COEURE
COOPERATION ON EUROPEAN RESEARCH IN ECONOMICS [1]

# *European Financial Markets: Policy Challenges and Research Agenda*

## *Minutes*

Workshop held on June 6th 2015

*European University Institute, Florence*

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## The Program

***9.15*** Presentation of the COEURE project (Marianne. Paasi, European Commission)

***9.30*** The Survey: main features (T. Beck, E. Carletti, I. Goldstein)

***10.30*** Discussion of the Survey and policy implications *(Chair: Vittoria Cerasi, Univ .degli Studi di Milano Bicocca)*

- Evren Örs, HEC Paris
- Francesca Campolongo, JRC – European Commission
- Alessio De Vincenzo, Bank of Italy

***11.30*** Coffee break

***11.45*** Financial Markets: alternative viewpoints *(Chair: Donato Masciandaro, Università Bocconi)*

- Julia Király, KBC Group , former Deputy Governor, Central Bank of Hungary
- Roberto Brasca, ACOMEA, AMC
- Steffen Kern, Head of *Financial Stability*, ESMA
- Malcolm Sawyer, Leeds University, Chairman project FESSUD

***13.00*** Lunch break

***14.00*** The economists viewpoint: Core, Applied research and High Frequency data in Finance

- Jean Edouard Colliard, HEC Paris
- Olena Havrylchyk, Université Lille1
- Giampiero Gallo, Università di Firenze

***15.15*** Round Table: Banking and Capital Markets Union : where are we?

- Emiliano Tornese, Bank and Security Lawyer, European Commission
- Xavier Freixas, Universitad Pompeu Fabra
- Karel Lannoo, CEO, CEPS
- Aimery Clerbaux, FSMA
- Vincenzo Chiorazzo, ABI
- Peter Benczur, JCR – European Commission

***16.30*** Closing remarks:

- Thorsten Beck, Cass Business School
- Elena Carletti, Università Bocconi

## The participants

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|---|---|
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# 1. Introduction

Marianne Paasi and Marc Ivaldi present COEURE, its rationale, its aim, what has already been done and the next steps of the project.

# 2. European Financial Markets: the survey.

**Elena Carletti** introduces the survey, centered on regulation, by explaining that the recent crisis highlighted the **growth vs stability trade off** of financial systems. Financial innovation should generates growth and credit expansion but may facilitate risk taking. The main tension is that regulatory reforms tend to be backward looking whereas financial innovation is forward looking. A crisis leads to new regulations being introduced, and financial innovation finds a way to mitigate or avoid the regulation, so the regulator is always playing catch up. The structure of the survey is as follows.

- Reasons for financial regulation: market failures
- Policy instruments.
- Main regulatory reforms (mainly banking)
- European financial system 6 years after crisis.
- Pros and cons of financial innovation.

Regulation has focused on correcting past market failures which led to financial crises. There have been cycles of regulation and deregulation/liberalisation, growth of financial innovation are observed throughout the 20$^{th}$ century. The main trade-off in the historical process is fragility vs credit provision/innovation. Free banking theory argues that there is no need for financial regulation in the form of bailouts, deposit insurance etc. This is an extreme view which the authors of the survey do not espouse. Optimal regulation depends on the tradeoff between growth and stability. Political compromises characterise financial regulation. In Europe this problem is particularly acute as in order to pass financial regulations we need to have EU wide support.
The survey identifies and discusses the main four observed **market failures** : 1) Panics, runs and fundamental crises, 2)Inefficient liquidity in interbank markets, 3) Bank interconnections, systemic risk and contagion, 4)Bad incentives, bubbles and crises.
In **financial regulation** there is a distinction between **micro-prudential and macro-prudential**. The former focused on the stability of each Individual bank whereas the latter focuses on the systemic stability. The fallacy of composition means that stable individual banks do not imply a stable banking system. Regulation is **increasingly macro-prudential** focused. The purpose of **capital regulation** is to absorb losses, maintain confidence, protects depositors, and to provide incentives to monitor incentives (main focus of micro theories). Increasingly capital requirements are being used for macroprudential regulation e.g. countercyclical capital buffers. **Liquidity regulation** is a new form of regulation in Basel III which should reduce panics, mitigate a fall in price in firesales and the mispricing of assets. There are **also government safety nets** in the form of central banks Lenders of Last Resort (LOLR); deposit insurance and government guarantees. In the **EU the Banking Union** consists of the Eurozone banking regulator (**SSM**), the **Single Resolution Board**, and the **Single rulebook from EBA**. Activity restrictions are proposed in both the Vickers (UK)and Liikanen (EU) reports.

