IFM 2014 Lecture 7

Global Financial Crisis

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Outline of lecture

Lecture 7

- Background
- Causes and consequences of the Financial Crisis
- Policy implications of the Financial Crisis
- Macro policy and international coordination

Background to the Crisis

- The Financial Crisis followed a period of global economic stability
- In developed countries, economic growth was steady, inflation was low and stable, and interest rates were at low levels
- This period has become known as the **Great Moderation**
- Many developing countries experienced rapid economic growth, including China, India and parts of Sub-Saharan Africa
- Financial innovation was rapid, banks became more involved in the mortgage loan market, and major stock markets were on the increase

Background to the Crisis

- Robert Lucas Jr, AEA Presidential Address, 2003:

  Macroeconomics...has succeeded: its central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades.

- Gordon Brown, Budget Statement, 2007:

  We will never return to the old boom and bust.

- In this era of optimism, many households and policymakers came to believe the economy was invincible – including economists

Background to the Crisis

- Widespread optimism ushered in a period of ‘light-touch’ regulation and unfettered laissez-faire capitalism

- This provided the backdrop for the worst crisis of the postwar period!

- The Crisis had two main phases:

  1. Phase I (July 07 to 14 Sep 08) – housing bubble bursts

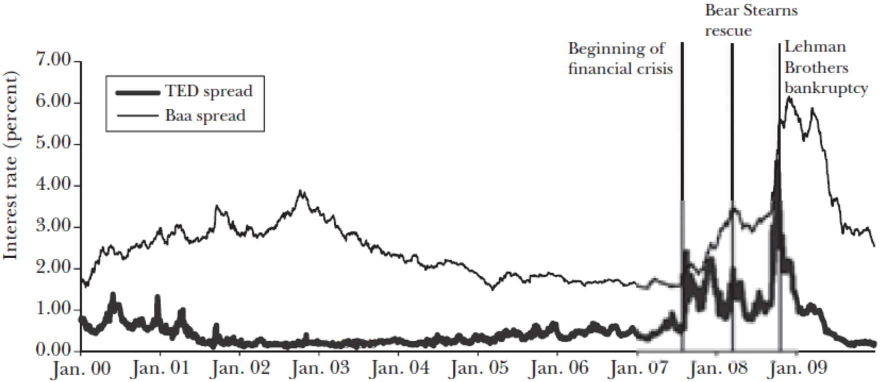
  2. Phase II (15 Sep 08 onwards) – collapse of Lehman Bros.

- Let’s look at these two phases in greater detail...

Background to the Crisis: Phase I

- In the first phase, the bursting of the US house price bubble led to the failure of companies holding mortgage-backed securities
- Increased uncertainty about the state of banks' balance sheets (ie toxic assets) led to a rise in credit spreads for banks and corporations
- This led to a Credit Crunch – high borrowing rates and limited supply of credit. This had important implications for the real economy.

Credit Spreads 2000-2009



Source: Mishkin (2011)

Background to the Crisis: Phase II

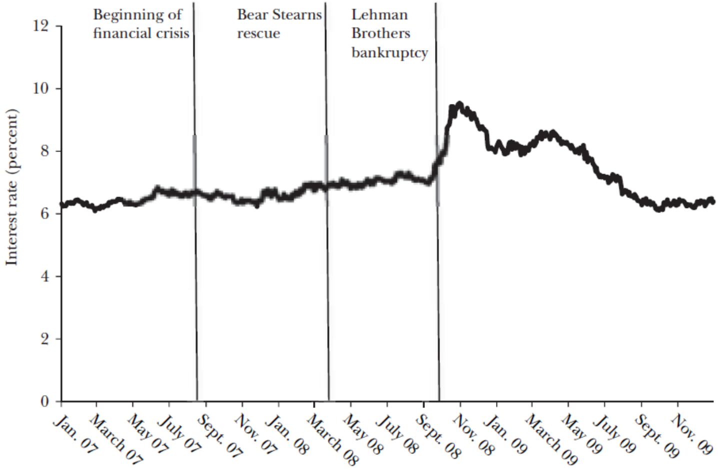
- Total collapse of confidence in the financial system – both stock markets and commerical banking. As a result, there was a 'flight to quality', as seen in the high demand for US Treasury bonds.

