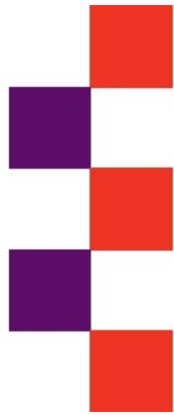

University of Essex

**EC 247-5-AU: FINANCIAL ISTRUMENTS AND CAPITAL MARKETS**

**TOPIC 3:In view of the financial crisis in 2007 critically assess the increased need for regulating the financial markets. Discuss the underlying framework under which an efficient regulation of the financial system should be based.**

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# FINANCIAL CRISIS AND REGULATION: SOME REFLECTIONS

## 1. Introduction

The financial crisis began in the autumn of 2007 and it has since evolved with its duration to be still unknown. It's the most severe financial crisis that the world has experienced since the Great Depression of the 1930s. What is certain is that the consequences of the crisis have been devastating and policy makers have had to re-assess policy response in different fronts, ranging from monetary and fiscal policy to financial regulation and supervision. Many countries face a large decline in investment and output as well as increased unemployment. In the Eurozone, in particular, the financial crisis took has turned into sovereign debt crisis threatening the existence of the euro. The fiscal and monetary policy response to this multidimensional crisis has been unprecedented. Central banks around the globe have reduced interest rates to very low levels and have taken unconventional monetary measures in an effort to combat deflation and deleveraging. Monitoring, supervision as well the structure of the financial sectors around the globe is dramatically changing (see for example UK Independent Commission on Banking, 2011, USA Financial Crisis Inquiry Commission, 2011)

The literature on financial crises and regulation is vast (see, for example Davies 2008, and Masciandaro et al, 2011) as can been seen from Tables 1 and 2 in the Appendix. The scope of this paper is mainly to examine and assess the increased need for regulating the financial markets in order to lower the probability of future financial crises. Section 2 begins by exploring the possible causes of the crisis.

Armed with this information we proceed in section 3 to asses and evaluate some of the suggestions put forward to strengthen financial stability. This paper ends with a conclusion summarizing the highlights of the most important aspects of financial crisis and some thoughts about the way forward.

## 2. The causes of the crisis

The current financial crisis is the result of many contributing factors. As the crisis is still evolving, its dimensions and implications cannot fully be grasped and certainly will be the subject for debate and investigation for many years. However, the prevalent view seems to be that the crisis is the result of a lethal cocktail of unsustainable macroeconomic imbalances, financial innovation, weak financial governance and structure (Levine, 2011, Acharya, 2009,Turner, 2009, Clerides and Stefanou, 2009). We briefly turn now our attention to the first two while the third is left to be addressed in section 3.

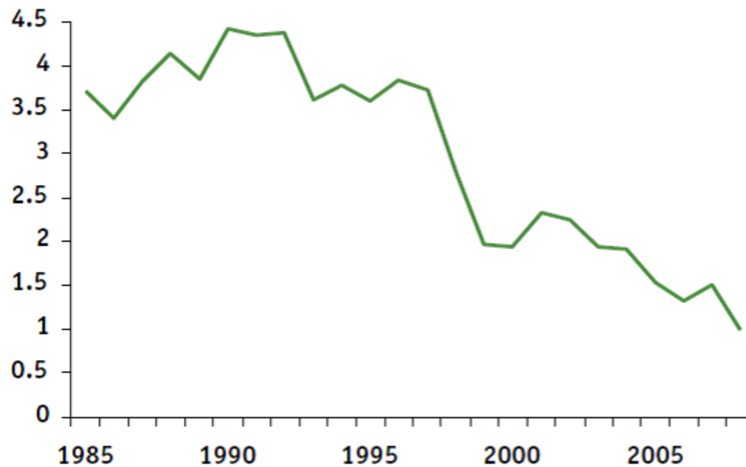
### Macroeconomic Imbalances

During the period 2003-2007,the USA, UK and Spain, among other countries, had registered large current account deficits while oil-exporting countries and some countries in Asia had large current account surpluses. Surpluses in the current account implied that high savings exceeded domestic investment and so money flew into deficit countries[1]. These funds were used to buy foreign assets such as bonds, houses and estate. The liquidity glut drove asset prices to very high levels and interest rates to historically low levels. As it can been seen from the graph an

