Pénzügyi műhelytanulmányok

6

András Póra

Implications of the Financial Crisis on EU Retail Banking

Budapesti Műszaki és Gazdaságtudományi Egyetem
Gazdaság- és Társadalomtudományi Kar
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Implications of the Financial Crisis on EU Retail Banking

The paper examines the possible implications of the ongoing crisis (2007-2009) on EU retail banking business. After an explanation of the origins of the crisis, the paper compares the ongoing crisis with the Great Depression from the macro and microeconomic side by using stylized facts. Although the depth of the crisis was similar to the Great Depression, the quick and determined joint actions of the fiscal and monetary authorities in the world seem to prevent the same outcomes. From the microeconomic point of view, the crisis is very similar to the Great Depression, although this banking panic was “wholesale” in spite of the retail banking panic in the 30’s. As a consequence of the crisis, the regulatory burden will increase, the paper evaluate the current regulatory suggestions and their business effects: increasing capital buffers, costs and lowering rates of returns. The short term strategic and operative implications show some kind of return to the core-banking business. The medium term will impose some challenges to large international banks – these challenges will be organizational and activity based as well (funding). In the long run, big universal banks with good deposit gathering capabilities and efficient operations could be the winners of this period, partially by moving East for the higher returns.

1. Overview of the financial crisis

1.1. Origins

The earliest signs of the crisis appeared in February 2007. **The leading mortgage CDS ABX indices decreased relevantly, following the deterioration in the subprime loans**. On the 27th of February 2007, the Federal Home Loan Mortgage Corporation (Freddie Mac) announced that it will no longer buy the most risky subprime mortgages and mortgage-related securities. The first SEC filing of a Chapter 11 was on April 2nd: the New Century Financial Corporation (a leading subprime mortgage lender) requested bankruptcy protection. Even if **the situation was relatively stable until the summer of 2007**[1], the repeated rating downgrades (from June) launched the events which have led to **the greatest global economic crisis after the Great Depression**. But what were the causes? How could the bursting of the U.S. mortgage bubble almost blow away the world economy's structure?

The causes of the crisis are usually divided into **two groups**: **macroeconomic and the microeconomic**[2]. We can say that the long-term macroeconomic environment, and the necessary financial development, innovation and culture determined the microeconomic circumstances – so **the so-called "prologue"[3] is the evolution of the world economy over the previous 10 to 15 years.**

Macroeconomic

The two main macroeconomic causes are: the problems related to the **global imbalances and the low-interest rate environment**, especially in the U.S. Before the start of the crisis, in the period of the **"Great Moderation"[4]** (1993-2007), a period of relative tranquility**.** The economic environment was calm, fuelled by the savings of big Asian countries (China, Japan, Korea) and the oil exporting countries (sovereign wealth funds) – the "creditor nations". The phenomenon is also called a **„Global Saving Glut"[5]**. This wealth was flowing towards the most secure instruments, which were the government bonds of the western countries (especially the U.S. – the "debtor nations"), helping to keep long-term interest rates low. Thus we have creditor

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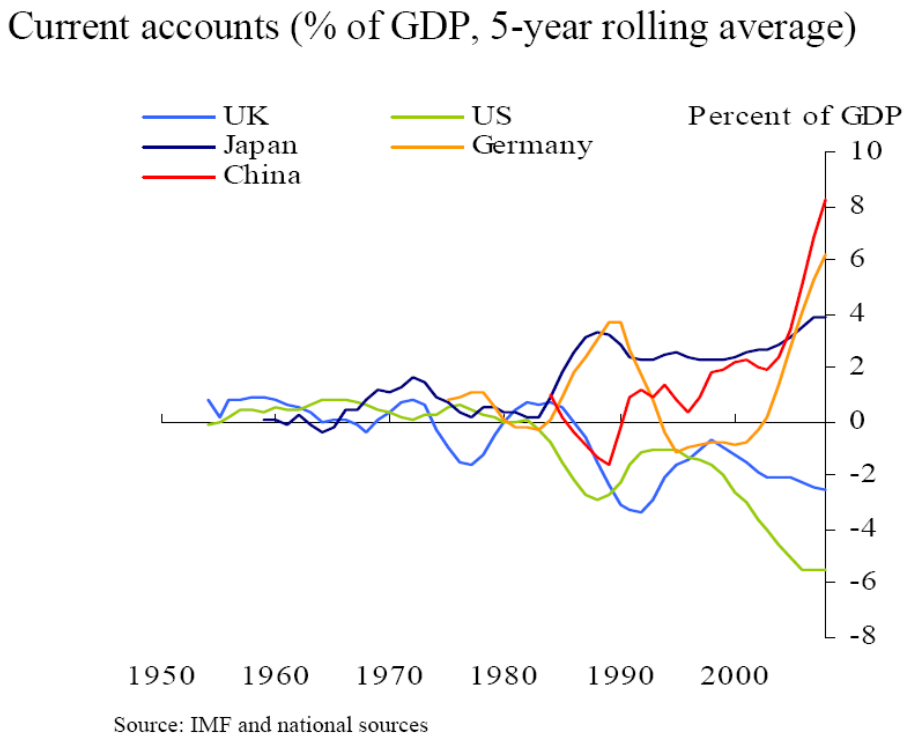
[1] BIS (2009)
[2] BIS (2009)
[3] Király–Nagy–Szabó (2008)
[4] Bean (2009)
[5] Bean (2009)

nations financing and supplying products to the debtor nations, which caused severe macroeconomic hardships (which showed up in severe imbalances) for the “debtors”, e.g., high current account deficit. At the same time, the creditors were accumulating foreign reserves mainly in US dollars.

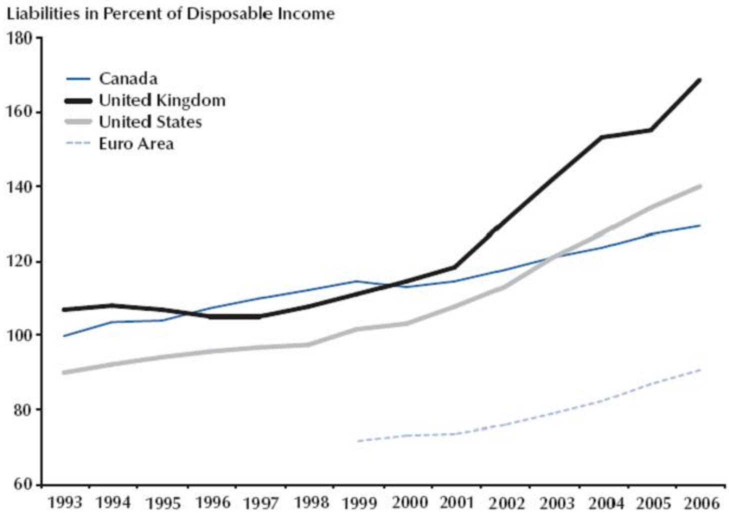


Source: Bean (2009)

On the other hand, **excessive liquidity** helped to maintain the high consumption/spending rate of the “debtor nations”, with relatively cheap loans. Since investors were always interested in higher returns, they started to go after yields **(„hunt for yield”[6])** – thus the investment patterns became more and more risk- and leverage-sensitive. The **excessive and cheap liquidity** provided by the financial system[7] –in the form of **low long-term interest rates**, and the **permanent need for higher yields** were the prerequisites for the microeconomic side of the debate[8] (creating the basis for the microeconomic imbalances).

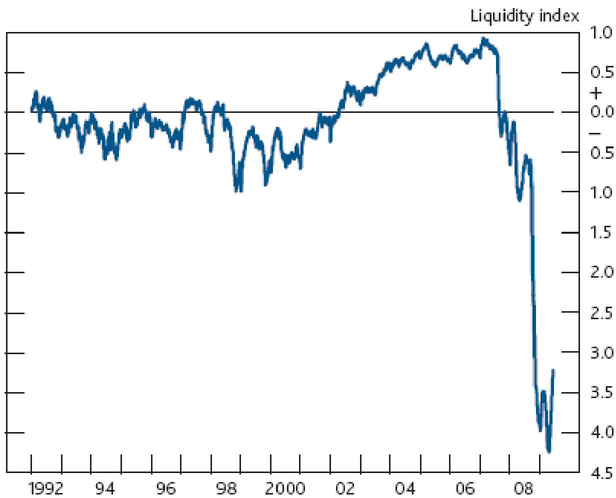
[6] Király–Nagy–Szabó (2008)
[7] Mizen (2009)
[8] Bordo (2008)

Debt to Income Ratios



Source: Bean (2009)

Liquidity index during the Great Moderation



Sources: Bank of England, Bloomberg, Chicago Board Options Exchange, Debt Management Office, London Stock Exchange, Merrill Lynch, Thomson Datastream and Bank calculations.

(a) The liquidity index shows the number of standard deviations from the mean. It is a simple unweighted average of nine liquidity measures, normalised on the period 1999–2004. The series shown is an exponentially weighted moving average. The indicator is more reliable after 1997, as it is based on a greater number of underlying measures.

Source: Haldane (2009)

On the macroeconomic side it is useful to mention the **debate in monetary policy of the U.S. over the past 10 years**. In fact, a relevant part of the economic community is blaming the Federal Reserve (FED[9]) for not acknowledging the need for monetary tightening – this (together, with the **problems of the current economic theory, e.g. the rational markets theory**) might be even thought of as a microeconomic cause.

Microeconomic

This environment fuelled very strong growth in lending which was directed towards debtors with poor credit quality.[10] This eventually led to the emergence of the subprime crisis. **The microeconomic causes[11, 12] were:**

- the failure of the prevailing banking business model (originate-and-distribute: OAD);
- the inadequate risk management practices;
- the wrong incentives (and corporate governance failures);
- the flawed regulation (business and product) and inadequate supervision (included credit rating agencies); and
- crisis management failures.

