



4<sup>TH</sup> MEETING OF THE WINNERS OF  
THE SVERIGES RIKSBANK PRIZE IN ECONOMIC SCIENCES  
IN MEMORY OF ALFRED NOBEL  
**RETROSPECTS AND PROSPECTS 2011**

Kuratorium für  
die Tagungen  
der Nobelpreisträger  
in Lindau  
Council for the Lindau  
Nobel Laureate Meetings



Stiftung Lindauer  
Nobelpreisträgertreffen  
am Bodensee  
Foundation Lindau  
Nobelprizewinners Meetings  
at Lake Constance



“What I drew on that made me say automatically that this was something I wanted to do was that one of my then students came to the last Lindau Meeting on Economic Sciences. I wrote a letter of recommendation that helped get him in and when he came back I talked with him about it and what it was worth to him. He thought it was wonderfully valuable. I'm in the business of being an educator. And if it was good for him, I suspect it is good for a lot of the students who are here. This is an opportunity to communicate with a wide array of students who, extrapolating from my former student's experience, will gain from it.”

**Peter A. Diamond**

USA, Economic Sciences, 2010



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Profound Expertise and Inspiring Ideas in Eventful Times:  
The 4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize  
in Economic Sciences in Memory of Alfred Nobel



Personal dialogue between scientists across generations and cultures has an enormous potential to enrich science and society. Highly pertinent topics in economic sciences and some of their applications have been discussed in Lindau this summer.

The 4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in Lindau was widely recognised and applauded as a platform for an open exchange of economic expertise, and for inspiring cross-cultural and inter-generational encounters among economists from all over the world. 17 Laureates devoted almost a week of their precious time to give inspiring lectures, engage in lively discussions, and to reveal the vibrancy and fascination of economic sciences. Warmest thanks are due to each one of them for this commitment. 359 highly qualified Young Economists from 65 countries had the once-in-a-lifetime opportunity to listen to and engage in the full range of different opinions on core issues of their discipline. They were nominated by our invaluable international network of Academic Partners including scientific institutions, the IMF, the ECB, the EBRD as well as more than forty national banks from around the globe, coordinated by the BIS.

Alongside a general review of current and future developments and trends within the discipline of economics, the topics of the meeting ranged from labour market issues to considerations of the sustainability of our old-age welfare and healthcare systems. Several lively panel discussions encouraged open reflections on controversial and pressing issues in science and society. We very much appreciated the participation of the President of the Federal Republic of Germany Christian Wulff, the German Federal Minister of Finance Wolfgang Schäuble, and several other dignitaries—among them the two new members of the Honorary Senate of the Foundation, Ulrich Grete and Suleiman J. Al-Herbish. Their presence highlights the prestige and standing of the Lindau Meetings.

After 60 years of exceptional Lindau conferences, the Council and the Foundation will continue the tradition of their joint ‘Mission Education’ to educate, inspire and connect aspiring young talents from all around the world by bringing them together with the most respected scientists in their fields. But going beyond that, we also feel that we have a responsibility to contribute to a better integration and understanding of science and research in our societies.

The most ambitious new project of the Lindau institutions is to make their rich collection of photos, videos, audio recordings and texts accessible to the public. A preliminary version of our new mediatheque was presented this year and will henceforth be continuously expanded and developed. Students and pupils as well as everyone interested in the natural and economic sciences are invited to explore this treasure trove, containing a century of modern science history, which also includes early lectures by Economics Laureates Ragnar Frisch and Friedrich von Hayek. A beta version of the mediatheque is already accessible at <http://www.mediatheque.lindau-nobel.org/>

Thanks to the much appreciated and ongoing support of Maecenates, Patrons, Donors, and Benefactors, the Lindau Dialogue will continue to develop dynamically and to attract worldwide attention. With this report, the Council and the Foundation, as well as the whole team of the office in Lindau, invite you to explore our manifold projects in support of Lindau’s ‘Mission Education’.



President of the Council for the Lindau Nobel Laureate Meetings



# Our 'Mission Education' in 2011

The Lindau Nobel Laureate Meetings bring together Nobel Laureates and Young Researchers from around the world for a week of scientific exchange and inspiration. Since 1951, Lindau has annually hosted meetings on natural sciences. In addition, regular Meetings on Economic Sciences have been established in 2004. This year saw the 61<sup>st</sup> Lindau Meeting of Nobel Laureates, dedicated to Physiology or Medicine, and the 4<sup>th</sup> Meeting on Economic Sciences.