[1] Gieve (2009) states that the national saving rate exceeded 50% of GDP in China.

investor could invest in a UK government bond in 1990 at a yield to maturity of 3% and for the last five years the yield has been less than 2%. (FSA 2009 p.13)

**Exhibit 1.3: UK real interest rates (20 year bonds, yield at May 25 or nearest week day)**




**Note:** For the years 1985, 86, 89, 90 and 91 no 20-year-yield is precisely available; the longest available yield (in range 16-19 years) is shown

Source: Bank of England Real Yield curve calculations

The enormous reduction in interest rates contributed to the substantial credit expansion and increases in house prices in many developed and emerging economies. As the price of houses increased rapidly, mortgage banks wanted to offer to customers more attractive loans, especially to people with low income. In the US aggressive credit growth along with government policies to promote homeownership for the low income resulted in credit expansion reaching the historical high of 11% and homeownership went up by 10% during the period 2002-2007 (Acharya 2009).

## Financial Innovation

Financial innovation is sited as another major reason for feeding the crisis. Financial innovation is, by its nature, new and untested and therefore potentially dangerous. The dangerous were ignored by market participants in the case of mortgage backed securities (FCICR, 2011). Credit expansion was further fed by the relaxation of strict mortgage loan requirements as institutions held the implicit belief that the Federal Reserve would make up of any losses incurred. (Mirron, 2009). So banks were extending loans even to people with inadequate financial funds. In an effort to hedge against risk, banks converted those risky loans into innovative financial products, a process known as securitization[2]. Securitization permitted banks to remove from their balance sheets risky assets with the recipients of these securities assuming the risk. According to Caprio (2009, page11) "*the complex nature of securitization, combined with the growth of off-balance-sheet Structural Investment Vehicles (SIVs), which were invented to evade regulatory requirements, then contributed to a serious deterioration in the quality of information that was available*" . Everyone concerned, i.e. policy makers, investors, and the public ignored the risks of securitization, which recorded phenomenal growth rates; US mortgages that securitized rose from zero in 1952 to 60% in 2008 (Caprio 2009). Added to this frenzy were the two mortgage lenders Freddie and Fannie which bought almost any security back mortgage.

The ''originate-to-distribute'' model was the most important model of securitization that contributed to the financial crisis. Generally, the mortgage to be sold must be assessed by a second party, a mortgage broker. Unfortunately, with this model banks were not so strict when deciding who to lend to since they had little incentive

[2] A Securitization is a financial transaction in which assets are pooled and securities representing interests in the pool are issued

to ensure that the mortgage was a good credit risk. In the past, lenders had avoided granting unsound loans since such loans would have stayed in their portfolios. With securitization it was not clear who the lender was. The only certain thing is more loans meant more profit for everyone in the loop[3]. Mortgage lenders were presenting their loans as the best that investors could obtain knowing that this was not true. They took advantage of investors ignorance and used what is known as ''local thinking'' when they were buying securities. Investors may not have actually understood what they were buying. Lenders often failed to even inform mortgage customers of all available loans, some of which had lower rates. Many studies have documented this reduction in loan quality as a result of securitization, e.g Dell'Ariccia, Igan, and Laeven (2008); Mian and Sufi; Berndt and Gupta (2008); and Keys, Mukherjee, Seru, and Vig (2008).

As long housing prices where on the rise all seemed well. When it became apparent that the housing market was exhausted and investors realised the huge risk they were facing, they revised downwards their expectations for the new securities and tried to sell them back in the market. Following the collapse of the housing market, risky securities defaulted and investors confidence further eroded. Banks became illiquid and the collapse of Lehman brothers initiated the process of flight to quality and deleveraging in the USA, with the crisis soon spreading in the rest of the world.