The OAD model was the revolution in the banking industry during the '90s: it is put forth and blamed by many papers for the crisis nowadays (see Appendix 1), although **in the pre-crisis years it was acclaimed by the profession for "distributing the risks" of the system**. Indeed, it blurred the relationship between lender and borrower[13]. In reality the OAD model needed two vital pre-requisites: 1) the available and cheap liquidity for funding the system, especially the leverage and 2) the proper ratings (from Credit Rating Agencies, CRAs)) for the correct pricing of the instruments. **When the confidence in the ratings (and consequently, in the prices) and the liquidity disappeared, the system collapsed.**[14]

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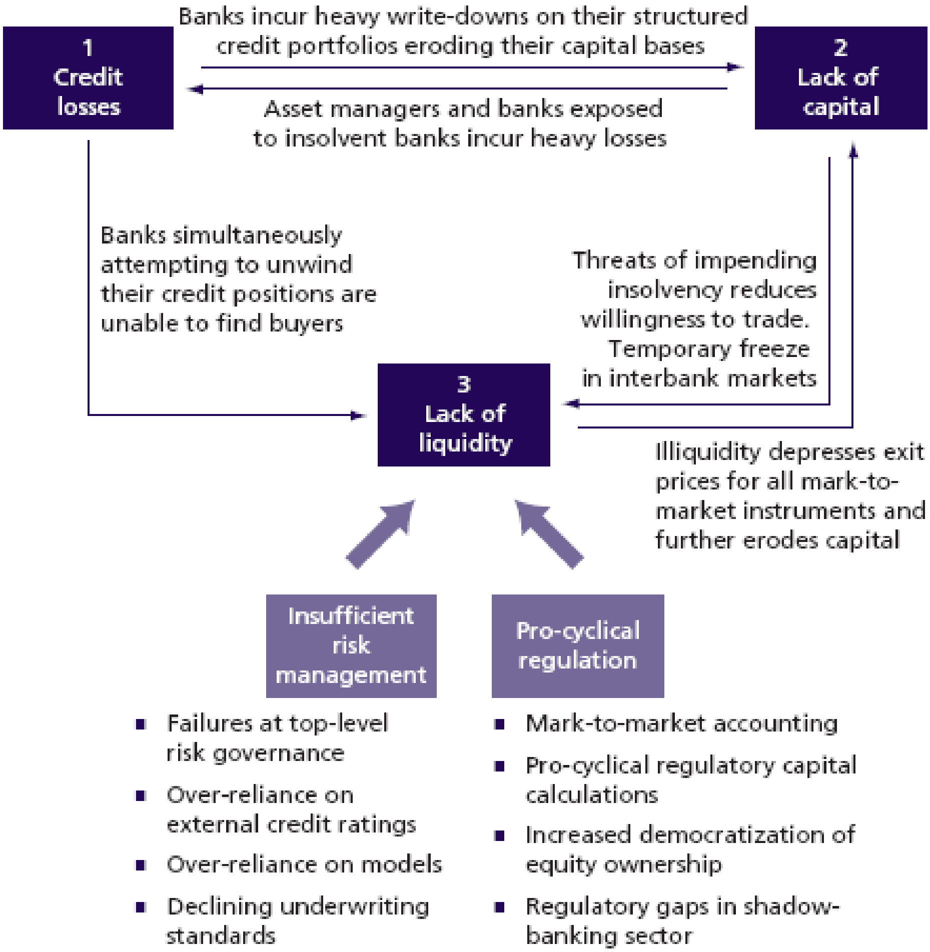
[9] Whalen (2008)
[10] Vértesy (2008a)
[11] BIS (2009)
[12] Bank of England (2009)
[13] Király–Nagy–Szabó (2008)
[14] FSA (2009)

Three concurrent crises (Oliver Wyman (2009))



Source: Oliver Wyman (2009)

Measuring, pricing and monitoring the risk were performed using modern statistical tools, which were based on historical data. **After the "Great Moderation", all the models were distorted, since these were not really "through-the-cycle" models, because nobody has seen the end of the cycle**. The models did not really handle the problem of the "tail events" and the normal distribution Value-At-Risk (furthermore not even the most modern tool available) was inadequate to measure the real risks[15]. The stress-tests were usually based on unsuitable assumptions, because the previous period

[15] BIS (2009)

was unusually calm. **These problems were known, but still not really incorporated ("underpriced") in the economic capital calculations[16].**

The **new, complex instruments** were hard to understand and install into the risk management systems. Moreover **in the OAD model, the risk were sometimes somewhere other than were the risk managers thought** – e.g. in the end the dispersion of the risk was not greater, but lower than the expected.

The majority of the risk indeed, remained in the financial system[17], because the investors of the OAD model were other financial service providers. This led to the creation of the **"shadow banking system"[18]** (see Section 1.3.), which was not transparent, hardly understandable (for management), not monitored, supervised or insured by the state authorities.

Another problem was that the **pricing was based on the CRA's ratings**, **which underpriced the risks[19]**, the reason why the downgrades in the summer of 2007 affected the whole system so seriously. The problem was partially related to corporate governance issues, yet the **risk management practices were also not adequately embedded into the corporate governance system**.[20]

The directors and senior managers **not always and not really understood** the practices and the implications of the results of the risk reports. Moreover, often, the risk officers did not have enough power to influence the decision makers. Thus the corporate strategies did not contain asset quality requirements.

There were even some problems with the identification of the risks, because **the systems were rooted on the basis of the infinitely available funding[21] (sources), without taking into consideration the liquidity risks.** The counterparty credit risk and the liquidity risk were underestimated: **no bank expected the totally frozen inter-bank markets[22].**

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[16] HM Treasury (2009)
[17] BIS (2009)
[18] McCulley (2009)
[19] FSA (2009)
[20] HM Treasury (2009)
[21] FSA (2009)
[22] Buiter (2009)

All-in-all the risk management system overestimated the institutions' ability to manage the risks and underestimated the capital required against the crisis[23] – this was the path from the liquidity crisis to the solvency troubles (liquidity problems due to leverage).

The incentives were wrong from three sides: the customer, the investor, and management. The customers did not give much consideration to the financial health, the risks and products of the financial service providers. **The combination of the need for consumption and the financial illiteracy and negligence was an important factor on the retail side of the crisis.**

On the other hand the corporate incentives systems were highly misplaced on short-term revenue and profits. **The compensation and MBO systems were based on short term sales and profit, rather than on the long term business sustainability[24] (funding etc.) and risks (asset quality).** This stemmed from the expectations of the investment community as well.

The asset managers and shareholders were searching for big short term yields, profits – thus the targets pushed the bank management in this directions, and the resulting competition was fierce. As we have seen above, the management was not interested in understanding the risk management practices (although there were several regulations, e.g. in Basel 2 for doing this). **In the end, the system favored short-term risk taking, creating a prisoner's dilemma between investors and management.**

The last but not least cause was the **inadequate regulation, supervision and crisis management practice.** There were many **unregulated products and markets.** At the product level the authorities, especially in the U.S. did not properly regulate the mortgage-broker companies (intermediaries) and the products (e.g. very high Loan-to-Value, with very low pre-requisites), designed for the subprime customers (e.g. low or no income).

The derivative and structured investment vehicle markets were, in many cases, unregulated an over-the-counter (OTC) based. **The supervisors were not able to see the signs of deterioration[25].**

Fair value accounting (mark-to-market accounting) has also been blamed for the crisis, because it is thought to have caused a cycle of falling asset priced and forced sales that endangers financial stability. Moreover because

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[23] Kane (2009)
[24] HM Treasury (2009)
[25] Buiter (2009)

of the immediate deterioration in the price of the asset, it shows-up immediately in the balance sheet, thus **when the institution has to sell assets for decreasing the leverage it starts a vicious circle, weakening the price more than the level needed[26].** In a downturn, fair-value accounting forces all banks to recognise losses at the same time, impairing their capital and triggering fire-sales of assets, which in turn drives prices and valuations down even more. Under traditional accounting, losses hit the books far more slowly.

One part of the regulatory and incentive problem-set involve the CRAs. **The regulation and supervision of the CRAs should have been desirable[27]**, since the ratings took into consideration both in the pricing of the structure products and in the risk management processes (e.g. Basel 2 mapping).

Moreover the CRAs possessed an inherent **conflict of interests of sorts**, because they were **simultaneously performed both the rating and the advisory activity**: that is they advised on how to structure the products of securitization in order to reach the best grades (**issuer-payer model**). **There were serious mis-pricings on the market, and when CRAs realized it and started to downgrade the securities. This caused turbulences and largely undermined faith in the CRAs[28].**

The **capital buffers were low and the provisioning was static (as opposed to dynamic),** which might be at the base of the **pro-cyclical behavior of the banks[29] (the Basel 2 capital agreement is blamed nowadays because of this, see at Appendix 2)**.

The capital requirements for proprietary trading and the counterparty risk were too lax (not really incorporating the liquidity risk) and the supervision of the liquidity of the markets was not properly monitored and supervised (nor taken into consideration for the stress-test and contingency plans). **The leverage ratios grew enormously[30].**

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[26] Geneva Report (2009)
[27] FSA (2009)
[28] Sy (2009)
[29] ECB (2008)
[30] BIS (2009)

There were many problems related to **cross-border supervision**: the flow of information was weak[31], the efficiency of the cross border supervisory actions was poor, and the skills of the supervisors were not sufficient for the new environment (business model, products, markets).

There was no regulation based on macro-prudential risks, although the authorities (e.g. central banks in their financial stability reports) were monitoring these issues, **they were unable to warn the community early on.**

The economic models of the central banking and academic community were based on models which did not deal with the financial markets' inefficiency and the liquidity issues[32]. **The international financial system was unable to "blow the whistle" and locate the problem in a timely manner, and to find a coordinated solution.**

1.2. Timeline – a short CEE detour

The timeline of the events is well-known, but it is worth distinguishing between the industrial and the emerging market countries. From a Western European point of view we can say that **these emerging markets refer to the CEE countries**. The origins, course of the events, and – naturally – the implications, could be very different across these two geographic areas.

The origins of the in the industrial countries, were described above. The global imbalances, the business model, and the regulatory environment played a very relevant role – mixed with the product innovation and the "hunt for yield". **In the CEE countries, however, these macro and microeconomic conditions were different[33].**

The OAD model was not used, the level of product innovation was much lower (less sophisticated), and the global imbalances had only side-effects[34]. The common elements regarded the "hunt for yield" and the weak regulatory environment. During the crisis, **those CEE countries which had already adapted the euro or were approaching to the Maastricht criteria**

[31] De Larosière Report (2009)
[32] Krugman (2009)
[33] Nowotny (2009)
[34] Urban (2008)

(Czech Republic, Slovakia, Slovenia) reacted more similarly to the industrial countries.

Stages of the crisis (BIS categorization)

Stages of the crisis	Markets and institutions	Industrial economies		Emerging market economies	
		Macroeconomic conditions	Policy responses	Macroeconomic conditions	Policy responses
1. Pre-March 2008: **prelude to the crisis**	Subprime mortgage defaults create widespread financial stress. Uncertainty about size and distribution of losses. Crisis starts when interbank markets are disrupted in August 2007; waves of increasing intensity until March 2008.	Growth weakens.	Central bank (CB) rate cuts. Liquidity operations targeted at money markets.	Robust growth with inflation rising. Many inflation targeters above their targets.	Rate increases in response to high inflation.
2. Mid-March to mid-September 2008: **towards the Lehman bankruptcy**	Takeover of Bear Stearns in March slows decline, but bank losses and writedowns accumulate as downturn weighs on asset prices. More countries affected. Liquidity crisis reveals underlying solvency crisis, increasing pressure on financial institutions.	G3 economies contract even as oil prices fall steeply after August.	Initially further rate cuts. Liquidity facilities grow. GSEs put into conservatorship in early September.	GDP growth slows after June but remains positive. Exports weaken in central Europe.	Further rate increases due to high inflation.
3. 15 September 2008 to late October 2008: **global loss of confidence**	Demise of Lehman Brothers on 15 September 2008 triggers a bigger run on key funding markets. More financial institutions fail or are rescued. Loss of confidence affects markets and countries globally. Reprieve only after unprecedented and broad-based policy intervention.	As confidence falls and financing conditions tighten, forecasts are revised down sharply.	Sharp rate cuts, CB swap lines expanded, rapid CB balance sheet growth. Large-scale bank rescues, deposit and debt guarantees.	Confidence slumps. Financing conditions tighten. Steep currency depreciations.	Rate cuts, more flexible provisions of central bank liquidity. Deposit and debt guarantees. Capital injections.
4. Late October 2008 to mid-March 2009: **global downturn**	Markets remain volatile, with increasingly dire economic data releases, weak earnings reports and uncertainties over ongoing government intervention. Downturn means that credit losses keep mounting.	Spending drops, leading to declines in goods trade and GDP. Inflation falls, with the price level declining in some countries.	Rates cut to near zero, liquidity provision to non-banks. Outright purchases of public debt. Big fiscal stimulus packages.	GDP growth declines sharply in Q4 2008 as exports slump. Capital inflows reverse.	Further rate cuts, lower reserve requirements. FX intervention, CB swap lines. Large fiscal stimulus packages in some EMEs.
5. Since mid-March 2009: **downturn deepens but loses speed**	Asset prices recover somewhat after more policy action. But signs of market dysfunction remain, as official efforts have failed to fully restore confidence in the global financial system. Continued credit losses.	Consumption and production continue to decline, with possible signs of bottoming-out.	Further rate cuts in some countries. Accounting rules for banks eased.	Equity markets recover, and exchange rates stabilise.	Increased external official financing to support EMEs.