All Lindau Meetings aim to assemble brilliant scientific minds in order to facilitate a unique dialogue across and among generations, cultures and disciplines. The meetings are at the core of what the Council and the Foundation denote as their 'Mission Education'. It encompasses initiatives and projects which publicise the achievements of excellent research and promote the dialogue between science and society. Altogether, they call for support of education and research as a sustainable investment for the future.

"Educate. Inspire. Connect." is the leitmotif of the 'Mission Education'. "Education" does not just mean passing on textbook content. It rather stands for a prospective recognition of present and future issues and problems, which should be discussed and addressed by science and society. Exchange creates "inspiration"—like finding a new way of approaching a problem as a result of discussions with a Laureate or with another Young Scientist or Economist. Consequently, "connect" stands for much more than personal networking, which is indeed indispensable for the success of team work today. It also means connecting the dots and gaining a bigger picture. Carefully selected projects such as the exhibition series "Discoveries" on Mainau Island, the new Lindau Mediatheque and the Lindau Teachers Initiative are extending the 'Mission Education' beyond the Lindau Meetings.



**EDUCATE.  
INSPIRE.  
CONNECT.**



## 4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel from 23<sup>th</sup> to 27<sup>th</sup> August 2011

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17 Economics Laureates and 359 Young Economists from 65 countries took part in the 4<sup>th</sup> Meeting on Economic Sciences. Alongside a general review of current and future developments within the discipline of economics, the topics of the meeting ranged from labour market issues to considerations of the sustainability of our old-age welfare and healthcare systems.

### Beyond the 2011 Lindau Meetings



## Exhibition "Discoveries 2011: Health" on Mainau Island from 20<sup>th</sup> May to 4<sup>th</sup> September 2011

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The third and final part of the exhibition series "Discoveries" was aligned with the nationwide campaign "Year of Science 2011—Research for Our Health" of the German Federal Ministry of Education and Research, and centred on key issues in health research.



## The new Lindau Mediatheque

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The Lindau Meetings been carefully documented since 1951. Audio or video recordings of almost all lectures and panel discussions have been made. While continuing to make this treasure trove available to a broad audience around the globe, the Council and the Foundation will bring the mediatheque to a new level by enriching the content.



## Outreach Initiatives

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The Lindau Teachers Initiative, exhibitions of portraits by Peter Badge in Paris and Madrid and of photographs by Volker Steger in Munich, and special events for Lindau residents—these are examples showing how the Council and the Foundation extend their 'Mission Education' to the broad public.

### Enabling the 'Mission Education'

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### Organisation

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Memory of Alfred Nobel



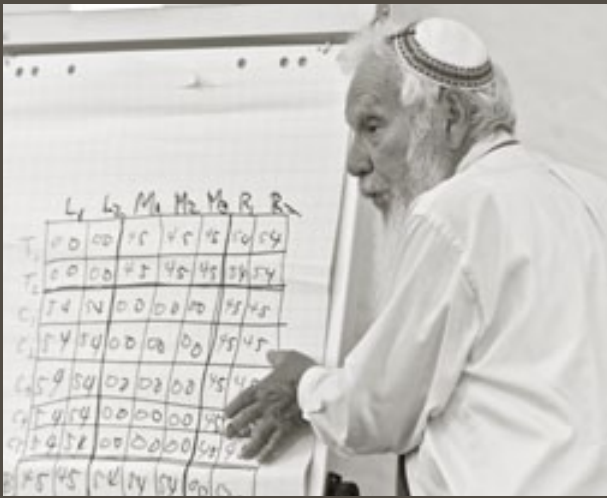
Participants



Opening Day



The Scientific Programme



Abstracts



Closing Day



Social Programme



Communications



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## Participants

A Young Economist takes the opportunity to talk personally with Nobel Laureate Joseph L. Stiglitz.



Participating Economics Laureates  
and Lecture Summaries



**George A. Akerlof**  
USA, Economic Sciences, 2001

**Identity Economics**

Akerlof discussed how the concept of “identity” in sociology is more than just an aspect of taste, it is a motivation that is not described in price theory and that is missing from standard economic models. People’s views of how they and others should behave can influence decisions, and therefore can have deep implications for economic outcomes. Examples of the impact of identity on economic phenomena are gender imbalance in the workplace, the low educational achievement observed with minority children, and the correlation between weak work incentives and employees that feel little, or no, attachment to their firm.