- Again, there were important implications for the real economy

- After the Lehman collapse, corporate bond rates rose sharply and bank lending trended downwards. This was due mainly to the perceived increase in the risk of lending.

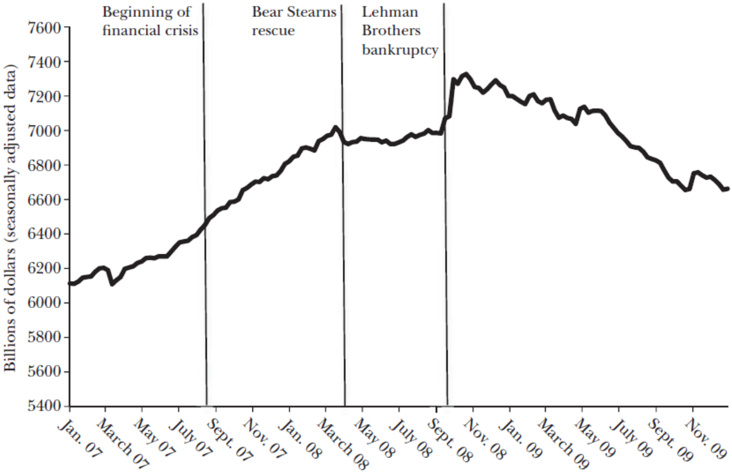
- Moreover, demand for loans fell because low asset prices made it far more difficult to find sufficient collateral

Corporate bond rates 2007-2009



Source: Mishkin (2011)

Bank lending 2007-2009



Source: Mishkin (2011)

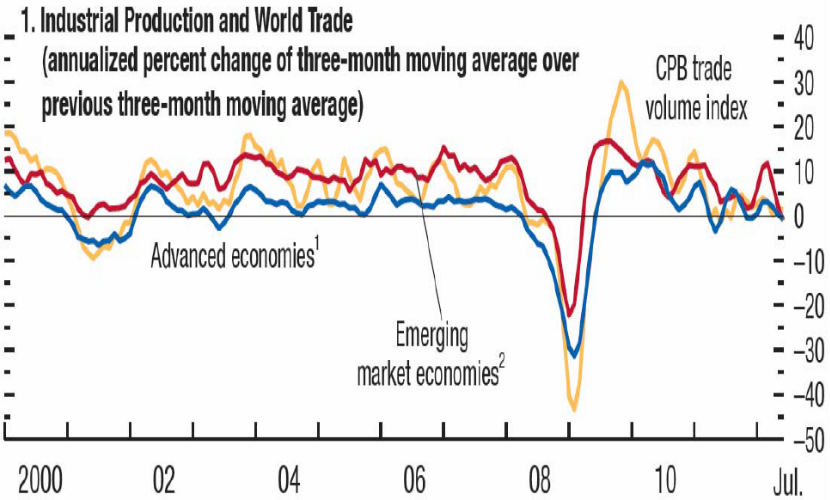
Global consequences of the Crisis

- The effects of the Crisis were quickly transmitted to other economies around the world
- One reason for this is financial globalization – households, businesses and banks own financial assets in foreign economies
- When these assets fell in value, it reduced their net worth and hence ability to borrow, putting the highly indebted in a difficult situation
- The Crisis was also transmitted through more traditional channels such as global trade

