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# **Editorial**

# Securitization Crisis How the Credit Market Teaches us a Lesson

We are in the midst of a formidable credit turmoil, dubbed the subprime crisis. It all started in the subprime lending market, a few months ago. The low quality of these partly collateralized housing loans was known for a long time. When the interest rates in the U.S. began to rise, and thus the interest burden on the subprime borrowers was rising as well, it was evident to analysts and investors alike that there will be losses.

Since these losses did not come as a surprise to investors, the subprime lending market is actually not the true driver of the credit market crisis. Rather, the villain is the market for risk transfer, a market which analysts believed to merely distribute risk, thereby increasing the resiliency of the economy against shocks.

The one factor not anticipated by these analysts, however, was the common practice of transferring credit risk to special entities, the so-called conduits, rather than placing these risks outside the financial system. Quite systematically these entities were equipped with letters of comfort, or similar quasi-guarantees by the sponsoring banks. These guarantees

were substituting for equity which otherwise would have been required for the conduits to issue highly rated, AAA-commercial papers.

The existence and the positions of these conduits was little known outside expert circles. They contributed to the opaqueness of overall bank risk exposures. Due to this opaqueness, a largely local quality problem in the subprime lending market triggered a near-shutdown of the Commercial Paper market, as well as the interbank lending market, which in turn caused Central Bank intervention in the U.S., the U.K. and in Europe.



The current credit-cum-liquidity crisis is also the first serious test of the structured finance model of banking, a recent innovation in how banks and markets cooperate. The test has clearly shown that the model needs a profound revision. Simply brokering credit risk to off-balance sheet conduits, and selling bonds thereof to the general public is not a viable business model. The next months will probably see a long list of suggestions how to rehabilitate the structured finance market.

Is regulatory intervention needed? We recommend modesty, at most a light touch of new regulatory measures. In particular, market interventions that assist investors to reduce the prevailing opaqueness will prove helpful. Opaqueness is due to the inability of even the most sophisticated institutions to assess the hidden exposures of their counterparties. Consistent and standardized reporting involving an international credit tranche register will possibly do wonder.

In a similar direction, the rating agencies should be kept out of regulatory reach, as rules and standardization will almost surely diminish the value added by the use of agency ratings. The only positive role for regulation I can see refers once again to a reduction of market opaqueness. For example, the regulator can publish sound and unbiased rating performance measures. No standardized assessment of rating performance exists to date.

Why shouldn't we learn from mistakes? Thus, a first generation of financial engineers tried to decouple completely credit origination from credit risk placement. A second generation of financial engineers will probably bring banks' balance sheets back into the picture. Thus, disintermediation is not over, it is only better described as leveraged intermediation.

Jan P. Krahnen, CFS Director

### Further Reading on Securitization and Recent Subprime Crisis

The credit crisis will spur a lot of new research, particularly on the determinants of market liquidity, and on the many ways of risk contagion in financial markets. This research will also be relevant in improving central bank intervention in future liquidity crises. Over the past years, CFS has produced a stream of research on these issues, particularly on risk transfer, structured finance and systemic risk.

#### **Press Articles on Recent Subprime Crisis**

"Securitisation crisis claims casualties" Krahnen J.P., in: The Banker, October 2007, pp. 78-79.

"How to revitalise the credit market in one step" Krahnen J.P., in: Financial Times, 28 September 2007, p. 11.

"Finanzmarktkrise: Ursachen und Lehren" Franke, G. and J.P. Krahnen, in: FAZ, 24. November 2007.

#### **Related Papers**

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Laux, C. and S. Brandts (2007) "Cat Bonds and Reinsurance: The Competitive Effect of Information-Insensitive Triggers", Working Paper.

Laux, C. (2005) "Multiline Insurance and Securitization: Bundling Risks to Reduce Moral Hazard", Working Paper.

# **Economic Integration:**The View from Mature Household Portfolios

By Michael Haliassos (Frankfurt University)
CFS Program Director on Household Wealth Management



Are European households already citizens of a global, or at least European, 'village'? Have the processes of institutional harmonization, policy coordination, and mobility enhancement made location largely irrelevant for the market conditions households face? Hardly so, but more difficult is a second layer of questions: How can we tell? What is the pattern of departures from full economic integration? How close can we hope to get? Recent research under the CFS Program on Household Wealth Management provides a new perspective on these questions, based on fresh, internationally comparable, household-level data.

### How can we tell?

A large body of empirical research has looked for manifestations of economic

integration, or absence of market segmentation, in international flows of tradable goods or assets (capital flows); in tests of the law of one price: for goods or for risk; and in consumption behavior, with reference to international risk sharing. A forthcoming CFS Working paper by D. Christelis, D. Georgararakos, and M. Haliassos provides a new perspective to integration. It uses new, internationally comparable survey data to study asset market behavior of older households (aged 50+) in 12 European countries and the US. Specifically, it looks at differences in participation rates and real asset holdings (PPP adjusted) across the entire distribution of holdings.

Household choices reflect on the one hand their own preferences and characteristics but on the other the market conditions they face, in asset, labor, and goods markets. These conditions include both opportunities and constraints and are crucially influenced by institutions and government policies. With greater integration, we would expect greater similarity in market conditions faced by households of given characteristics and preferences in different countries. This results from harmonization of institutions and policies and from greater access to foreign markets from any location. Comparing portfolios of similar households internationally can give us useful clues regarding similarity of opportunities and constraints they face.

So far, large-scale international comparisons of asset market participation and holdings on the basis of householdlevel data were not possible. The CFS working paper is the first to document such international differences among households well into the accumulation stage in 13 countries: Austria, Belgium, Denmark, England, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, Switzerland, and the US. To do so, it combines three householdlevel data sets sharing a common design: the US Health and Retirement Survey (HRS), the English Longitudinal Survey on Household Ageing (ELSA), and the Survey on Heath, Retirement, and Ageing (SHARE).

	Table 1: Asset Ownership	Rates among Household A	Aged 50+
	Stocks	Business	Residence
	%	0/0	%
u.s.	49.6	9.8	77.3
EUROPE	26.3	6.3	68.3
Austria	9.8	4.1	56.6
Belgium	37.5	5.4	80.0
Denmark	56.0	9.5	69.0
England	39.4	2.5	76.1
France	42.9	5.9	72.2
Germany	24.1	6.3	51.1
Greece	10.6	6.8	84.3
Italy	10.1	6.4	75.2
Netherlands	24.0	6.7	55.3
Spain	11.1	7.0	86.9
Sweden	71.1	12.8	69.0
Switzerland	35.7	10.8	55.1

Table 1 documents participation rates in three key asset classes, for households aged 50+. 'Stocks' includes households owning stocks directly or indirectly, in mutual funds and retirement accounts.1 'Private business' includes households who own (at least a share in) a private (unlisted) company. 'Residence' includes owners of their principal residence.

The Table documents limited participation in each asset category, but also substantial international differences in participation rates, even among these older households who need to plan for retirement. Except for Sweden, the home is the asset most typically held, with stocks second, and private businesses third. Taking all European countries together (second row), we find participation rates to be below the US. Within Europe, we find enormous differences in participation rates, much larger than those across US regions (reported in the paper). Stockholding participation ranges from above 70% in Sweden to slightly under 10% in Austria. Sweden and Denmark dominate even the US. Homeownership ranges from 87% in Spain to roughly 50% in Germany. Belgium, Spain, and Greece have higher homeownership rates than the US. Private business ownership ranges from 2.5% in England to just under 13% in

Sweden. Sweden and Switzerland exhibit greater business ownership than the US.

Despite their size, international differences in participation rates do not necessarily imply differences in market conditions. To draw an analogy to the labor literature, finding that wages of one group are on average below those of another group is not sufficient to establish discrimination: relevant characteristics of the underlying populations need to be controlled for. The paper argues that there is a fundamental analogy between the labor discrimination literature and this new, portfolio-based perspective on economic integration.

For example, the paper controls for population differences in age structure, marital status, and number of children comparing homeownership rates; and for differences in health, objective and subjective. It goes a step beyond demographics and controls for international differences in attitudes shown by recent research to be portfoliorelevant, such as the tendency to leave bequests or have social interactions.<sup>2</sup> Controlling for such differences makes it more likely that links between characteristics and asset market behavior reflect supply-side factors.

<sup>&</sup>lt;sup>1</sup>It does not include stocks held in occupational defined-contribution pension plans, as these data are not available across our countries.

<sup>2</sup>Although we sometimes associate such factors with collective tastes or 'culture' that could also be ironed out by greater integration, cultural convergence is a much longer-run process than the horizon normally relevant for policy harmonization.

The paper uses probit regressions to estimate the link between household characteristics and asset market participation in some base country (e.g. the US), and then constructs a counterfactual participation rate in comparison country i. The latter is an estimate of the average participation probability that households of country i would exhibit if they were faced with market conditions (probit coefficients) for the base. The difference between the participation rate in country i and the counterfactual rate is a measure of 'coefficient effects', i.e. international differences in participation rates for households of given characteristics. The paper also studies the size of asset holdings among asset market participants. Here counterfactual decompositions use quantile regressions that estimate the (potentially different) roles of given household characteristics at different percentiles of the distribution of asset holders.

## The pattern of departures from economic integration

A number of striking results emerge, only highlighted here. In most European countries considered, market conditions discourage stock market participation compared to the US. There are exceptions, though: Sweden, Denmark, France, and marginally the UK. Although the US has the lowest transactions costs in the stock market, the highest spending on information and communications technology, and the greatest level of stockholder protection, these are not sufficient to generate greater participation rates for households of given characteristics than in any of these European countries. Note that only Sweden and Denmark exhibit higher observed stockholding participation rates than the US, but econometric analysis attributes the lower participation rates in France and in the UK to unfavorable population characteristics. The larger observed participation rates in Sweden and Denmark are due, instead, to favorable market conditions that dominate unfavorable household characteristics. Factors such as mandatory retirement accounts in Sweden and Denmark are likely to have been key in promoting stock market participation.

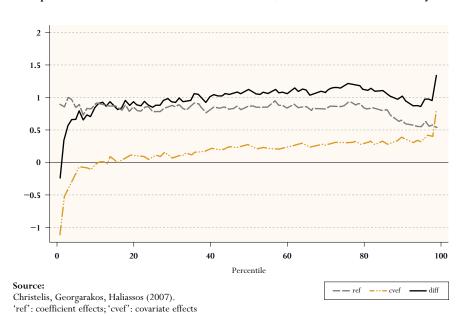
US stockholders hold larger real amounts (PPP adjusted) than European holders, typically throughout the distribution of holdings (see Figure 1).3 The source of these differences in levels can be traced to statistically significant coefficient effects: differences in the composition of stockholder pools are largely irrelevant.

US market conditions are estimated to favor private business ownership in all countries, except for Sweden. The picture is quite different when it comes to the size of holdings. European business owners usually have larger holdings than US holders, the major exception being England. This is not because of their characteristics but because European private business owners of given characteristics tend to invest larger amounts than their US counterparts.

Understanding the precise causes of this reversal between participation and size of holdings is a challenge for future research. Existing indicators of 'ease of doing business' and of the 'quality of governance' give a mixed picture, with the US dominating in some aspects and European countries in others. It seems likely that the tendency of European business owners to have larger business holdings is at least partly linked to the unfavorable conditions for investing more in the stock market.

The special role of real assets in European portfolios is reinforced when we look at primary residence. Market conditions are estimated to favor homeownership in some European countries relative to the US.4 However, European homeowners typically invest larger real amounts in their home than US homeowners, and this is largely (and sometimes entirely) attributed to market conditions (see Figure 2).5 When homeowner

Figure 1: Differences between real amounts invested in stockholding (direct or indirect, excluding occupational defined-contribution pension plans), at comparable percentiles of the distribution of stock wealth, United States minus Germany.

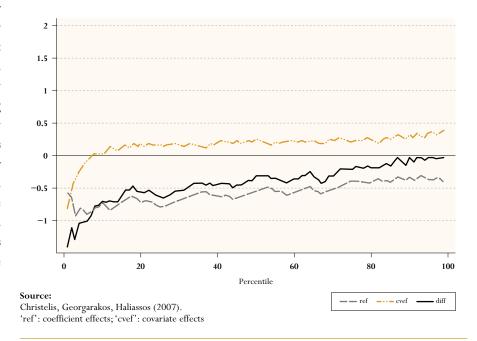


characteristics are significant, they typically point in the opposite direction. To be sure, US homeowners have larger homes on average: Europeans simply pay more for their house. Thinking about prices in London or shortage of land in the Netherlands, this finding may not look surprising. What is surprising is the large number and great variety of European countries for which it is valid, richer and poorer, congested or not congested; and its tendency to hold across the entire distribution of home values. Moreover, it is not associated with greater availability of mortgages in Europe or with significantly more favorable tax treatment.

# How close can we hope to get?

If it is a policy objective of the EU to provide similar market conditions to households living in member countries, the US experience could be useful. Estimated differences in market conditions across different US regions are sometimes statistically significant, but usually smal-

Figure 2: Differences between real amounts invested in primary residence, at comparable percentiles of the distribution of home values, United States minus Germany.



ler than within Europe. They are much smaller for financial assets than for private businesses, and largest for homes. This is intuitive: Although households face an integrated stock market, home market conditions cannot be the same across the Union: desirability of different locations is not going to be equalized by households

ready to move anywhere to save on housing costs. Private businesses are in between. Households can in principle own businesses located anywhere, but exercising control is facilitated by proximity. This puts businesses somewhere between stockholding and housing, as found in the paper.

# The CFS International Capital Flow Database

by Christian J. Offermanns (Frankfurt University) and Marcus Pramor (CFS)

The CFS introduced a new publication category labeled "Research Data", in which data sets of economic and financial research projects are made available. Besides a historical data set on German capital markets covering the period 1871-1914, a new database on international capital flows and external asset positions has now been published. The database covers 153 countries globally for the period 1970-2004, and in addition to total asset and liability stocks it also reports on their major subcomponents foreign direct investment, equity, and debt. A separate User's Guide (CFS Working Paper 2007/24) provides details on data sources, documents the exact construction of individual data series, and outlines some key data characteristics. Further CFS data sets will be published on our website as they become available.

The rapid growth of cross-border capital flows and international investment positions in recent decades has had a marked impact on financial markets and national economies. The magnitude and dynamics of external asset positions can influence the

real economy and hence interfere with economic policies. As a consequence, the effect of capital flows and the resulting interdependencies need to be taken into account explicitly in economic and financial analysis.



For further information on this database see CFS Working Paper 2007/24, which is available from the CFS website.



For this purpose, a new global database has been constructed that reports on the international investment positions of 153 countries. The data series show annual estimates of external positions on a gross and net basis as well as their composition by asset class. In addition to international reserves, the reported asset and liability components comprise foreign direct investment (FDI), equity, and debt. As different asset classes will generally differ in their determinants and effects, details on asset and liability components provide important

information in their own right. The magnitude of external positions is often more informative when seen in relation to the economic size of a country, hence this information is provided in an additional series.