**Robert J. Aumann**  
Israel, Economic Sciences, 2005

**Challenging Nash Equilibrium:  
Rational Expectations in Games**

While undoubtedly the most widely used solution concept in game theory, the conceptual foundations of the Nash Equilibrium are murky, in particular the assumption that one player would

know the other player’s strategy. Therefore, game theory needs to recommend a procedure for arriving at a strategy that is unknown to another player, and that accounts for the interactive nature of games. Aumann showed how applying rational expectations of a player in a game, through incorporation of common knowledge of rationality and prior assumption, works in practice; for instance, it can ascribe a value to each player in two-person zero-sum games.



**Peter A. Diamond**  
USA, Economic Sciences, 2010

**Search and Macro**

Beginning with the notion that a model that is good for one purpose can be bad for other purposes, Diamond discussed the development of the search equilibrium labour market model, and the circumstances both in which it is useful and in which it is missing important elements. As a partial equilibrium model, a labour market model can address partial equilibrium questions, and even partial equilibrium aspects of general equilibrium issues, but cannot fully evaluate general equilibrium questions, such as the role of aggregate demand stimulation (whether fiscal or monetary), a crucial matter in policy design for extended periods of high unemployment. Moving from a partial equilibrium model to a more general equilibrium model will begin to address this and other macroeconomic issues, but this

will be inherently more difficult because of the additional complexities.



**Eric S. Maskin**  
USA, Economic Sciences, 2007

**Elections and Strategic Voting:  
Condorcet and Borda**

Which of the different voting rules used to elect a public leader is the most effective: plurality rule (first-past-the-post), majority rule (Condorcet’s method), or rank-order voting (Borda count)? One approach to answering this question involves specifying a set of criteria, or axioms, that a voting rule should meet, and then determining which rules come closest to satisfying them. Illustrating the approach by focusing on non-manipulability, that is, avoidance of strategic voting, Maskin showed that majority rule and rank-order voting emerge as “best”, at least according to this analysis.



**Daniel L. McFadden**  
USA, Economic Sciences, 2000

**Sick Insurance:  
Adverse Selection and Regulation  
of Health Insurance Markets**

Health insurance presents a perfect storm of market failure resulting from various sources, including asymmetric information as a result of adverse selection (i.e. people denied insurance coverage or offered adverse contracts), and moral hazard (i.e. coverage is expensive because providers lack incentives to minimise treatment cost or withhold treatments). McFadden presented in detail one simple regulatory measure that could mitigate the adverse selection problem: restricting the kind of coverage that contracts offered in the market can provide. There are also a number of behavioural considerations in insurance markets with regards to consumers’ perception about risk, and such perception errors can induce or mitigate adverse selection.



**Sir James A. Mirrlees**  
United Kingdom, Economic Sciences, 1996

**Poverty, Inequality, and Food**

When one looks at measures of consumption, the issue that immediately arises is what should be done with inequality in consumption. Using China as an example, Mirrlees listed the ways he thought they managed to reduce poverty headcount dramatically since the 1980s, including agricultural growth, and migration from rural to industry/urban areas. Production and demand for food was also discussed; using a simple demand function Mirrlees showed how sensitive food prices could be to

variations in supply, which in turn could have a significant impact on poverty, and he also showed how poverty-reduction policies, particularly income transfers, affect food prices.



**Dale T. Mortensen**  
USA, Economic Sciences, 2010

Mortensen received the 2010 Prize in Economic Sciences with Peter A. Diamond and Christopher A. Pissarides for incorporating search frictions into mathematical models to describe the behaviour of labour (as well as other) markets. Mortensen and Diamond explored the genesis of their prize-awarded work in a panel discussion session (see p. 38) with Edmund S. Phelps (2006 Laureate in Economics Sciences) and Edward C. Prescott (2004). Mortensen was involved in a number of personal interactions with Young Economists, and he discussed ideas with them during a seminar-like afternoon discussion.



**Robert A. Mundell**  
Canada, Economic Sciences, 1999  
**Currency Wars, Euro-Mania and the Price of Gold**  
By charting the history and evolution

of international monetary systems, from bimetallism in 1815 up until the present system of fluctuating currency areas, Mundell made the case for switching back to a system that is anchored to a stable global currency. Huge swings in the major exchange rates preceded the two oil crises in the 1970s, the Asian Crisis in the 1990s, and, indeed, the current crisis. Mundell’s proposed remedy was to fix dollar-euro exchange rate, add China to this, and then ask the IMF to ask the three big countries to be the anchor for a global currency.



