Gertrude Tumpel-Gugerell: The interplay of banking, financial intermediation and regulation

Speech by Ms Gertrude Tumpel-Gugerell, Member of the Executive Board of the European Central Bank, at the 13th Conference of the European Central Bank–Center for Financial Studies (ECB–CFS) Research Network on "Macro-prudential Regulation as an Approach to Contain Systemic Risk: Economic Foundations, Diagnostic Tools and Policy Instruments", Frankfurt am Main, 27 September 2010.

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Ladies and Gentlemen,

It is a real pleasure for me to speak today at the 13th Conference of the ECB–CFS Research Network on "Macro-prudential Regulation as an Approach to Contain Systemic Risk".

The Roman senator and historian Tacitus tells us that in 33 A.D. the Roman Empire suffered a major financial crisis. The trigger was a re-establishment of laws that Julius Caesar had introduced as a war measure in 49 B.C. to prevent the flight of capital abroad and the fall of land values. After having been disregarded for a long time the re-introduction of the laws, which forced lenders to invest a large share of their capital in domestic real estate, triggered a scramble for money as many loans were called in. The disastrous effect was a postponement of investment and a fall in real estate values, compounded by investors withholding funding in view of the prospect of finding better bargains in a falling market. The crisis was eventually ended when Emperor Tiberius arranged for three-year interest free loans to investors.

Although the global crisis of the last few years had little to do with drastic measures of war financing of the Roman kind, the involvement of real estate, elements of the transmission and aspects of the resolution still sound familiar. These analogies are not isolated examples. The long list of financial crises in human history and their parallels over time have been extensively documented.[1] One of the key issues – today and in history – has been that there were limited means to contain the systemic dimension of crises. Hence, the recent focus on macro-prudential supervision and the topic chosen for this conference. The regulation of systemic risk is very topical.

In my remarks today, I would like to look a bit more at the issue how financial regulation should react to instances of widespread or systemic instability. I shall do that from two angles: First, I want to look back at regulatory reactions in the past, namely the Glass-Steagall Act in the United States and the establishment of the Basel Committee and its standards at the international level, and, second, I want to consider the particular challenges we are facing for the current regulatory reforms.

How has regulatory policy reacted to the occurrence of financial instabilities in the past?

One prominent example is the regulatory reaction to the stock market crash in 1929, which resulted in the establishment of the Glass-Steagall Act of 1933. The Act was to a large extent motivated by concerns about the role of banks in the run up to the Great Depression and in particular about conflicts of interest between the lending, underwriting and proprietary trading

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[1] See, for example, Kindleberger (1978), Manias, Panics, and Crashes: A History of Financial Crises, New York: Basic Books, Garber (2000), Famous First Bubbles: The Fundamentals of Early Manias, Cambridge: MIT Press, or Reinhart and Rogoff (2009), This Time Is Different: Eight Centuries of Financial Folly, Princeton: Princeton University Press.

functions. Therefore, the Glass Steagall Act banned commercial banks from underwriting, holding or dealing in corporate securities, hence essentially separating investment from commercial banks.

The Act not only had a major impact on the evolution of banking in the US, but also worldwide. For instance, the emergence of large US investment banks, also with dependencies in Europe, is a direct consequence from the implementation of this Act. The Act also affected the supervision of banks worldwide. Owing to their funding structure based on deposits by many small and relatively uninformed agents, hence the possibility of a bank run and their involvement in the payment system, commercial banks were regulated relatively heavily. In contrast, investment banks were regarded to need less close public monitoring and regulation, as they were seen to be less important from an overall financial stability perspective and mostly the domain of sophisticated investors. However, the crisis has shown that all actors in the financial system contributed to the build up of systemic risk.

Research on the pre-Glass-Steagall-era in the United States provides evidence that securities underwritten by commercial banks' subsidiaries did not have a higher probability of default than those underwritten by investment banks.[2] However, whether the Glass Steagall Act has contributed or not to financial stability is an open question. Nonetheless, in 1999, the Gramm-Leach-Bliley Act repealed the Glass Steagall Act on the grounds that this would allow banks to become more competitive, attain favorable economies of scope and diversify their sources of income. However, the recent regulatory reform in the US under the Frank-Dodd Bill has re-introduced some restrictions on proprietary trading by deposit taking institutions.