To improve coverage in the time and country dimensions, available stock data from a number of different sources have been combined with flow data in the construction of the reported stock positions. The difference between flow figures and the year-on-year changes in the corresponding stock figures that results from valuation changes in the stock position brought forward, is reported separately. As the size and relative importance of valuation changes has grown proportionately with external gross balances, these valuation effects have also received increasing attention in applied research. As their calculation will frequently depend on the availability of e.g. stock and other market indices, the quality of these series will generally be higher for the later part of the sample. When the availability of subcomponents does not permit the construction of meaningful gross asset and liability series, a net foreign asset (NFA) position may still be obtainable by combining the balances on current account and capital account with the sum of the valuation changes of available asset and liability components.

### **Data Characteristics**

The growth in cross-border capital flows and external balances is observed in virtually all countries globally, yet there are differences in the size and composition of foreign assets and liabilities across country groups. As Figure 1 shows, industrial countries have seen an increase of foreign assets and liabilities combined from about 50% of GDP in the

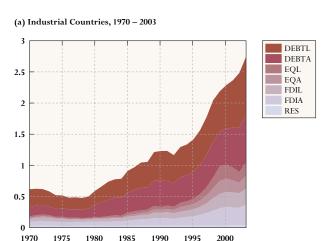


Figure 1: Sum of Gross Asset and Liability Stocks

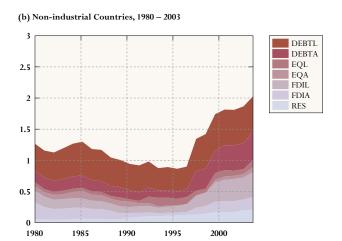
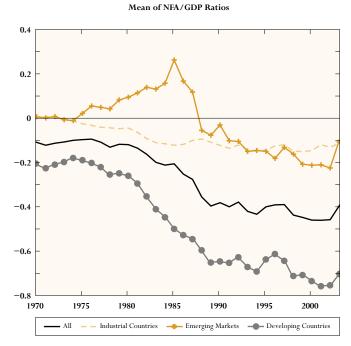


Figure 2: Net Foreign Assets



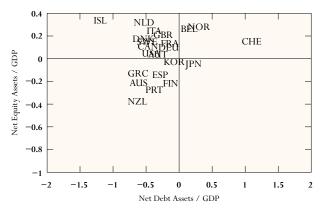
1970s towards more than 250% of GDP in 2003. Emerging markets and developing countries taken together show a somewhat different development: Starting from a combined foreign assets and liabilities position of already more than 100% of GDP in the 1980s (data coverage for earlier years is incomprehensive), this level falls marginally until the mid-1990s and then rapidly increases to 200% of GDP in 2003. The high starting level of this latter group is partly the result of a large and nearly constant debt liability position, whereas the dynamics in later years are mainly driven by growing debt assets and FDI liabilities, but also by a rise in FDI assets and reserves.

Looking at net foreign asset positions, Figure 2 documents rather divergent developments for the different country groups. Industrial countries started from a mean NFA/GDP position of nearly zero in 1970 and moved to a moderate negative position by 2003. While emerging markets share with industrial countries both the starting and the end points, they experienced a gradual increase to almost 30% in 1985 and a subsequent drop to -20% in the 2000s. In sharp contrast, developing countries held a level of about -20% in their mean NFA/GDP position in the 1970s, followed by a rapid decline in the 1980s and a further fall to about -70% in recent years.

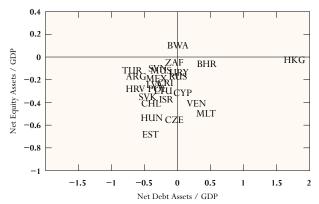
A comparison of countries' current net debt and net equity positions reveals another important difference between

Figure 3: Debt/Equity Distribution

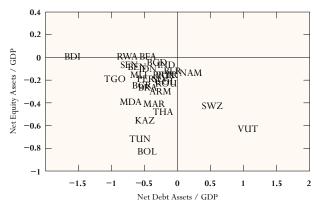
#### (a) Industrial Countries



### (b) Emerging Markets



#### (c) Developing Countries



industrial countries and the other two groups. Industrial countries typically carry positive net equity, but negative net debt asset positions, so in national accounting terms debt borrowing is used to finance holdings of foreign equity. Of the other countries, almost all display negative net equity positions, in most cases combined with negative net debt assets. Computing the correlation between net equity and net debt, however, we find a positive correlation (0.27) for emerging markets, but a negative correlation (-0.37) for developing countries. This implies that a country's stage

of development has some bearing on whether that country can employ debt and equity as complementary sources of financing or faces a trade-off between the two.

Data from the database presented here have been employed in a recent cross-country study on the role of international investment positions for exchange rate dynamics. Michael Binder and Christian Offermanns (2007) find that the NFA position of a country relative to its economic size is essential for characterizing conditional adjustment of the exchange rate to its medium- to long-run equilibrium level, and

thus substantiate the importance of accurately recorded information on both capital flow and valuation data.

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# **CFS Working Papers**

The CFS Working Paper Series presents the result of scientific research on selected topics in the field of money, banking and finance. The authors are either participants in the Center's Research Fellow Program or members of one of the Center's Program Areas. More than 200 working papers are currently available and can be downloaded from our website: www.ifk-cfs.de

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# **CFS Colloquium**

# The 40th Anniversary of our Research Institute: the CFS Colloquium Now and in the Early Days

The CFS is celebrating its 40th anniversary. Our research institute was established in 1967 under the name "Institut für Kapitalmarktforschung" (IfK) and was associated from the start with Frankfurt University. The idea of founding a research institute with a focus on capital markets, then a rather neglected topic in German finance, was endorsed by several leading bankers. To name some of them: Michael Hauck, Volkmar Muthesius, Friedrich Hengst, Georg Bruns, Johann Philipp Freiherr von Bethmann. Funding of the newly founded institute was channeled through the society "Gesellschaft für Kapitalmarktforschung e.V.". Now, as it was then, the institute is funded by donations and membership fees and carries out independent research.

The institute took up its work in 1968. Karl Häuser, who was at that time Professor for Public Finance at Frankfurt University, was the first director. Initially, there were two young researchers. One of them is now the Chief Economist of Deutsche Bank Group, Norbert Walter.

One of the first initiatives undertaken by the IfK was the introduction of a lecture series named "Kolloquien". In the preamble of the first edition of "Kolloquien Beiträge" in 1970, entitled "German and International Capital Markets", Karl Häuser emphasized the importance of promoting a dialogue between academia and the financial community. He wrote: "The institute



seeks to complement as well as bring together practice and academic research in the capital markets field. Although a liaison between practice and academics might be obvious in this area, it has not been realized so far because rigorous research in this discipline has been sorely neglected at academic institutions in Germany and elsewhere". If K wanted to focus academic and public attention on the topic of capital markets development and it has continued to do so until to date.

The CFS Colloquium Series has kept its long tradition of offering a platform for discussion between practitioners and academics. This series still reaches out to bankers, financial service authorities and leading economists to discuss issues of monetary policy, market strategy, banking, and the design of financial institutions. The CFS Colloquium Series has developed a strong reputation in its almost forty years of existence and has attracted speakers from all over the world to Frankfurt.



In this Newsletter we report extensively on the current colloquium series "Funktionswandel von Banken und Börsen: Die neue Herausforderung?/ Banks and Exchanges in Flux: The next great Challenge". All lectures were held in German.

# Funktionswandel von Banken und Börsen: Die neue Herausforderung? Banks and Exchanges in Flux: The next great Challenge

# Handelbarkeit von Krediten – Was sind die Herausforderungen für Bank und Kunden?/Trading Loans: What are the Challenges for Banks and Customers?

# 23 May 2007

A speech by Jürgen Fitschen

(Global Head of Regional Management and member of the Group Executive Committee, Deutsche Bank AG)

The sale of non-performing loans (NPLs) regularly warrants public attention. Yet, to many observers, it remains vague why banks sell their loans and how bank customers are affected. On some occasions, this has led to hostile reactions against banks that have sold impaired loans. In his speech, Jürgen Fitschen attempted to bring some rationality into the current debate, whilst highlighting the challenges and benefits of trading loans for banks as well as customers.

In his introductory remarks, Fitschen stated that banks increasingly use the option to sell loans via synthetic or true sale operations. He recognized a shift in paradigm from the traditional practice of banks extending loans and holding them until maturity towards the active management of loan assets. But why should banks sell their loans in the first place? Fitschen described three distinct cases: the sale of NPL portfolios, of single name NPLs, and of performing loans.

### Sale of Non-Performing Loan Portfolios

In the case of NPL portfolios, banks have to ask themselves whether the related workout process lies within their core competencies or whether an outside investor may have some competitive advantage. Since an external investor may have the resources and expertise to deal with defaulted borrowers more intensively, he may be able to obtain better results than a bank. Moreover, investors typically acquire defaulted loans at a discount to the notional value, which leaves greater room for accommodating the borrower. But why do banks not use this opportunity themselves? In short, banks want to maintain their credibility vis-à-vis the borrower. If borrowers could rely on banks reducing their claims in case of a default, they would have less incentive to service their debt a priori.

In order to establish a well-functioning market for impaired loans, buyers must trust sellers. Until recently, a link between potential sellers and buyers of impaired loans was missing. In Germany, this now works quite well, as many banks have



Jürgen Fitschen

acquired a good track record; thereby strengthening their reputation in this market. In the first stage, mainly housing loans were sold, as these are largely standardized and collateral can be easily sold. In the meantime, the market has expanded to include car financing and unsecured claims.

### Sale of Single Name NPLs

The motivation for the sale of a single name NPL is quite distinct from that for selling a NPL portfolio. Here, emotions come into play, as the defaulted borrower fears a loss of control over his or her company. In fact, the sale of a single name defaulted loan is regularly followed by the purchaser taking over control and introducing a sometimes painful restructuring process. However, without further commitment from its financing banks, the company would inevitably go bankrupt and have to stop all operations. Thus, the sale of an im-





Ian Krahner

paired loan also marks an opportunity and is sometimes the only possibility of rescuing a financially stricken company.

# Risk Transfer via Credit Derivatives or Securitization

But what if there is no default and no pressure to sell a loan? Why do banks nevertheless sell loans? The answer can be found in the banks' risk management objectives. In order to achieve an optimal capital allocation, a bank's loan portfolio must be well-diversified. Yet, the loan business of a bank often is regionally restricted or focuses on clients from a specific

industry. Furthermore, a bank may not want to extend further credit to a certain borrower, but may also be afraid of loosing this client. In all these cases, a bank may use credit derivatives or securitization techniques to reduce concentration risk and actively manage its risk profile. For bank customers, as a whole, this is generally advantageous. The benefits from improved bank risk concentration can be passed on to borrowers in the form of lower loan rates. Of course, there is a possibility that systemic risk increases as credit risk is passed onto other market participants. Thus, it is important to know who the final risk bearers are, i.e. whether they are inside or outside the financial system.

Christian Weistroffer (CFS)

# Wachstum durch Innovation: Das Entwicklungspotenzial von Börsen/ Growth through Innovation: Development Potential for Exchanges

# 4 July 2007

A speech by Dr. Reto Francioni (Chief Executive Officer, Deutsche Börse AG)

The success of an exchange does not solely depend on gaining size through mergers and acquisitions: it also involves meeting future challenges via innovative solutions. In his speech, Reto Francioni explained how his company can fulfill its potential by pursuing a strategy of growth through innovation.

Francioni identified five major challenges that exchanges currently face. The first of these challenges is the internationalization of markets. Because of transatlantic mergers and cooperation with exchanges in Eastern Europe and Asia competition now takes place on a global scale. Competition for order flow – especially in the derivatives markets – and for new listings is very strong.

Secondly, exchanges have to meet new customer requirements resulting particularly from algorithmic trading. As electronic trading screens are increasingly operated by electronic trading algorithms, exchanges also have the further challenge of providing the larger capacities and faster responding systems which this requires. Consequently, exchanges need to invest in upgrading the processing power and speed of their trading systems.

The fourth challenge concerns the product range. Modern exchanges are no longer restricted to just stock trading. Instead, they serve as a market place for many products, including exchange traded funds, structured products, options, certificates, bonds, various derivates and commodities. Moreover, exchanges may offer clearing and settlement services, custody services





Reto Francioni

or provide market knowledge and information technologyrelated solutions to their customers. An integrated business model that involves many steps of the value chain and a welldiversified product portfolio offers significant advantages for exchanges facing global competition. Such a business model creates efficiency gains, helps lower overall costs and promotes the creation of innovative products.

Finally, exchanges are challenged to anticipate early the effects of new regulation and to make use of any opportunities which this may provide.

Francioni thus outlined a number of responses that allow exchanges to prosper in the more competitive business environ-

ment of today. For Deutsche Börse Group, in particular, he stated that the company benefits from an integrated business model offering services that cover the complete value chain, from trading through to processing and storing. It constantly improves upon the processing power and speed of its trading systems to meet changed customers requirements and has a strong incentive to innovate due to its public listing and corresponding corporate governance structure. All of this enables Deutsche Börse Group to face the challenges outlined above and further improve its competitive position vis-à-vis other exchanges, so-called "multilateral trading facilities", and the Over-The-Counter market.

 $Christian \ Weistroffer \ (CFS)$ 

# Clearing, Settlement und die Kosten des internationalen Wertpapiergeschäfts/Clearing, Settlement and the Costs of the International Securities Transaction Business

# 12 September 2007

A speech by Hermann-Josef Lamberti (Chief Operational Officer, Deutsche Bank AG)

At the CFS Colloquium on 12 September 2007, Hermann-Josef Lamberti, Deutsche Bank AG's Chief Operational Officer, talked about the role of the Turquoise initiative, the planned central clearing platform "Target2 Securities" and the Single Euro Payments Area (SEPA) in European financial market integration. He called for a European debit card system to offer a SEPA compliant competitive alternative to the existing international schemes. In this regard he urged both French and German market participants as the most potential key drivers to team up and to strive for a European solution.

At the beginning of his speech, Lamberti asserted that France and Germany still are the main drivers for European financial market integration due to their high share of the total number of financial transactions. He highlighted a long-term upward trend for the number of transactions in both the payment transaction and securities transaction sectors. Comparing figures for the volume and total number of securities transactions in the European Union and the United States, Lamberti said he expects a reduction in the average volume size of EU securities



Hermann-Josef Lamberti and Jan Krahnen





transactions, which requires a considerable reduction in securities transaction costs and creates an extreme cost pressure on existing structures. For Lamberti, this trend is one of the main drivers for current stock market consolidation. He expects a vertically integrated business model will prevail in stock market consolidation for practicality and efficiency reasons. Moreover, cultural differences seem to require a vertically integrated business model comprised of trading, clearing and settlement services. According to Lamberti, Deutsche Börse AG is in an excellent market position and offers the best example that an exchange "can be successful even though it does not buy other exchanges around it". Having outlined the status quo, Lamberti then discussed current initiatives aimed at improving European financial market integration.

The Turquoise project initiated by Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Merrill Lynch, Morgan Stanley and UBS was described by Lamberti as an attempt to attack the cost structures of traditional stock exchange infrastructures. This initiative offers participating banks an improved use of their existing trading systems combined with new customer services. Existing systems are relatively easy to connect as interfaces are already available. For investors Turquoise will deliver a number of improvements, including increased innovation, the pooling of liquidity and better risk diversification due to smaller transaction volumes; all of which are important impulses for European financial market integration.