**Roger B. Myerson**  
USA, Economic Sciences, 2007

**A Model of Moral-Hazard Credit  
Cycles**

Fundamentally new approaches to macroeconomics are needed, and Myerson described a standard principal-agent model that showed how macroeconomic fluctuations could be driven by moral hazard in banking. Relationships and positions of trust between bankers and communities of investors can create complex dynamics, even in an otherwise completely stationary economy. As well as leading to multiple dynamic equilibria, including boom-and-bust cycles, the model shows that in such cycles, when investment is weak, a bailout or stimulus that taxes workers to subsidize bankers can actually increase investment and employment enough to make workers better off.



Participating Economics Laureates  
and Lecture Summaries



**John F. Nash Jr.**  
USA, Economic Sciences, 1994  
**Ideal Money and the Motivation of Savings and Thrift**  
The concept of nations and states having an “ideal” form of money, that is, money intrinsically not subject to inflation, offers many advantages. However, under regular, and even unusual, conditions of uncertainty about a national currency, should the “economic person” rationally decide to save, or to enter into arrangements for which they would need to borrow money; for instance, save for a down payment on a house or enter earlier into a mortgage (possibly under subprime conditions). Nash discussed the role of the sovereign in these circumstances: it provides the medium of currency under which the contract of mortgage is expressed; the quality of money ordained by the sovereign at the national level will affect the conditions for trade and investment within a provincial state; and good reliability of the estimates of the future value of a currency within these states creates a more favourable outcome for the formation of contracts.



**Edmund S. Phelps**  
USA, Economic Sciences, 2006  
**Modelling Corporatist Economies of the West and Those of North Africa**  
What are the chances that the positive political change represented by the Arab Spring will be followed by positive economic developments? The real threat is not a fragile state, but an excessively strong and controlling state where the economy is run by insiders for their own benefit—in other words, a state that bears the hallmarks of corporatist economies, not capitalist economies like the United States. However, with symptoms of corporatism visible in the US and Europe, namely an excess of state borrowing and bank lending, the way forward in the Arab Spring countries is to do everything possible to promote enterprise and innovation.



**Christopher A. Pissarides**  
Cypres, Economic Sciences, 2010  
**The Future of Work in Europe**  
By comparing European employment patterns with those in the United States, Pissarides said that Europe is still behind the US with respect to job creation

in business services, and in the health and education sectors. Taxation and regulation appear to have a significant impact on overall hours of work, both through the negative impact on total work hours, and through the negative impact on marketization of activities. New models of job creation in business services and the impact of taxation and regulation on these services are sorely needed, not to mention discussions on the role of state funding in health and education.



**Edward C. Prescott**  
USA, Economic Sciences, 2004  
**The Current State of Aggregate Economics**  
As opposed to macroeconomics, which Prescott viewed as a serious, but failed science, he told the audience that this is a golden age for aggregate economics, encompassing the major disciplines in the field. Using theory and economic statistics, economists can construct model economies, draw scientific inferences and determine quantitative answers to given questions, independent of their political persuasions. There are still so many puzzles to solve, and his conclusion to the students was to “make our science an even better one and have fun, this is a great time to be studying the field.”



**Myron S. Scholes**  
Canada, Economic Sciences, 1997  
**Quantitative Finance and the Intermediation Process**  
Of the different ways in which to earn returns in finance, intermediation in the form of risk transfer services is central to businesses such as banks, broker dealers and hedge funds. In general, companies encounter two types of risk: idiosyncratic risk that applies to the specific business of the company, for instance, a miller grinding flour and selling it; and general risk that is influenced by the economy as a whole, for instance, the changing price of wheat, interest rate changes, etc. The intermediation business is poorly understood, but Scholes discussed an intermediation factor called “omega”, which describes market resistance through liquidity provision and risk transfer, and which seeks move liquidity forward in time.



**Reinhard Selten**  
Germany, Economic Sciences, 1994  
**Reaching Good Decisions without Utility and Probability Judgements—The Approach of Bounded Rationality**  
Selten described how the theory of bounded rationality infers that successful decision-making in the absence of utility and probability judgements relies on identifying all short-term goal variables, which need to be controlled to attain the long-term goal. Success also requires decision-making based on multiple incomparable goals, as described in the Aspiration Adaptation Theory. Selten described experimental settings which imply that boundedly rational decision principles lead to better results than impulsive decisions.