A regulatory response with a worldwide impact on regulatory standards and banks' business was the creation of the Basel Committee. The failure of the German Herstatt bank led to serious spill-overs to the US banking sector. In late 1974, central bankers from Canada, Japan, the US and 9 European countries founded a new body at the Bank for International Settlements in Basel, which became later known as the Basel Committee on Banking Supervision.

This new organization was founded on the understanding that the increasing cross-border activities of banks and the associated risk that financial instability would be transmitted across borders required improvements in the quality of supervision and regulation globally as well as greater international cooperation in this field. Over the years it has increasingly developed into a standard-setting body and although its standards – such as Basel I and Basel II – are not legally enforceable they have in fact become the worldwide benchmark.

The list of factors that contributed to the financial crisis is long. However, irrespective of the multiplicity of factors, we had to realize that the provisions put in place by Basel I and Basel II were not sufficient to ensure the necessary resilience of the banking sector needed to withstand a situation like the one we are currently facing.

In my view, the major lessons from the current crisis for any future regulatory policy are the following:

First, Basel II rested on the principle that the purpose of regulation is to ensure the safety and soundness of individual financial institutions against the risk of loss on their assets. However ensuring the soundness of each individual institution does not necessarily ensure the soundness of the financial system as a whole.

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[2] Puri, M. (1999), "Universal banks as underwriters: Implications for the going public process", *Journal of Financial Economics*, 54, 133–163. Kroszner, R.S. and R.G. Rajan (1994), "Is the Glass Steagall Act Justified? A study of the US experience with universal banking before 1933", *American Economic Review*, 84, 810–832.

Second, the crisis has highlighted that the main types of risk, notably credit, market and liquidity risk are ultimately linked, and that funding liquidity of banks is an essential element of determining their resilience. Awareness about the importance of regulating liquidity risk was limited until the crisis brought it to the fore.

And third, part of banks' risk taking activities were left to other, non-bank entities of the financial system and, thus, these activities were able to escape the regulatory web that had been built for banks.

Already from these three points we see how the lessons learnt lead us to the systemic dimension of supervision and regulation.

The current regulatory challenge

So let me turn to the challenges of the current regulatory reform to discuss what is needed to prevent or contain financial instabilities and systemic crises in the future. These challenges concern three major fields: (i) classic bank regulation, (ii) market and infrastructure regulation, and (iii) systemic risk regulation.

Regulating banks

Concerning the bank regulation, major progress has been made. The Basel Committee has just published the regulatory reform package known as Basel III. It addresses the weaknesses brought to the fore by the crisis. The aim of the Basel III reform is to enhance capital regulation and to introduce liquidity regulation. In particular the Basel Committee proposes: first, to improve the quality and quantity of capital, especially Tier-1 capital to improve loss-absorption on a going concern basis; second, to introduce a non-risk-based leverage ratio as a supplementary measure to the Basel II risk control framework; third, to introduce capital buffers and forward-looking provisioning to ensure that the financial system absorbs the shocks and thus lowers the volatility of the financial and real economic cycles; finally, to elevate resilience of financial institutions to liquidity stresses by introducing a liquidity risk framework, improving liquidity risk management and harmonising liquidity risk supervision.

The significance of internationally coordinated oversight and the cross-border web of dependencies in the financial system are exemplified by systemically important financial institutions (SIFIs) that often operate internationally. These played a major role in both the impact and the transmission of the crisis. In order to increase long term financial stability there is the need to reduce the moral hazard they exhibit. To address this, policy recommendations are being developed that include: (i) a framework for measuring an institution's systemic importance, (ii) resolution tools and frameworks for the effective resolution of financial failures without taxpayers ultimately bearing the burden, as well as (iii) prudential and structural policy tools to reduce the probability and impact of SIFI's failure.

Looking further ahead, important challenges remain to improve banking sector stability:

First, banks' business models need to become more sustainable. In my view, banks' business strategy should not be directed towards increasing short-term profits by way of taking on extensive risks to the detriment of the long term viability of their business. In fact, the level of announced profit targets and their impact on peer banks has also to be seen from the perspective that higher profits mean higher risk taking and, hence, do not necessarily originate from efficiency gains alone.