In the third part of his speech, Lamberti drew attention to the central securities settlement platform Target2-Securities, or T2S, planned by the European Central Bank. He welcomed the ECB's aim to reduce costs for cross-border securities transactions within the Eurozone settled in central bank money and to align these cost to the currently most competitive level for domestic transactions. It is expected that this

could not only boost the number of securities transactions in the Eurozone but also result in significant yearly savings for both the industry and the investors. Lamberti also appreciated the ECB's aspiration to increase its control in open market operations to avoid systemic risks by providing a central securities settlement platform. Despite the benefits of T2S, the relationship between the ECB and the private securities depository sector remains a crucial issue for Lamberti stressing that any ECB intervention thwarting private competition in this sector has to be avoided.

Concerning the European payment sector, Lamberti highlighted the increasing dominance of international card schemes if France and Germany fail to resolve their dissension. Both countries currently represent the biggest markets for debit cards with regard to both number of cards issued and number of transactions processed. This advantage has to be leveraged by developing a truly European debit card solution which offers valuable services to customers in a competitive environment. In his view, cash payments as well as the reallocation of profits from existing payment systems are the main obstacles towards the creation of a European debit card system. Increased use of cashless payments in the 25 European Union member countries could lead to savings of up to €10 billion. Currently, the so-called "Falkensteiner Runde"





conducted in association with French banks is working on a masterplan for a European Debit Card Solution, which will be submitted to the European Commission at the beginning of 2008. In the Single Euro Payments Area, Lamberti sees a chance for Germany to become an important player in the European payment transaction services sector, as German banks are more efficient than their European competitors.

In his conclusion, Lamberti highlighted the importance of the financial sector for European integration in general.

David Nicolaus (CFS)

### OTHER EVENTS IN THIS CFS COLLOQUIUM SERIES WERE:

- 17 October 2007: "Private Equity: Chancen und Risiken des neuen Kapitalmarktes" by Prof. Dr. Ernst-Moritz Lipp, Geschäftsführender Gesellschafter, Odewald & Compagnie Gesellschaft für Beteiligungen mbH
- 7 November 2007: "Die Börsenlandschaft in der Zukunft: Technologie bleibt Wachstumstreiber" by Susanne Klöß, Global Managing Partner Capital Markets, Accenture GmbH

**Aid Effectiveness and Limited Enforceable** 

Conditionality

10 Oct 2007

# **Joint Lunchtime Seminars**

The Joint Lunchtime Seminars are a series of weekly research lectures inviting academics from other institutions to present their research in the fields of Monetary Economics, Macroeconomics, Finance and Econometrics. The speakers comprise both well-established senior researchers as well as those at the assistant and associate level from all over Europe and the United States.

Originally started in January 2001, the weekly presentations have become a fixed entry in the diary of many members of research institutions and central banks located in Frankfurt. As a result, seminars are usually accompanied by lively debates and subsequent discussions.

The Joint Lunchtime Seminars are organized by Klaus Adam (European Central Bank), Heinz Herrmann/Sandra Eickmeier (Deutsche Bundesbank) and Volker Wieland/Günter Beck (Frankfurt University and CFS).

19 Dec 2007	Liquidity and Trading Dynamics Veronica Guerrieri
12 Dec 2007	Inflation Differentials in a Currency Union: A DSGE Perspective Pau Rabanal
05 Dec 2007	The Information in Monetary Data for Monetary Policy Making Paul Mizen
28 Nov 2007	Rational Forecasts or Social Opinion Dynamics? Identification of Interaction Effects in a Business Climate Survey Thomas Lux
21 Nov 2007	Financing Constraints and a Firm's Decision and Ability to Innovate: Establishing Direct and Reverse Effects Vassilis Hajivassiliou
14 Nov 2007	Demographic Change, Human Capital and Endogenous Growth Alexander Ludwig
07 Nov 2007	Monetary Policy Rules for Emerging Markets Alessandro Rebucci
31 Oct 2007	Payments and Financial Fragility Charles Kahn
24 Oct 2007	Estimating Regional Trade Agreement Effects on FDI in an Interdependent World Michael Pfaffermayr
17 Oct 2007	The Macroeconomic Effects of Oil Price Shocks: Why are the 2000s so different from the 1970s? Jordi Galí

	Conditionality Almut Scholl
2 Oct 2007	The Cyclical Behavior of Equity Turnover in Financial Markets David N. DeJong
26 Sep 2007	Does Germany Employ Immigrants Along a Downward-Sloping Labor Demand Curve Wilhelm Kohler
19 Sep 2007	Robust Monetary Policy with Imperfect Knowledge John C. Williams
12 Sep 2007	Seasonal Heteroskedasticity in Time Series: Modeling, Estimation, and Testing Thomas Trimbur
05 Sep 2007	International Portfolios With Demand, Supply and Redistributive Shocks Robert Kollmann
29 Aug 2007	How Does Financial Globalization Affect Risk Sharing? Ayhan Kose
22 Aug 2007	Bubble-free Interest-Rate Rules Olivier Loisel
15 Aug 2007	The Choice between Arm's-Length and Relationship Debt: Evidence from eLoans Robert Hauswald
25 Jul 2007	Has Globalization Changed Inflation? Laurence M. Ball
18 Jul 2007	Nontraded Goods, Market Segmentation, and Exchange Rates Margarida Duarte
11 Jul 2007	What is the Role of Institutional Investors in Mergers and Acquisitions? Cross-Country Evidence Pedro Matos
04 Jul 2007	An Estimated Monetary DSGE Model with Unemployment and Staggered Nominal Wage Bargaining Antonella Trigari
27 Jun 2007	Equilibrium Portfolio Strategies in the Presence of Sentiment Risk and Excess Volatility Bernard Dumas
20 Jun 2007	Endogenous Discounting, the World Savings Glut and the U.S. Current Account Nelson Mark
13 Jun 2007	Dividend Policies in an Unregulated Market: The London Stock Exchange, 1900-1905 Fabio Braggion
06 Jun 2007	The Labor Demand Curve IS Downward-Sloping: An Application to Cyclical Unemployment Michael Elsby
For further i	nformation and registration please contact
	d, email: JLS@ifk-cfs.de
	Sq.

## **CFS Presidential Lectures**

# Die Zukunft Europas/Europe's Future 21 June 2007

The speech by former chancellor Dr. Helmut Kohl on 21 June 2007 marked the start of a new lecture series, the "CFS Presidential Lectures". Helmut Kohl came to Frankfurt at the invitation of Professor Otmar Issing, who initiated the new lecture series in order to bring greater awareness to the importance and achievements of European integration.



Helmut Kohl

Around 700 guests, a broad public of young and old, attended the lecture. Long before the doors opened, guests were already waiting to enter the building.

Otmar Issing, President of the CFS, gave a short introduction. He reminded the audience that the foundations of today's Europe emerged from the terrible destruction caused by two wars in the first half of the 20th century. With 27 countries currently under the EU umbrella, European unification is an ongoing process that requires the commitment of its citizens, particularly the younger generation. The latter often tends to take a peaceful and united European Union for granted and is in danger of forgetting the origins of the unification process. Issing, in welcoming Helmut Kohl as a guest speaker, therefore praised the crucial role Kohl had played in European post-war history. Not only is Helmut Kohl equipped with a fascinating knowledge of European history, but he has also actively contributed to the shaping of Europe into its present form, and he continues to contribute through his concern for Europe's future.

### **European History**

To put the achievements of the European Union today in their true light and to make the public aware of the difficulties

encountered along the road to unification, Kohl spoke first about some of his own experiences. He began his speech with some recollections of earlier political meetings and explained how hard it had been to overcome the skepticism at those early meetings about forming the European Union. Even in the 1980s many people spoke of "Eurosclerosis", drawing thereby a parallel between the process of European integration and a dreadful disease. Within such a political climate, only few people believed that a unified Europe could ever be successful. At the same time, however, many countries had already come a long way since 1945. In the aftermath of the Second World War, the European Coal and Steel Community was set up by a small group of Western European states in order to ensure cooperation and reconciliation in those sectors that had been fundamental to the war industry. The European Economic Community was created and steadily enlarged.



Helmut Kohl, Otmar Issing

### The Role of the Euro

The establishment of the European Central Bank in Frankfurt, according to Kohl, was one of the best examples showing that integration had worked well in the recent past. He spoke about the meetings that had taken place to decide where the European Central Bank would be located. Even though other cities such

as Paris or London were also considered suitable, the heads of state nevertheless chose the German City of Frankfurt as the site for this very important institution. In Kohl's opinion, one of the main reasons for this choice was the perception that Germany with its successful currency - the Deutsche Mark - would be making the greatest sacrifice in aid of establishing a common European currency.



Since then, the European Central Bank has been able to create a stable and global currency that has become another world currency alongside the dollar. Kohl admitted that for him this had always been a long-cherished dream.

When it is stated that the European countries agreed to form the EU and to introduce a common currency, this does not mean that the people in Europe had been asked. Kohl pointed out that if referenda about the introduction of the Euro had been held in Europe, the majority of citizens would have voted against it. In his opinion the heads of state took the right decision. The new currency has met all expectations and contributes to a large extent to the integration in Europe. The Euro, Kohl said, is the bond that ties Europe together, even though not all member countries have so far chosen to join. Countries like England and Switzerland cannot deny the positive effects that the Euro has had and in Kohl's view it is certain that in 10-15 years people in London and Zurich will be paying in Euros. By now, many who were initially skeptical favor the Euro and agree that it was the right decision to introduce a common currency. According to Kohl, this was only possible because the German government was fully committed to its decision to give up its currency and introduce the Euro.

### **Europe's Future**

Kohl also spoke about Europe's future and asked what lessons could be learned from the past. Many countries that have joined the EU in the last few years still belonged to the Eastern Bloc as recently as twenty years ago in a continent divided by the

Iron Curtain. These new members of the EU, however, share with us a common history and culture and should not be denied the chance to be integrated in a unified Europe. However, it is essential in this discussion that all countries willing to join the EU must fulfill certain requirements. Would-be members have to comply with a whole list of prerequisites, such as civil rights, democracy, freedom in its many facets, freedom of religion, and many more. Countries that apply for membership have the right to be given a fair and thorough inspection to establish whether or not they fulfill these criteria. And by looking at the list of necessary prerequisites, it is certain that applicants such as Turkey and the Ukraine will not be able to meet these criteria in the foreseeable future. Thus, said Kohl, he agrees with Chancellor Angela Merkel in offering these countries a privileged partnership, but not full EU membership.



### The United States of Europe?

In Helmut Kohl's view, the current Achilles' heel of the EU is the adherence to the principle of subsidiarity, which implies that action should not be taken at the EU level unless it is deemed more effective than action taken at the national, regional or even local level. He strongly opposes the concept of a United States of Europe, as was introduced by Winston Churchill in a speech in 1946 and adopted by Konrad Adenauer and many others. Europe should remain the "sum of countries in Europe" and cannot be governed by a central government. Each country should keep its sovereignty and the EU should only govern where it can act more effectively than the individual sovereign states.

The younger generation has the great fortune of not having to live in a Europe divided by war. A unified Europe has much to offer and is the only way to guarantee peace and freedom in Germany and elsewhere in Europe today and in the future. With this Helmut Kohl finished his speech and took questions from the audience.

Lut De Moor and Tom Braukmann (CFS)

# Über die Chancen des biblisch-christlichen Leitbildes für die europäische Integration 5 September 2007

# A speech by Cardinal Lehmann about the opportunities offered by a Christian approach to European Integration

The second presentation in the series of CFS Presidential Lectures on the topic of European integration was given by Cardinal Karl Lehmann, Chairman of the Conference of the German Bishops, on 5 September 2007. Cardinal Lehmann spoke about the diversity that characterizes Europe and the importance of Christianity and Christian values for building a just and stable future for Europe. The following paragraphs contain a brief summary of the key issues featured in this speech.

### The "New Europe"

The concept of a new Europe implies considerably more than the mere recreation of a previous state. Given the history of Europe, which in the past has often been marked by numerous conflicts such as the ideological division in the 20th century between East and West, the notion of a European entity for a long time seemed to be a utopian vision. However, over the last 20 years a real and unique chance to build a unified Europe has emerged. Since the old habits of pursuing national self-interest die hard, this process towards a common European body has not always been easy. The diverse influences of Ancient Greek, Roman, Judaic-Christian, Islamic and humanistic societies have all left their imprint on today's European culture, resulting in a complex and far from homogeneous entity. The many and varied components of Europe's cultural heritage, from which the countries in Europe have benefitted, are reflected in the current motto of Europe "united in diversity".

#### **Diverse Roots**

Owing to this diversity within Europe, a new European identity cannot and must not be restricted to only political and economic aspects. The cultural identity, i.e. the spiritual and ethical identity, is equally as important and ought not, as was largely the case to date, to be ignored. Accordingly, the future Europe needs its own ethical foundations that reach beyond the mere coexistence of ideologies within a potentially indifferent pluralist society.

### **Europe's Roots in the Christian Faith**

It cannot be denied that Christianity was and continues to be an essential part of the European tradition. And in this sense, we



Karl Lehmann

can justly refer to the Christian roots of Europe. The Christian faith has played a significant role in the shaping of European culture and a European identity by influencing both attitudes and institutions, including also those that nowadays are no longer necessarily connected to the Christian Church. Herein lies the mission of Christians today in claiming back these Christian ideals and applying them to the current political discussion. Christians must seek an open and intellectual confrontation with those who want to shape Europe's future without Christian forces. It is important to refer to Europe's Christian heritage, but it is even more important to shape Europe's future in accordance to Christian values.

# The Substance of Christianity in a Secular Europe

In times of religious freedom and pluralism, the Christian Church must make its voice be heard. By extending an invitation to discuss and by employing the powers of reason and persuasion, it should pursue its mandate in promoting Christian ethics in our society. Regional diversity within the European Christian Church, as witnessed in the multitude

of languages, mentalities and different modes of living, constitutes both an obstacle and an asset. In order to fulfill its obligation of responsibility for Europe, the Christian Church has to overcome its internal conflicts and focus on similarities without neglecting the importance of regional diversity. The Church also emphasizes that this diversity deserves attention in the European integration process. Brussels should not be a bulldozer that levels off regional cultural aspects on its way to European integration.

### New Impetus for a New Europe

The concept of the expansion of Europe seems at times to place emphasis solely on the quantitative dimension. However, it is the cultural dimension that should command attention, for it is the concept of a cultural extension of Europe that will ultimately form the basis for progress towards a European entity. For far too long, Europe was only associated with western European values, thereby neglecting, for example, the Slavic cultural heritage. True "Europeanization" will only be accomplished if all the cultural roots of Europe find their place in the new European identity.

### A System of Common Beliefs and Values

To overcome the "moral deficit", as Jacques Delors called it, Europe needs a basis of shared values and common beliefs. This cannot be provided by the secular states themselves without having to forfeit their ideological neutrality.



The Christian Church, however, can play a vital role in shaping a common European culture by championing the unilateral values of human rights, social justice, solidarity, freedom and peace in a united Europe. To this end the Church needs a certain degree of freedom in which to act without impingement from the state.