**William F. Sharpe**  
USA, Economic Sciences, 1990  
**Post-Retirement Economics**  
Sharpe presented a simple model, under simplified conditions, for helping newly retired people with a sum of money to make better investment and spending decisions. Beginning with a standard capital market model and employing an

Arrow-Debreu state-price model, he discussed the issues of forecasting, valuation and utility that need to be considered in developing a strategy that is discrete-time, discrete-space, and provides simulation over multiple-years. Sharpe ended by arguing that this approach could be applied in an annuity context, so that one can then incorporate annuitisation decisions into the framework.



**Joseph E. Stiglitz**  
USA, Economic Sciences, 2001  
**Imagining an Economics that Works: Crisis, Contagion and the Need for a New Paradigm**  
Standard macroeconomic models failed to predict the financial crisis, and even led economists to claim that the effects were “contained” after the bubble burst. Stiglitz discussed two issues that could help explain what happened: there had been large and often adverse changes in economies’ risk properties, despite supposed improvements in markets; and that the global economy is undergoing a major structural transformation, associated with extended periods of underutilisation of resources and severe market failures. New models and paradigms are clearly needed, and Stiglitz compared the policy implications of economists’ framework with those of the standard models.

▲ Nobel Laureates who took part for the first time in the Lindau Meetings.

Up-and-coming Economists and Academic Partners

359 Young Economists from 65 countries were selected from a group of 5’000. They had been nominated by an international network of universities, research institutions, 44 national central banks, the Bank for International Settlements, the International Monetary Fund and the European Bank for Reconstruction and Development.

Young Economists who have shown exceptional achievements, are invited to participate in the Lindau Meetings of the Winners of the Sveriges Riksbank Prize in Economic Sciences, awarded in Memory of Alfred Nobel. They are selected by the review panel of the Council for the Lindau Nobel Laureate Meetings in cooperation with about 150 partners in an international nomination process. Advanced students, PhD students and postdocs who have distinguished themselves through their outstanding achievements in their fields are eligible to apply for participation.

Based on the selection criteria defined by the Council (see page 16), the Academic Partners carry out a preliminary evaluation, which is then forwarded to the review panel of the Council. Initially, more than 5’000 Young Economists applied to attend the Lindau Meeting. With the help of the Academic Partners, this number is narrowed down to around 1,000 applicants and these are submitted to the review panel. Based on scientific publications, tutorial experience, university grades, recommendations by professors and personal letters of motivation, the members of the review panel select roughly 350 of the most talented applicants to participate. Chairmen of the Council’s review panel for the 2011 Lindau Meeting were Professors Peter Englund, Martin F. Hellwig and Wolfgang Schürer. They were assisted by Nadine Gärber and Julia Schürer in the Executive Secretariat, and by Andreas Schmidt and Alexandra Wimbauer.

The international network of Academic Partners is continuously expanded, often with the support of the Federal Ministry of Education and Research (BMBF). This year, a Memorandum of Understanding was signed by the Social Sciences and Humanities Research Council of



359 Young Economists from 65 countries took part in the 4<sup>th</sup> Lindau Meeting on Economic Sciences.

Canada (SSHRC). Georg Schütte, State Secretary at the BMBF, gave valuable support in the negotiation process. This agreement ensures the participation of highly talented Young Scientists from Canada in the Meetings of Nobel Laureates.

In 2011, it was once again possible to increase the number of female participants. 140 female Young Economics took part in the 4<sup>th</sup> Lindau Meeting on Economic Sciences. The promising increase in numbers is partly due to the efforts by the Council, the Foundation, and their Academic Partners to promote the participation of young women.

The Lindau Meetings cooperate with “ResearchGATE” to provide an alumni platform. The community was launched last year. Scientists who have attended one of the meetings are invited to join the Lindau Nobel sub-community to connect with their fellow alumni. Thus, the discussions started during the meeting can continue on into the future.



Countess Bettina Bernadotte and Economics Laureates Myron S. Scholes (from left), Sir James A. Mirrlees, Joseph E. Stiglitz, Edmund S. Phelps, Dale T. Mortensen (sitting, behind Countess Bettina Bernadotte), Roger B. Myerson, Robert J. Aumann, John F. Nash Jr., Christopher A. Pissarides, Eric S. Maskin (sitting, center), Edward C. Prescott, Daniel L. McFadden, Peter A. Diamond, Robert A. Mundell, William F. Sharpe.