**Open questions** include: what are the effects of the new regulations? What are effects of macroprudential regulations in the form of LTV ratio and countercyclical requirements? Is there a substitute/complementary effect between micro and macro-prudential regulation? Is capital serving both micro and macro-prudential objectives? How costly is capital? What is the appropriate use of bailouts, and bail-in instruments? Both theoretical and empirical research on these issues is needed. Theoretical research to date is mostly partial equilibrium, and so cannot answer questions such as the extent to which imposing stricter banking regulation shifts activity to shadow banks.

**Thorsten Beck** explained that in the six years after the crisis there has been a sluggish credit recovery in Europe (especially EZ) relative to US, partly due to delayed bank restructuring. Both supply and demand side constraints are factors.

There is a debate about whether **bank-based or market-based financial systems** are preferable. Early research in this area highlighted the importance of having both an effective banking system and capital markets. A more recent view: is that bank-based systems are more useful at low levels of financial development, whereas capital markets are more important for more developed countries. European financial systems are more bank based. Countries with more bank-based systems have lower growth, particularly in crises, and are less stable. European financial system became "bank biased" relatively recently – due to growth in largest 20 banks in Europe. An alternative view is that it is rather a question of missing segments of financial systems. There is limited venture capital and private equity in Europe. Private equity and hybrids are less developed in Europe than in the US.

**Financial institutions** have become much more **complex** over time. It is almost impossible to resolve highly complex financial institutions, which increases the implicit guarantee which banks are likely to enjoy, leading to a larger moral hazard and risk-shifting problem. This may lead to regulatory capture by sophistication –financial institutions use highly complex risk models which the regulator doesn't want to admit that he doesn't understand.

**Financial innovation** can refer to new financial products and services, new financial intermediaries or markets, and new delivery channels. The **positive innovation-growth view** is that financial innovations help reduce agency costs, facilitate risk-sharing; complete the market, and ultimately improve allocative efficiency and economic growth. On the other **hand the negative innovation-fragility view** states that financial innovations allow banks to take more risk. Financial innnovations are seen by some as the root cause of the global financial crisis e.g. securitisation reduced incentives to monitor loans. Financial innovation used for regulatory arbitrage (e.g. SPV) used to circumvent capital requirements.

Need for regulators to look forward and go beyond the traditional focus of prudential regulation on banks to encompass other forms of financial intermediation . Where we stand is that the **regulatory reform** to date is designed **to prevent the *last* crisis**. Regulation is focused on institutions and markets and less on products. Financial innovation allows banks to evade new regulation by pushing activities outside the regulatory perimeter**. Financial sector always ahead of regulators**. Regulators need to create arbitrage-safe regulatory frameworks? There is also a debate on complexity vs simplicity. **Learning by doing** is key. In Europe powers are too limited on a Eurozone level. The lack of a resolution framework is being addressed in Europe. This is at least as important as the ex-ante regulatory framework. Clearly a resolution framework allows banks to be resolved more easily, but also increases incentive to act prudently ex-ante, before a crisis. A dynamic approach to regulation is needed as when bank-like activities move outside the regulatory perimeter regulators will need to be vigilant. Regulation should be functional rather than institution focused.

Directions for future research include studying the issue of complexity vs simplicity; assessing the impact of new regulation in both theory and empirics; the effectiveness of different frameworks for capital requirements. A general equilibrium approach is key. Micro (especially loan-level) data could be used to assess the effect of macroprudential regulations. Finally it is important to look for sources of systemic risk outside the banking sector e.g. life insurance sector.

## 3. Discussion of the survey and policy implications

**Evren Örs** explained that the survey is serving an important task of reviewing a vast literature on financial intermediaries and is useful for informing public policy discourse. Key questions in the present policy context are: what is the effect of single rulebook, SSM regulations; and how should we think about financial regulation/resolution? Survey can be used to critique the current regulatory proposals, which is one of the main value added contributions. Financial regulation is important because a lot of taxpayer money is at stake.

More empirical papers could be included in the review to have a more equal balance between theory and empirics. The LIBOR scandal and transparency issues important to cover. Insurance industry papers are also relevant. Discussion of Central Counterparties (CCPs) or Clearing houses as systemically important financial structures which may propagate shocks throughout banking system are also relevant. In discussing the pros and cons of banking regulations, changes in banking regulations across US states can be exploited to understand effect of introducing new financial regulations. Finally discussion of banking integration in Europe and how it is done to avoid regulation could be added.