Second, I believe that it is crucial for banks to undergo a serious reform of their corporate governance and compensation schemes. In particular, the incentives of traders, CEOs and creditors of the bank should adequately reflect the risks involved so as to internalize the costs of their risk taking and potential failure. This can be achieved through

appropriate compensation schemes, more transparency vis-à-vis creditors and shareholders and generally improved oversight of banks' business. Overall, the managing board of a bank has to shift the focus away from short-term objectives towards a longer term corporate strategy. This also includes being more accountable for the risk taking of the overall business of the bank, which brings me to the next challenge. ***Third, risk management practises need to be improved.*** Most risk management techniques – not just used by banks but also by rating agencies – neglected the correlations of risks across securities and did not sufficiently internalize the growing systemic (credit, market and liquidity) risks.[3] Moreover, banks underestimated tail risk. The existing risk management techniques worked well at predicting small day-to-day losses under normal circumstances but failed to predict severe losses that are very infrequent. However, it is exactly those severe losses that matter the most. Therefore, banks need to devote greater attention to their risk management. This means in particular that the risk management function needs to receive a more prominent role in the organizational structure, specifically with respect to authority and independence.

Regulating markets and infrastructures

Concerning the regulation of financial markets, the crisis has clearly shown that turbulences in one segment of financial markets can create spill-overs and contagion to other segments. Moreover, we have seen that both banks and other types of financial intermediaries had been seriously affected by the financial crisis. Therefore, I welcome the recent agreement to establish three pan-European micro-prudential supervisory authorities – the European Banking Authority (EBA), the European Securities Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA). They are expected to become operational at the beginning of next year.

With regard to the regulation of market infrastructures, let me first say that I see it as a great achievement that market infrastructures have fared very well. They were able to withstand the shock-waves of the current crisis and continued to ensure the clearing and settlement of financial transactions. Thus, they contributed critically to containing the spreading of financial instability.

This resilience, however, was not a "dues ex machine". It was the outcome of well designed international standards for market infrastructures. Still, we need to closely analyse the lessons from the crisis also in this area – e.g. in terms of market infrastructure risk management and transparency and the arrangements for cross-border cooperation among authorities. These lessons will be incorporated in the global CPSS-IOSCO recommendations for financial market infrastructures to be issued early next year.

Despite the good performance of market infrastructures, there is a need to further develop highly resilient market infrastructures, particularly in the field of OTC derivatives. The crisis showed that legislation, supervision and oversight of global derivatives market arrangements need to be improved – and that this needs to be done in a consistent way globally. Following agreement by the G20 on high-level objectives, new legislation has recently been introduced in the US and is in an advanced stage in the European Union. Such legislation stipulates, inter alia, that all OTC derivatives trades will need to be reported to trade repositories and to the extent possible be subject to central clearing via a central counterparty (CCP).

Overall, also with regard to regulating markets and infrastructures, important challenges remain:

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[3] Danielsson, Jon, Paul Embrechts, Charles Goodhart, Con Keating, Felix Muennich, Olivier Renault and Hyun Song Shin (2001) "An Academic Response to Basel II" Financial Market Group special paper 130, London School of Economics.

First, striving for more transparency in financial markets. The activities in the shadow banking sector and the over-the-counter business have contributed tremendously to the creation of uncertainties and opaque transmission channels for risks. Therefore, a central goal for any future regulatory action should the improvement of market transparency. Clearing of OTC derivatives via CCPs, the reporting of derivative trade data to trade repositories and the recent proposal by the European Commission to increase transparency for shortselling activities are important steps in the right direction.

Second, dealing with financial innovation. Independently of the doubtless benefits of financial innovation, it poses a constant challenge to regulators, supervisors and overseers of financial markets and infrastructures. The banking business is in a constant state of flux with new financial instruments constantly being developed and traded. New techniques and instruments have been developed, particularly to diversify and trade credit risk, making markets more complex and sometimes less transparent. For example, the risks involved in the so-called "Originate to Distribute" model – an intermediation approach in which banks originate, repackage and then sell their loans (or other assets such as bonds or credit risk exposures) on to the financial market – was insufficiently recognized by market participants and supervisory authorities. Therefore, financial innovation and growing complexity mean that market participants and authorities need to constantly build up in-depth knowledge of financial innovations and broaden their analysis across the whole spectrum of financial market actions.