### **The Global Dimension**

Europe also has a global dimension and needs to assume its responsibility to fight hunger and establish justice in the world. This mentality of global responsibility could be stimulated more in Europe through the Church. In this respect, the Christian Church has also set its own goals for achieving a fruitful dialog with other religions. For Europe, it is especially important to find common basic values through the dialog with Judaism and Islam.

There is no doubt that the notion of one Europe has lost its luster and does not invoke enthusiasm, even among the younger generation. It is time to provide fresh impetus to the concept of a new Europe. According to Cardinal Lehman, this has also something to do with the constructive power of religion, especially the Christian faith.

The transcript of the speech (in German) can be obtained from CFS. Please contact L. De Moor by email (demoor@ifk-cfs.de)

Lut De Moor and Kristina Czura (CFS)

# **CFS Lecture and Book Presentation**

# Global Financial Warriors: The Untold Story of International Finance in the Post 9/11 World

By John B. Taylor1

# 25 July 2007 Frankfurt am Main



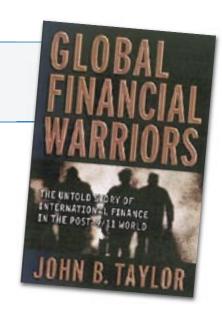
John Taylor

On July 25 the Center for Financial Studies hosted a visit and lecture by Professor John B. Taylor of Stanford University, a highly distinguished academic with extensive policy experience to present his newly published book entitled "Global Financial Warrior: The Untold Story of International Finance in the Post 9/11 World" in Frankfurt. In his lecture, Taylor provided a very informative account of the complexities and challenges faced by the global economy in the aftermath of September 11. He surveyed political, security and financial dimensions of these challenges from the perspective of an influential U.S. policy maker.

Following President George W. Bush's call for a war on terror, Taylor – then the newly appointed Treasury Under Secretary – became one of the key players on its financial front. Thus, Taylor was

able to speak from first hand experience and invite the Frankfurt audience directly into the discussions of White House officials and G7 finance ministers throughout the crisis following the attacks and thereafter. The accomplishments under his term were numerous. He formed an alliance to freeze terrorist assets globally, managed the introduction of a new currency in Iraq, and helped achieve the pardon of 80% of Iraq's debt. In addition, he prepared a plan to cancel 100 percent of the debt owed by poor countries and helped prevent a global financial crisis that could have been triggered by Argentina's debt default. Last but not least, he assisted in the reform of the IMF and World Bank, and pursued a currency strategy that was helpful in ending China's peg against the dollar and a ten year decline in Japan.

In his lecture, Taylor also related his experiences during extensive travel to crisis areas such as Afghanistan. As part of postwar reconstruction, he developed a strategy for financial restoration of the Afghan economy. It included plans to raise funds internationally, to find possible donors, to bring together various aid agencies and monitor assistance efforts. These endeavors paid off when Afghanistan was unified and a new president elected democratically with eight million people voting in the election.



Taylor's book tells the story of the "global financial warriors" who have fought in the war on terror. According to Taylor, these experts "have been quietly fighting in many different ways in this war. International goodwill following 9/11 and new war-driven demands for greater accountability led to a long string of actions to combat terrorist financing, financially reconstruct Afghanistan, implement new policies to contain financial crises, make the World Bank and IMF more accountable and prevent a financial collapse in Iraq."

John B. Taylor served as Treasury Under Secretary for International Affairs from 2001 to 2005. A senior fellow at the Hoover Institution, he is the Mary and Robert Raymond Professor of Economics at Stanford University. He is well-known in academia, central banking circles and financial markets for having developed a monetary policy rule, called the "Taylor Rule", that helps specify the appropriate level of the federal funds rate.

Celia Wieland (CFS)

## **CFS** Conferences

# CFS-ECGTN Summer School 2007 "Corporate Governance and Capital Markets" 12 - 19 August 2007

Training Center of the Deutsche Bundesbank Eltville (near Frankfurt am Main), Germany

The CFS Finance Summer School jointly organized with the European Corporate Governance Training Network (ECGTN<sup>1</sup>) and also supported by the "Stiftung Geld und Währung", took place on August 12 to 19, 2007 at the Training Center of the Deutsche Bundesbank in Eltville/Rheingau.



Training Center of the Deutsche Bundesbank Eltville

The summer school on "Corporate Governance and Capital Markets" provided thirty-six international students (including ECGTN early stage researchers) with a stimulating environment in which to discuss the latest developments in the field of corporate governance with an outstanding international faculty including Yakov Amihud (Stern School of Business, New York University), Francesca Cornelli (London Business School), and David Yermack (Stern School of Business, New York University). The program focused on the role of mergers and acquisitions (M&As), diversifications, venture capital and private equity in corporate governance and board structure, and managerial compensation. Participants

also had the opportunity to present their own work.

The first lecturer, Yakov Amihud, reviewed the empirical literature on the determinants and effects of M&As. In particular, he discussed event studies on the effects of M&As on stockholder and bondholder wealth. When investigating the stockholder wealth effects, the literature distinguishes between the bidder and the target and documents that the shareholder value decreases (increases) for bidders (targets) but that the combined value increases. Amihud also discussed anti-takeover measures and other implications of M&As for a company. On the second day of the program, Amihud focused on

corporate diversification by emphasizing methodological concerns such as sample selection and the instrumental variables method.

On the third day of the summer school, Francesca Cornelli reviewed the main issues from the theory of corporate governance. Among the topics covered were the separation of ownership and control, the role of large shareholders, free cash flow theory and earnings manipulations as well as issues related to tender-offers and block trading. The sessions on the following day were devoted to corporate governance with respect to venture capital (VC) and private equity firms, focusing specifically on the design of VC contracts and the behavior of venture capitalists on boards. Cornelli also commented on the current research trends in this area and presented papers on private equity performance, compensations in VC partnerships, and on the link between venture capital and innovation.

The final course of the summer school was given by David Yermack, who started with an overview of corporate governance. He summarized seminal papers in corporate governance that emphasize the firm value and compare governance practices among



countries. Next, he discussed several pioneer studies on corporate boards. In addition to Yermack's own work, there is a large strand of literature that explores the relationship between the board of directors and firm value. The studies involved are mainly interested

in the implications of the board size, classification of boards, and insider versus outsider directors in boards of corporations. Managerial compensation is another important topic in corporate governance literature. Yermack gave a brief review on CEO stock options and

finally on shareholder activism. As many participants would agree, it was a great pleasure to listen to and discuss research with this year's summer school faculty, who are all important names in the literature on corporate governance. The summer school provided a stimulating environment for participants to exchange research ideas and to socialize as well. There were two exciting social events that took place during the week. On the second day of the program, there was a guided tour to Johannisberg Castle, one of the oldest Riesling growing vineyards in the world. The participants enjoyed a visit to a unique wine cellar where they could also taste some of the wines produced at the vineyard. The second social event was a get-together at Weingut Belz in Eltville.

> Günseli Tümer-Alkan and Radomir Todorov (CFS)

# **EUI-CFS Workshop on Behavioral Approaches to Consumption, Credit, and Asset Allocation**

25-26 May 2007

Firenze



The Finance and Consumption Chair of the European University Institute (EUI) and the Center for Financial Studies jointly organized the workshop on Behavioral Approaches to Consumption, Credit, and Asset Allocation on 25-26 May 2007. The workshop brought together researchers from

leading universities and central banks to present their research using behavioral approaches to economics of household consumption, consumer credit, and asset allocation and to assess the extent to which such research sheds light on household financial behavior. The workshop was hosted by the Finance and Consumption program and organized by Michael Haliassos (Frankfurt University), Nur Ata and Alena Bicakova (The Finance and Consumption Program at EUI).

The first session began with the welcome speech by **Luigi Guiso** (EUI, Ente Luigi Einaudi and CEPR). **John Driscoll** (Federal Reserve Board) presented a paper entitled "Stimulus and Response: The Path from Naïveté to Sophistication in the Credit Card Market". Here, the main question is whether consumers learn through the negative experience of late payment, over limit or cash advance fees. The authors find

that learning is indeed powerful and, likelihood of paying fees decreases with the account life. However, this knowledge depreciates fast in the sense that a recent fee reduces the probability of fee payments more than an old fee. **Luigi Guiso** questioned whether the "learning but forgetting" evidence can be interpreted as departure from rationality. He pointed that observed myopic behavior can also be explained by the varying nature of the underlying cost structure that leads to recent events being more informative then the past ones.



Luigi Guiso

Sumit Agarwal (Federal Reserve Bank of Chicago) presented the second paper "Does It Pay to Read Your Junk Mail? Evidence of the Effect of Advertising on Financial Decisions", which studies whether advertising or persuasion impacts consumer financial decisions such

as choosing between variable and fixed rate mortgages. The authors find that the mortgage choice depends on the underlying financial variables, but is also influenced by the intended use of funds. Advertising has a persuasive impact for a subset of consumers who use funds to finance consumption. **Dimitris Christelis** (CSEF) suggested that given the heterogeneity of consumers in the sample, a closer investigation of the impact of consumer characteristics on the effect of advertising would be useful.



Sumit Agarwal

The second session covered three papers. Naomi Feldman (Ben Gurion University) presented her work on "Mental Accounting Effects of Income Tax Shifting" which uses the 1992 change in federal income tax withholding as a natural experiment to support the mental

accounting hypothesis on consumption and savings. Indeed in the year of the reform a decrease in contributions to the IRA is observed, supporting the hypothesis of mental accounts. **Piero Gottardi** (Universita' Ca' Foscari di Venezia) noted that, unless the change in IRA contributions also occurs in later years, one could argue that the decrease in IRA contributions in 1992 could have been caused by a lag in adjustment to the changed income process.

The second paper of this session presented by **Matthew Weinberg** (University of Georgia) on "Heterogeneity in Intra-Monthly Consumption Patterns, Self-Control, and

Savings at Retirement" investigates the self-control problem of elderly U.S. citizens who are Social Security recipients. The authors monitor food consumption between pay days, and show that consumption is anticipated at the cost of suboptimal food intake towards the end of the period. This pattern is inconsistent with standard exponential discounting, but can be explained by time inconsistent preferences. Peter Katuscak (CERGE-EI) noted that in order to reach conclusions in support of hyperbolic discounting rather than constant but higher discount rates, it is necessary to investigate more closely the shape of consumption profiles.

The third paper on "Fungibility, Labels, and Consumption", presented by Johannes Abeler (IZA and BGSE, University of Bonn) and Felix Marklein (University of Bonn and IZA) tests one of the implications of the assumption of fungibility, namely that the specific composition of income is irrelevant for the consumption decision. The authors find that, housing consumption is significantly higher when the in-kind benefit is labeled to housing and that violation of fungibility is more pronounced among individuals with lower mathematical abilities. Sumit Agarwal confirmed that fungibility is violated in a wide range of real world scenarios. However, he noted that the strong results of violation of fungibility found in the paper could be in part due to the homogenous age structure of the sample (students).

The third session comprised of two papers. Stephan Meier (Federal Reserve Bank of Boston) presented his joint work on "Impatience and Credit Behavior: Evidence from a Field Experiment". The authors estimate time-preferences and disentangle the impact of present bias and long-run discount factor on the level of credit card borrowing, default rates and credit scores. They found that present bias is associated with suboptimal borrowing whereas the long run discount factor is relevant for defaults and credit scores. Jonathan Crook (University of Edinburgh) suggested that the low level of average income in the sample is likely to cause self-selection into tax assistance, affecting the universality of the obtained estimates of the discount rates.

The second paper presented in this session was "Self control and debt: Evidence from Data on Credit Counselling", by **Nur Ata** and **Alena Bicakova**. Credit counseling agencies assist borrowers in trouble by setting up and administering repayment plans, so called "debt management plans" (DMPs). The authors explore the impact of smoking and self-control problems on the debt repayment behavior of the financially troubled borrowers. It is found that smoking increases the

DMP drop out rates by 30 per cent and self-control problems by 12 per cent. **Naomi Feldman** noted that if smoking as well as personal traits such as self-control problems adversely affects the debt repayment performances, these should have important policy implications which should be brought forward in the paper.



Michael Haliassos

The fourth session focused on stock market participation and portfolio choice. **Rob Alessie** (Utrecht School of Economics and Netspar) presented a paper on "Financial Literacy and Stock Market Participation". The authors found that financial illiteracy is

widespread, varies with age, gender and education and is correlated with the source of financial advice. Those with low literacy are likely to consult friends and family whereas those with high literacy rely on newspapers and financial advisors. They also identified a causal effect of illiteracy, namely, individuals with low literacy do not invest in stocks. **Michael Haliassos** noted that lacking financial literacy can be seen contributing to higher fixed entry costs, deterring "small" potential participants, quite consistent with the dominant current explanation of limited stock market participation. He identified three components of the measure of financial literacy (education, innate ability or aptitude and, financial knowledge), and stressed that responses on financial knowledge can be endogenous to participation.

In the second paper "Rational Inattention, Portfolio Choice, and the Equity Premium", Yulei Luo (School of Economics and Finance, The University of Hong Kong) proposes an analytical approach to solve an otherwise standard portfolio choice model in which consumers have finite capacity when processing information (rational inattention). Consumption reacts to wealth shocks gradually and with delay and contemporaneous risk becomes less important than the long-term risk. As a result, consumers reduce the optimal allocation in the risky asset because they face larger consumption risk and in equilibrium they demand higher equity premium. Winfried Koeniger (IZA) pointed to the observational equivalence between risk aversion and rational inattention as they both reduce the share of the risky asset. He also questioned the assumption that information processing constraints are always binding.

In the fifth session, **Hans-Martin von Gaudecker** (Free University Amsterdam) presented a paper on "Risk Attitude,



John Driscoll

Impatience, and Asset Choice", which employs a new approach to analyzing portfolio choice. Instead of relying on the representative agent assumption, preferences and endogeneity of wealth are explicitly modeled, using methods derived in the psychometric literature. The

final goal is to estimate the influence of individual preferences and wealth on asset choice. **John Driscoll** was supportive of the idea of combining a latent variables approach with an analysis of observed wealth data and a questionnaire. However, he pointed that the identifying assumptions are rather strong, and that the number of estimated parameters is large for a data set of this size. While the results are plausible, their interpretation remains somewhat difficult.

In the second paper of the fifth session, "The Role of Temptation in Explaining Individual Behaviour" by Alessandro Bucciol (University of Padua), temptation preferences of the Gul-Pesendorfer type are introduced into the life-cycle model. The paper demonstrates how different degrees of temptation affect the optimal consumptionsaving decisions. Tempted households save less frequently as they postpone savings for retirement over the life-cycle. This leads consumption to drop near the retirement age. The reduction in consumption increases with the degree of temptation. Tempted individuals would benefit from government imposed savings in the form of taxation. Stephan Meier noted that there are several competing "dual-self models" and suggested that the use of supporting evidence could play a role in choosing between them.



