

## Heterogeneous nations and globalized financial markets: new challenges for central banks

Conference summary

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The financial crisis that started with the collapse of Lehman Brothers in September 2008 had a profound impact not only on the global economy, but also on the economics as a science. It has been almost two years since then and it is about time to review how economists responded to the task at hand. One of the views that were dominant before the crisis and that have recently been challenged is that the monetary policy should primarily, if not solely, focus on price stabilization. In the recent discussion, much of the attention has been devoted to issues related to financial sector stability and cross-country linkages within the global financial system.

The National Bank of Poland is highly interested in the direction in which this discussion is evolving, in particular, in the views of the economic profession on the challenges facing central bankers. Thus, in June 2010, the National Bank of Poland hosted a conference "Heterogeneous nations and globalized financial markets: new challenges for central banks". The conference was divided into six sessions, focusing on different aspects of the main conference topic. There were also two keynote speeches. The papers selected for the meeting were closely related to the impact of the financial crisis on economics. Emphasis was put on macroprudential policy, financial sector stability, impact of financial integration on the economy and role of credit frictions in monetary models. Below we present a summary of the keynote speeches and conference papers.

In the first keynote speech, Geert Bekaert, Columbia University, presented a new measure of equity market segmentation (Bekaert et al. 2009). The measure is based on industry level earnings yield differentials between a given country and the world market. The advantage of the proposed indicator is that it is not based on any specific asset pricing model. According to this measure, while

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The conference took place in Warsaw on June 10–11, 2010 and was organized by the Economic Institute, National Bank of Poland, in cooperation with the Westfälische Wilhelms-Universität Münster and the Viessmann European Research Centre at the Wilfrid Laurier University.

there has already been little segmentation in developed countries since 1993, equity markets in developing economies are still significantly segmented, even though a declining trend is apparent. Among the identified forces behind the observed variation of segmentation across countries one can list countries' financial and trade openness, as well as political risk profile and stock market development.

Session one was devoted to the relation between the monetary policy and financial stability. In the first presentation, Michael Ehrmann, European Central Bank, analysed how central bank communication on financial stability affects the markets (Born, Ehrmann, Fratzscher 2010). He argued that with the predicted growing role of central banks in providing financial stability, we need to know how central bankers should communicate with financial markets. According to the presented results, the publication of Financial Stability Reports has a significant, long lasting and stabilizing effect on the volatility of stock market returns. In contrast, speeches and interviews seem to be of less importance and tend to increase financial market volatility. In the next presentation, Fabio Castiglonesi, Tilburg University, discussed the effects of international financial integration on the stability of the banking system (Castiglionesi, Feriozzi, Lorenzoni 2010). He showed that access to international interbank market creates incentives for banks to reduce their liquidity holdings and leads to more stable interbank exchange rates in normal times (i.e. when shocks uncorrelated across countries dominate). At the same time, however, this integration deepens the impact of the worldwide crisis when shocks are correlated. This feature of the interbank market translates into more stable consumption in normal times and greater consumption declines during global crises. Still, financial integration can be shown to be *ex ante* welfare improving.

The second session focused on the problem of dealing with systemic risks in the banking sector. Giovanni Calice, University of Southampton, analysed the relation between the credit default swap (CDS) market and systemically important financial institutions (Calice, Ioannidis, Williams 2010). According to the results presented, there is a negative volatility spillover from credit derivatives market to banks' equity, which affects the stability of the financial system. Thus, an increase in the volatility of the CDS market will create a need for capital injection to the banking system. Interestingly, the proposed model was able to predict the problems of Bear Stearns and Lehman Brothers several months in advance. In the following presentation, Gabriela Mundaca, Johns Hopkins University, explored how monitoring policies can affect performance of commercial banks in the presence of the principal agent problem (Mundaca 2010). She analysed, in the sequential game, whether monitoring by a central bank should be discretionary or follow publicly known rules. The main finding was that when central banks behave in a discretionary way, commercial banks exert less effort to screen investments and thus take higher risks. In contrast, with public information about the monitoring rules, the moral hazard problem is substantially reduced and the need for a bailout in case of a crisis is smaller.

The third session was centred on credit frictions in monetary models. Luisa Lambertini, Ecole Polytechnique Federale de Lausanne, demonstrated how risk in the mortgage market can affect the rest of the economy (Forlati, Lambertini 2010). The main implication of the presented model was that more stable economies have lower volatility in the mortgage market and thus lower rate of default on mortgages, which results in high leverage ratios. In consequence, when hit by a large and unexpected shock, such countries will suffer a relatively more severe credit crunch. Krzysztof Makarski, National Bank of Poland, examined the relative performance of two ways of introducing financial frictions into otherwise standard dynamic general equilibrium models (Brzoza-Brzezina, Kolasa, Makarski 2010). The central finding was that while a specification based on collateral constraints seems to be better at replicating the cyclical behaviour of the main macroeconomic variables, models based on external finance premium feature a more plausible propagation mechanism in response to standard shocks.