Source: BIS (2009)

There were some countries (Baltic countries, Hungary, Romania) where the above mentioned elements (hunt for yield and weak regulatory environment) were combined with a **loose fiscal policy and a restrictive monetary policy**[35]. This caused a relatively big difference in the level of interest rates between the local currency and the foreign currency. These differences, combined with increasing household consumption (partially caused by the fiscal policies) created an increased demand for the EUR and CHF lending activities of the banks of these countries.

The problem arose when the currencies of these countries began depreciating (thus increasing the monthly payments due by the customers), and

[35] Nowotny (2009) and Vértesy (2008)

when the loose fiscal conditions had to come to an end. As a result, **macroeconomic conditions started to deteriorate**[36] (rising unemployment, depreciation of real wages, inflation etc.).

Moreover with the traditional channels of funding dried up[37]**, the local banks had to dramatically change not only their lending behavior**, but their business model as well (a business model which was based on funding by the parent, rather than on deposit gathering by the specific institution).

Now we seem to be at **stage 5 of the crisis according to the timeline above**, and a turning point seems to be on the way, although **it is very hard to judge whether it will be upwards or downwards: whether the shape of the will take the form of a V, U or W, or maybe even an L.** In terms of having a benchmark, this crisis is very often compared to others, but the clearest comparison exists between the current crisis and the Great Depression.

1.3. Comparison with the Great Depression

The reason for making the comparison between this crisis and the Great Depression is the customary one: to learn something from the faults of the past – and to do it better this time around[38]**.** As in the first section, we will try to separate the macro- and the microeconomic aspects of the crisis.

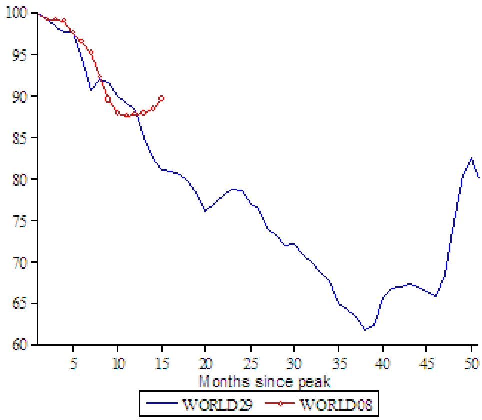
Macroeconomic comparison

If we compare the macroeconomic figures and the developments on the stock exchange, we notice that this **crisis is as significant as severe as the Great Depression. (**source of charts: Eichengreen, Barry - O'Rourke, Kevin H. (2009).

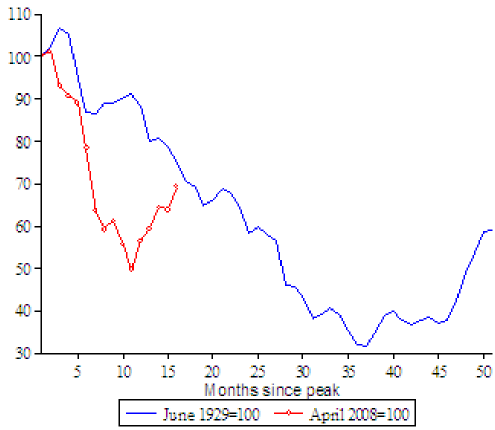
The "size" of the crisis (in terms of decline in output and plunge in the stock exchange) is similar to that of the Great Depression, and may even have been more rapid in terms of its effects. **We can see a rebound in last months (from spring 2009) – this might take the shape of a V or U shaped recovery in the following ones.**

[36] Nowotny (2009)
[37] Urban (2008)
[38] Swartz (2009):

Industrial output (world)

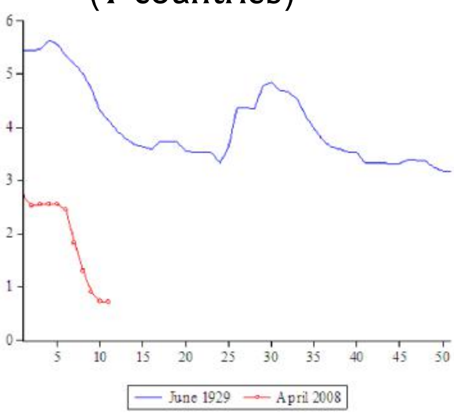


World stock markets

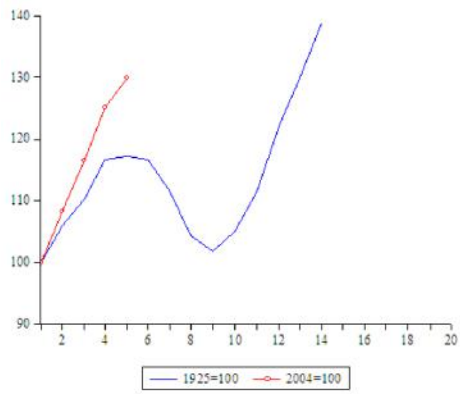


On the fiscal side, the stimulus began in a much early period - the volume of public spending has been much higher than it was during the beginning of the Great Depression. The reason for this difference is that during this crisis the governments declared a solid and determined response, in order to rescue the financial system, and prepare some sort of "soft landing". On the monetary side, it is useful to look at the **evolution of the central bank discount rates, and the volumes of money supply** (source of the charts, again: Eichengreen - O'Rourke (2009)).

Discount rates
(7 countries)



Money supplies
(19 countries)



In the present crisis **the interest rates were cut much more rapidly**[39], and the overall level of the rates was much lower as well. As in the case of the Great Depression, t**here is a similar 5-month lag between the beginning of the crisis and the monetary response**[40]: this might be the process of recognition.

The rapid rate cuts are significant – the response was quick and determined. The money-supply chart shows the biggest difference between the two crisis periods: it is largely connected to the discount rate chart**. The money supply had been boosted very quickly by the central banks who started to pour liquidity into the system, in order to stem the potentially grave consequences**[41]**.** The strategy of the authorities was to defend the system in a very solid way.

Microeconomic comparison

In the terms of the microeconomic side of the events, this banking crisis is very similar to that of the '30s. **The major difference is that while the origins of the earlier one was a "retail" banking crisis, the present one is a "wholesale" banking crisis.** The relevance of this comparison regards the possible regulatory responses: what do the regulators have to do in order to 1) smooth the effects of the crisis and 2) avoid these type of panics in the future.

One similarity is that **both crises were affected by a real estate shock** – and in particular, with declining housing prices (in the U.S.). In both cases, the banks became insolvent, and the ensuing process started with problems related to liquidity.

During the Great Depression, depositors withdrew their bank deposits, because: **1) they feared a depression and wanted to smooth their own liquidity and 2) they were uncertain about the risks of their banks**[42]. Unfortunately, these actions inherently weakened the system – resulting in a crisis of confidence which destabilized the system. The banks stopped the deposit conversion: thus asset prices did not fall because of any fire sales,

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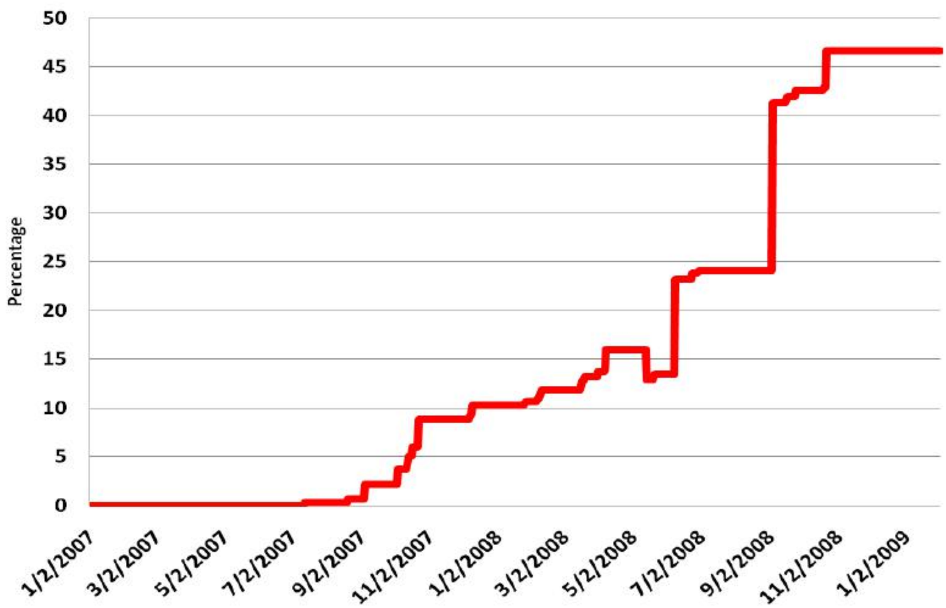
[39] Fernández de Córdoba – Kehoe (2009)
[40] Eichengreen - O'Rourke (2009)
[41] Krugman (2009)
[42] Gorton (2009)

although there were a **lack of vehicles of monetary transaction** – since the cash is gathered and held by the depositors. The regulatory solutions included the **clearing houses** (along with the issuance of loan certificates rather than cash), and the **deposit insurance system**[43] (to ease the fear of customers – and to handle the psychological aspect).

The current crisis **was rooted in the prevailing business model, which was based on wholesale funding** (through interbank lending, collateralized by the products of securitization and through repos). The "depositors" of this era were the interbank market counterparties' partners. The causes were: **1) the desire to maintain their own liquidity (fear of the crisis) and 2) the uncertainty of the counterparties** (risks of the partner financial service provider). Therefore, **the reasons are exactly the same, only the method and the volumes are different. The method of "withdrawing" the money from the repo market is through an increase in the haircuts** (a haircut determines the size of the collateral in the repo-transactions).

2009: Wholesale banking panic on chart: average repo haircut on a structured debt



Source: Gorton (2009)

[43] Gorton (2009)

In the current case, asset prices fell, because the convertibility was not suspended (mark-to-market convertibility), thus **institutions tried to sell loans and mortgages (with very limited success)**. The **shortage of collateral and vehicles of monetary transaction** is also very similar between the two crisis.

The system which we described above is also called a "shadow banking system"[44] because it could be performed not exclusively by regulated entities (or at least non-bank entities), and a certain part of the activities were outside the scope of the regulatory authorities' duties. This is why one argument proposed by the new regulatory process is to 'tighten the saddle' on these companies as well (regulate these entities, and impose heavy limits on their securitization activities). Other answers (similarly to the '30s) **could be to insure the senior tranches of securitization (like the central deposit insurance)[45].**

It is clear that regulation will play a much more important role in the future; indeed the future landscape of the financial industry is partially based on this. **The rapid and solid actions of the authorities will have their price: stronger state-control, heavier regulation, and more powerful regulatory authorities, at least in the short run[46]. In the following section we examine the possible future avenues for regulation.**

[44] McCulley (2009)
[45] Gorton (2009)
[46] FSA (2009)

2. Regulatory suggestions and policy responses to the Crisis

2.1. Worldwide regulatory suggestions

In this section **we try to process and summarize the relevant regulatory advices which emerged around the world, during the crisis**. There are a massive amount of economists, policy makers and even politicians who were preparing their own agenda for changing the financial regulation, the later which was partially blamed for the crisis.