[3] For a detailed account of the rise of securitization in the USA before the crisis see FCICR (2011)

## 3. Macro prudential policies and financial regulation

The global financial crisis has highlighted key policy challenges and financial inefficiencies. In the policy sphere the inability of central bankers to successfully manage the economic downturn sparked an extensive debate about the design of monetary policy with some economists (e.g. Krugman, 2009) advocating the complete overhaul of monetary policy. While the extent of interaction and coordination between monetary and macro prudential policies is still being heavily debated, as a result of the financial crisis, macro prudential policy has received elevated status. Policy makers now recognised that a macro element should be added to the micro supervision and monitoring[4].

As we have explained in section 2 macroeconomic imbalances played an important role in the financial crisis. Macro elements needs to be carefully analysed to identify and correct those imbalances. Turner (2009) has stated that it was not insufficient supervision that caused the financial crisis in the UK but rather the failure of the authorities to piece together the large UK current account deficit, rapid credit expansion, house price rises and the purchase of UK mortgage-backed securities by US institutions. To ensure financial stability macro prudential policy should monitor a variety of risks such as credit, liquidity, market, macro and contagion.

Institutional arrangements can also play a significant role in early detection a crisis. Central banks are focused primarily on price and financial stability whereas financial regulators such as the FSA, concentrate on individual institutions. If central banks and financial regulators had shared insights from macro, sector wide and firm-

[4] For lessons from the crisis on monetary policy strategy see Orphanides (2011)

specific analysis, and brought about coordinated actions, the crisis may have been avoided. A characteristic example is the Northern Rock episode where the Bank of England was reportedly unaware about the state of the bank and failed to take timely action (FSA 2009).

While banks play an important role in financial markets by reducing both the moral hazard and adverse selection problem, and therefore channel funds towards the most productive investment, they create a new type of asymmetric information that the depositors do not have sufficient information about the management actions. Micro-prudential analysis and regulation is, therefore, needed to mitigate the asymmetric information problem faced by depositors. Orphanides (2009), among others, argues that higher capital and liquidity requirements would strengthen the resilience of credit institutions to withstand shocks. The Basel Committee on Banking Supervision has put forward a number of proposals to improve the quality and transparency of bank capital and liquidity. Specifically, introducing core capital Tier I and countercyclical capital buffers and quantitative liquidity ratios, in particular for potentially volatile liabilities such as foreign currency deposits, are contemplated as well. A major change in micro-prudential regulation is the increase in the quality and quantity of overall capital in the global banking system by introducing higher capital requirements. One of the proposals is to tie capital requirements to the bank's growth of assets, i.e the capital ratio should rise in good times when there is asset accumulation while in bad times when the bank's assets fall the ratio should decrease as well. This proposal for countercyclical capital buffers is in sharp contrast with the experience before the crisis when banks did not have sufficient capital.

However, it must be stressed that though capital buffers help banks to absorb shocks there is a price to be paid. Buffers tend to lower the return on equity and

therefore higher capital requirements are costly for the financial institutions to since it reduces liquidity for them but it helps them to be able to absorb shocks.

Another back-stop control measure is the use of the gross leverage ratio. Leverage allows a financial institution to increase the potential gains or losses on a position or investment beyond what would be possible through a direct investment of its own funds. One of the advantages of the gross leverage ratio is the limitation of balance sheet size. Banks desire to increase their return on equity by accumulating more assets and as a result they engage in leveraging. The Leverage ratio can be used as a buffer. What we learnt from the current crisis is that well capitalised institutions can be easily transformed to poorly glut ones capitalised. Another benefit of the ratio is the reduction of regulatory arbitrage. According to Orphanides (2009):

*''The risk-sensitive nature of Basel II can result in the perverse incentive to structure products in order to obtain a high credit rating, so that they qualify for a lower prudential capital requirement. When this incentive is collectively exploited, the system is likely to end up with high concentrations of structured exposures attracting low prudential capital requirements. The prescription of a minimum leverage ratio, among other measures, can dampen such an incentive.''*

The global dimension of the financial turmoil, as amply demonstrated by the collapse of Lehman Brothers, is another area where have been major source of problems. The financial crisis has highlighted the lack of harmonisation and coordination in accounting, regulation and supervision, even within common currency areas such as the United States and the European Union (Orphanides 2009). A number of different internationally foras, such as Financial Stability Forum, the G-20, and the

European Systemic Risk Board (ESRB) are working towards improving the deficiencies of the prevailing arrangements.