Global consequences of the Crisis

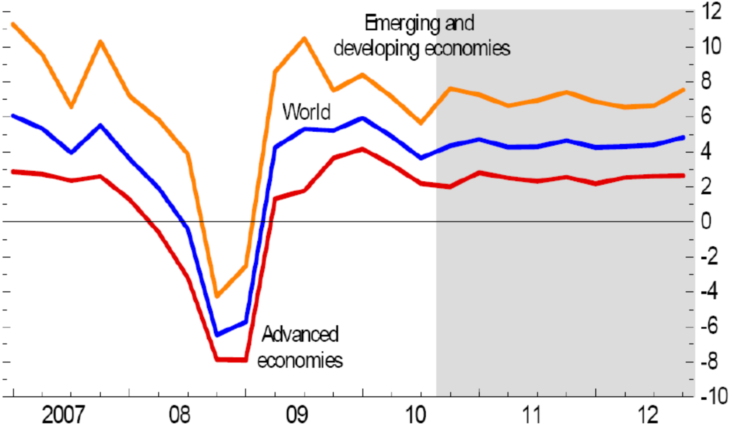
Source: Wolf (2009, FT)

Global consequences of the Crisis: trade



Source: IMF (2012): World Economic Outlook

Global consequences of the Crisis: world GDP growth



Source: IMF (2011): World Economic Outlook Update

Global consequences of the Crisis

- It was mainly the trade channel that transmitted the Crisis to developing and emerging economies with little direct exposure. There were also knock-on effects not felt until much later.
- **Example:** European sovereign debt crisis
- Bailouts, fiscal stimulus packages and lower tax revenues led to a large increase in government indebtedness in Europe
- Concerns about banking sector exposure further increased fear of default in countries such as Greece and Ireland
- Paying high interest rates on government debt due to the fear of default makes the fiscal situation even worse!

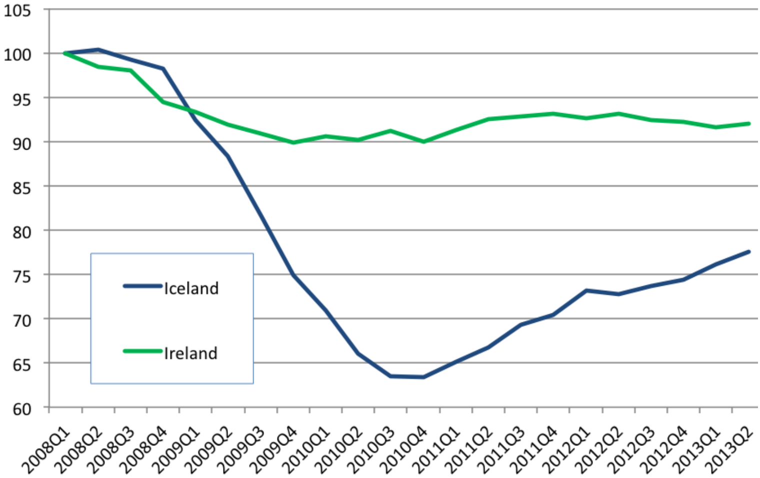
Iceland case study

- Icelandic banks grew rapidly from 2000-2008, financed by borrowing in foreign currencies. They had foreign assets worth 8 times GDP.
- The Icelandic Crown started to collapse when the Crisis hit, because investors were concerned about the solvency of the banking sector
- This made it even harder to repay foreign currency debts
- In Oct 2008, the government took control of three of the largest banks to prevent a major collapse
- Soon after, Iceland became the first western country to receive an IMF emergency financial loan since 1976!

Ireland case study

- The Irish economy had been in a boom since the early 1990s
- Property prices rose dramatically over this period. As a result, Irish banks borrowed heavily from abroad and made property loans.
- When property prices began to fall in the Crisis, the Irish economy went into a deep recession
- Unable to cover its debts with more borrowing, the Irish banking sector had to be 'bailed out' with around 30% of GDP – roughly 5 times the size of the UK bailout
- The result was a 2010 budget deficit of 30.6% of GDP!

Iceland vs Ireland: Real GDP 2008-2013



Source: Howden (2013, IEA website). Index: 2008Q1 = 100.