Rob Alessie

The last session on stock trading, contained two more papers extending behavioral theory to trading strategies. First **Daniel Dorn** (LeBow College of Business, Drexel University) presented joint work on "Turnover and Volatility". This paper finds evidence that the

positive correlation between portfolio risk and turnover can be explained by personal traits of investors. They also find that investors' trading activity and risk choices are stable over time. Stockholders pick stocks individually according to whether they suit their attitude towards risk, which leads to portfolios that are homogenous with respect to return volatilities of the components. In his discussion, **Rob Alessie** pointed out that traditional expected utility portfolio theory



should not be abandoned quickly as one could allow for fixed transaction and holding costs which might explain undiversified portfolios.

The concluding paper of the workshop "Speculative Bubbles without Stupid Investors" was presented by **Milo Bianchi** (Stockholm School of Economics). The authors show that, in an environment where trade is purely speculative, there can be stock crashes even if all traders are aware of the build-up of a price bubble. The driving force behind crashes

is not incomplete information, but some traders' incomplete understanding of the history dependence of the sophisticated traders' trading strategies. Bounded rationality hence leads to wrong predictions on the timing of the crash. **Daniel Dorn** noted that the assumption of bubble awareness can be a result of hindsight bias, especially since in many markets the fundamental value is not obvious. Another potential issue is the delegation of trading decisions, reducing the number of inexperienced traders on the stock market.

Michael Haliassos closed the workshop by thanking the sponsors and co-organizers Nur Ata and Alena Bicakova, as well as the Finance and Consumption research assistant Judith Ay, and secretaries Julia Valerio and Lucia Vigna.

The text is a shortened version of the Summary of Proceedings by Nur Ata

The complete conference program and downloadable papers, including names and affiliations of conference paper coauthors, can be found at:

http://www.iue.it/FinConsEU/ResearchActivities/BehavioralApproachesMay2007/IndexAPRIL.shtml



# 9th ECB-CFS Research Network Conference

"Asset Management, Private Equity Firms and International Capital Flows: Their Role for Financial Integration and Efficiency"

### 8-9 October 2007

hosted by the Central Bank & Financial Services Authority of Ireland in Dublin

Financial intermediaries and their role for the stability of financial markets is one of the key questions in which politicians, central bank members and economists are interested. Hence this conference focused on how intermediaries, such as funds, act and how their performance and risk can be measured.

In his opening remarks, Governor **John Hurley** (Central Bank & Financial Services Authority of Ireland) encouraged debate on this issue. He said that, in his position as a central banker, one of his main focuses is on funds and their potential to cause financial crises.

The topic of the first session was "Leveraged Buy-Outs and Private Equity". **Ulf Axelson** (Swedish Institute for Financial Research) gave the first presentation. He pointed out that the number of leveraged buyouts (LBO) increased remarkably over the last ten years, from roughly 200 in the

early 1990's to more than 1000 in 2006. The main findings of his paper are that leveraged buyout firms use a complex financial structure and, unlike public firms, LBO leverage seems primarily driven by debt market conditions. **Simona Zambelli** (University of Bologna) then presented a paper dealing with the effects of regulation on buyouts in Italy. The authors of this paper have concluded that rendering LBOs illegal would not exclude them, but simply inhibit their efficient structure. The third and last paper of this session was presented by **Dion Bongaerts** (Amsterdam Business School). This study investigates the consistency of Basel II



John Hurley Photo: Ian White (Mac Innes Photography)

and the Capital Requirements Directive (CRD) by comparing capital charges for private equity investments under the RWA (risk weighted assets) and the internal model approach.

A second session¹ was conducted under the theme "Going Public and Private Strategies of Private Equity Firms". The first paper was concerned with how entrepreneurs and venture capitalists choose between the two options of Initial Public Offering (IPO) or acquisition. It employed an equilibrium model to consider the decision-making process behind this choice. The second paper in this session was presented by **Peter Rosenboom** (RSM Erasmus University) and considered the different reasons why private equity investors take firms private. The analysis conducted under this paper suggests that the population of "going private" firms is very heterogeneous. The paper distinguished between private equity-backed deals or management-sponsored deals and concludes that the two types have different reasons for pursuing this path.

One of the third sessions<sup>2</sup> was titled "The Real Effects of Different Types of Ownership". **Petro P. Matos** (University of Southern California), together with his co-authors, finds that countries with high institutional ownership have a higher volume of Mergers and Acquisitions (M&A). In addition, the percentage of cross-border M&A volume increases with higher foreign institutional ownership. Similarly, the second paper in this session was concerned with the impact of an exogenous change on the ownership structure of pension funds, for example, the reform of the Swedish pension system.

Directly following the third session, a panel discussion took place with **Gerhard Schröck** (Oliver Wyman Financial Services); **Eli Talmor** (Private Equity Institute, London Business School); **Ernst-Moritz Lipp** (Odewald & Compagnie Private Equity Partners and Frankfurt University); and **William Goetzmann** (International Center for Finance at the Yale School of Management).

Ernst-Moritz Lipp presented an optimistic view with regard to the impact of the current financial turmoil on the private equity (PE) business. According to him, despite recent financial developments, PE funds are still able to debt finance their business, at least in terms of smaller deals, though at lower leverage ratios (debt/EBITDA) and with higher fees. William Goetzmann gave a brief statement relating to the three phases of a PE funds' engagement, namely from buy to cure (entrepreneurial attitude) and then towards a final sell. According to Eli Talmor, PE cannot be precisely defined, neither by focusing on the type of investment, nor on the investor, nor on the illiquidity of assets or the investment horizon of PE funds. At the same time, compared to hedge funds, PE funds are willing to take a close to 100% ownership and have a longer-term investment perspective.

The fourth session was about "Performance, Risk and Disclosure in the Hedge Fund Industry". Stephen Brown (New York University, Stern School of Business) analyzed the impact of a Securities and Exchange Commission (SEC) form that has to be filed by hedge funds. He and his co-authors have concluded that the SEC's Form ADV is important towards quantifying the operational risk of which certain market participants may already be aware. The second paper in this session examined the flow-performance relation for individual hedge funds. This paper was mainly concerned with the factors driving the shape of fund flow performance. It concluded that no restrictions lead to a convex fund flow performance whereas restrictions lead to a concave fund flow performance.

In his keynote speech William Goetzmann stated that hedge funds are equivalent to frontiers. They are constantly trying to find new ways of dealing with changing circumstances. His main conclusion was that regulating hedge funds would mean putting them under constraints, which would then imply a tradeoff between efficiency and regulation. Those who are suspicious that hedge funds are too risky and could potentially endanger the economy should always bear in mind the flip side of the coin.

The topic of the fifth session was "Performance and Corporate Governance in the Private Equity Industry". **Philipp Krohmer** (Frankfurt University and Cepres) presented a paper about staging in the private equity industry. From previous literature it is not clear in which direction staging affects the performance of private equity. **Krohmer's** paper finds that staging has a positive impact on performance during an initial period of investments, but has negative effects when



Hurley, Goetzmann, Browne Photo Ian White (Mac Innes Photography)

an investment exit is being prepared. The second paper in this session demonstrated a new GMM (Generalized Methods of Moments) approach for estimating the returns of private equity funds. The novelty of this approach is that it requires only cash flow data and yields for a direct estimation of risk-adjusted performance and risk exposure. The main findings of the third paper presented by **Tereza Tykvova** (ZEW Mannheim) are that countries with developed private equity industries and strong local private equity networks are more successful in attracting foreign investors and are the source of more cross-border deals. Such developed industries, together with strong destination country networks, encourage transnational syndication.



Hurley, Zambelli, Browne, Hartmann, Lane, Walz Photo Ian White (Mac Innes Photography)

In her closing remarks, **Gertrude Tumpel-Gugerell** (European Central Bank) stated that financial intermediaries play a very important role in the financial environment. Funds such as hedge funds and private equity funds provide liquidity to the market. However, the regulation of these funds is still an open issue.

Andrej Gill (Frankfurt University)

The complete conference program and downloadable papers, including names and affiliations of conference paper coauthors, can be found at:

http://www.eu-financial-system.org.



### **RICAFE2 Conference**

# Regional Comparative Advantage and Knowledge-Based Entrepreneurship

5-6 October 2007

Riga

The second annual RICAFE2 conference was hosted by the Baltic International Centre for Economic Policy Studies (BICEPS) and the Stockholm School of Economics in Riga, Latvia. The conference covered theoretical and empirical studies on various aspects of entrepreneurship and on the role of policies in this matter, namely taxes, competition, knowledge protection and the level of financial development. The conference comprised four sessions, three of which were purely academic and one consisting of a policy-related panel discussion on the role of venture capital in new European Union states.

Alf Vanags (BICEPS) welcomed the conference participants. In his opening statement he briefly commented on the Regional Comparative Advantage and Knowledge-Based Entrepreneurship (RICAFE2) research program and presented his own institution. Vanags then chaired the first session of the conference.

The first session covered three papers, the first of which was presented by **Wolfgang Bessler** (Justus-Liebig-University Giessen): "Innovation and the Performance of Technology Firms: Evidence from Initial Public Offerings in Germany". This paper considers Initial Public Offerings (IPOs) in Germany in order to demonstrate that patents are a measure of

innovation and can impact the performance of firms. Katrin Tinn (SITE/Stockholm School of Economics) subsequently presented "The Speed of Technology Adoption with Imperfect Information in Equity Markets". In her presentation, Tinn offered possible reasons for the differing speed of technology adoption across different countries, namely variations in stock market development, labor characteristics, commitment problems, credit constraints and institutions. Tinn's model predicts that an expected low and uncertain selling price has a negative impact on incentives to adopt a technology test, due to the fear of unstable markets and information asymmetry. The last paper of the first session, "Firm Entry Dynamics and the Taxation of Corporate Profits: Evidence from European Firm-Level Data", was presented by Marina Di Giacomo (Università di Torino). This paper focuses on the impact of differing levels of corporate taxation on the market entry rates of companies across different European countries. Despite being at a preliminary stage, this paper presents some interesting findings and indicates corporate taxes significantly impact firm market entry rates.



The second session of the conference comprised a panel discussion conducted under the headline "The Role of Venture Capital in the New Member States". The invited speakers for this panel were: **Dairis Calitis**, representing the Latvian Venture Capital Association; **Krisjanis Zarins** from the Latvian Guarantee Agency; **Marcus Svedberg** on behalf of East Capital; and **Tarvo Tamm** from Connect Estonia. The discussion was moderated by **Alf Vanags**.

The final session of the first conference day focused on two papers. The first of these papers, "Patents and the Survival of Internet-related IPOs", was presented by **Stefan Wagner** (INNOtec, Ludwig-Maximilians-Universität Munich). In this paper, the authors try to quantify to what extent companies benefit from patenting their inventions and consider the impact of patenting on a company's survival prospects. They



find that firms who did not seek patent protection had a higher risk of failure. The last paper for this session was titled "Entrepreneurial Innovations, Competition and Competition Policy" and was presented by **Lars Persson** (Research Institute of Industrial Economics — IFN). This paper studies the impact of increased product market competition on the incentives for patenting and innovation. The model it employs suggests that the incentive for innovations for sale relative to innovations for entry tend to increase when competition rises. Furthermore, it indicates that changes in competition levels and policy have a different impact on the incentives for innovation for entry than on the incentives for innovation for sale.

Javier Suarez's (CEMFI) presentation of the paper "Financially Constrained Innovation, Patent Protection, and Industry Dynamics" opened the second conference day. This paper considers the role of intellectual property protection in promoting innovation and increasing welfare. It is based on a model of industry dynamics whereby innovations are produced by financially constrained entrepreneurs. The main finding is that protection against innovative entries is counterproductive for innovation and welfare, whilst some level of protection against imitation has positive effects in both respects. Giovanna Nicodano (Università di Torino and Collegio Carlo Alberto) then presented a paper entitled "Firm Scope, Debt and Value: a Structural Model of Business Groups". The study compares stand-alone firms, conglomerates and business groups in terms of total value, equity and debt. It suggests that financial synergies help explain the emergence of business groups, despite the destruction of shareholder value following their emergence. The paper concludes that business groups can achieve a higher total firm value than stand-alone firms and conglomerates, even taking into consideration the reduction in shareholder value. "Success Breeds Success Locally: A Tale of Incubator Firms" was then presented by Eren Inci (Sabanci University). This paper analyzes the role of networks during the pre-establishment period for start-up firms in industrial districts. Its main finding is that networks are better able to match capital to ideas for such firms.

The final conference session started with Silvio Vismara's (University of Bergamo) presentation of a paper titled "Valuing University-based Firms". The aim of this paper is to study the impact of university connections on a firm's value. The authors find that university-linked firms show a higher market to book value and lower underpricing at the time of IPO. Jan Bena (Financial Markets Group, London School of Economics), the last conference speaker, then presented the paper "Which Firms Benefit More from Financial Development?", which establishes a link between information asymmetries across firms and the level of finan-

cial development across countries. The authors find an inverted u-shape effect of financial development with respect to firm age, while there is relatively little evidence of an effect across firms of different size.

Sebastian Pfeil (Frankfurt University)
With thanks to Cláudia Custódio (Financial Markets Group,
London School of Economics & Political Science)
who provided a conference report

The complete conference program and downloadable papers, including names and affiliations of conference paper coauthors, can be found at:

http://www.lse.ac.uk/collections/RICAFE/



# The ECB and Its Watchers IX 7 September 2007

Frankfurt am Main













The 9th ECB and Its Watchers Conference held on 7 September 2007, was the first conference without Otmar Issing on the ECB side of the debate. Compared to previous years, in which panel discussions dominated the agenda, this year's program followed a new format, with a series of debates between two or three speakers, in all but one case involving a European policy maker. "The strong representation of the ECB Board and Governing Council at this year's conference provided a clear signal that the ECB remains committed to this aspect of its communication strategy and dialogue with ECB watchers in academia, financial markets and the media," according to conference organizer *Volker Wieland*.

Indeed, the conference took place at a significant time concerning the discussions on ECB monetary policy strategy, adequate policy responses to diverging unit-labor costs, and budget consolidation in Europe. Importantly, the ongoing liquidity crisis and credit crunch in the U.S. and Europe, and respective policy recommendations, received particular attention.

As the first speaker, ECB President **Jean-Claude Trichet** addressed the audience with a presentation on the "Euro Area and its Monetary Policy". Trichet began by explaining that from time to time exceptional situations may require exceptional decision making by central banks, such as "refinancing the money market to help it normalize its

functioning" with respect to the liquidity crisis. However, as critical as such activity may be to the markets, he reminded the audience that it makes up only a small part of the central bank's tasks. In the current situation, Trichet encouraged critics to "resist the temptation to focus on the drama of emergency medicine" and trust the policy makers' ability

to monitor the "new facts" (i.e. economic shocks) as well as the "regularities" (i.e. the deep structure of the economy), which could lead to possible adjustments in the long-run.



Jean-Claude Trichet

Trichet pointed out that these regularities and new facts tend to drive the long-run outlook. He demonstrated that since 1 January 1999, output in the euro zone has not only been in line with that of other countries but inflation has also been lower and quite steady in comparison. Furthermore, the euro area has experienced remarkably low volatility concerning inflation and de-trended output, implying that "EMU has kept inflation in the vicinity of levels consistent with our objective, without this having caused abnormal swings in business conditions," Trichet said. He went even further by saying that in spite of the nominal rigidities evident in the structure of the euro area, the ECB seems to have been able to "improve the inflation-output volatility trade-off by eradicating intrinsic persistence from the economy."