**Francesca Campologno** noted that the survey is well aligned with past, present and future work of EC JRC. The JRC is the research centre of the European Commission. The JRC developed SYMBOL which is a mathematical model of financial stability which has been used for ex-ante impact assessments of changes to banking regulations. SYMBOL uses 4000 EU banks balance sheet data and Monte Carlo simulations to derive probabilities of each bank failing, and distribution of losses at an aggregate level in the banking sector. Incorporates safety net tools and contagion. SYMBOL used to assess the effect of regulations e.g. CRD IV, DGS, BRRD, Bank Structural Reform proposal.

On complexity vs simplicity the JRC agree that we need measures which are easily understood by policymakers and easily implemented. The JRC compares the ex-ante predictive power of simple vs more complex measures of risk in the context of the Structural Reform proposals. On resolution it is important from both ex-ante and ex-post perspectives to have feasible options for resolution of bank, but we need to understand where the losses go. According to SYMBOL, in a systemic crisis bondholders will suffer most losses, given the introduction of bail-in. Who are the bond-holders? Other banks, insurers, and pension funds could all potentially be bond holders. One criticism of the current EU regulatory framework is that the Single Resolution Fund cannot cover a major bank failure, this is true but the SRF is only used after creditors are bailed in. The ESM can also intervene through direct recapitalisation to recapitalise distressed SIFIs, although this public backstop is limited to 60 billion Euro.

On the dynamic approach to regulation JRC analysis shows that shadow banking, crowd funding and digital currencies can all bring benefits to real economy but also carry hidden risks. Finally contagion effects across financial institutions may take place between banks, insurers, shadow banks.

**Alessio De Vincenzo** explained that the survey is useful to provide an alternative perspective to having a framework to consider issues and can serve as a useful manual to provide a broad overview of banking regulations. Theoretical and empirical research can be useful in informing policy debate. The Moody's Global Banking Regulatory Radar shows banking regulatory reform is complex, ongoing and imminent in multiple jurisdictions. Are the barriers to entry too high? Is there a way to rationalise incredible amount of regulatory reforms in banking?

One framework which is used by regulators is given by the following simple equation:

*PCxEACxLGC=ELC*

PC= Prob(crisis), EAC=Exposure of financial system to a crisis. LGC is the loss given crisis; and ELC is the expected loss of a financial crisis (ELC). Each regulatory reform affects PC, EAC, LGC; with a view to minimise ELC.

New capital liquidity, leverage rules tend to decrease PC. New G/D-SIB buffers, leverage structural (activity) restrictions, market infrastructures measures (OTC derivatives, CCPs) all tend to limit EAC. New resolution mechanisms, TBTF, TLAC tend to reduce LGC. Many reforms have been agreed, only partly implemented and need calibration e.g. TLAC; others in the pipeline (e.g. IRRBB).

Larger, higher quality capital buffers are relatively uncontroversial but the question of how the economy moves to a new equilibrium is much more controversial. In the US problems in financial markets started the crisis and has led to increased regulation of financial markets in the US. In contrast in Europe there is a view that there has not been enough market-based financing to date, and that its growth should be fostered.

There is no discussion in the survey on corporate governance and how the compensation of bank managers and effect on financial stability. Empirical work in this area is limited given the lack of detailed comparable data on the compensation packages for bankers.

**Marianne Paasi** noted that cross-border data with comparability (methods, definitions) is essential. Capital markets are little developed in this context. It is a long-term objective to improve data reporting, but it is essential that efforts are made in this area. **Laura Nuñez Letamendia** remarked that survey should also discuss insurance industry which is also highly regulated. Insurers e.g. AIG are heavily interconnected with each other and with banks e.g. through CDS markets. There is a lack of literature comparing regulation of banks and insurance firms. **Juan-Pedro Gomez** thinks the survey should expand on the role of compensation as a macro-prudential tool in affecting incentives of bank managers. **Steffen Kern** commented that shadow banking receives considerable attention in the survey which is important, but the narrow shadow banking definition as used by FSB and ESRB should be used as shadow banks is often ill defined. **Karel Lanoo** questioned whether new forms of finance can be dichotomised as either bank-based or market-based? GooglePlay, Apple etc may not fit into traditional bank/market-based financial systems dichotomy.