The most relevant regulatory initiatives include the:

- "Turner review" (UK, FSA)[47];
- de Larosière report (EU Commission)[48];
- Financial Regulatory Reform (aka White paper by the US Treasury[49]);
- reports and advices by the Basel Committee of Banking Supervision (BCBS)
- reports of the Financial Stability Forum, later known as the Financial Stability Board (FSB)[50];
- Geneva Report[51]; and the
- G30 Review[52].

These reports were prepared by various experts, policy makers, academic professors with the best efforts to enhance the financial stability and to avoid similar crises in the future. We try to compare and cumulate the different regulatory suggestions regarding the current topic, therefore the order of this section will follow the areas of regulation emerged. **The synthesis is not comprehensive, we outline the key points of the suggestions (those that could have the greatest possible effects).**

[47] Published by the Financial Services Authority (FSA) of the United Kingdom, on 18 March 2009

[48] Published by the European Commission on 25 February 2009

[49] Presented to the Congress of the United States by President Obama on 17 June 2009

[50] Issued by the Financal Stability Forum on 7 April 2009

[51] Final version on 2 July 2009 by the International Center for Monetary and Banking Studies (ICMB) and the Center of Economic Policy Research (CEPR)

[52] Released by the „Group of Thirty" on 5 January 2009

Capital requirements

Each of the papers contain the need to **increase of the minimum capital requirements**, and the introduction of some stricter rules: the basis is an increase for the Tier 1 ratio, but even refers to the entire solvency capital. There will be a need for stricter risk modeling in particular by rethinking the VAR regime, the risk evaluation and analysis. Beyond this general view, there are some specific requirements, like a major increase in the trading capital requirements or different capital charges for the complex products and event risk (tail risk).

There is even one suggestion even for a specific capital charge for the "too-big-to-fail" (TBTF) institutes. **This suggestion refers not only to the TBTF, but also to the "interconnectedness" principle, because if a bank is very "embedded", interconnected in the financial system, that could cause a systemic risk (in case of bankruptcy).** Thus, the regulation should be stricter for these institutions than for the smaller, less interconnected ones. The changes are not limited to the capital charges only – they could even involve the uses of taxes.

Another important area for regulatory changes pertain to the so-called **"counter-cyclical" capital buffer** (and risk evaluation horizons). This refers to the fact that during times of asset-price booms the banks should hold more capital, whereas in a market downturn the banks could hold less capital implying lower charges. This is problem partially emerged in the case of the Basel 2 capital requirements (See Appendix 2).

A concrete experience of counter-cyclical prudential regulation comes from Spain, where the banking sector emerged much more resilient than in the other EU countries[53] (e.g. no governmental bail-outs) This is attributed to their "dynamic provisioning" system, although it is more like an accounting issue of prudential regulation. **Similar to dynamic provisioning, capital regulation can also be counter-cyclical, which might be a solution to some of the problems of the post-crisis real economy effects (procyclical behavior of banks, restrictive lending – another potential vicious circle element).**

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[53] FSA (2009) and HM Treasury (2009)

Liquidity standards

A very relevant part of the crisis stemmed from the **lack of global liquidity**[54], and the **system-wide shortage of trust and monetary transaction vehicles**[55]. This was the first time that the regulators faced the problem of liquidity risk being an issue of financial stability, a problem surfacing from the system, not only from the individual participants. This question leads us to the issue of the **macro-prudential supervisory authorities**, although firstly there are many issues pertaining to liquidity risk.

The regulatory and academic analyses viewed the financial stability issues from the market and credit risk point of view – the operational risk was a "new invention" of the Basel 2 regulation (because of rouge trader and corporate governance scandals of the 2000s). **The whole foundation of securitization and the OAD model was that it helps to allocate the risks in the system better, and smoothes liquidity**[56]. The professionals did not count on a possible drying up of the entire wholesale funding market. After the onset of the crisis and the associated problems, the question of proper liquidity risk regulation has become very important – and refers not only to the limit of the maturity mismatches, but also to some regulatory capital, held against them (the unexpected losses).

All of the proposed suggestions call for some degree of liquidity cushions and/or tighter norms for liquidity management and prudential oversight – in other words, some kind of liquidity adequacy rules. Another relevant element would be an increased information disclosure.

The third important aspect would be the **enhanced stress-tests** performed by regulators. As we have seen this summer, these stress-tests (or some kind of similar stress-tests) were done by most of the EU regulators[57]. The previous stress-tests were basically for the market risk evaluation and later for the credit risks. **In the future the liquidity stress-tests and scenarios, carried out by the supervisors** (whereas previously it was done by the banks) will play a more important role.

Shadow banking system

In section 1.3. we described the so-called **shadow banking system**. These are the entities (e.g. hedge funds, private funds) which were not under the

54 Brunnermeister (2009)
55 Gorton (2009)
56 FSA (2009)
57 ECB (2009)

stricter banking regulations, but still were able to conduct activities that were very close to banking, like the repo-business (wholesale, interbank lending), and through the securitization. Their relatively unregulated status, combined with the high leverage and the interconnectedness, made them very risky. There is big pressure on regulators to put order within the net of financial service providers.

A first issue, of course, is to **put these institutions under the umbrella of the banking rules**, or some rules which may be similar to these. There is some difference in opinions: while **the FSA does not want to regulate them further**[58], the EU **wants to regulate only the systematically important ones**[59] and the **US Treasury would prefer to only register them**[60]. The UK simply wants to give greater power to the supervisory body (the report was prepared by the FSA), and to define the bodies according to the real activities they perform, not by their legal form.

The second issue is the question of the **off-balance sheet instruments**. These instruments and agreements (e.g. guarantees) are sometimes connected with securitization and regulatory capital arbitrage. Institutions were able to lower the capital requirements using these techniques, even if the risk remained there with certain of these instruments (e.g. credit enhancement facilities)[61].The Basel 2 regulation has already tried to tackle this issue, but the regulators now want to go even further by improving the transparency of these items with increased disclosure and accounting requirements, by taking into consideration the real allocation of exposures.

Credit rating agencies

As we have written above, the CRAs were blamed widely for their role in the crisis, so it is not surprising that all of the proposed suggestions contain some points regarding them. Firstly, **increased supervision and registration**, not only at a national, but at an international level of oversight. is needed from the authorities. The regulators, furthermore, would like to **reduce the dependence on ratings** – this refers to the investment limits and even the capital requirements in the Basel 2 regulation (so that they have less role in the risk-weight calculations). They want to **separate the rating and the advisory activities of the CRAs** (to avoid conflict of interests), and moreover, to

[58] FSA (2009)
[59] De Larosière Report (2009)
[60] Department of Treasury (2009)
[61] BIS (2009)

separate the bond and structure product ratings. In addition, **increased disclosure and transparency** is part of this package of advice, (e.g. regarding the procedures basically spelling out the business secrets).

Securitization

This set of rules is about the **"code of conduct"** of these shadow banking activities. The main suggestions are: i) to require the issuers to **maintain a certain proportion of the securitized products**, and/or ii) to relevantly **increase the capital charges** on these products. They would like to decrease the relevance of the ratings (see above), and penalize the companies which are not conducting proper due diligence regarding the activity. Strengthened transparency and disclosure rules are also included into the new package of regulations.

Credit-default swaps/OTC derivatives

The issues of the CDS markets are related to the "shadow banking system". As we have seen in section 1.3, the solutions of the post-Great Depression period were the clearing houses with the loan certificates (vehicle of monetary transactions), and the deposit insurance system. Now the authorities **want to set-up more centralized counterparties (clearing houses)** for the CDSs, through which all the transactions will have to flow. Other suggestions include the **development of trading infrastructure, and more transparency, increased record-keeping and speed of settlement**.

Remuneration

The incentive system of the managers was **a serious issue at the root of the crisis**. There are many suggestions, on how to influence the system, although the topic is **one of the toughest**. The experts are relatively unified in the question of levels: the reform has to be not about the levels of remunerations, but the structure and the risk adjustments[62].

Thus, the banks need a **much longer-term view on the remuneration systems** which regardes the risks and rewards. The longer-term view might mean a full business cycle, or just a numerically set number like 3 or 5 years[63]. **The remuneration should be smoothed and risk-adjusted** during this period. The regulators want to align the system with two important interests: **prudent risk management and the interests of the shareholders**.

[62] Walker (2009)

[63] De Larosière Report (2009)

The compensation should reflect also to the risk horizons (and should be symmetric with respect to risk outcomes). Of course, the **risk management staff should receive compensation independently of what they oversee, and they have to be given more relevance within the banking groups[64].**

Corporate governance

This topic is strongly connected with the previous one, but it is about the role of the risk management within the banks (which needs to be stronger), and the risk-understanding of the management (which needs to be better). The basic suggestions state that **risk officers should hold high ranks in the corporate hierarchy, with proper remuneration** (independent from the overseen area) .

Moreover **stress testing and risk management need to be separated**, independent. Increased quality of risk disclosures is needed, and improved quality and time-commitment from the non-executive directors (UK) on these issues is encouraged .

Deposit insurance schemes

Although **the deposit insurance schemes did not fail[65]** (there were no real retail bank-runs), the issue emerged, basically due to the fact that the system is fragmented throughout the EU, and the **"burden sharing"** is always a politically sensitive regulation. In the case of Northern Rock, the **co-insurance part of the UK scheme did not work[66]** (no holding effect), and the limit was ineffective: the system was subsequently changed (**higher limit, no co-insurance**), but this was more a practical step rather than a systemic reform.

So the EU and BCBS suggestions are to have a uniform scheme with compulsory membership, basically pre-funded by the financial sector, and with government guarantees for further funds. This seems to be viable. The problems will emerge with possible future cross-border bankruptcies.

Accounting

The fair value accounting (EU: IAS 39, US: FASB 157) was also blamed as a source of the financial crisis as we saw section 1.3. The suggestions move to the direction of easing the pro-cyclical effects (fire sales, vicious circles) of the standards, and resolving the question of the complex products[67]. All of

[64] Walker (2009)
[65] HM Treasury (2009)
[66] FSA (2009)
[67] IIF (2009)

the experts agree that greater **international harmonization would be much better**, but the differences between the US and the EU standards (partially stemming from theoretical points of view) are still very large, so it will not be easy to reach some kind of global standard.

Crisis management

This was the problem of the fragmented system of authorities in the EU, and even in the US to some extent[68]. The information sharing must improve and, there is need for a clear and transparent framework for crisis management. **For the bail-out and lender of last resort (LoLR) issues, the system needs a "constructive ambiguity" in order to avoid moral hazard issues**. In nutshell: what is needed is enhanced cross-border tools, international responses and information disclosures.

Supervision issues

The **widest range of suggestions arose regarding this topic**, especially since the supervisory systems are very different in the UK (HM Treasury, Bank of England, FSA), EU (European Central Bank, but basically a fragmented system of central banks and authorities, no common fiscal bail-out possibilities), and the US (federal system, authorities).