Trichet concluded that the ECB does not simply measure the performance of the economy "by the strength or weakness of any particular piece of incoming news" in the last couple of months, but continues to investigate and focus on the economic trends given the evidence it gathers on a continuous basis. As volatile financial markets give cause for increased uncertainty, the ECB stays alert, collects further data and examines the information in order to draw further conclusions. The ECB president reassured the audience that "by acting in a firm and timely manner we will ensure that risks to price stability over the medium term do not materialize and that medium term inflation expectations remain firmly anchored in line with price stability."

### The Role of Money in Monetary Policy

In the debate about the role of money in monetary policy, **Jürgen Stark** (ECB) stressed enhancing the ECB's monetary

analysis, because it has proved the best possible strategy towards conducting policy for the euro area. "To stay fit for the future," Stark underlined the importance of improving and broadening money demand models, as well as assigning a more important role for money and credit in the development of general equilibrium models. In addition, he pointed out that they aim to enhance transparency and robustness of summary indicators derived from broad monetary analysis concerning the risks to price stability. Within this context, he suggested deepening the cross-checking framework in order to strengthen the monetary pillar.

Stark criticized that some of the ECB's academic observers have failed to give adequate advice on how to achieve price stability. In the standard New Keynesian Model, money does not have a special role to play in monetary policy.



Jürgen Stark

However, according to Stark, this is false. The ECB has found money aggregates play an active role in the transmission of monetary policy. The ECB's approach aims to assess financial data as well as broader economic aggregates and to create empirical models explaining variability in money and price developments. It includes informed judgments and forms the basis for a consistent, analytical framework. Stark reiterated that the monetary pillar will not be eliminated from the ECB's strategy, but used increasingly to conduct euro area monetary policy in the future.

In response to Jürgen Stark, **Paul De Grauwe** (K.U. Leuven) took an opposite stance on the role of money in monetary policy. Whilst admitting that the ECB has been highly successful in anchoring the inflation rate at around 2% since 2000, De Grauwe observed that money growth has fluctuated greatly during this same period. In fact, money growth exceeded the reference value of more than 4.5% most of the time. In short, "M3 has had zero power in predicting future inflation in the euro zone since 1999," according to De Grauwe.



Paul De Grauwe

This rapid money growth, which does not affect inflation, may not necessarily be a sign of excess liquidity creation, De Grauwe claimed. He noted, instead, that "it may reflect the new activities of banks, which have been issuing longermaturity liabilities backed by shorter-maturity assets." The developments of the past months are such that hedge funds have taken on the role banks used to play of borrowing short and lending long. Whilst the ECB should worry about such liquidity trends, it is looking at the wrong indicator in terms of money aggregate M3. This, in turn, implies that it does not get the right signals about inflation, according to De Grauwe. He qualified that the ECB should not be too concerned, as increased liquidity creation by hedge funds does not make groceries more expensive, i.e. influence the CPI. However, hedge funds create liquidity by buying assets and, hence, create asset price inflation. The central bank should be concerned about such asset price inflation, De Grauwe said.

## On Signaling the Future Interest Rate Path

The second debate dealt with the question of how central banks should signal their intentions regarding future interest rates. Axel A. Weber (Deutsche Bundesbank) opened the discussion by reiterating the continuous effort by central banks to improve communication, in particular concerning the determinants of monetary policy decisions as well as policy objectives and strategy. However, Weber questioned the case for publishing future interest rate intentions. Central bankers rightly hesitate to communicate an interest rate path due to the risks involved in making a premature commitment, due to the complications in achieving consensus in decision making by committee, and due to complications in ensuring that the path is consistent with the overall process implied by the chosen strategy. Weber noted that if proper signaling of future interest rate intentions fails due to these complications then policy effectiveness may deteriorate substantially.



Julian Callow, Charles Wyplosz, Axel Weber, Volker Wieland

Weber stressed that central banks should indicate their intentions for the future interest rate by first improving communication on policy objectives and strategy so as "to increase their influence over longer-term rates and therefore enhance policy effectiveness." Secondly, policy success relies on the private sector's ability to detect and understand the changing environment in which to expect the central bank's general policy path. Thirdly, the private sector must comprehend a "systematic response" to new data. Fourthly, communicating the interest rate path may be beneficial in theory, but may come at a high cost when put into practice. Lastly, research verifies that the euro zone has been doing well in directing market expectations.

Charles Wyplosz (HEI Geneva) complimented the ECB on its communication strategy of the past several months and pointed to the overall progress central banks have made in terms of practice and research. Wyplosz did, however, hint at different views with respect to transparency and, similarly to Axel A. Weber, explained the arguments for and against a central bank communication strategy being too transparent. Developing approaches for revealing the expected interest rate path currently represents the "frontier" of central banking, he said. Central bankers are always asked what the interest rate will be. Sufficient statistics would include all forecasts and model assumptions used by the decision makers. They would also incorporate policy preferences and the range of uncertainty. Nevertheless, there needs to be a clear distinction between transparency and commitments, because the interest rate path can change with new information and appraisal. There is also a difference between expectations and commitments due to uncertainty and alternative possibilities. Finally, Wyplosz reminded the audience that some central banks are not entirely independent but are influenced by politicians.

The last speaker in the second debate was **Julian Callow** (Barclays Capital), who presented the Barclays Capital Investor

Survey of Central Bank Communication (August 2007) carried out for the purpose of this debate. In this survey, 1183 Barclays clients from different geographical and professional backgrounds answered a list of questions, focusing on their understanding of central bank communication. Generally, these clients believed that central banks should communicate their future policy intentions to financial markets. All in all, participants responded that they understand and have confidence in the major central banks' objectives. The ECB as well as the Federal Reserve System received similar results on the questions asked. Overall, the ECB appears to have done well in communicating to financial markets, according to this survey.



Lucas Papademos, Axel Weber

# Diverging Unit-Labor Costs in Europe and the Proper Policy Response

Lucas Papademos (ECB) opened the debate on this topic by focusing on the causes and consequences of inflation and competitiveness divergence in the euro area, as well as the necessary policy responses. He emphasized that the dispersion of unit-labor cost growth in the EMU has declined substantially in the last fifteen years and "although it is still appreciable, it is not unusually large and it is broadly in line with that observed in other monetary union."

Nevertheless, for some EMU countries, present trends regarding competitiveness are unfavorable. Unit-labor cost growth divergences are considerable and such developments will, in turn, affect growth and employment. According to Papademos, these unit-labor cost growth divergences are significant and require a clear understanding of the causes involved. This can be achieved by first analyzing the individual components of unit-labor costs-typically exceptionally strong wage growth, low productivity growth or both combined. Examples here include Greece, Italy and Portugal. Secondly, further causes can be rendered visible by studying unit-labor

cost trends within various sectors of the economy. Between 1999 and 2005, unit-labor cost growth has been higher in the services sector in most euro countries. "The key factor behind the stronger unit-labor cost growth in the services sector compared to industry appears to be weak productivity growth in services, which may reflect, among other things, the fact that this sector is relatively less exposed to international competition," summarized Papademos.



Michael Binder, Lucas Papademos, Ignazio Angeloni, Joachim Fels

Understanding the causes of diverging unit-labor cost growth as well as considering its implications allows policy makers to respond accordingly. Countries such as Germany have already achieved higher productivity growth and increased non-inflationary employment by initiating new reforms, carefully setting wages and keeping up stability-oriented fiscal policies. Other European countries should follow in these footsteps, Papademos said.

Ignazio Angeloni from Italy's Ministry of Economics and Finance reviewed the significant stabilization of unit-labor costs after the implementation of the euro. Before 1999, the average dispersion of unit-labor costs in the private services sector had been 2.2%. After 1 January 1999, the average dispersion decreased to 1.5%. Yet, there are some divergences, in that Germany and Austria have experienced relatively low unit-labor costs consistently since 1999, in marked contrast to Spain and other countries. Germany, in particular, seems to stand out against other euro trading partners and benefits from better competition. "There is an issue not a problem," according to Angeloni, who sees not only price but also quality competitiveness among the EMU countries. Some countries have picked up the rules of monetary union whilst others less so.

With respect to finding the adequate policy responses, Angeloni proposed support of functioning national and international labor markets; ones which are flexible, mobile, transparent and competitive. He also recommended consistent public sector leadership on the national level as well as appropriate monetary policy on the international level.

Following Lucas Papademos and Ignazio Angeloni, Joachim Fels (Morgan Stanley) signaled the diverging development in cost competitiveness in the euro area since 1999, and highlighted the comparatively lower unit-labor costs in Germany. Nevertheless, he also noted that wage levels can give a different picture, in that hourly compensation in manufacturing is exceedingly high, particularly in Germany. Wage growth is diverging more than productivity growth in the euro area. Furthermore, there exist big deviations in price levels from absolute purchasing power parity.

According to Fels, the conclusion for monetary policy in this case is twofold. If there is confidence in convergence, these trends present exactly what should happen and the ECB need not be concerned. Yet, if the focus is on the different price levels and there is too much pressure on the high cost countries, it may be necessary to resist inflationary pressures.

### **Successful Budget Consolidation in Europe:** Questioning the Revised Stability and Growth Pact

In the fourth debate of the ECB and Its Watchers conference, Pervenche Berès (European Parliament and Committee on Economic and Monetary Affairs) began by presenting some basic facts on the issue of budget consolidation in the euro area. Before the Stability and Growth Pact had been reformed, thirteen countries had to follow an Excessive Deficit Procedure in 2005. At this point, only seven countries must follow such a course of action, namely Italy, Portugal, the U.K., the Czech Republic, Hungary, Poland, and Slovakia. She further highlighted that in 2006 the EMU's average budget deficit had been 1.6% compared to 2.5% for the previous year. Despite this progress, Berès questioned whether such improvements will continue to be achieved in the future, particularly given the financial unrest of the past months.

"Since the introduction of the new rules coincided with an economic upswing, it is hard to make an accurate assessment at this stage," implied Berès with respect to the question of reform really improving the budgetary difficulties of countries. She advised observing a full economic cycle in order to analyze how the reformed Stability and Growth Pact performs in an economic downturn. Regardless of such reservations, Berès stressed a number of key points: recent budget deficit

improvements show that the reform was a significant first step; fiscal policies which are not cooperative will not be successful in the future; further moves are necessary and improved governance needs to be accomplished in the euro area.



Teresa Ter-Minassian, Pervenche Berès

Teresa Ter-Minassian (IMF) also posed the question whether the budget consolidation in Europe shall continue. According to her, those EMU countries which have not yet met their medium-term objectives, have committed to accelerated correction. However, increased tax revenues may trigger unnecessary spending. There are still a number of European countries that carry very high public debt and the convergence to meet the Maastricht criteria might be very slow. Key issues such as an aging population, as well as climate change and globalization, may lead to considerable long-term spending pressures. The medium-term objectives are not insignificant, but they do not suffice to guarantee long-term sustainability. Like Pervenche Berès, Ter-Minassian agreed that the reform of the Pact was a first, positive step. She advised to "consider aging-related expenditure pressures in the medium-term objectives, strengthen incentives to avoid pro-cyclicality in good times and to allow counter-cyclicality in bad times."

Wolfgang Münchau (Eurointelligence) agreed that the revised Stability and Growth Pact has been working well under the boom conditions of the past two years. Nevertheless, he debated that the ultimate test of the Pact will not be on a technical point, but rather whether there is political commitment behind it in the future. As France is heading for a 3% budget deficit at the height of the economic cycle, Sarkozy's proposals on industrial, competition and fiscal policies should be taken very seriously compared to Germany's fiscal consolidation plan. The euro zone finds itself back in the situation of the early 1990s, with conflict between the two largest EU countries, which raises the question of sustainability. Furthermore, Münchau considered economic diplomacy as a means to improve economic policy coordination. In the past

years, Europeans have focused on developing the economic system. In the future, they need to develop political consensus on the basics of economic policy.

# Liquidity Crisis and Credit Crunch in the United States and Europe – The Policy Makers' Response

An important item on this year's ECB and Its Watchers agenda was the concluding debate on the recent financial disruptions in the United States and Europe. **Stephen Cecchetti** (Brandeis University) opened the discussion. He termed the crisis "the crisis of collateral" or "crisis of un-collateralized lending," in which nobody knows what the collateral really is anymore. Its warning signals are mounting risk premia, the dramatic decline in the readiness to accept collateral of uncertain quality and the movement of borrowers from direct issuance towards bank credits. However, for Cecchetti, the origins of the crisis are badly functioning supervision, inadequate regulation of sub-prime mortgage creators and the design of securities too complex to assess.



Stephen Cecchetti

U.S. policy makers have responded to the crisis in several ways: the Federal Reserve has officially intervened through open market operations and by lowering the discount rate this August. Furthermore, Cecchetti showed evidence that the Federal Reserve also lowered the federal funds rate unofficially for a while. It is also noteworthy that for the first time ever the Federal Reserve accepted any security as collateral, namely on August 10 for the \$35 billion worth of repos it engaged in that day. What came in as collateral was mortgage-backed securities, whereby the Federal Reserve encouraged financial market participants to value mortgage pools sensibly, speculated Cecchetti. With respect to the discount rate, banks have been very reluctant to borrow from the Federal Reserve in the past. This is because of the stigma involved, which tied frequent borrowing automatically with

bad bank management. At this time, the reason is the simple fact that borrowing from the Fed is too expensive, in addition to information disclosure: somewhere along the line it will sink through who has borrowed and by exactly how much. This leaves the question whether central bankers have the right equipment to deal with the crisis.

Michael Dicks (Barclays Wealth) started by presenting his approach to analyzing market developments. He proposed to partition shifts in asset prices into a component that might be termed 'warranted' by fundamentals, plus a component that is not. Such an attempt is best developed in a formal framework or model. He argued that the "current economic and financial market conditions warrant the rare situation of 'big values' being placed on the 'unwarranted' shifts. And that ought to mean shifting policy in a meaningful fashion, compared with what was formerly required or planned."



Michael Dicks

Dicks considered lessons learned from the experience of the U.K. housing sector during the 1980s and 1990s and their potential application to the United States today. He explained that a period of financial market consequences had lead to an expansion of home ownership rates, in particular for those nearer the bottom of the income scale, as well as an increase in debt-income ratios for the household sector, especially for first-time buyers. Dicks further noted a rise in house prices (nationally) that appeared to push their level above what was warranted (in terms of traditional models of house-price determination) and an associated boost to consumer spending via wealth effects.

Dicks pointed out that with the benefit of hindsight "we would not have put so little weight on housing, as a driver of consumption, and thus been quicker to recommend the Treasury raise rates (during the 1980s' 'boom') and cut them (during the following 'bust')." He projected that "the housing market slowdown is likely to turn out to be more painful

than generally expected" and offered a cautionary message for policy makers in that traditional models are likely to turn out overly optimistic regarding consumption and growth. He concluded "Policy makers ought to cut rates to offset the surprise and don't be surprised if the surprises are serially correlated."