**Elena Carletti** replied that the paper's structure starts with the market failures, to provide a background for uninformed readers. The paper does need to link market failures and solution (regulation) better. There is a need to include more empirical studies in the survey. Banca d'Italia's simple formula is a useful way to characterise the effects of different financial regulations. The market failure and regulation need to be considered in conjunction in order to understand which of three components of the formula it would ameliorate. There is also a need to highlight unintended consequences – which types of assets are bail-inable, who bears the losses. Bail-in cannot be used to address systemic crisis if imposing losses on asset holders may propagate distress to other financial institutions, which may give rise to a potential trade-off between protecting tax-payers and bail-in. Some issues e.g. compensation, corporate governance excluded for paucity e.g. shadow banking, life insurance. Data collection is non-centralised in the EU, and perhaps creating a single rulebook to allow for data collection could be a step in the right direction.

## 4. Financial Markets: alternative viewpoints

**Julia Kiraly** presented a view on financial institutions, markets and regulation through central eastern European (CEE) eyes. She explained that FX lending to unhedged borrowers is a special original sin (a form of macroeconomic imbalance) – foreign lenders were only willing to lend at long maturities in foreign currency. This was an important issue in CEE countries, but there is no need to include this issue in the COEURE survey. FX lending grew substantially before the global financial crisis giving rise

to a retail housing boom in CEE countries in 2000-2010. FX deposits were only partly funded by FX loans which creates an exchange rate mismatch on the balance sheet.
Financial globalisation and the home/host relationship is another key issue for CEE countries, which was missing from the COEURE survey. Host banks in CEE were using cheap financing of home bank to provide lower loan interest rates. During the global financial crisis the phenomenon of reverse contagion occurred – exposure of home countries to conditions in CEE host countries. Vienna initiative was introduced to deal with this home/host problem.
There was a credit boom in CEE and macroeconomic imbalances due to bad incentives. Need to coordinate monetary policy with macroprudential policy to promote growth and stability.
Macroprudential tools can be used by requiring higher capital and liquidity for FX lending, and by optimising FX lending consumer protection. Capital markets in Europe are underdeveloped, and in the case of long-term capital, non-existent.
Commercial banks may argue that the main risk in banking is not the low-interest rate environment, rather it is regulatory risk; and that the current regulatory reform agenda encourages banks to take on too *little* risk.

**Roberto Brasca** presented the **perspective of a regulated financial entity**, and an actor in financial markets. Financial markets are very useful tools for valuing various types of financial assets to allow money to flow to where investment is needed. Appropriate regulation of financial markets improves confidence in those markets. Banks and other financial institutions are at the heart of the capitalist system, so we need to ensure that the banking and financial system is stable.
On harmonisation there is an effort to make consistent regulation across EU. But we are not there yet. **Regulation differs across member states** for some types of financial products. A **more harmonised regulation** for all financial products would be **beneficial**. Banking union is an encouraging development in the direction of harmonisation, as are the introduction of European Long term investment vehicles.
**Coordination and harmonization** needed also with **fiscal policy**. Fiscal policy is highly influential and could have considerable read-across into prudential policy. For example, why are interest payments on debt tax-deductible whilst dividends are not? Dividends which should be the drivers of long-term investment, but are taxed twice.
Finally, **financial education** is important. There have been many efforts to improve financial education on the supply side, but little on the demand side. Crises often arise because people want easy financial gains and they assume that the easy gains are stable over time.

**Steffen Kern, Head of Financial Stability, ESMA,** presents an applied markets regulator view. ESMA is an agency which implements EU Directives, and makes recommendations and technical standards. The objective of ESMA is to help build a single rule book for securities markets, and to promote financial stability.
Kern noted that the survey provides a helpful overview of the issues affecting financial stability. The literature on capital markets needs to catch up with the literature on financial stability in banking which is “light years ahead”.

There exists a **need to develop metrics**: how to measure liquidity, how much liquidity should banks hold? This is very useful for regulators as it helps them to design ex-ante prudential policy. We **need to monitor risks in a dynamic setting**. ESMA has around 200 risk metrics which it monitors, which are fairly useful in normal times to try to predict an asset price bubble, but are of little use in the context of the crisis itself. Contagion measures fall apart in situations of financial distress**. Evaluation risks and conduct/operational risks need to be measured**.

There may exist an **agency problem for regulators**: regulators may not have right incentives to make a bubble burst, and may not have the instruments to prepare a soft landing. Macro-prudential policy needs a capital markets view, and research can play an important role in guiding policy in this area.
Resolution is (relatively) simple in banking. **For markets/non-bank financial institutions we need resolution mechanisms for SIFIs**.
Regarding the dynamic approach to regulation, this is not a major concern as **in the recent past European regulators have moved rather moved quickly to respond to the crisis**. Reaction to new financial innovations is reasonably fast. Monetary and prudential policy need a better coordination, but this is already underway in the form of macro-prudential policy and through the ESRB. There is a need to know more how banks and other financial institutions are interconnected. New data will be coming available with hedge fund data coming in 2017 which should be useful for academic researchers going forward.