Third, minimization of risk transmission between institutions and markets. Given the resilience of market infrastructures in the current crisis, we need to further strengthen and encourage their use. Moreover, the crisis has shown that the exclusive focus on banks has proven insufficient as contagion has also occurred across different types of financial intermediaries, such as insurance companies and money market funds. Therefore, looking forward it will be crucial that the cross border cooperation between authorities be further strengthened. In this respect the work of the newly created European Supervisory Authorities will be key. Looking more into the interrelation between markets from a systemic perspective will be another key task, which brings me to the third major field of regulatory challenge, namely regulating systemic risk.

Regulating systemic risk

As indicated, traditional banking regulation was designed to limit each individual institution's risk seen in isolation. It did not sufficiently focus on systemic risk, put simply, the risk of a simultaneous collapse of institutions.

Institutionally, significant progress has been made in the strengthening of macro- and micro-prudential supervision. In Europe, the European Systemic Risk Board (ESRB) and – as mentioned – three pan-European micro Supervisors will be established.

The ESRB will provide a thorough analysis of systemic risks to the financial system in the European Union and will issue warnings if significant risks are identified. It will also provide policy recommendations to address these risks and prevent a renewed build-up of excessive risk in the financial system as a whole. With its involvement in the ESRB, the ECB will continue to play an active role in safeguarding financial stability in Europe. The ECB Vice President will go into greater detail at tonight's conference dinner on how we are preparing for that task.

The main challenges that I see ahead in the area of regulating systemic risk are as follows:

First, determining the perimeter of regulation. It is important that the regulatory web is cast wide enough to ensure that all systemically important institutions, markets and products are captured. Caution is also necessary to avoid that tighter regulation simply shifts activities to unregulated market segments or entities. Therefore, the steps taken towards more harmonised banking supervision as well as the progress made in Europe towards a Directive

on alternative investment fund managers, which affect financial markets through their tight web of interlinkages with the financial sector, are appreciated.

Second, ensuring the availability of information and data. The detection and the early warning on systemic risk crucially depends on the quality and the availability of relevant data as well as on the adequate assessment of the risk bearing capacity of the system. Therefore it is important that information is made available that can feed into future assessments of systemic risk, especially in view of this being a key input into the working of the newly founded ESRB. In this regard, it will be equally important that the use of qualitative data and market information is strengthened and that this information will be fed into the regular analysis of systemic risk in a more systematic way.

And third, measuring systemic risk. A basic difficulty in regulating system risk relate to the difficulty in measuring the contribution of individual institutions to systemic risk. The importance of an institution for systemic risk is a function of its size, interconnectedness and substitutability. One way for regulators and private markets to be able to monitor financial institutions and to assess their systemic reach, is to assess the risk of multiple defaults. Measuring such risk is difficult, as measures may be too backward looking or face data limitations.

I am happy that after the break we will have the chance to hear about the latest advances on how to measure systemic risk in the keynote speech by Professor Robert Engle from New York University. He has developed a measure of systemic risk capturing the systemic impact of an individual institution's shortfall and which is published in the so-called NYU Stern Systemic Risk Ranking.

The keynote speech will be followed by two outstanding papers on measuring systemic risk. Kim and Giesecke will present a paper estimating systemic risk on the basis of actual defaults and the timing of their occurrence. The paper by Yang and Zhou goes beyond the usual focus on the existence of contagion and will present an analysis of the pattern of propagation across financial institutions.

For an illustration showing how big the challenge to identify systemic risk is, one does not need to go back very far in history. In 2003, a young analyst in New York stated the following:

"You just have to watch for the level at which a nearly unlimited or unprecedented credit growth can no longer drive housing markets higher. I am extremely bearish and feel the consequence could be a 50% drop in residential real estate in the US. A large portion of the current [housing] demand at current prices would disappear if only people were convinced that prices were not rising. The collateral damage is likely to be of orders of magnitude worse than anyone now considers".[4]

It took another 4 years that these risks and, particularly, the systemic impact and costs materialized. Analyzing systemic risk means, therefore, mainly going beyond mainstream thinking and challenging widespread beliefs. We are in need of the type of analyst I just quoted. I am very much looking forward to hearing this conference's analysis on the containment of such systemic risk, the future challenges and the possible policy options we have going forward.

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[4] Quote from M. Lewis, The big short, 2010.