Celia Wieland (CFS)

At this year's conference, the CFS welcomed 16 renowned speakers from government, academia, private banks and institutions, international organizations and central banks to present their answers to these key issues. More than 200 participants actively took part in the conference along with a new record number of 60 media and press representatives to report on the event.



### **CFS Financial Center Index**

Project Team: Stephan H. Späthe & Christian Knoll (CFS)

After indicating a very positive business sentiment on the part of the financial community at the outset, the CFS Financial Center Index has now declined for the third time in a row. Nevertheless, the overall business climate remains positive and is still at a high level. The evaluation of the last survey, which took place in the fall of 2007, produced an index value of 118.2

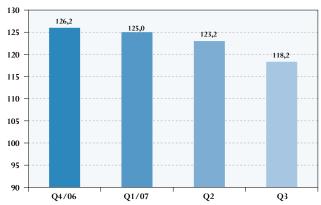
## The CFS Financial Center Index in the 3rd Quarter 2007

The CFS Financial Center Index had dropped in the first and second quarter of 2007, followed by an even more defined decrease in the third quarter. The index declined by 5.0 points to 118.2 (from 123.2 points). The deterioration of the financial business sentiment can be traced back to the core group of Financial Institutions & Brokerage Firms. CFS Director Jan Pieter Krahnen comments: "The subprime loan crisis has finally reached Germany, but it has had surprisingly little effect on the overall business sentiment." An index value of 118 points implies a positive business sentiment in the financial community and is ascertained if approximately two thirds of the interviewees respond positively and only one third negatively.

## **Extension of CFS Financial Index Survey** to Munich Financial Community

The survey among leading executives in the financial community, on which the CFS Financial Index is based, was extended to include the Munich financial community. Around 100 executives from 75 companies were added to the existing panel. Currently, the panel-based survey contains nearly 500 leading executives from the financial industry in Frankfurt and Munich and the respective surrounding regions. In 2008, the survey will be extended to cover Germany as a whole.

### CFS-Finanzplatzindex



Source: Center for Financial Studies (CFS)

Note: A value of 100 signals a neutral prevailing mood; the maximum index value is 150 and the minimum is 50

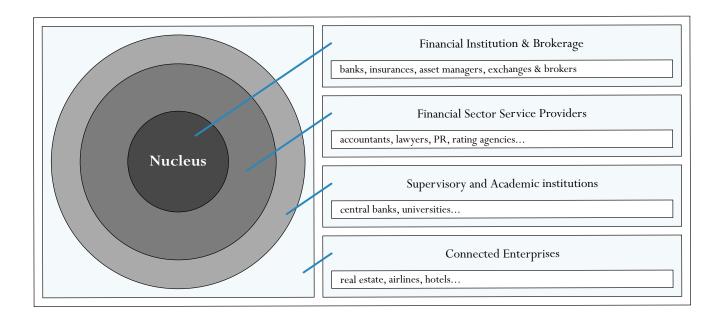
If you want to know more about the index please contact Stephan H. Späthe or Christian Knoll – Tel.: +49 (0) 69 798 30090. Further details can also be found at: www.finanzplatzindex.de

## **Special Surveys**

### German banking system as an obstacle

A survey conducted in the second quarter 2007 revealed that a majority of the interviewed executives regard the threepillar German banking system as a burden to Germany as financial center. It is believed that it hampers the market entry

#### **Definition CFS Financial Center Index**



of foreign financial institutions and therefore reduces overall competition, which in turn endangers the capabilities and competitiveness of the German financial system in Europe.

### German market for certificates

A special survey in the third quarter dealt with the German market for certificates, a unique feature of its financial market with more than 200,000 issues outstanding. The appraisal of this financial innovation by market observers however varies from being euphoric to suspicious. The majority of interviewees of all representative groups expect an overall positive development of the certificate market in the future. Two critical issues emerged from the questionnaire. First, the overall transaction cost related to investing in certificates is seen as not being sufficiently transparent. Secondly, around 75% of the interviewed executives believe that investors do not pay sufficient attention to the credit-worthiness of the issuer of certificates. Since certificates are debenture bonds issued by financial institutions, the quality of the issuer should

be taken into account. Consequently, the then two major branch associations, the "Deutsches Derivate Institut" and the "Derivate Forum", have started to publish information online concerning the issuer ratings. Prof. Krahnen believes: "Such initiatives will contribute to a highly desirable transparency of the German certificate market, thereby also strengthening its prospects for the future."

The CFS Financial Center Index is a newly established quarterly index providing information about the evaluation and expectation of financial market participants regarding the development of Germany as a financial center. This new type of instrument is based on surveys of leading executives from the Frankfurt financial community and was recently extended to include the Munich financial community. The maximum attainable index value is 150, the minimum index value 50. An index value of 100 indicates a neutral business sentiment The CFS Newsletter will report regularly about developments in the CFS Financial Center Index.

### **Inaugural Lecture of Professor Otmar Issing**



Otmar Issing

When receiving an honorary professorship from the University of Frankfurt on 4 July 2007, Professor Dr. Dr. h.c. mult. Otmar Issing held a speech titled "Monetary Policy by Committees – Science and Practical Experience".

In his speech he highlighted the importance of committees towards the decision making process for monetary policy, and contrasted the results of theoretical models with his own practical experience. The outcome of most scientific contributions, said Issing, shows the predominance of a committee structure, as compared to a single decision maker. Issing's experience in the European Central Bank Governing Council confirms, by and large, these scientific considerations: as regards monetary policy, the decision making process within the ECB Governing Council has been working ab initio in an

outstanding manner, which was barely expected by observers or even by insiders. Altogether, committees do improve the quality of monetary policy, Issing concluded.

Professor Issing is President of the Center for Financial Studies, Chairman of the Advisory Board for the House of Finance at Frankfurt University, International Advisor to Goldman Sachs and a member of the Advisory Board for the Globalisation and Monetary Policy Institute at the Federal Reserve Bank of Dallas. Whilst an ECB Executive Board member from June 1998 to May 2006, Professor Issing was responsible for the Directorates General Economics and Research. From 1990 to 1998 he was a Deutsche Bundesbank Board member with a seat in the Central Bank Council. In addition to his many other distinctions, in 2006, Professor Issing was awarded the Federal Republic of Germany's Order of Merit.

Marcel Bluhm (CFS)

### Max Weber Gesamtausgabe



We would like to thank Dr. Ronaldo Hermann Schmitz, former Member of the Management Board of Deutsche Bank AG, for his generous gift to our CFS library. Mr. Schmitz has donated the Max Weber Gesamtausgabe, for which we are very grateful.

Jan Pieter Krahnen

### **New Researchers at CFS**



David Nicolaus joined the Center for Financial Studies (CFS) team in August 2007 as Affiliated Young Researcher. Prior to joining the CFS, he graduated from Frankfurt University where he holds a degree in Finance. His studies have included a stay at the University College Dublin and at the Peking University. Before his studies, he completed an apprenticeship at Frankfurter Sparkasse 1822. He gained additional practical experience through several internships within the investment banking and consulting sectors. David is currently enrolled as doctoral candidate under the supervision of Professor Jan Pieter Krahnen at Frankfurt University. His primary research focus is the field of structured retail products in Germany.



Sara Konoe joined the Center for Financial Studies (CFS) in October 2007 as Visiting Young Researcher under the supervision of Professor Jan Pieter Krahnen. Sara is a Ph.D. Candidate at Johns Hopkins University, School of Advanced International Studies (SAIS) in the U.S. She also majors in law as a PhD student at the University of Tokyo, Graduate Schools for Law and Politics in Japan. Her research focuses on the comparative analysis of financial sector reforms among Japan, the U.S., and Germany.



# CFS Symposium "The Theory and Practice of Monetary Policy Today"

4 October 2007 Frankfurt am Main



Michael Woodford

The Deutsche Bank Prize in Financial Economics is the most highly endowed international award given for outstanding academic achievements in the fields of money and finance with a practice and policy relevant orientation. It was established in 2005 by the Center for Financial Studies, in cooperation with Frankfurt University. The prize is sponsored by the Deutsche Bank Donation Fund and carries a cash award of €50,000. It is awarded every two years.

The Deutsche Bank Prize for 2007 was awarded to Michael Woodford, Professor of Political Economy at Columbia University. Woodford received the prize in recognition of his fundamental contributions to the theory and practical analysis of monetary policy. According to the international prize jury, Woodford's research has led to a theory of monetary macroeconomics that holds widespread

appeal for many researchers owing to its rigorous microeconomic foundations. The jury also praised the high practical value of Woodford's theories, based on which he analyzes the central role played by expectations and communication in the implementation of monetary policy.

An international scientific symposium headlined "The Theory and Practice of Monetary Policy Today" was organized for the occasion of the prize award ceremony in Frankfurt on 4 October 2007. 11 distinguished speakers, together with more than 200 international participants from academia, central banks, private institutions and banks, reviewed and debated the hypotheses, findings and policy implications of Woodford's research.

In his welcome address, the symposium organizer and chairman of the prize jury, **Volker Wieland** (CFS and Frankfurt University), congratulated Michael Woodford and stressed his important contributions to the development of the New Keynesian theory of monetary economics, as well as the "immense practical value of this theory for analyzing the central role played by market expectations and central bank communication in the implementation of policy decisions."

Hermann-Josef Lamberti (Deutsche Bank AG), representing the sponsor of the award and event, complimented the independent jury for electing a very worthy prize winner. He emphasized the practical significance of Woodford's field of study and noted that financial markets have become so accustomed to an environment of low and stable inflation rates that the monetary policy that creates this environment is easily taken for granted. Lamberti asked "How important is money?" and pointed out that "one of Michael Woodford's key questions has just recently shown its bite as financial institutions have struggled to find short-



Hermann-Josef Lamberti

term liquidity in anxious markets." He urged researchers to: continue the theoretical discussion; evaluate changes in the real economy and in financial markets; and reassess the frameworks and strategies for monetary policy. Deutsche Bank envisions the Prize in Financial Economics as a platform for furthering discussion, international networking and the promotion of a deeper understanding of monetary and financial developments.

### The New-Keynesian Approach to Understanding the Economy

The first paper elucidating the New-Keynesian approach to monetary economics was presented by Bennett McCallum (Carnegie Mellon University), who is himself an eminent monetary theorist and academic. On Woodford's influential monograph "Interest and Prices", McCallum commented that it drastically diminishes the role of money in monetary policy analysis, but nevertheless, is "the most important treatise on monetary economics in over 50 years; it seems likely to go down in intellectual history as one of the handful of great books on this topic." The monograph develops the so-called "New-Keynesian" model that stands at the center of mainstream macroeconomic analysis today. McCallum noted that Woodford's analysis combines theoretical rigor, concern for empirical veracity, and respect for actual central bank practice to an extent that represents an enormous improvement over the situation of 25 years ago.

McCallum took issue with the common use of the term "New-Keynesian" as a description of the new mainstream approach. Rather, he said, "it has as much reason to be called 'New-Neoclassical Synthesis' as it was by Marvin Goodfriend and Robert King in 1997. In fact, in some important aspects the approach is actually closer to that of the 'monetarists' of the 1960-70's than the 'Keynesians' who they battled



Bennett McCallum

with." McCallum proceeded to present the key ingredients of the model, the so-called "New-Keynesian Phillips and IS curves" that, contrary to past Keynesian approaches, assign a primary role to the forward-looking expectations of market participants. He referred to the many useful extensions worked out in Woodford's monograph that help in fitting this model to empirical data and in linking macroeconomic outcomes and policy objectives to economic welfare considerations.

**Jordi Galí** (Universitat Pompeu Fabra), who is also an important contributor to the development of monetary policy analysis in the New-Keynesian framework, presented

the second paper in this session. He described several of the insights and lessons gained from using this approach:

- Regarding the benefits of price stability, Galí explained how inflation serves as an indicator of an inefficient level of economic activity when prices are rigid. According to the simplest version of the New-Keynesian Phillips curve, deviations of output from the level that would be realized with fully flexible prices lead to inflation. Galí qualified this finding by pointing towards some arguments for a small, but positive rate of average inflation and the existence of shortrun tradeoffs between output and inflation stabilization. These qualifications suggest that the target rate for inflation should be achieved over the medium-run.
- Regarding the role of market expectations, Galí explained the drawbacks of a purely discretionary monetary policy.
   Instead, he advised incorporating commitment, i.e. rulelike, predictable behavior, in the practical design of policy so as to improve output-inflation tradeoffs.
- Galí presented some of his own research, highlighting the importance of proper identification of the "natural"



Jordi Galí

levels of output and interest rates as policy benchmarks. In particular, he showed that the traditional approach for estimating output gaps (that is, deviations of output from its potential or natural level) implies rather different estimates from those derived on the basis of the New-Keynesian model. Thus, policy approaches using such traditional output gaps would perform badly in this model.

Galí concluded that the New-Keynesian approach represented a flexible tool that had delivered novel insights and proved useful in organizing macroeconomic analysis.

### Keynote Speech: Will Monetary Policy Become More of a Science?



Frederic Mishkin

Governor Frederic Mishkin (Board of Governors of the Federal Reserve System), a former colleague of Michael Woodford at Columbia University, shared his views on the usefulness of the science of monetary policy for policy practice with the Frankfurt audience, thus providing the perspective of an influential U.S. policy maker. According to Mishkin, the science of monetary policy is a set of principles derived from rigorous theory and empirical research that has helped produce greatly improved macroeconomic outcomes over the

### MISHKIN'S TOP 9 ADVANCES IN THE SCIENCE OF MONETARY POLICY

- Inflation, as explained by the late Milton Friedman, is always and everywhere a monetary phenomenon and, therefore, under the control of central bank policy.
- Price stability improves economic welfare because it increases the level of resources productively employed in the economy.
- 3. There is no long-run trade-off between unemployment and inflation, as demonstrated by Nobel Prize winners Milton Friedman and Edmund Phelps. In other words, central banks are not able to lower unemployment permanently by running up inflation.
- 4. Market expectations play a key role in the transmission of monetary policy to the economy, as shown by Michael Woodford's contributions.

- 5. The Taylor principle, named after John B. Taylor, emphasizes that central banks' interest rate policy needs to respond to fluctuations of inflation (or inflation expectations) by more than one for one, in order to guarantee price stability in the long-run.
- 6. The time-inconsistency problem. As shown by Nobel Prize winners Finn Kydland and Edward Prescott, discretionary policy leads to poor outcomes. Unfortunately, however, without institutions that provide a form of commitment, monetary policymakers will find themselves unable to consistently follow an optimal policy over time.
- 7. Central bank independence, therefore, represents a key element of successful institutional design.
- 8. Central banks need to commit to a nominal anchor.
- 9. Financial frictions and financial instability play an important role in the business cycle.

last 30 years. He identified these improvements in the form of lower inflation along with lower volatility of inflation and output. In particular, he provided a list of scientific discoveries of great importance for policy which are summarized above as Mishkin's TOP 9 Advances in the Science of Monetary Policy.

Furthermore, Mishkin discussed several useful developments in the applied science of monetary policy linked, in particular, to the application of algorithmic methods and the development of econometric models used for the evaluation of alternative monetary policy strategies.