Canada case study

- Canada was not hit hard by the Crisis – it had no bank failures or bailouts, and its recession was not particularly severe
- Bordo et al. (2011) argue that this was mainly because Canada's banking sector had a single powerful regulator
- Canada's banking system also consists of a small number of large institutions whose size and diversification makes them robust
- By contrast, the US banking system is fragmented – it consists of many small institutions who are more vulnerable to shocks
- The US banking system is policed by numerous regulators, and there is a sizeable shadow banking system that is largely unregulated

Case study conclusions

- The case studies suggest the following lessons:

  1. Countries with banking sector booms driven by debt were particularly vulnerable because asset values collapsed and did not cover liabilities
  2. The larger the banking sector relative to GDP, the more vulnerable the wider economy to a negative shock in the banking sector
  3. The Crisis response is crucial. Ireland had a full-scale bailout and a large increase in government debt. Iceland drew on financial assistance and inflated away debt through double-digit inflation.
  4. Strong banking sector regulation helps and so does diversification

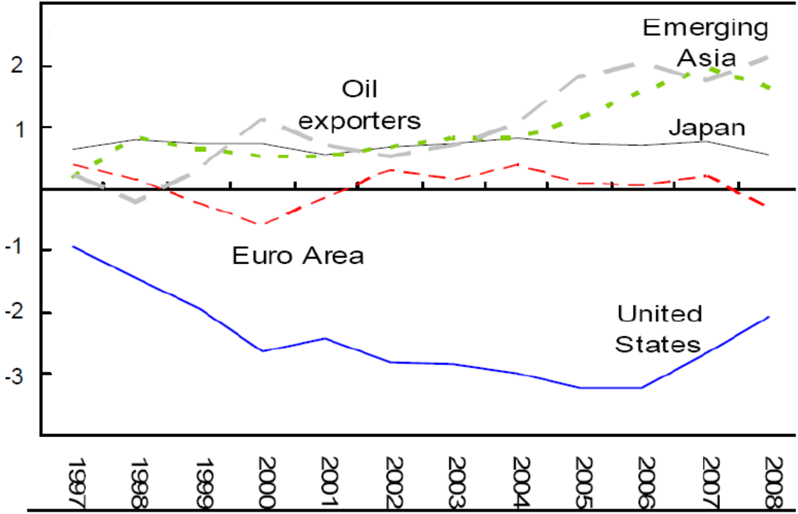
Causes of the Financial Crisis

- Several different explanations have been put forward for the Crisis
- Economists disagree about what single factor was most important, but there is some consensus on the factors that were the major drivers
- The main explanations are as follows:
    1. Global imbalances
    2. Monetary policy
    3. Ineffective regulation
    4. Mispricing of risk and poor incentives

Reason 1: Global imbalances

- The US current account deficit rose from around 1.5% of GDP in 1995 to around 6.5% in 2005
- The increase in the current account deficit was driven by a dramatic fall in the US savings rate
- This appears to have been driven by households' desire for high consumption today, but it also reflects rising government spending at a time when taxes were cut
- The US current account deficit was made possible by increasing current account surpluses in oil-exporting and emerging Asian economies, especially China

Current account balances (% world GDP)



Source: IMF (2009, p. 3)