The second keynote address of the conference was given by Gertrude Tumpel-Gugerell, European Central Bank, who discussed various efficiency gains and pitfalls of financial integration (Tumpel-Gugerell 2010). She argued that financial integration is an irreversible process, absolutely necessary for the functioning of the euro area economy, and as such should be promoted. While it may be true that this process poses some risks to financial stability, such as contagion fostered by greater interconnectedness, its benefits far outweigh the costs. Therefore, instead of containing financial integration, efforts should be directed at a better understanding of the different forms of financial development. Its two aspects seem to be particularly important nowadays: too high complexity of some financial products and an excessive size of the financial system, increasing the risks of bubbles.

The role of financial integration was further explored in session four. Simone Manganelli, European Central Bank, presented cross-country empirical evidence for an important role of financial market development in speeding up reallocation of output across industries towards the structure that is optimal in terms of growth and volatility (Manganelli, Popov 2010). The identified effect remains significant also when one controls for the impact of regulatory and legal institutions. Séverine Menguy, Université de Paris X-Nanterre, advocated the introduction of a fiscal insurance mechanism in the form of state dependent federal transfers as a complement to the monetary union arrangement (Menguy 2010). To avoid moral hazard problems, however, this facility should also include a state independent premium, of which the optimal level can be shown to be a function of various characteristics of the union and its member states, like the correlation of shocks.

The fifth session was devoted to presentations by Ph.D. students. In his talk, Henry Sabrowski, Technische Universität Dortmund, offered an empirical evaluation of two popular theoretical foundations for the Phillips curve, i.e. sticky prices versus sticky information (Bredemeier, Sabrowski 2010). According to the presented results, both approaches pose some problems and their relative performance depends on the evaluation criterion as well as the data used. Judith Lischewski, Westfälische Wilhelms-University Münster, analyzed the return patterns on the Polish stock exchange (Lischewski, Voronkova 2010). While it is often argued that liquidity can be an important risk factor in emerging markets, the presented findings do not support this hypothesis as extending a standard stock return model by a liquidity measure fails to improve its performance significantly.

The last session looked at financial integration from yet another point of view. Eduardo Cavallo, Inter-American Development Bank, investigated how financial development can depend on interactions between preferences of incumbent interest groups and government's policymaking capabilities (Becerra, Cavallo, Scartascini 2010). The empirical results obtained by using a large panel of countries suggest that lower opposition to financial development leads to credit deepening only in those countries where bureaucratic quality is sufficiently high. Moreover, improvements in government capabilities have a significant impact on credit market development only in countries characterized by a high credit dependency. Finally, Andreas Steiner, University of Osnabrück,

offered a model in which international strategic interactions determine the optimal level of capital account restrictions imposed (Steiner 2010). Its main implication is that a country's best response to other countries' policies consists in imitating their decisions. This prediction is corroborated by the results of an econometric analysis, showing very high contemporaneous correlation between capital account policies adopted by different countries.

Overall, the conference was a useful contribution to a more general discourse on how the monetary and regulatory policy should be conducted in the future. The keynote speeches and papers presented were an excellent stimulus for an intensive exchange of views, and emphasized the need for further research in this field. Hence, the Economic Institute looks forward to organizing similar conferences in the future.

## **Papers** presented

- Becerra O., Cavallo E., Scartascini C. (2010): The Politics of Financial Development: The Role of Interest Groups and Government Capabilities, mimeo.
- Bekaert G., Harvey C.R., Lundblad C., Siegel S. (2009), *What Segments Equity Markets*?, NBER Working Papers, 14802.
- Born B., Ehrmann M., Fratzscher M. (2010), *Macroprudential Policy and Central Bank Communication*, mimeo.
- Bredemeier C., Sabrowski H. (2010), Sticky Prices vs. Sticky Information: A Cross-Country Analysis of Second Moments, mimeo.
- Brzoza-Brzezina M., Kolasa M., Makarski K. (2010), *The Anatomy of Standard DSGE Models with Financial Frictions*, mimeo.
- Calice G., Ioannidis C., Williams J. (2010), *Credit Derivatives and the Default Risk of Large Complex Financial Institutions*, mimeo.
- Castiglionesi F., Feriozzi F., Lorenzoni G. (2010), Financial Integration and Liquidity Crises, mimeo.
- Lischewski J., Voronkova S. (2010), Size, Value and Liquidity: Do they Really Matter on an Emerging Stock Market?, mimeo.
- Manganelli S., Popov A. (2010), *Financial Markets, Diversification, and Allocative Efficiency: International Evidence*, mimeo.
- Menguy S. (2010), *How to Limit the Moral Hazard Related to a European Stabilization Mechanism*, mimeo.
- Mundaca G. (2010), Monitoring, Liquidity Provisions, and Financial Crises, mimeo.
- Forlati C., Lambertini L. (2010), Risky Mortgages, mimeo.
- Steiner A. (2010), Contagious Policies: An Analysis of Spatial Interactions Among Countries' Capital Account Policies, mimeo.
- Tumpel-Gugerell G. (2010), *Financial Integration and Stability: Efficiency Gains vs. Contagion Risks*, ECB board members speeches.