Mishkin acknowledged that despite all these scientific advances, there are good reasons why "art" or judgment will always be needed in monetary policy. Models simply cannot make use of all potentially valuable information. Yet, judgments must be guided by science. He concluded by pointing out a number of important avenues for further research, such as: (i) building models with more sectors and better explanations of sluggish adjustment in nominal variables; (ii) modeling the heterogeneity of households and firms; (iii) including financial frictions in macroeconometric models; (iv) allowing for deviations from fully rational behavior by households and firms; (v) incorporating the learning behavior of economic decision makers; and (vi) further developing methods for evaluating the robustness of different monetary policy strategies under uncertainty about the proper model for the economy.

The papers in the next sections presented new research in two of these areas, namely how to combine judgment with model-based information in forecasting and how to render monetary policy more robust by cross-checking.

### The New-Keynesian Approach to Forecasting and Monetary Policy Design

Lucrezia Reichlin, Director General of Research at the European Central Bank, presented a paper that investigates how to incorporate conjunctural analysis in structural models of the New-Keynesian provenance. Reichlin emphasized the significance of Woodford's first attempts at estimating small scale New-Keynesian models together with Julio Rotemberg in 1997. Since then, larger and richer models of this type have been developed and are now used routinely in the forecasting exercises of many central banks. In her presentation, Reichlin explained how to combine such models with conjunctural analysis. In doing so, her objective is to improve forecasting and to use models to interpret conjunctural news.

Traditionally, the basic goal of conjunctural analysis has been to exploit early releases to judge the current state of



Jan Krahnen, Lucrezia Reichlin, Volker Wieland

the economy, in particular current quarter GDP. Qualitative judgment is typically combined with simple small-scale models sometimes termed "bridge equations". These equations provide a bridge between the information contained in

one or a few key monthly indicators and the quarterly growth rate of GDP, when measurements on the latter are not yet available.

The methodological advances presented by Reichlin help improve forecasting in real time by

- · using a large number of data series,
- updating now-casts and measures of their accuracy in accordance with the real time calendar of data releases, and
- "bridging" monthly data releases with the now-cast of quarterly GDP.

Such forecasting approaches have been implemented at the ECB, the Federal Reserve Board and the central banks of New Zealand and Norway. Reichlin concluded that quantitative New-Keynesian models that have become a regular element of the forecasting process can be complemented with reduced form models developed to interpret data flow in real time in order to improve forecasting performance and interpret shocks in real time.

The paper by **Volker Wieland** (CFS and University of Frankfurt) investigates the robustness of monetary policy under uncertainty. Wieland, who praised Michael Woodford for his tremendous contributions to monetary theory and practice, suggested honoring Woodford also by debating one of his more controversial propositions. The award of the Deutsche Bank Prize 2007 to Michael Woodford had triggered substantial press and media interest in Germany in the run-up to the symposium due to Woodford's outspoken criticism of the ECB's two-pillar strategy, in particular, the prominent role of money in this strategy.



Volker Wieland, Lucrezia Reichlin

Wieland quoted Nobel Prize winner Robert Lucas who wrote in 2007 that "events since 1999 have not tested the importance of the (ECB's) second, monetary pillar ... I am concerned that this encouraging but brief period of success will foster the opinion, already widely held, that the monetary pillar is superfluous, and lead monetary policy analysis back to the kind of muddled eclecticism that brought us the 1970s inflation." Lucas noted the increasing reliance of central bank research on New-Keynesian modeling and questioned whether this approach was able to satisfactorily explain the relation between trend money growth and inflation. Lucas concluded that "this remains an unresolved issue on the frontier of macroeconomic theory. Until it is resolved, monetary information should continue to be used as a kind of add-on or cross-check, just as it is in the ECB policy formulation today."



Zvi Eckstein, Alex Cukierman

Wieland's paper, written jointly with CFS fellow Günter Beck, uses the New-Keynesian model to address the concerns expressed by Robert Lucas. Money is present in this model but does not play a causal role in inflation determination once the effect of a central bank's interest rate policy on output and that of output on inflation is taken into account. The paper allows for imperfect knowledge and persistent central bank misperceptions regarding the natural rates of interest and output. These misperceptions are shown to cause sustained policy mistakes and trends in money and inflation like those pointed out by Lucas.

Wieland then presented a strategy that normally follows optimal decisions based on the New-Keynesian model (recognizing that central banks act under discretion), but is combined with cross-checking against long-run money growth. He demonstrated that such a strategy would improve inflation control in the case of persistent central bank misperceptions. "The policy rule with cross-checking ensures that sustained deviations of money growth and inflation from target due to policy mistakes are eventually corrected," according to Wieland. For example, such a correction occurs even when model-based inflation forecasts indicate that demand is sufficiently weak to return inflation on track. Cross-checking is designed as a statistical test that triggers

policy adjustments only in the event of sustained deviations. If the central bank's model estimates are correct, this strategy reaps the benefits of policy design in the New-Keynesian

model, but if they are persistently mistaken, cross-checking improves inflation control and renders the policy strategy more robust.

## Expert Panel: The Theory and Practice of Monetary Policy Today – Successes, Failures and Open Questions



Michael Binder, Michael Woodford, Norbert Walter, Stefan Gerlach, Patrick Lane, Otmar Issing

The symposium concluded with a panel of academic, centralbank and market experts, starting with the prize winner. **Michael Woodford** (Columbia University) noted that he agreed with Governor Mishkin's statement that inflation is always a monetary phenomenon but suggested that this statement is not always understood the same way.



Michael Woodford

According to Woodford, modern theory makes an important proposition by stating that inflation is almost entirely a consequence of central bank policies. In the models he uses, the inflation trend as well as shorter run fluctuations of inflation are critically determined by the actions and commitments of central banks. Based on these models, however, the proposition that inflation is a monetary phenomenon does not have much to do with historical correlations between inflation and particular measures of the money supply. Nor is the money

demand equation connecting the money supply and the general price level necessarily a key relationship in his model of the effects of monetary policy on inflation and output. Woodford, therefore, restated the principle of inflation being a monetary phenomenon as follows: the economic principle involved is the one according to which real factors in the economy determine at what equilibrium relative prices of goods and services are in the economy or what they will be once wages and prices have adjusted, but cannot determine what the absolute monetary level of the price of anything should be. Rather, it is only monetary policy commitments that can determine the latter.

Woodford then referred to the remarks of Robert Lucas quoted by Volker Wieland. Regarding the question on money growth and inflation trends, Woodford cited a paper he had written. This paper shows that inflation trends in the New-Keynesian models may be determined by the inflation target of the central bank without any relation to what is happening to the money supply. Woodford, however, acknowledged that the question of guarding against making mistakes because of inaccurate measurements of the economy that is addressed in Wieland's paper is a very important one. Woodford suggested the question of policy under uncertainty and cross-checking is an interesting topic for further research. However, Woodford expressed skepticism on whether monetary cross-checking constitutes the best approach to guarding against the kind of policy mistakes analyzed by Wieland, and suggested to use past inflation.

Finally, Woodford expressed support for the list of important research topics presented by Governor Mishkin. In particular, Woodford emphasized the need for developing a more satisfactory model of the financial sector and the effects of financial frictions, and for investigating the robustness of monetary policy to alternative assumptions regarding expectations formation.

Next, Norbert Walter (Deutsche Bank AG) provided the perspective of a practitioner who has been responsible for short- and medium-term forecasting for many years. According to Walter, the successes of monetary policy are very clear: namely the anchoring of inflation expectations at such low levels in so many countries in a world of a fiat currency. This success has really come as a surprise. Walter doubted that many people would have predicted such an outcome 20 years ago. He urged central banks around the world to follow the example of those that had secured these achievements. He stated that central bank independence is an important reason for these achievements, but not the only one. Walter also speculated that the forces of globalization, in particular increased wage competition on a global level, made it easier for central banks to keep inflation low and anchor inflation expectations.



As to the failures of monetary policy, Walter said that obviously central banks have not been able to avoid asset price bubbles. Time and time again the world has seen financial crises due to market inefficiencies. Despite adamant support for flexible exchange rates, we have experienced exchange rate changes that have been multiples of the differences in price and cost differentials between currency areas. Thus, there are a number of open questions regarding monetary strategy that need to be addressed. On money supply, Walter suggested that at times of massive financial innovation and disproportional increases in the demand for financial assets, the implications of these effects need to be accounted for in terms of the ECB's monetary pillar. Walter underscored the uncertainties

regarding concepts such as "natural" output or unemployment rates given the difficulties in measuring productivity and the effects of extensive off-shoring and trade in services.



Norbert Walter, Stefan Gerlach

Stefan Gerlach (Frankfurt University) elaborated on the achievements of monetary policy. In particular, he highlighted the important role of central bank independence and the successes in managing monetary policy as a technical undertaking relying on economic analysis and economists in central banks. He noted that research has contributed to central bank independence as well as improved our understanding of the transmission mechanism. As to open questions, Gerlach asked whether more transparency would always improve policy performance or whether there are limits to transparency. He mentioned the benefits that may be obtained by organizing decision-making by monetary policy committees rather than by individuals, and noted the importance of outsiders as external members of such committees. Regarding the inflation process itself, Gerlach considered the first generation of New-Keynesian Phillips curve models too simple and suggested a greater role for globalization. In Gerlach's judgment, inflation targeting strategies have been so successful simply due to the greater focus on inflation rather than the various technical features. Finally, he emphasized that the proper policy response to asset price inflation remains on important open question.

Patrick Lane (The Economist) also noted the success of monetary policy in achieving low and stable inflation. He considered it an enormous achievement given the state of many economies in the 1970s. But, one explanation could be just luck. Even Alan Greenspan speaks in his memoirs of having been to a certain extent lucky. What other elements may there be behind this success? First, there has been a remarkably successful move away from politics. Second, central banks have concentrated on a nominal anchor for fiat money. Third, the role of expectations has been recognized in monetary theory and practice. Fourth, it has been understood

that it is key for central banks to keep their promises. Thus, a great deal has changed in central bank communication in past years. Failures in policy are unlikely to be avoided because the world is uncertain. Studying the implications of such failures or misperceptions is certainly an important area for research. There are many open questions. For example, what prices should central banks aim to stabilize? How should central banks communicate with the market and the public? And given the turmoil of the past couple of months, what role should be given to the financial industry and credit in monetary policy analysis?

In conclusion, **Otmar Issing**, President of the Center for Financial Studies and former ECB chief economist, concentrated on the fundamental challenges the ECB faced when preparing for the start of monetary policy. As a new institution, one without a track record and responsible for a currency still to be born, the ECB had to overcome a lot of skepticism. But the ECB lived up to the challenge to anchor inflation expectations on a level consistent with its mandate and to maintain price stability, and has proved to be successful. The ECB achieved this by convincing markets and the public that it was determined to make the euro a stable currency and that it would be able to do so. By announcing its quantitative definition of price stability in the form of the two-pillar strategy, the ECB set an important milestone.

Communication, transparency and a clear commitment to the policy goal are the same principles that can be found at the core



Patrick Lane, Otmar Issing

of Michael Woodford's book "Interest and Prices". Thus, in this regard, Issing agreed with Woodford. He disagreed, however, on the role of money. "In a world in which financial markets play an ever increasing role, can we really rely on models that do not include a fully developed financial sector?" Issing asked. While many have criticized the ECB's strategy, in particular the role of money and cross-checking, Issing said he considered it the best available approach. In his view, ignoring money and credit is not the solution.

Issing concluded that central banks have probably never been so successful in achieving low inflation. The big failures have occurred when central banks have tried to fine tune the economy and ignored money. Furthermore, some open questions still remain, which is encouraging for younger and older economists alike.

Celia Wieland (CFS)



Josef Ackermann, Chairman of the Management Board and the Group Executive Committee of Deutsche Bank AG, presented the Deutsche Bank Prize in Financial Economics 2007 to Michael Woodford during the Award Ceremony that followed the Symposium

### **CFS Colloquium**

# Financial Services Providers: New Products – New Strategies? Finanzinstitutionen: Neue Produkte - Neue Strategien?

All Lectures will be held in German

23 Apr 2008 Dr. Josef Ackermann

(Deutsche Bank AG)

Strategieentwicklung im Spannungsfeld globaler und nationaler Orientierung

20 Aug 2008 Dr. Kurt Bock

(BASF AG)

Brauchen Emittenten noch Banken?

17 Sep 2008 Bernd Knobloch

(Eurohypo AG, Commerzbank AG)

Europa-Strategien im Immobilien

Investment Banking

01 Oct 2008 **Johannes P. Huth** 

(Kohlberg Kravis Roberts & Co. Ltd.) Entwicklungsperspektiven für das Private

Equity Geschäft in Europa

3 Dec 2008 Dr. Siegfried Jaschinski

(Landesbank Baden-Württemberg)

Zwischen privatem Wettbewerb und

öffentlicher Trägerschaft: Strategie der

Landesbanken heute

Admission to the lectures of the CFS Colloquium is only possible after registration. Interested parties who do not receive email information regularly may contact Isabelle Panther, Tel. +49 (0)69-798 30050 or email: panther@ifk-cfs.de.



### **CFS Presidential Lectures**

### "Europäische Integration/ European Integration"

7 Feb 2007

Mario Monti

(Università Commerciale Luigi Bocconi)
Subject to be announced

For further information, please contact Birgit Pässler, Tel.: +49-(0)69-798 30052, Fax: +49-(0)69-798 30077, email: paessler@ifk-cfs.de.

### **CFS Conferences**

29-30 May 2008 Asset Management and International Capital Markets Organization: Wolfgang Bessler, Wolfgang Drobetz, Jan Pieter Krahnen 13-14 Jun 2008 The Industrial Organisation of Securities Markets: Competition, Liquidity and Network Externalities Organization: Erik Theissen, Peter Gomber 26-27 Jun 2008 International Research Forum on Monetary Policy Organization: Matthew Canzoneri, Dale Henderson, Lucrezia Reichlin, Volker Wieland

For further information and registration please consult www.ifk-cfs.de.

### **CFS Executive Education**

5–6 Mar 2008

Die Finanzdienstleistungsbranche von morgen denken. Ein Seminar über Zukunftsmanagement

Axel Liebetrau

(PortiaFinancia)

Stephan Meyer

(denkstelle)

27–28 Mar 2008 Kreditderivate und deren Bewertung – ein Werkstattseminar zum Mitmachen Prof. Dr. Stefan Reitz

(Hochschule für Technik Stuttgart)

24–25 Apr. 2008 Zinsprodukte: Analyse und Bewertung, Teil I
Prof. Dr. Wolfgang Bühler

(University Mannheim)

8–9 May 2008 Zinsprodukte: Analyse und Bewertung, Teil II

Prof. Dr. Wolfgang Schmidt (Frankfurt School of Finance & Management)

29–30 May 2008 Bilanzierung von Finanzinstrumenten nach

HGB, IAS und US-GAAP

Prof. Dr. Martin Glaum
(University Gießen)

Volker Thier (KPMG)

For further information and registration on all CFS Seminars please contact Roberta Ciut, Tel. +49 (0) 700-237 736 46 Fax: +49-(0) 69-798 30077, email: weiterbildung@ifk-cfs.de



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