**Malcolm Sawyer** presented FESSUD (Financialisation Economy Society Sustainable Economy and Development) which is a 5 year EU funded project which studies the interaction of the financial system with economic activity, environment; households and society; environment, global development issues; industry. The project is concerned with the wider social impact of financial regulation and is interdisciplinary.

**Q&A**

Barbara Chizzolini questioned if there is a convergence in financial systems internationally? Are developing countries converging to EU countries' financial structure? Malcom Sawyer responded that there is some convergence, but there has also been a breakdown in the bank-based vs market-based financial structure dichotomy so that this distinction is no longer very valid.

## 5. Economists viewpoint: core, applied research and high frequency data in Europe

**Jean Edouard Colliard** started with some descriptive statistic on the papers included in the survey. 25% of theory papers in the survey were published before 1998, and 25% of the theory papers were published after 2009. We already knew a lot in 2008 about potential market failures, many new papers address old problems in a new garb (runs on shadow banks). However there was a lot of updating to do on the theory side post 2008, but a lot of this has already been done.
What is missing in the literature is a consistent body of knowledge which captures market failures which may arise in banking, and how regulations can address them. It should be based on separate papers and provide a conceptual apparatus for market participants and regulators. There has been a lot of research on market failures, but little on how to correct them using the tools available at prudential regulators' disposal. Some problems need more core research in economics in order to solve them, as well as further empirical analyses.
Specifically:
Are **capital requirements** for financial stability?
We need to understand **maturity transformation** better.
We need to **move from partial equilibrium to general equilibrium** models.
**Complexity vs simplicity**: there are few measures of complexity but there are no theory-based measures.
**Regulatory dialectics** (Kane, 1977) – the standard approach is to use mechanism design, taking into account the strategic response of the bank to the regulations. The problem is that banks always find new strategies not foreseen by the regulator – but standard game theory assumes that the regulator

knows all potential strategies of the banks. A new, more complex regulatory framework is necessary. What is needed is close to evolutionary game theory and could be referred to as "**evolutionary mechanism design**". Some flexibility for the regulator is required.
What are the **intrinsic incentives** of banks?

**Olena Havrylchyk,** questioned why the vast majority of researchers work with US regulatory data? Banking data is useful for research, but also for market efficiency and market discipline, facilitating competition, and improving supervision. European **Regulators lack adequate data**, particularly on shadow banking and securitisation. There are developments e.g. in the UK to increase the amount and quality of data at the regulator's disposal. On the other hand it could be argued that there is a data overload, as so much data is produced it can become too much for analysts to handle.
The publicly available Bankscope database is not strictly comparable between countries and across time. Regulatory data has a number of redundancies and gaps. Supervisory data in the US is publicly available, and there is no strong reason why this cannot be the case elsewhere. Alessio De Vincenzo commented that in Italy supervisory reports are confidential, but are available in an anonymised format after 5-10 years. Karel Lanoo noted that Denmark publishes supervisory reports with no delay.
**Provision of data to external researchers is a major barrier to research due to confidentiality issues**. Where it is provided it is often provided on an informal basis and is only accessible with the aid of an internal researcher at the central bank. Data at a borrower level is available from credit registers in some countries e.g. Hungary and Czech Republic but not others. There is a potential conflict of interest as data might not be provided if it facilitates criticism of the central banks. There is also a potential self-censorship as researchers prefer to work on neutral topics with good data, rather than key topics for which access to data is limited.
No EU state reports data at the level of detail one finds in the US, so it is important **to seize the opportunity of the Banking Union to rethink data gathering and dissemination.**

**Giampiero Gallo** presented highlights of research based on Ultra High Frequency Data (UHFD). He shared the view that regulation should not be a response to past crisis, and that if regulators cannot be ahead of market participants they should at least be on the same wavelength. UHFD can be used to provide a more accurate characterisation of volatility and risk management; to measure liquidity risk; detect market inefficiencies; analyse the impact of high frequency trading on transaction costs, volatility and liquidity; and to detect insider trading.
In an ideal world there would be increased availability of freely available data for all realms of empirical analysis, based on European markets, to catch up with the US. There is a need for regulators to catch up with practitioners with their knowledge of UFHD dynamics. The overall objective should be to store enough information out of what is being produced, to turn that information into knowledge, and to ensure that this knowledge is adequately disseminated to regulators and appropriate market participants.