The theoretical part of the newest discussion calls for **macro-prudential supervision**. So far the authorities have overseen the individual entities and taken into account the effects of the macro-economic factors, but there was no supervisory authority for the systematic (macro-prudential) risks, for the actions of the system as a whole. The Financial Stability departments and the related reports tried to deal with the problem, but more or less without enforcement power ("muscle"). **The only tool in the hands of the central banks was the LoLR.[69]** Now, because the crisis started from an individually rational set of behaviors, there is a need for creating a robust macro-prudential framework, and even with the authorities (or powers for the existing ones) to oversee it.

The new macro-prudential regulation needs to be more principle-based than rule-based. The regulation for individual banks will change on two broad points: 1) the **supervision of business activities** of the individual firms will be supervised not only at the firm-level but **regarding their the systemic effects** (e.g. exposures/GDP; asset cycles; reserves or liquidity ratios)

[68] FSA (2009)
[69] HM Treasury (2009)

and 2) the **product innovation will be controlled with respect to the full system** (leverage, levels of risk taking, loan to value ratios etc.)[70]

In the UK, this system is seen as part of the current "tripartite" one, by sharing the responsibilities between the FSA and the BoE. In the EU the major issue relate to the cross border system of supervisors (national authorities, college of supervisors for cross-border firms) and the creation of a **European Systemic Risk Council** (a unified EU body for this). So there will be no additional responsibilities for the ECB, although the representatives of the **ECB will be represented in the new bodies.**

In the US a **Financial Services Oversight Council** will be created for systemic risk evaluation, and the FED will be given the power to regulate any financial firm and oversee the market infrastructure (in addition to emergency lending). Moreover there will be **a Consumer Financial Protection Agency** to protect the consumers (a new body). There is an effort in place to try to harmonize the rules and supervision throughout the different states. [71]

For our purposes, the most important suggestions come from the de Larosière Report and the possible actions of the EU Commission. Therefore, in the next section we try to explain in detail the possible novelties in this regard.

2.1. EU policy response

In the EU there have been four different types of responses[72]:

- ECB actions (interest rates, liquidity, asset purchases);
- domestic government stimulus packages (Germany, Spain, France etc.);
- local financial responses (recapitalizations, bailouts, guarantees, toxic assets-handling, short-selling restrictions etc.);
- EU regulatory policy response (e.g. de Larosière Report and changes to the regulation).

The worldwide policy responses are elaborated in Appendix 3. In this section we concentrate on the regulatory actions, thus, we will focus on the

[70] De Larosière Report (2009)
[71] Department of Treasury (2009)
[72] HM Treasury (2009) and BIS (2009)

fourth point, EU regulatory policy response. We begin with the de Larosière Report.

2.2.1. EU suggestions: the de Larosière Report

The **de Larosière Group** had to recommend changes to the regulatory structure of financial services that would not require changes to the basic Treaties of the EU. Their approach to the questions have been "pragmatic", and they have **come up with practical solutions for possible financial services reform**. The report is divided into **two key areas – the regulation and the supervisory structure of the financial services sector**. In this section we would like to concentrate on the "key aspects of regulation" ("Correcting regulatory weaknesses"). The issues on the supervisory structure were touched to a certain extent in the previous section.

Basel 2 framework

The report suggests a **gradual increase in the minimum capital requirements**; a **reduction in the pro-cyclicality**; the introduction of stricter rules for off-balance sheet items; and tightening of the norms on liquidity management.

It is absolutely essential t that the rules for bank's internal control and risk management are strengthened, notably by reinforcing the "fit and proper" criteria (a principal which is based on eligibility rules for management membership) for management and board members. The report also encourages, in the EU, that a **common definition of regulatory capital** be adopted, clarifying whether, and if so which, hybrid instruments should be considered as tier 1 capital. This definition should be confirmed by the Basel Committee.

Credit Rating Agencies

As a future recommendation it was suggested that the CRAs are : **registered and supervised**. The CRAs' business model needs to be fundamentally reviewed. **The rating and advisory activities should be separated**. The use of ratings in financial regulations should be significantly reduced over time. The rating for structured products should be distinguished from the other products. Increased due diligence and judgment by investors and improved supervision is also needed.

Accounting: the mark-to-market principle

Accounting issues concerning **complex products should be solved properly.** The accounting standards should not bias business models, promote pro-cyclical behavior or discourage long-term investment. Thus the standard setters (e.g. IASB) need to clarify and agree on a common, transparent methodology for the valuation of assets in illiquid markets where mark-to-market cannot be applied. The **standards setters have to open their standard-setting processes** to the regulatory, supervisory and business communities, and they have to strengthen their oversight and governance structure.

Punishment: supervisory and sanctioning powers

Competent authorities in the EU must have sufficient supervisory powers, including sanctions, to ensure the compliance of financial institutions with the applicable rules. The same authorities must have the power to retain these sanction regimes against all types of financial crimes.

Shadow banking system and investment funds

The EU needs to **extend the regulation to all firms or entities** conducting financial activities of a potentially systemic nature, even if they have no direct dealings with the public at large. In all EU Member States and internationally there must be registration and information requirements on hedge fund managers concerning their strategies, methods and leverage, including their worldwide activities. There should be **capital requirements on banks owning or operating a hedge fund** or otherwise engaged in significant proprietary trading.

For the investment funds which are not part of the „shadow banking system", the group proposes further EU wide common rules, notably concerning definitions, codification of assets and rules for delegation. This should be accompanied by **tighter supervisory control over the independent role of depositories and custodians.**

Securitized products and derivatives market

The EU needs to simplify and **standardize over-the-counter derivatives**; introduce and require the use of **at least one well-capitalized central clearing house** for credit default swaps in the EU; and **guarantee that issuers of securitized products retain a meaningful amount of the underlying risk (non-hedged) on their books for the life of the instrument**

Remuneration issues

The Group declared that compensation incentives **must be better aligned with shareholder interests and long-term firm-wide profitability** by basing the structure of financial sector compensation schemes on the following principles:

- the **assessment of bonuses should be set in a multi-year framework**, spreading bonus payments over the cycle;
- the same principles should apply to proprietary traders and asset managers;
- bonuses **should reflect actual performance and not be guaranteed in advance**.

Supervisors should oversee the suitability of financial institutions' compensation policies, require changes where compensation policies encourage excessive risk-taking and, where necessary, impose additional capital requirements under pillar 2 of Basel 2 in case no adequate remedial action is being taken.

Corporate governance: internal risk management

The risk management function within financial institutions must be **independent and responsible for effective, independent stress testing**. The senior risk officers should hold a very high rank in the company hierarchy, and internal risk assessment and proper due diligence must not be neglected by over-reliance on external ratings.

Crisis management and resolution

In the EU there are four issues regarding this topic:

- moral hazard issues (see above: constructive ambiguity);
- framework for dealing with distressed banks;
- deposit guarantee schemes (pooled EU fund etc.);
- burden sharing.

With regard to crisis management, the group declared, that the EU needs a transparent and clear framework, the authorities need adequate tools, and the legal obstacles must be eliminated from the system.

The **deposit guarantee schemes need to be harmonized. Regarding** burden sharing, the group highlighted that there have to be more detailed and better harmonized rules than the current Memoranda of Understandings.

2.2.2. Changes to EU financial regulation

Some of the EU regulations are ongoing, so even during the course of work on the financial reforms, the legislative structure is at work. Here we try to outline the current changes. **Some of the previously mentioned suggestions which will be realized in the near future**. Some of the below mentioned regulations are the immediate consequences of the de Larosière Report.

Capital Requirements Directive

This directive implements the rules of the Basel 2 agreement. On May 6, 2009 the EU parliament passed the planned changes. They created an **enhanced college of supervisors dealing with cross border institutions**, with the call for a further legislative proposal on full EU supervisory integration. Liquidity management has been improved for banks operating in multiple EU countries; large exposure management became more strict, and a **new large exposure regulation will be created by 2011**. The securitized products acquired **retaining requirements (5% of the total value)** with the consideration of raising it. The OTC products (most notably CDSs) will be regulated and a central clearing house for these products will be set-up.

Credit Rating Agencies

New rules will come into force from 2010. **The credit rating agencies may no longer provide advisory services. The rating models, methodologies and assumptions will have to be disclosed**. An annual transparency report will be required. An internal function of reviewing the quality of the ratings must be created. The new rules have even reformed the corporate governance of the CRAs (e.g. remuneration, independent directors).

Alternative investment funds

There is an ongoing proposal which mainly targets the hedge funds with more than 100 million euros of portfolio with leverage and above 500 million euros without the use of leverage. **The directive will cover around 30% of hedge fund managers, and almost 90% of assets managed by EU domiciled funds**.

All the participants of the service chain (including depositaries and administrators) are subject to regulatory standards, with enhanced transparency. Corporate governance, risk management, liquidity and conflicts of interest standards were reviewed.

Deposit insurance

By the end of 2010, **the minimum level will increase** from €20,000 to €100,000. The coverage will be around 90% of savings. No co-insurance is allowed until that minimum amount, and **the payment period will be reduced** to 3 days (from a current minimum level of 3-9 months).

Credit default swaps

There is an initiative (not legislative) to create a **central platform**, established and regulated by the EU, with the participation of many global players.

Executive remuneration
In April 2009, the EU adopted **new guidelines (non-binding) for directors' remuneration**. It should be based on **long term sustainability and value creation**, include a deferred variable part, a maximum 2-years of severance pay, incorporate some conditions which allow non-paying in case of poor performance, and contain restrictions on share options for 3 years after the award.

The EU also suggests greater shareholders' control, **"remuneration committees"** for the companies, and obligatory voting on the remuneration issues for the shareholders, particularly for the institutional investors.

Accounting
From 2008 there were many allowed switches (reclassifications) between the instruments held at the mark-to-market price and the amortized cost, basically because of practical reasons. In the summer of 2009 the IASB held a **roundtable discussion regarding the off-balance sheet instruments**: definitions etc., and there is currently an undergoing project focusing on the fair value accounting methods and recognizing and measuring financial instruments.

2.2. Possible future developments, trends of regulatory (Reform) evolution

Since there are many initiatives presently on the table, it is hard to tell what the exact trend will be even in the medium-run. **Regulation is moving in the direction of stricter rules** – the shock from the crisis and the huge public spending for avoiding the consequences from the Great Depression will have its price in the form of **much rigorous regulation**. Although the European regulators might have thought in 2005 that the peak of the regulatory-cycle was in 2004, now it is clear that we are far from the end. **Beyond the above mentioned suggestions, there are some further proposals which, at the moment ,seem to be a little exaggerated. However, in the future, should the crisis take a W-shape, these suggestions might easily become real legislative ones.**

Single EU supervisor
As we have seen in the previous section, there is a demand for a future **single EU supervisor**[73]. In the end, the issue is a **political one**: the smaller member

[73] De Larosière Report (2009)

states are usually against this because it they fear that it might serve the interests of the bigger, stronger member states with better lobbying power. However, it can be realized in the future and the supervisory system could be much more effective in the absence of coordination, information sharing and colleges.

