSA has its statutory powers granted under the Financial Services and Markets Act of 2000. At the time of the Northern Rock crisis the FSA's Chief Executive was Hector Sands, a former Investment Banker at Union Bank of Switzerland (UBS).

The Treasury This is the part of the Government that is in charge of official spending and revenue decisions. In addition it plays a key role in the regulation of the Financial Services Industry. The Treasury is overseen by the Chancellor of the Exchequer. At the time of the Northern Rock crisis the Chancellor was Alistair Darling.

Lender of last resort The Central Bank has a key function in being the lender of last resort. This means that if a bank has nowhere else to go to in order to get funds it can always go the Central Bank to borrow some money to clear a cash imbalance. Without this faculty the banks would be at risk of running out of cash and then facing a complete loss of confidence from their depositors.

Retail deposits This refers to the bank deposits held by ordinary customers. In contrast wholesale deposits are held by companies and other financial institutions.

Securitisation The process of breaking down a very large financial asset into smaller units that can be sold to investors. A good example might be mortgage backed securities where the mortgage debt is pooled together and then sold in smaller units.

What do you think?

1. Is it correct to blame the crisis at Northern Rock entirely on developments in the International Financial Markets?
2. In the context of the US mortgage market explain the term "sub-prime" lending?
3. Explain how complex financial instruments like CDOs and SIVs were a key part of the "credit-crisis".
4. Why was Northern Rock unable to access funds from the Repo Market or the UK Money Markets?
5. In what ways was the business model employed by Northern Rock very different to that used by other UK Banks?
6. To what extent did conflicts between the Treasury, the Financial Services Authority and the Bank of England contribute to the failure to deal with crisis effectively in the early days?
7. Discuss the long-term impact of the Northern Rock crisis on:
   (a) The UK Government (especially the Treasury).
   (b) The Bank of England.
   (c) The UK's reputation in International Financial Markets.
   (d) The UK Banking system.
   (e) UK savers and borrowers.

8. It has been claimed that in bailing out Northern Rock the UK Authorities ran the risk of injecting moral hazard into the Financial Services Industry. What is meant by this term and do you agree that this is a serious risk?
9. "The biggest losers in the Northern Rock crisis were the shareholders. They saw a sharp fall in the value of their shares and had a planned dividend cancelled on the 25 September 2007". Do you agree with this statement?

FT data exercise:

You will need the Companies and Markets section of the Financial Times.

Go to the Market Data section – this is normally about six pages in from the back page. Find the section on Interest Rates (right hand side of page – half way down). Now go to Market Rates.

You will see:

US$libor
EuroLibor
£ Libor etc.

Focus ONLY on £ Libor…

1. What is the overnight £ Libor rate?
2. What is the one month £ Libor rate?
3. What is the three months £ Libor rate?
4. What is the one year £ Libor rate?

Based on this information describe the current state of the UK Money Markets. Are there any signs of a continued premium rate for banks to borrow funds for 3 months plus.

Go the Web

Go to the Bank of England Website at **http://www.bankofengland.co.uk/**

Now go to the Markets Section (see top of page)

Now go to Sterling Money Market Operations Section (see sections on left-hand side).

You are required to fully explain the Bank of England's "four specific objectives" for their operations in the sterling money markets. Make sure you do this in your own words.

Research

You can learn a great deal about the role of the Treasury, Central Banks and the Financial Services Authority their official websites. They are all fantastic learning resources with a great deal of material on their activities

For reference you will find these at:

http://www.federalreserve.gov/
http://www.ecb.int/home/html/index.en.html

http://www.bankofengland.co.uk/
http://www.fsa.gov.uk/
http://www.hm-treasury.gov.uk/

It is also essential to read the Financial Times just after the major meetings of these official bodies.

Go to **www.pearsoned.co.uk/boakes** or **iTunes** to download your podcast for this topic, which provides further analysis of key issues for you listen to at your leisure. The podcasts are easily downloadable to your PC or iPod/MP3 player.