**Discussion**

Roberto Brasca noted that it is natural for market supervisors to survey liquid markets in which there are some algorithmic based traders introducing market distortions, which can move the market price appreciably sending false signals to human-based traders. A human-based trader can start selling stocks in order to induce the algorithmic traders to start selling too, which can cause slide in price unrelated to the fundamental value of the asset.

Elena Carletti commented on harmonisation vs non-harmonisation. Whilst Banking Union harmonisation may be beneficial in establishing a level playing field, having different macroprudential regulation to reflect different business cycles in different countries may be justified.

How much is one-size-fits-all an appropriate approach given that there is heterogeneity in financial structures between countries? On the issue of differing tax treatment of debt and equity, harmonisation on this issue could potentially be achieved through the Capital Market Union. On financial education: how to make buyer(sellers) more aware of what they are actually buying(selling)? If most debt-instruments are bailin-able financial education to make buyers/sellers aware of this fact is key. Although there are significant efforts to harmonise supervision, implementation differs significantly. A research gap is how different supervisory concepts are actually influencing banks' businesses. Answering this question would help to answer whether a one-size-fits-all approach to implementation is appropriate. How much can UHFD be used to design the capital market union?

Alessio De Vincenzo, (Banca D'Italia) commented on the data issue. One of the problems which arose in the crisis in Europe was a lack of comparable data on banks' financial positions. Information disclosure is improving, sharing between countries could be useful. In US data is more comparable between states, than between EU member states. In US a single accounting standard, whereas in the EU there are several. IFRS specifies principles but not detail of accounting standards, and is only for listed companies. Within Italy all (listed and non-listed) banking data is strictly comparable. There should be quarterly information validated by SSM, which allows for strict comparability between SSM-supervised banks.

Karel Lanoo noted that the AQR provided a lot of publicly available banking data. Basel III will harmonise capital reporting, whereas under Basel II they were not fully comparable. The existing data is consolidated, but under CRDIV there will be country-specific data.

Emiliano Tornese noted that financial education is key. There are instruments in MFID to protect investors, and we need to know what kind of instruments to invest in for the future. On harmonisation, in the past 5 years a lot has been achieved e.g. the single rulebook and the SSM have been introduced.

Roberto Brasca said that on financial education it is true that some people were missold products, at least one side of the transaction should know about what he/she is buying. On tax deductibility it is very important for affecting the relative cost of capital.

Xavier Frexias remarked that there are two ways to think about banking. There are the dynamic stochastic general equilibrium (DSGE) which are commonly used in central banks; and static, asymmetric information theories. With DSGE we measure what we cannot understand, whereas with the static approach we understand what we cannot measure. We need to introduce cycles in models of financial stability e.g. Kiyotaki-Moore framework.

Julia Kirali noted that country level data is available but not bank or customer level data. Data protection prevents sharing customer level data with the public. A data-sharing initiative of the Hungarian Bankers Association was undermined by the competition authority as banks cannot share data with each other which may ease the knowledge of competition. On financial education it is not necessary for customer to understand the NPV of a financial asset. Banks should be responsible for providing the necessary information to understand riskiness of assets. Elena Carletti noted that information needs to be provided in a readable, useful manner.

Vincenzo Chiorazzo remarked that the introduction of bail-in is a steep change which makes the problem of financial education particularly acute. Emiliano Tornese noted that equity remains first in line to suffer losses, so financial education is important is important to highlight the risk of investments in any case.

## 6. Round table: Banking and Capital Market Union: where are we?,

**Emiliano Tornese, Bank and Security Lawyer, European Commission**

Emiliano Tornese noted that the survey is useful in "connecting the dots" and in highlighting the limits of current legislation, and introduced Xavier Freixas who spoke about whether the new regulations address the new regulatory framework can address market failures in the banking sector adequately.