Narrow banking – investment banking

This is an old-new proposal which emerged seriously in the UK this year, involving the **separation of the two core activities.** There is an enhanced version of this proposal, which includes a third kind of separation[74]: 1) **public utility banking** (similar to narrow banking: only deposits on the liability side, and with reserves, sovereign debt instruments and bank loans on the asset side); 2) **centralized wholesale and securities payment**, clearing and settlement platforms (regulated as public utilities); 3) **investment banking** (with all the other activities, and with the "shadow banking system"). **This proposal would radically modify the entire banking model radically, by creating a totally new framework.**

Tobin-tax[75]

This issue was emerged in August 2009 from Lord Turner, the leader of the FSA in the UK. He argued that that **the financial system is too large and every transaction should be taxed because this is the only way to ensure their utility for society.**

It was **instantly criticized by the banking profession** and the policy makers because, according to economic theory taxes and other public interventions intended to correct distortions and other market failures should be targeted directly at the distortion or failure in question. In this case, the problem is that there is no distortions around the financial transactions. **This tax would rather be a "punishment" on the financial community, used to curb its profit because of some kind of "social-unworthiness".**

"Too big to fail is too big"

This idea says that **the real issue is not interconnectedness (of the financial institutions), nor their complexity or their internationalization, but**

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[74] Buiter (2009)

[75] In 2001, James Tobin proposed a tax on foreign exchange transactions to stabilize floating exchange rates and achieve greater national monetary policy autonomy in a world of increasing financial integration.

simply their size[76]. The other aspects matter (and they matter a lot) only if the size is too big: therefore size is the "conditio sine qua non". Thus, the regulators have to somehow regulate the size, with implicit or explicit tools. **The basic tool is competition policy – a very strict competition regulation (M&A rules, etc.), with an aggressive enforcement policy**[77]**.**

Another way to regulate the size aspect is through the tax size. This can even be done through the capital requirements[78]. T**he regulators have to simply diminish the "supervisory capture" situation**, in which a "too big to fail" bank captures the supervisor, and the money of the tax-payers. It is much better for the economy if a bank cannot be allowed to get so big so that its potential bankruptcy can cause severe systemic effects.

We are more or less sure, that **if the crisis will be V or U-shaped, there will be no further changes then those already made**. However,, as we mentioned above, in the case of a politically more serious turn or events, these additional recommendations might be possible.

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[76] Buiter (2009)
[77] Buiter (2009)
[78] Buiter (2009)

3. Possible implications for the crisis on the banking industry

3.1. The immediate effects of the crisis on the banking business – prompt changes in the strategies and business models

We think that the crisis' effects on the operating and business model of the banking sector have influenced and will influence the banking sector in two ways. The first effects were the short-term ones, caused directly by the crisis. T**hese changes in banking operations are commonly called "panic reactions".** The second effects are longer and are much more difficult to predict with researchers usually setting-up some sort of scenarios for them. What is certain is that **even the longer-term effects will be in "post-mortem" relationship with the crisis, so the path-dependency is undeniable**. In this section, we try to assess the changes in the short run.

Immediate effects in general

The **banking environment changed** dramatically compared to previous years with the **shocks hitting the asset side** of the balance sheets through the sub-prime and related assets**, then hitting the liability side** by: 1) drying up the liquidity; 2) making the capital scarce; and 3) increasing risks (write-offs etc.)[79]. The **de-leveraging** also had some effects**. As a result of the weak stock market performance, the sector lost a great part of its capitalization in 2008 (more than 50%)[80]**, and although it gained it partially back, a significant amount of shareholders' value which was destroyed. **The sector received state-aid for recapitalization, and the cleaning of the balance sheets (toxic-assets etc.) – a partial nationalization**. The effects of this were[81]:

- dilution of the existing shareholders;
- some kind of capital protectionism (less cross-border capital flows);
- future cross border M&A activities (acquisition of the weakened companies or just by the possible re-nationalization);
- an aggressive regulatory environment.

[79] BIS (2009) and IMF (2009)
[80] Namor (2009)
[81] Namor (2009)

The first moves involved **"repairing the balance sheet"**[82]. This was ongoing by:

- managing the ongoing write-offs (surviving);
- raising capital (private or governmental) – increased Tier 1, decreased leverage ratio;
- in the case of weaker institutions, search for mergers;
- maintaining the level of liquidity (buffers; excessive provisioning, since the future losses were hardly predictable).

A well criticized consequence is that **some companies gained a lot of market share from the state-aid and the recapitalization and have become even bigger**[83]. Basically, the TBTF institutions have been made even bigger by the help of the taxpayers. We can say that these players captured the US government. The table below shows us how the three - currently - biggest banks of the US seized the retail market by taking over their competitors. The 2009 data refer to after the Countrywide, Merrill Lynch (Bank of America); Wachovia (Wells Fargo); Bear Sterns and Washington Mutual (J.P. Morgan Chase) deals. An attention-grabbing element is that legally institutions could not be possess more than 10% of the deposit market, but in this case, they were permitted to surpass this threshold.

	Residential Mortgages		Bank Deposits	
Market shares	June 2007	March 2009	June 2007	March 2009
Bank of America	13,80%	16,60%	9,60%	12,90%
Fargo Wells	6,10%	14,30%	4,40%	11,00%
J.P. Morgan Chase	6,00%	10,90%	7,00%	10,00%
Sum	25,90%	41,80%	21,00%	33,90%

Source: Federal Reserve Bank of Dallas

Another immediate effect on the banking system was the huge decrease in the reputation and trust in the sector. The **destruction of confidence** happened on two levels. First was the loss of confidence **between the institutions**, a factor for which wholesale financing vanished for a while. However, the more important effect was the **diminishing of confidence in banks on the part of customers', regulators', and the investors' side**.

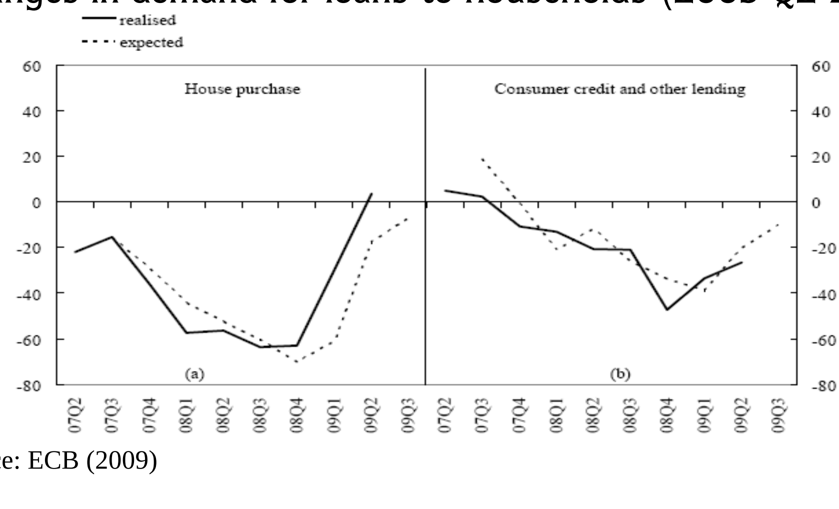
[82] Namor (2009)
[83] Buiter (2009)

Since, in the short run, the demand's elasticity is relatively low, it has consequences in the long run: **the regulatory activities became more intense; the customers' and investors' scrutiny increased**[84]. So in the future it is very important for the banks to concentrate on regaining this public confidence and prestige. With regards to the remuneration issues, at some banks there are already changes: last year bonus retention **was wide-spread, and some changes in the MBO (management by objectives) systems were started**[85].

Retail-strategies, operations

The banks **re-oriented their retail-strategies towards core competencies** that prioritize client businesses over proprietary trading activities. This basically means some kind of **"back to basics".** The lending activities slowed down and **lending standards tightened until the end of 2008**[86] An ease began to appear towards the middle of the year 2009 and while the tightening continued, lost its speed. We should recognize that these moves were also the consequences of a slightly changing customer behavior (**growing savings rates; a struggling real estate market**). Where (legally) possible, the loan agreements were modified regarding the changed circumstances, and some repricing occurred in terms of as well as obtaining new and additional collateral.[87] In sum, **the risk-taking decreased and the prices went up.**

Changes in demand for loans to households (2009 Q2 ECB)



Source: ECB (2009)

[84] BCG (2009)
[85] BBB (2009)
[86] ECB (2009)
[87] Vértesy (2008b)

The second main move was to **re-orientate focus from wholesale funding (since the markets dried up) to the core sources**: deposit gathering. The **tenor of funding increased** from the shorter-term wholesale markets to the longer-term “sticky” deposits. **The securitization processes – naturally – were diminishing.** The **reliance on central bank funding and repurchase agreements** has also grown[88].

Other elements of the **strategic change** included:

- cost-cutting (which should have been rather “efficiency increasing”[89], but in the panic period it was not like that);
- more severe risk management practices (quality focus);
- strengthening the work-out activities;
- boosting non-interest income (since the levels of rates were historically at a low level, and the margins were under high pressure because of the increased cost of funding and risk)90;
- improving the activities of the sales force (retaining and cross-selling; but also acquisitions).

In terms of **operations[91]**, these moves also meant

- higher staff turnover (cost cuttings also meant head-count reduction, or cutting and the elimination of some privileges);
- some organizational restructuring, especially for the players very active internationally;
- suspended or restricted IT spending (one of the easiest method for decreasing the costs).

As for the sales channels, they **turned back on the traditional relationships, and increased the branch activities, partially because the branch is the most effective deposit-gathering entity.** The international, cross-border activities stopped for a while – there was a concentration on the domestic markets.

In conclusion, we can say, that it seems that the sector avoided the same struggles it experienced during the Great Depression. The funding sources

[88] IMF (2009)
[89] Capgemini (2009)
[90] Deutsche Bank (2009)
[91] Ferri (2009)

started to flow again, the stock markets recovered for a while, and **the retail demand started to grow, even the mortgage market (2009 Q2)**[92].

It is important to highlight that **this would never had happened without the concentrated, immediate and solid help of the governments**. The flip-side is that this assistance will have its price when the re-privatizations start and - of course - in the form of a greater scrutiny, supervising and regulations. **The regulatory processes are ongoing, and in the medium-term they will also have effects on the market. In the next section, we examine the effects of the changing regulations**.

3.2. Regulatory implications on the banking business (effects of regulation)

As we have written above, the **regulation of the sector became much more forceful with political and professional pressure on the governments**. The big question regarding the final solution is still whether the crisis will be U, V-shaped or W-shaped, because the regulation is the question of the political voluntarism as well.

In the first case (U or V) there will be no "revolutionary" changes. In the case of a W-shape, the banking business model might dramatically change (refer to the narrow- or utility banking theory(reference)). In any case, the effects of the ongoing and possible future regulations are relevant for the industry.. In the following section we try to draw together the potential business consequences of the so far known regulatory suggestions. The order and topics are from the de Larosière Report (given that we are trying to draw some consequences for the EU retail banking business).

Basel 2 framework

The increase in the capital requirements and the possible counter-cyclical measures can **cause price effects because the cost of capital will rise**. At the same time (opportunity cost of capital) the returns on capital will be smaller (higher capital ratios), and smoother (through the cycle in case of the counter-cyclical measures). These changes **could effect the expansion of the sector** (lower leverage ratios), and can increase the asset-quality.

Although the cause of the crisis was not the lack of capital – and it is questionable if these rules could prevent a similar turbulence - they **are boosting the shock absorbing ability of the banks** (which is inherently good). The

[92] ECB (2009)

stricter rules for the off-balance sheet items will block the capital arbitrage opportunities of the institutions in the future. **The tighter liquidity norms will tighten the credit maturity transformation process**. These will have the same effects on the activities, as has been explained above.

Credit Rating Agencies

The CRA rules will strengthen the trust in the system but will have **no direct business effect** – maybe with greater trust, the pricing will become more reliable again, and the volume of some transactions (securitization etc.) will grow.