So far we have discussed the need for increased regulation as a major step in preventing future financial crisis. Not everybody agrees with this path. Meltzer (2009), among others, believes that deregulation did not cause the financial crisis. According to him the root of the crisis can be traced to the monetary policy followed by FED which kept interest rates too low for too long. He also proposes closing down of Fannie Mae and Freddie Mac and getting rid some of the Basel Capital standards.

## 4. Summary and the way forward

The financial crisis has had devastating effects extend beyond the financial sectors and national boundaries and threatens the existence of sovereign states and economic areas such as the Eurozone. The causes of the crisis are still under scrutiny while conventional fiscal and monetary policies are being re-examined. This paper shows that macro prudential policies are receiving a lot of attention mainly as a tool for an early detection of macroeconomic imbalances, which are considered to have played a major role in the crisis. But regulation and supervision as well as the overall financial architecture and governance are also subject to intense efforts to improve their effectiveness and avoid, if possible, another financial crisis of this scale. Some of the regulation measures examined in this paper involve higher and better quality of capital. Countercyclical capital buffers are desirable as is the introduction of liquidity and leverage ratios. Flaws in the financial architecture need to also be addressed while we need to step up efforts for better coordination of cross

border supervision. Gieve (2009) states : *''This can be achieved by planning and handling a much stronger cross border crisis planning between the countries''*. A note of caution on regulation however is warranted. Policy makers should not push for overregulation that could be counterproductive. Rather they should aim to strengthen financial regulation through simple and transparent rules.

# Appendix

## *Table 1*

Proposals addressing supervisory failure

| Author(s) | Proposed measures |
|---|---|
| Caprio et al (2008) | Oversight should be more "adaptive" to changes (innovations) and supervisors should be held accountable for their adaptiveness<br>Regulators should disclose information on the value and measurement of potential claims that institutions make on the government's safety net.<br>Establishing right incentive structure for supervisors requires a chain of reforms (see p. 49 – 55) |
| Claessens et al. (2010) | Mitigation of systemic risks should be recognized as an explicit objective of all agencies involved in supervision in order to enhance accountability<br>Clear mandates and tools commensurate with these mandates in order to preserve financial stability<br>Sufficient resources<br>Clear allocation of responsibilities among agencies<br>Clear communications among agencies |
| de la Torre and Ize (2009) | Regarding innovation and uncertainty in the financial system, the supervisor needs to play an enlightened role. To keep financial innovation under control, the supervisor can no longer be a cop, but must be half scout, half moderator working in close contact and cooperation with supervised institutions and markets. This requires strong and independent supervisory agencies, populated by highly skilled civil servants. |
| Enriques and Hertig (2010) | Strengthening internal and external governance of supervisors:<br>• Strong CEO's with boards and commissions' powers limited to basic policy-making decisions and monitoring<br>• Increased line responsibilities for staff<br>• Subjecting supervisors to stronger disclosure requirements Increased line responsibilities for staff |
| FSA (The Turner Review) (2009) | Need for more intrusive supervision, more outcomes-oriented supervision, more risk-based supervision<br>Need for more "systemic" supervision<br>Need for international coordination of supervision |
| Brunnemeier et al (2009) | Need for more "prompt corrective action"-type of rules in order to facilitate "leaning against the wind" |
| Palmer and Cerutti (2009) | "Summoning the Will to Act" by:<br>• More leaning against the wind<br>• Strengthening the context of supervision (independence, leadership, accountability)<br>• Strengthening supervisory processes by making them more (i) intensive, (ii) result-oriented, (iii) risk-based, and (iv) proactive.<br>• Strengthening macro-prudential surveillance and mitigating pro-cyclicality<br>• Improving cross-border supervisory cooperation |
| Tabellini (2008) | Organization of supervision at the European level in order to overcome the deficiencies inherent in supervision at the national level. |
| Viñals et al (2010) | More intrusive supervision<br>Skeptical but proactive supervision<br>Comprehensive<br>Adaptive<br>Conclusive<br>Through: (i) enabling legislation and budgetary resources; (ii) clear strategy; (iii) robust internal organization; (iv) effective coordination with other agencies;<br>To be created through (i) clear mandate; (ii) independence and accountability; (iii) skilled staff; (iv) healthy relationship with industry; and (v) partnership with board. |
| Weder di Mauro (2009) | More independence and accountability for supervisors to address time-inconsistency issues<br>Higher compensation levels for supervisors<br>Supervision at supranational levels (Europe) to eliminate local industry capture |
| Wellinck (2011) | Need for "Intrusive supervision" |