**Xavier Freixas, Universitat Pompeu Fabra**

Xavier Freixas responded with the new regulatory framework we will be able to avoid a crisis if is identical to previous one! However we are in a situation of Knightian uncertainty i.e. we don't know what the next crisis will look like. We might be fine tuning regulation to deal with the previous crisis! It is important to combine complex fine-tuned rules with simple basic rules. How to limit cost of next crisis? Regulation is 90% prevention, 10% crisis management.
Increasing capital quantity and quality is clearly a move in the right direction. Correcting some clear regulatory mistakes e.g. some definitions of securitisation; limiting maturity transformation with financial regulation might be a good way to limit banks' risk. Some accounting harmonisation has taken place, but is it is limited. Are regulatory reforms risk reduction or risk transfer? Are we transferring risk out of the banking industry e.g. the new liquidity regulations have segmented from HQLA to non-HQLA. Are new regulations reducing risk-taking? If they are, is that desirable? Are we preventing desirable risk-taking e.g. innovation. If financial development leads to economic growth, we need to avoid preventing financial innovation. We should have similar or lower levels of risk, and transfer risk to those which are best placed to absorb risk.
On fine tuning vs simple rules Xavier Freixas questioned whether it could be that we are fixing minor problems, and not addressing major ones? The market focuses not on RWA in analysing risk, but rather focused on the simple leverage ratio. Should we be focusing on simple leverage ratio? Simple + complex allows a minimum regulation, and hopefully improve resilience of system to unanticipated shock.
We now have macroprudential polices institutions which present new challenges. How to measure systemic risk e.g. CoVAR? There are both time-series and cross-sectional dimensions to systemic risk. Then one must choose the right instrument, debt-to-income or loan-to-value limit. Further, distinguishing between micro and macro risk is difficult. Real estate bubble in Spain could have been spotted in Spain – if it was the case and macro information passed to regulators. The tradeoff between financial stability and economic growth is a political issue. Macroprudential regulation is political which raises a question of whether there is a democratic deficit. In Norway the central bank provides technical advice and the ministry has a final say on whether the central bank's recommendations get implementation. Overall on prevention, corporate governance determines the risk culture of a financial institution e.g. depending on how much the chief risk officer is compensated there are higher or lower losses in a crisis. A better framework for corporate governance is crucial and the Basel rules on this a step in the right direction. Crisis management developments are welcome and the BRRD crucial.

**Karel Lanoo, CEPS**

Karel Lanoo presented CEPs research on the capital markets union and banking union. There has been a process in which the G20 led, FSB in command, EU followed. There has been further institutionalisation and centralisation In EU, ending in the establishment of the Banking Union.
On Capital we moved from Basel II to Basel III/CRDIV, more than doubling the capital buffer. In OTC derivative markets before we had no EU rules, whereas we now have central clearing and trading.

The rating agencies we have moved from freedom of speech to license and supervision (CRA regulation) and it is still highly profitable. On hedge funds there was the introduction of licensing and supervision (AIFMID). On resolution there was the introduction of the BRRD. On deposit guarantees there was some harmonisation: pre-funding 0.8%) and quick pay out. National deposit insurance schemes have the option to borrow/lend between schemes but no real European federal deposit insurance.
A common criticism from banks is that new regulatory framework is that it constitutes safety at all costs. There are many more Regulations rather than Directives, done at an EU level. There has not been an assessment of the effect of all regulations in unison, is there a problem of some banks becoming too small to comply with all the regulation? There is increasing centralisation and regulation.
There aren't many really internationally active banking groups in SSM. 1100 banking groups, 900 concentrated in just one country. There has been a huge retrenchment behind national borders since 2008.
On stability vs growth, there are now several layers of defense in the system consisting of a number of different ex-ante and ex-post financial regulations. Karell questioned whether the ECB is TBTF as a supervisor? Can the ECB be allowed to fail as a regulator? Can the ECB reconcile both monetary and financial stability objectives? Formally financial stability is an issue for the member states, which creates a confusion of roles between different financial regulations. Where does supervision end and resolution start? Does the ECB as a prudential supervisor conflict with the European Commission? There is still a large role for member states in setting macroprudential requirements. Finally there is a need to strengthen enforcement in order to harmonise capital markets, and to ensure properly comparable data on banks is collated.

**Vincenzo Chiorazzo** from the Italian Banking Association started his discussion by noting that commercial banks believe that the banking union is setting the right path for financial regulation. The SRM is already implemented, the deposit guarantee scheme (DGS) is still to come. The AQR and stress test was an important exercise, however it was mainly on credit risk. The main priority now is the implementation of Basel III. There are many regulatory reforms taking place: supervisory and regulatory process; review of credit risk framework.;bailin tool; information transparency; TLAC requirements; and bank structural reform.
Banks are concerned about the use of new benchmark models which may be too mechanistic, and may not allow adequate tailoring of the new rules. The revision of the standardised approach appears to increase costs and capital requirements. There is a large regulatory burden for banks, and little clarity in terms of the regulatory agenda in the medium term.
The cost of compliance could be at odds with the need for investment in technology. Capital requirement increases are a problem in terms of both the transition and operating with the new stead state. Modigliani Miller does not hold for banks so that increasing capital requirements can have a negative effect on the real economy. There is a need to understand the effect of all regulations together.