Accounting: the mark-to-market principle

The role of the fair-value accounting (or the role of the IAS 39) has very questionable in this crisis. Many discussions have revolved around it and the **IASB has even written a document defending themselves against the charges**. The amortized historical price accounting, in most cases, is simply further from reality than the FVA. Thus**, in the future the accounting rules will be fine tuned, but the FVA will remain**: the only possible direct business effect of this might be the avoidance of fire sale in an analogous case.

Punishment: supervisory and sanctioning powers

The strengthening of the watchdogs will cause **higher regulatory burdens for the banks.** The compliance and risk departments will grow with more sophisticated technical requirements as well, and the penalty fees will be much bigger. These mean basically higher costs, which (**depending on the banks' ability to transfer the price**) might mean price increases (volume decrease) and/or profit and return decreases.

Shadow banking system and investment funds

The regulation of both the shadow banking system and investment funds is a very important, systemic step, which will have no immediate business effect. However, in the long run, **it will reduce the role of wholesale** lending (by making it more expensive and regulated), so the business model effect of this points towards **more importance on deposit gathering, and improved customer relations.**

Securitized products and derivatives market

This is also a very important area for regulation, and **will make the system safer and more stable**. The product standardization and the central clearing house (maybe the ECB) might be difficult to create, but for the **safety of the transactions, it is both inevitable and useful**. It might also boost the liquidity of the markets in the long run – **easing the cost of short-term funding.**

Corporate governance: remuneration issues, internal risk management

In the fortunate case (if the incentive system is well-designed), these corporate governance issues will have major effects on the banks, the management, and the shareholders as well. The managers will put greater emphasize on three elements:

- asset quality;
- business sustainability (customer care); and
- efficiency (this is not a new element, but important).

The efficiency aspect has always been important, obviously, but with the better understanding of risks, and the greater role of the risk functions in the organization, the asset quality priorities can strengthen. As can the long-term business sustainability, which is based on the customer relations and care.

These issues will be more important even for the investor side of the system, replacing the stress on short-term profitability. The shareholders, even the institutional ones, will be more interested in the "remuneration committees". The business effects of the above elements will make the pure sales activities (short-term volume targets) less important: it will be ever-present, but the focus will be on the three above-mentioned points.

Crisis management and resolution, DGS systems

Until there will be no single regulation for these issues in the EU, it will be a cause for increased costs (like the fees of the pay-boxes), and concerns about burden sharing. The psychological consequences of the minimum increase on deposit insurance might be in the avoidance of bank runs, but since there was no real retail bank run (except for the case of Northern Rock, which was something like that), it is rather theoretical.

The crisis management rules could moderate the risk appetite theoretically, but in practice they will have no real effect, since the rules of the bail-outs are always political in reality – so **the moral hazard is not avoidable, we can only make it less attractive[93].**

In conclusion about the regulation

[93] FSA (2009)

These regulatory responses have been proposed in order to make the system more resilient, but they **also put great burden on it** as well (in addition to the risk of over-regulation). In general, the broad consequences of these new directives will be:

- larger capital buffers (lower returns on equity);
- higher costs – greater need for efficiency;
- a shift towards simpler products (instead of the previous, very complex ones);
- changes in funding (wholesale funding will be available, but slightly more expensive);
- shift in the business models towards the long-term business sustainability and asset quality goals instead of volumes.

Of course all-in-all these steps points towards more a traditional business model and lower growth and profit rates: On the other hand, this regulation will help to retain the confidence in the system and maintain stability.

3.3. Possible implications for the retail banking business: an assessment

It is not easy to predict t what will happen in the long-run in the retail banking business. **The development is always path-dependent, so the already mentioned "post-mortem" connection** between the crisis and the banking of the future **will remain**. What might happen in the medium- and long-run?

Medium-run

In the medium-run, one of the key strategic issues for universal banks will be whether to **maintain scale or to break up**[94]. Before the crisis, universal banks were trying to find greater synergies between business lines to justify the complexity of their conglomerate structures. Unfortunately, **there is no clear evidence that the potential positive effects of universality** (e.g. additional cross-selling opportunities, revenue diversification, shared services) **out-weight the costs**[95] (management distractions, coordination costs, misalignment of purpose, potential inefficiencies of shared services).

[94] Namor (2009)
[95] Namor (2009)

The big international banks will also face the question of how to govern such corporate size – so **the banks which are present in many countries have to decide on an effective corporate organizational model**, and there is no single recipe of this. During the crisis **the hypothesis of Universal banking will be re-tested**, but we think **it will remain,** partially because **other incentives lay behind the universality** as well, such as the convergence toward monopolistic power, or to be TBTF, the above mention possibility to capture the regulators. **The most important incentive will be the organizational framework, within which these banks will be able to do their business efficiently.**

In the medium-run, the concentration on banking basics will rule:

- funding from deposits and central bank/government sources,
- tight lending rules, lower LTVs, more collaterals;
- branch-based approach with multichannel strategy;
- focus on high quality assets;
- seeking the opportunity of M&As.

The potential medium run winners could be**: the deposit-rich (funding rich) universal banks which can use the group synergies[96]. If a bank does not have such characteristics, it will be forced to refocus on its core value proposition very rapidly.**

Long run

As for the future of the banking industry, after all of the must-dos, that is, after the balance sheet repairing and all the other duties for surviving, the banks will have to **rethink their operations** and develop strategies which will not only be **sustainable in the long run**, but will also help **re-build the confidence in the public**.

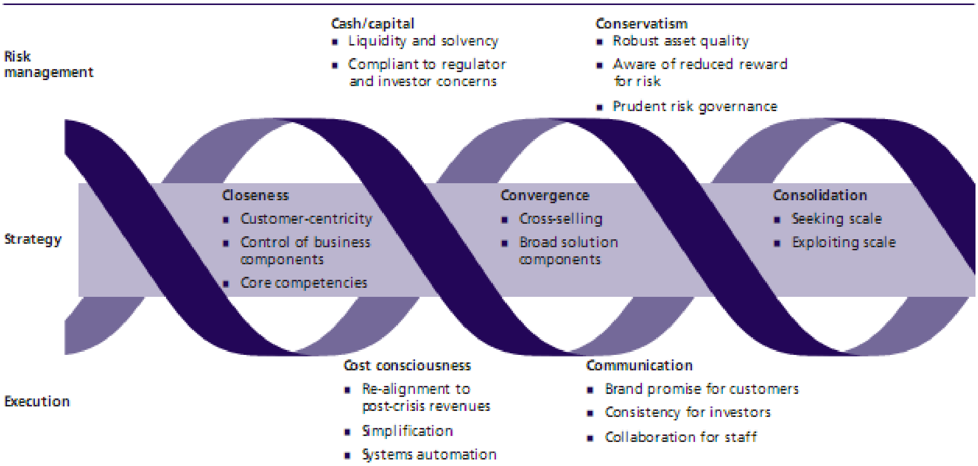
In the long-run, the **surviving banks will try to exploit their individual competitive advantages on the basis of two primary dimensions: 1) the geographic reach and the 2) the activities performed[97].**

As for the **activity side**: client revenues remained relatively strong through the crisis – thus banks changed their orientation towards client-oriented businesses over principal risk-taking. The **attractiveness of retail and high net**

[96] Accenture (2009)
[97] Namor (2009), Oliver Wyman (2009), BCG (2009), PWC (2009)

worth clients[98] (affluent and private banking customers) has increased as deposits have grown in strategic importance with two effects: 1) banks that have long-established organic roots in retail have recommitted to these and 2) banks that have traditionally been weaker in this area have had a renewed motivation to gather retail deposits.

7Cs for success in the new eco-system, regarding Oliver Wyman (2009)



In the foreseeable future, the price of capital will be higher because of the above mentioned factors (scarcity, regulation), so there will be a **significantly lower profit-environment, at least in the western countries**. Since the return on capital will be lower (and even now it is much lower than in the emerging market countries), there will be pressure to move deeper into the emerging markets. In these markets (e.g. the CEE), the depth of the banking market is still not comparable with the western countries, and the physical presence (branch coverage) is also much sparser.

Meanwhile in the developed countries the efficiency-arguments will be stronger within the network issues (eliminate or open) – there is still much room for expansion in Eastern Europe. **The lower returns should force the banks to increase their presence in these countries**, which might produce greater returns on capital. On a more global perspective, the Far-East (e.g. China, India, Indonesia) is also an area for potential expansion, given **the**

98 Accenture (2009)

large bunch of unbanked population, and although it is not easy to set-up and run branches there, this investment will pay its return in the long run.

With regard to the new entrants on the market, since the relevant players are risk-averse, **a new entrant with eligible capital** (something what is not easy, but it is possible, for example, Tesco Inc. in the UK) **can make a good entry into the retail market**. Another possibility for entering the market through is the above mentioned **M&As** which **will occur as a result of the weakened companies and the re-nationalization**.

C**ost reduction** will need to be not only a general "cost saving", but an actual method of efficiency increasing – thus more than the consequence of the panic. **The organizational structure will change regard the new needs** (more complex funding, capital planning, Basel 2 risk units, changing other regulations, compliance areas, internal auditors) because the more complex tasks will need new people, especially in the area of risk management.

As for the products, there is a discussion on the subject of **selling "white products"**[99], that is, not only the product of the company, but of others as well' for a fee. This has not been widely practiced recently, but in the future, with more flexible organizations, there should be greater potential. **It is feasible that at the EU level there will be more product-level regulations than before in order to protect the consumers and to make the EU market more harmonized.**

The **delivery channels will be mixed**, especially with regard to **the multi-channel strategies of the modern banks**, the speed, the greatly increased transparency, and the **switch between banks will be extremely easy**. The "re-invented" deposit gathering activity will boost the physical presence (branches, customer relations). **The branches will be even smaller, there will be more electronic possibilities and contact centers**[100]**.** That will make competition fierce, which will also contribute to the margin pressure.

As for the customers, the most important issues concern:

- the re-building of confidence which needs time (and it is very crucial);
- stronger financial consumers' protection (more compliance needs);
- the rebalancing of consumption-saving trade-off towards savings;

[99] PWC (2009)
[100] BCG (2009)

- the greater role of know-your-customer models and improved customer care, because of the importance of customer retention.

In summary, the big universal banks, with good deposit gathering capabilities and efficient operations could be the winners of this period. If they are able to use their **competitive advantage** (funding), with an **appropriate risk-appetite**, they could defend not only their market share (the profit), but even slowly attack in the long run. Moreover, through **M&As they could gain even more market share**. **We think that the profit-generating ability of the emerging markets will remain, and there will be a shift towards the Far-Eastern countries.**

4. Conclusions

We have seen how the crisis evolved and the responses to it. This current turbulence was a **good impetus for the regulators and governments to create some regulations, which were required even previous to this latest turmoil.**.The financial system has also taken many necessary step towards creating a more prudent banking system, although these steps were painful.

In the future, the global **coordination of financial oversight can be real**, a very important step forward. The financial sector will be **much more regulated and supervised**, but there is a chance for much **greater resilience and stability**. The price of these improvements are the **higher costs and greater returns**.