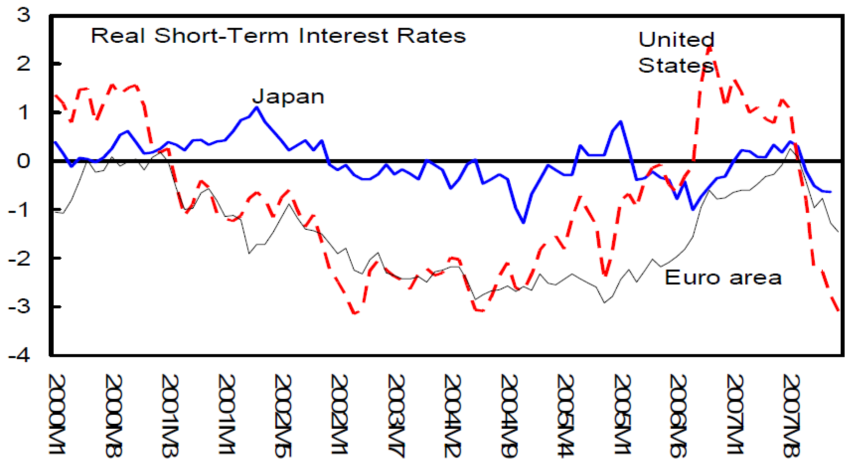
Reason 1: Global imbalances cont'd

- Savings rates were high in emerging economies as they amassed precautionary reserves to deal with ' suddenstops' (Portes,2011)
- Because sudden stops are associated with sharp decreases in GDP and credit, policymakers and international institutions encouraged this
- The apparent shortage of reliable and tradable assets made the US the obvious destination for excess savings. High demand for US assets pushed down longer-term interest rates, leading to a 'search for yield'.
- This encouraged investors to move into riskier assets with higher expected returns, but risk ratings on many assets were not reliable

Reason 2: Monetary policy

- It is argued that monetary policy contributed to the ‘search for yield’, because central bank rates were low in the decade before the Crisis
- In fact, short-term real interest rates appear to have been negative or near zero in the G3 economies (next slide)
- According to this argument, central banks were complacent about the effects that low interest rates would have upon risk-taking
- The defence is that central bank mandates say they should set interest rates based on inflation and output
- Central banks did a good job of meeting their mandated objectives

Short-term real interest rates: G3 economies



Source: IMF (2009, p. 3)

Reason 3: Ineffective regulation

- The IMF argue that deficient regulation was the main culprit
- The charge is that regulators did nothing to prevent the creation of new financial instruments which were riskier than they appeared
- Moreover, widespread use of off-balance-sheet vehicles hid the maturity mismatch of the banking sector from investors, so even the well-informed could not assess the risks!
- In hindsight, regulation should have stopped these practices
- The question now is how regulators should deal with these risks and how much power they should be given

Reason 4: Mispricing of risk and poor incentives

- Banks moved from an 'originate and hold' model to an 'originate and distribute' model
- Banks paid mortgage brokers an upfront fee for each mortgage they arranged, with no penalties if the loan later went into default
- Under this model, brokers had no incentive to refuse mortgage loans likely to default. Many brokers would also have received large bonuses for meeting short run sales targets.
- The bonuses paid to investment bankers in the City and Wall St were enormous, but they rewarded short-term revenues rather than long-term performance

Reason 4: Mispricing of risk and poor incentives cont'd

- There were also issues with pricing of risky securities. Ratings agencies were reponsible for this, but they used a flawed model.
- Basically, the risk ratings attached to securities were far too low, because they assumed that house prices would continue to rise
- The downside risk if house prices fell was extremely large, but this was not priced-in by risk rating agencies
- This led to much higher demand for risky securities than would otherwise have been the case

Policy implications of the Financial Crisis

- There are numerous lessons to be learnt from the Crisis, but we will focus on the following:

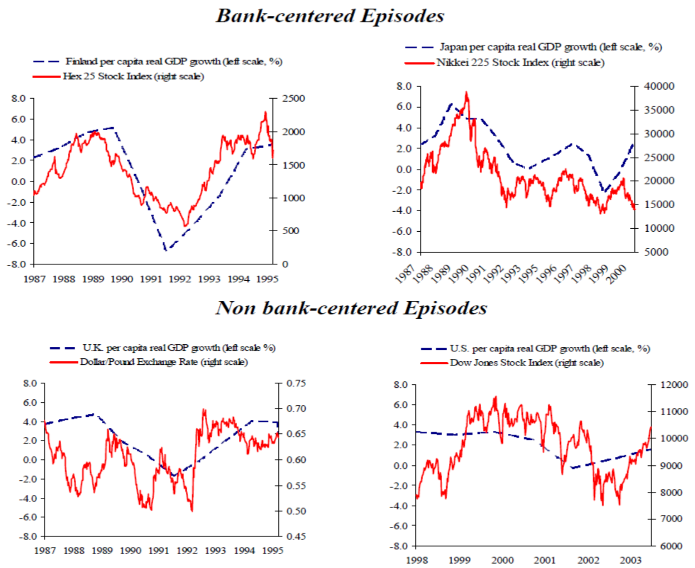
  1. What matters is how the boom is financed and who holds the risk
  2. Monetary policy mandates should include financial stability as well as price stability
  3. Fiscal policy should be more precautionary in booms to leave fiscal space to fight crises