**Peter Benczur from JCR-EC** commented on the EFRA exercise which is a cumulative impact assessment of all the major financial regulations on public finances. The political objective of the regulations was that no public money would be spent on bailout. The JRC found that much less public money would be spent on bailout – a crisis event bailout cost falls from 3.7% of EU GDP to 0.46% with the introduction of the new financial regulations. The reduction in public finance loss mainly comes from the introduction of bail-in, so that the safety net not that important.
Is bail-in omnipotent? Not necessarily, we need to know who bears the losses. We would need detailed data on cross-exposure in bonds by banks, which we do not have. One can trace the effect of bail in using cross-exposure matrix of sectors. A lot of bail-in losses would create further losses

meaning that the safety net is used more. Are governments, households, or financial deep pockets like sovereign wealth funds best placed to absorb losses? The tradeoff is between moral hazard and low cost of government financing.
Do we have a good understanding of financial chains? What is the role of LOLR in this context? We need to understand the The ESCB MARS network attempted to look at cross-border exposure, but found it rather difficult. Can the SSM help? In summary, bailin should be a very useful tool in principle, there are some subtleties in practice. Shift from banking sector to shadow banking.

**Aimery Clerbaux from FSMA** started by noting that Banking Union very different from Capital Markets Union. Capital Markets Union proposals include all 28 EU member states, and is not about supervision per se. The link between the two is that the Capital Markets Union needs a financially stable environment and the Banking Union provides this; and that CRDIV may lead to a cutback in bank lending, and CMU can compensate for this.
There will be a CMU publication on 19th June which will show where member states are. CMU is a long-term project. The objective of CMU is to increase level of funding to real economy as banks are not lending so much. However it is not clear what is the right level of financing, is it the pre-crisis level? The survey shows that financial liberalisation, plus credit expansion could fuel next bubble. It is important to rebalance funds towards market based finance. It is not necessarily detrimental to banks as banks will lose credit income, but they will obtain more money from issuance of capital market instruments etc.
We want to finance longer-term financing, more loss absorbing finance. We can observe initial signs of disconnection between finance and underlying economic reality. Increased complexity of regulation and products is problematic. We need products which investors are able to assess and understand. It is not always easy to understand risk that investors in bank bonds are taking. In relation to complexity, sometimes it is to add fees, not to facilitate risk sharing etc.

**Discussion**

Barbara Chizzolini asked why is the increase in capital requirements from 4% to 8% regulation beneficial; and is self-regulation a possible solution in banking? Karel Lanoo responded that as highlighted in the survey there is no clear evidence on the optimal level of capital requirements, some argue that the requirements are too low. There has been a significant fall in return on equity in the banking sector, but the effect on growth is unclear. Self-regulation is an excuse used by private sector to avoid regulation e.g. self-regulation of transparency in bond markets has failed.

Elena Carletti noted that there is also a significant political dimension as political constraints prevent us setting optimal capital regulation. How can we deal with the political constraints? On Capital Markets Union it is not clear whether the plan is to create new institutions which do what bank do now, or to introduce new products, sold through markets. If we compliment bank financing with capital markets financing, what is the future business model for these banks? Aimery Clerbaux responded that universal banks could complement bank loans with asset management, private equity, long-term investment funds; thus shifting activity from lending to investment bank type activities.

Elena Carletti asked whether by incentivising banks to do capital markets financing, regulators are moving universal banks' activities outside the regulatory perimeter? Karel Lanoo noted that the general objectives of the CMU are to reduce the cost of issuance in capital markets and to improve access to market based finance, but that it will be difficult to implement. Vincenzo Chiorazzo remarked that it's not by chance that the EU financial system is bank based. Are they better financed through bank loans rather than capital markets?

Ramon Marimon noted that there is a need to take risk for growth (investment), but there is also a risk of a bank run. Why is nobody considering narrow banking? Emiliano responded that that the CMU is aimed at finding existing elements of regulatory framework which prevent market from functioning in a more efficient way. The banking system was extremely large, and the real economy is hugely dependent on it; and the banking system remains somewhat fragmented in the EU. Capital markets union facilitates integration of financial systems in EU; and should allow for a greater role of non-systemic financial institutions in providing finance to the real economy.

**Barbara Chizzolini** closed the workshop.