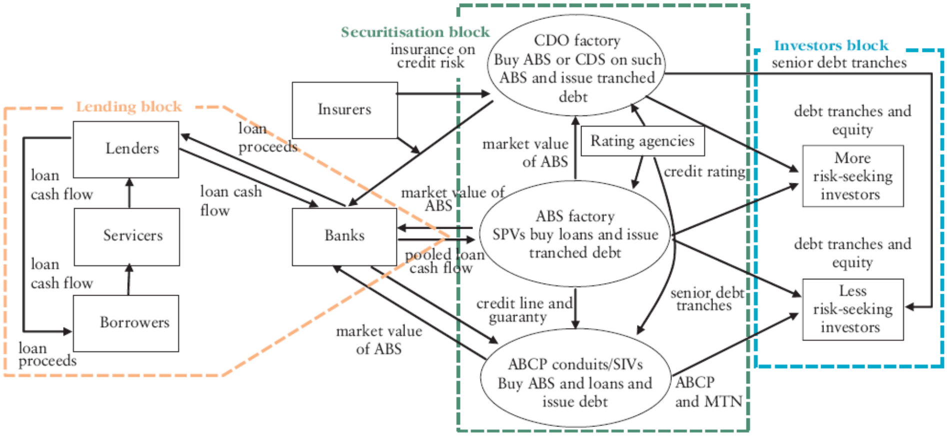
After the short-run panic, the markets started to recover and **the banks will have to adapt to the new market and regulatory circumstances**. This means a **focus on the core banking activities** in the short run, and - in case of big international banks – **an assessment of the efficiency of the organization**. The basic cost-cutting strategies are not enough – the sector needs improved efficiency, especially after the introduction of the **higher regulatory burden**.

There will be a strategic change in the activities (focus on deposit funding) and the **geographical improvement will be still very important** for the banks. Since the **levels of returns will be significantly lower in the developed countries than in the CEE or the more Eastern countries**, they will have to move there in search of profits. There will be **some new entrants** as well – the re-nationalization and the unavoidable market cleaning effects (bankruptcies and takeovers of the weakened institutions).

In the end, the winners could be the banks which have **sufficient own- funding base**, combined with **high efficiency** and **appropriate risk appetite**. In retail terms, there is a need for **more and deeper customer relations** (connectedness), **better communication**, and **exploitation of the scale of a big organization**. With the **rebuilt confidence**, the sector could flourish again, on a healthier base.

Appendix

Appendix 1: Originate-and-Distribute (OAD) Model



ABS: asset-backed security, ABCP: asset-backed commercial paper, CDO: collateralised debt obligation, CDS: credit default swap, SIV: structured investment vehicle.

Source: Király–Nagy–Szabó (2008)

We can see the basic scheme of the **OAD model in the figure above**. In the lending block, the lenders are not necessarily banks but mortgage houses (financed by banks). The service goes through the service intermediaries and at the end of the process, the assets land on the asset side of the banks.

This is where the **securitization side starts**, where with using some agents and professional service providers (legal offices, administrators etc.), assets are removed from the balance sheet synthetically or with the so-called “true-sales”, to make the SIVs bankruptcy remote. The ABS factory then “cut” the credit pools into risk tranches and repackage the risk by issuing securities. The pricing was dependent on the Credit Rating Agencies which caused severe problems after the downgrading.

In the **investors block**, the investors (according to their risk-appetite) buy the paper, and in case of losses, the “waterfall” model works to assume them: first the “equity” part, then the most junior tranches suffer the losses, until they are exhausted – and in the end the senior tranches. During the crisis, owners of the senior tranches were not struggling as much as the risk-seeking investors – e.g. pension funds.

The **problems with the system** were not only the mis-pricing, the leverage, and the total lack of knowledge about the underlying assets, but the fact that a better allocation of risk did result. The risk remained in the system and moreover sometimes within the same bank (in the case of when the originator guaranteed some credit lines to the SIVs for the safe operations).

Appendix 2: Basel 2 issues

In 1988, the first international accord on bank capital, known as **Basel 1** — for the Basel Committee on Banking Supervision (BCBS)—was adopted. It represented, at the time, a significant step forward. But its rules for setting capital requirements were very simple, and internationally active banks were eventually able to circumvent them.

The main problem with **Basel 1's capital requirements was that they were, practically speaking, not sensitive to risk**. A loan to a non-financial firm required 8 percent of capital, irrespective of the firm's risk (e.g. its leverage, profits, solvency, and economic environment). This ran counter to the way banks managed their loan portfolios and economic capital (where far more sophisticated measures of risk were considered). In June 2004, BCBS published a new framework for the capital requirements of credit institutions, known as **Basel II, which was finally issued in June 2006**. In brief, Basel II links capital requirements more tightly to the risks that banks incur and is thus a significant and necessary improvement over Basel I. The Basel 2 (the Capital Requirements Directive) was implemented only on 1 January 2008 in the EU (in the US later, and only partially), so it could not be the cause of the crisis. One other question remains: did it worsen the crisis?

The Basel 2 capital agreement was blamed for:

- the insufficient average level of capital;
- the severe losses it caused in combination with the Fair-Value Accounting;
- procyclicality : reinforcing business cycle fluctuations;
- the assessment of credit risk delegated to the CRAs which created conflicts of interest;
- inadequate internal models of banks for measuring risk exposures;
- providing incentives to hide the very risky exposures from the balance sheet.

Although these accusations have some foundations, and the Basel 2 system has got its flaws and weaknesses, **the professional community found the**

great majority of the accusations to be fallacies. Below we provide some details.

The explanations are as follows[101]:

1. Capital issues: the level of capital was basically unchanged from the previous accord because of regulatory reasons (step-by-step increase), but the issue was therewith Basel 1 as well.

2. Fair Value Accounting (FVA): the FVA itself fostered the evolution of the crisis, but the combined effect with the Basel 2 was not really relevant (it had its effect even with the previous accord).

3. Procyclicality[102]: this is a valid argument and there are actions that can be taken for correcting it (see the counter-cyclical provisioning and/or capital requirements), but banking behaviour is inherently procyclical. Some of the experts say that in the Pillar 2, the pro-cyclic effects can be eased.

4. CRA[103]: rightful accusation – and it is under amendment with the effect of diminishing the CRA's conflicts of interest.

5. Internal models – the criticism is that the regulators left too much (what?) to the banks. The supremacy of the inadequate internal models worsened the situation. In fact, the internal models were not perfect, but still there are no better alternatives, and forecasting will always suffer from faults. Moreover the internal models are not inherently accepted – the competent authorities must to play a relevant role in the validation and tests of the models. If the capital planning of the banks is not sufficient, they can impose another amount of capital which has to be created.

6. Risky exposures: in Basel 1, there were more incentives for this activity and Basel 2 tried to eliminate this with partial success (obviously not totally). Thus the main responsibility lies with the previous prudential regime.[104]

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[101] Cannata – Quagliariello (2009)
[102] Saurina – Persaud (2009
[103] Sy (2009)
[104] Vértesy (2007)

In conclusion we can see that **Basel 2 cannot be held accountable for the crisis and did not even cause a worsening of the circumstances**. Indeed, it has its faults, the major issue is maybe the procyclicality, but that is why the regulators are trying to set-up counter-cyclical rules now. For the exaggerated use of the internal, mathematical models, we cannot blame the institutions since these are the most sophisticated methods available for measuring risk. In particular, the especially “blamable” system is simply the prudential system of the ‘9’s and the last decade. **The philosophy of Basel 2: the risk sensitiveness, the important risk functions, the managerial importance, the sophistication of the risk estimations will remain and strengthen**, eventually correcting the gaps in the regulation.

Appendix 3: Policy responses (Source: BIS (2009))

Special measures to stabilise the financial system[1]

	AU	BR	CA	CH	DE	FR	GB	HK	IT	JP	KR	NL	US
Deposit insurance	✓			✓	✓		✓	✓	✓		✓		✓
Restriction on short selling	✓		✓		✓	✓	✓		✓	✓		✓	✓
Capital injections		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Debt guarantees	✓		✓		✓	✓[2]	✓		✓	✓	✓	✓	✓
Asset insurance							✓					✓	✓
Asset purchases	✓		✓	✓	✓		✓			✓			✓
Nationalisation					✓		✓					✓	✓

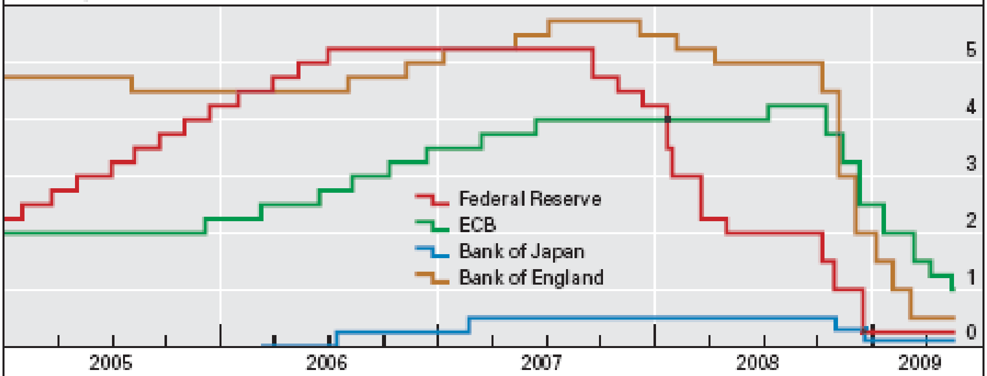
AU = Australia; BR = Brazil; CA = Canada; CH = Switzerland; DE = Germany; FR = France; GB = United Kingdom; HK = Hong Kong SAR; IT = Italy; JP = Japan; KR = Korea; NL = Netherlands; US = United States. ✓ = yes; blank space = no.

[1] Reflects information up to end-April 2009. [2] Via the Société de financement de l’économie française.

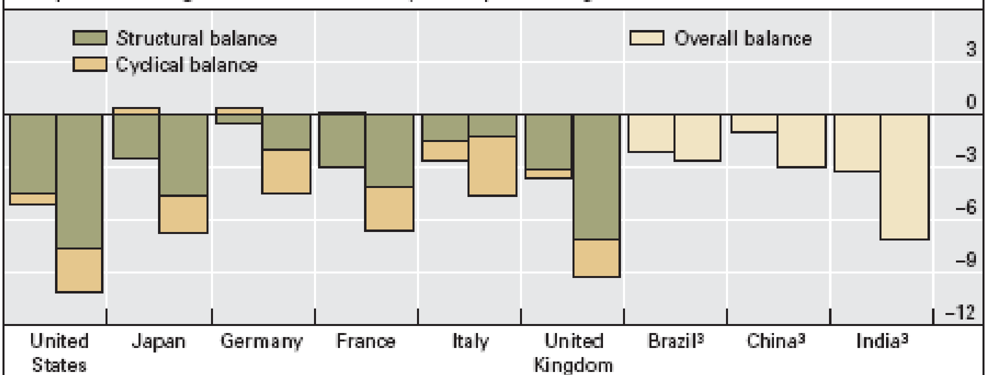
Source: National data. Table VI.2

Monetary and fiscal policy

Policy rates,[1] in per cent



Expected budget balance for 2009,[2] as a percentage of GDP



[1] For the Federal Reserve, target federal funds rate; for the ECB, interest rate on the main refinancing operations; for the Bank of Japan, target for the uncollateralised overnight call rate; for the Bank of England, Bank rate. [2] Projections before September 2008 (first column) and latest (second column). [3] Breakdown not available.

Sources: OECD, *Economic Outlook*; Bloomberg; JPMorgan Chase; national data. Graph VI.1

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