Policy implications of the Financial Crisis

What matters is who holds the risk

- Not all booms end in disaster, so policy needs to distinguish between 'good booms' and 'bad booms'
- If banks and financial intermediaries have substantial involvement in the boom, then major economic disruption is the likely outcome
- Intuitively, substantial involvement and high leverage will increase exposure in a bust, reducing supply of credit and its increasing its cost
- This is an important mechanism by which financial crises are transmitted to the wider economy, including households and firms

GDP growth and financial crises (IMF, 2009)

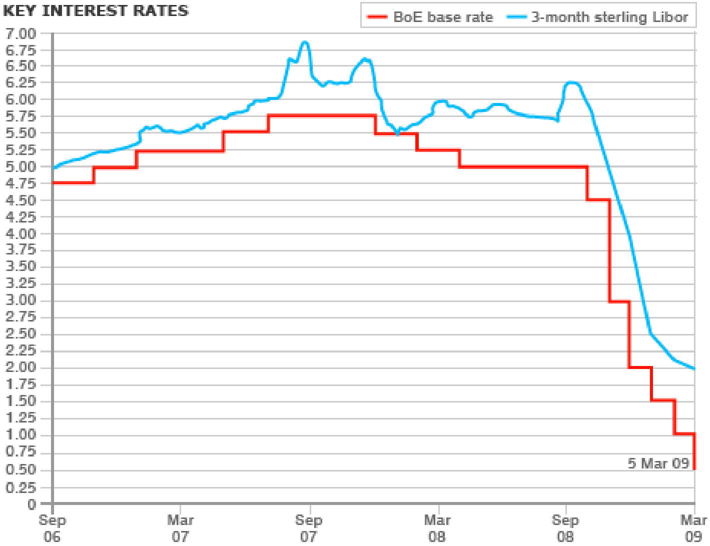


Policy implications of the Financial Crisis

Monetary policy mandates should include financial stability

- Interest rates are a blunt tool in speculative booms and busts
- Denial rates in the subprime mortgage market from 2000-2006 were uncorrelated with the Fed Funds rate
- In the UK, the gap between the Libor and Bank rate increased sharply during the Crisis, and the two rates often moved in opposite directions
- Once interest rates were near the zero lower bound, central banks switched to unconventional policies like quantiative easing (QE)

Libor and Bank rate (BBC, 2009)



Policy implications of the Financial Crisis

Monetary policy mandates should include financial stability

- Many central banks are introducing 'macroprudential' regimes which give them direct powers to remove or reduce risks that threaten financial system stability (see Tucker et al., 2013)
- Two main features of these regimes are banking sector capital requirements and a countercyclical capital buffer
- Aim of the latter is to make banks more able to cope with unexpected losses in a downturn, so that lending conditions are more favourable
- Relaxing banks' capital requirements in an upturn is sensible, but it is important that they remain stringent enough to alter behaviour

Policy implications of the Financial Crisis

Fiscal policy should leave fiscal space to fight crises

- After the Crisis had hit, many central banks soon reduced their policy rates to almost zero, leaving no room for further cuts
- In theory, we still had fiscal policy to stimulate the economy
- But in practice this was not possible, because government debt levels were already high
- In the UK, fiscal stimulus involved cuts in the basic rate of income tax and VAT, but the focus since then has been on austerity

Case study: US fiscal response

- There was a relatively small stimulus under Bush, followed by a much larger \$789b package under Obama in 2009
- This consisted of around 2/3 government expenditure and 1/3 tax cuts. The budget deficit and government debt increased to high levels.