## *Table 2*

What selected authors say about failures in the supervisory architecture and supervisory governance

| **On supervisory architecture** | |
|---|---|
| Buiter (2209) | Coordination failures - Central bank had not enough info on the state of the banking system (UK specific) - |
| Cecchetti (2008) | Supervision should be inside the central banks: the crisis showed that the separation between supervisors and the provider of liquidity to the system placed additional stress on the system |
| Claessens et al. (2010) | Lack of coordination among supervisors at the national and international level<br>Lack of attention to systemic risks (no agency to monitor systemic risks) |
| de Larosiere et al. (2009) | Supranational level of supervision in Europe is not adequately structured to catch cross-border issues |
| Leijonhufvud. (2009) | Fragmented US supervisory structure was not capable of monitoring the integrated, interconnected and complex reality of US financial markets |
| **On supervisory governance** | |
| Buiter (2008) | Regulatory capture (FED in particular)<br>Cognitive regulatory capture (by Wall Street) |
| Caprio et al (2008) | Contradicting political and bureaucratic incentives for supervisors<br>Deficient oversight<br>Not enough accountability for supervisors |
| Claessens et al. (2010) | Lack of supervisory resources<br>Lack of attention to systemic risks |
| de Larosiere et al. (2009) | Supervisors did not insist enough on getting information on systemic linkages<br>Inadequate processes and practices for challenging supervisory decisions in a cross-border setting (EU specific)<br>Lack of frankness and cooperation among supervisors<br>Uneven powers of supervisors across countries |
| Enriques and Hertig (2010) | Deficiencies in governance of supervisors |
| FSA (The Turner Review) (2009) | Supervision focused too much on individual banks, not on systemic risks<br>Deficiencies in internal processes, management discipline and supervisory skills<br>Deficiencies in supervision of cross-border banking |
| Palmer and Cerutti (2009) | Different policy choices in balancing innovation and soundness<br>The "madness of crowds"<br>Political and market pressure on supervisors<br>A "race to the bottom" among supervisors to create institution-friendly regimes<br>Weak supervisory governance models and inadequate mandates<br>Weak supervisory cultures, along with inappropriate incentives within supervisory bodies<br>An inadequate understanding within supervisory agencies of financial institutions and what drives their behaviors<br>Inadequate supervisory/central bank mandates and "tripartite" arrangements<br>Sub-optimal cooperation among supervisory bodies and ineffective consolidated supervision of large financial groups<br>Absence of real, on-site supervision in some supervisory agencies |
| Tabellini (2008) | Bureaucratic inertia<br>Poor judgment by supervisors<br>Distorted incentives |
| Viñals et al (2010) | Supervisors constrained by regulatory framework<br>Staying on sidelines and not intruding enough<br>Not being proactive in dealing with emerging risks<br>Not being comprehensive in scope<br>Not taking matters to their conclusion |
| Weder di Mauro (2009) | "huge incentive problems":<br>• Supervisors typically do not enjoy the same degree of independence as central banks<br>• Supervisors (with the exception of the FDIC) do not put the capital of their own institution at risk<br>• Incentive for forbearance (the "not on my watch" syndrome)<br>• Supervisors have tendency to protect the local industry or secure a competitive edge for local industry over other financial centers |

*SOURCE Maschiandaro et al 2011*

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