Table 1 – US govt deficit and debt (% GDP)

Year	Deficit	Debt
2007	−2.7	67.2
2008	−6.7	76.1
2009	−13.0	89.9
2010	−10.5	98.5

Source: Pilbeam, Table 18.6 (p. 514)

- This left little room for additional fiscal stimulus in later years

Long-term policy implications

- Global rebalancing

  1. IMF could discourage precautionary saving for sudden stops
  2. Financial development in emerging economies woud reduce fears of sudden stops

- More regulation or better enforcement?

- Better measurement of financial sector activity is needed – and more transparency!

Macro policy and international coordination

- The lessons of the Financial Crisis need to be implemented, but this is easier said than done
- One issue that arises here is that international coordination is necessary to successfully tackle global economic events
- **Eg:** IMF (2009) argues tax systems are biased towards debt financing, because interest payments are tax deductible in many countries
- Addressing this issue at a global level will require international agreement on tax policy, so that companies cannot escape higher interest payments by moving their debts abroad

Macro policy and international coordination (1)

What matters is who holds the risk

- One way to reduce the build up of risk in the financial sector would be to impose stricter capital requirements on banks
- This has been agreed as part of the Basel III rules, which are to be phased in by 27 major economies
- However, implementation was delayed in several major economies, including the UK, US and Russia
- This is due to the difficulties in getting many countries to comply with the same set of rules in a short time, and the IMF has expressed concerns that the rules won't be applied evenly across countries

Macro policy and international coordination (1) cont'd

- International coordination on banking standards is crucial to prevent banks in one economy exposing other economies to excessive risk

- This is reflected in the creation of an independent European Banking Authority (EBA) to oversee banking regulation in EU countries

- Agreement is difficult because individual countries do not want to risk putting their financial sectors at a competitive disadvantage

Macro policy and international coordination (2)

Monetary policy mandates should include financial stability

- An example of international coordination of monetary policy is 8 Oct 2008, when 6 different central banks cut interest rates simultaneously
- Giving monetary policy a mandate for financial stability will require considerable international coordination given the global nature of banking and finance
- In the UK, the Financial Policy Committee (FPC) will implement macroprudential policy
- France and Germany are creating macroprudential bodies in response to recommendations by the European Systemic Risk Board (ESRB)

Macro policy and international coordination (3)

Fiscal policy should leave fiscal space to fight crises

- In monetary unions, member states cannot set their own interest rates
- As a result, national fiscal policies becomes even more important – as does the need for international coordination of fiscal policy
- In the Eurozone, the Stability and Growth Pact (SGP) and the Fiscal Compact reflect this need
- The SGP failed – it was not adhered to and did not leave enough leeway for stimulatory fiscal policy in the Crisis. It also failed to prevent the Eurozone sovereign debt crisis.

Macro policy and international coordination: a summary

- The above examples above illustrate how international coordination can be beneficial, and how failure to do so can be disastrous
- The global nature of banking and finance have made international coordination even more important, as highlighted by the Crisis
- Unfortunately, it is a difficult and time-consuming process to get different countries to agree jointly upon policy actions or regulation
- However, the no-coordination case brings its own difficulties:
    1. The possibility of retaliatory policies
    2. Increased uncertainty about other countries' policies and outcomes

Next time...

- Monetary Union
- We will study economic theories which are helpful for deciding whether a country should enter into a monetary union
- We will also consider some real-world examples – EMU and Scottish Independence
- **Advance reading:**

1. Pilbeam Ch. 16.11 to 16.13
2. Pilbeam Ch. 16.18 to 16.20