Representation by Country

Algeria	Denmark	Latvia	Slovakia
Argentina	Egypt	Lebanon	Slovenia
Armenia	Estonia	Liechtenstein	South Africa
Australia	Finland	Lithuania	Spain
Austria	France	Macedonia, the former	Sweden
Azerbaijan	Germany	Yugoslav Republic of	Switzerland
Bangladesh	Greece	Malaysia	Taiwan
Belgium	Hong Kong	Mexico	Thailand
Benin	Hungary	Moldova, Republic of	Togo
Brazil	Iceland	Nigeria	Turkey
Brunei Darussalam	India	Norway	Ukraine
Bulgaria	Iran, Islamic Republic of	Pakistan	United Kingdom
Cameroon	Israel	Philippines	United States
Canada	Italy	Poland	Zambia
Chile	Japan	Russian Federation	
China	Korea, Republic of	Serbia	
Czech Republic	Kyrgyzstan	Singapore	



FACTS & FIGURES

Selection Criteria

The 4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel will be held from August 23<sup>rd</sup> to August 27<sup>th</sup> 2011. The audience for lectures, round table discussions and for special discussion sessions will be about 350 Young Economists as well as students and Young Scientists in the field of economic science.

The participants will be recruited world-wide among

- (a) young and highly qualified economists from central banks/financial institutions and
- (b) young and promising students.

The Review Panel of the Council for the Lindau Nobel Laureate Meetings selects candidates for participation based on the following criteria:

- A collegiate candidate should be under 30 years of age, belong to the top of his/her class, and have strong recommendations from his/her academic advisor.
- A candidate should demonstrate fluency in the English language.
- A candidate should have a promising research agenda and have produced outstanding research papers on relevant subjects.
- A candidate should show a pronounced interest in the international dialogue within the academic community, i.e. by participating in exchange programmes.
- A candidate should be seriously interested in an academic career or professional occupation at institutions like central banks, the OECD, the European Bank for Reconstruction and Development, the IMF or the World Bank.
- Finally, the candidate should be motivated and willing to prepare himself/herself solidly for the Lindau dialogue.

It is most welcomed to have a good balance between the following three groups:

- (1) Young Economists shall
  - produce outstanding research,
  - be at the beginning of a promising career within their institution,
  - show genuine interest in the international dialogue.
- (2) Master and Doctoral Students shall
  - have excellent academic records,
  - have produced outstanding research,
  - have a good tutoring and/or teaching experience.
- (3) Postdoctoral scientists shall
  - have up to 5 years of postdoctoral experience,
  - have published in widely recognized academic journals,
  - have presented research reports at international conferences,
  - have acquired solid experience in tutoring and/or teaching,
  - have experience in research management.

FACTS & FIGURES

Nominating Partners of the 4<sup>th</sup> Lindau Meeting on Economic Sciences

Association of Southeast Asian Nations (ASEAN)	Ministry of Higher Education and Scientific Research (Egypt)
Bahçeşehir University	National Science and Technology Development Agency (Thailand)
Bangladesh Academy of Science	National Science Council (Taiwan)
Bielefeld University	National Science Foundation (USA)
Carlos III University of Madrid	Palgrave Macmillan
Council for the Lindau Nobel Laureate Meetings	Preston University (Pakistan)
Danish Agency for Science, Technology and Innovation	Robert Bosch Stiftung
Elite Network of Bavaria	Royal Netherlands Academy of Arts and Sciences (KNAW)
ETO Group	RWE AG
European University Viadrina	RWTH Aachen University
Fondazione Cariplo	Sino-German Center for Research Promotion
Frankfurt University	Social Science Research Center Berlin
Freie Universität Berlin	Social Sciences and Humanities Research Council of Canada (SSHRC)
Fundação Calouste Gulbenkian	South Asia Institute, Heidelberg University
Gerda Henkel Foundation	Spanish National Research Council (CSIC)
Gerhard C. Starck Stiftung	Stockholm School of Economics
German Academic Exchange Service (DAAD)	Südwestmetall – The Baden-Wuerttemberg Employers’ Association of the Metal and Electrical Industry
German Research Foundation (DFG)	Swiss Federal Institute of Technology Zurich (ETH)
Graduate Institute of International and Development Studies (IHEID)	Swiss Re
Johannes Gutenberg University Mainz	Technische Universität Darmstadt
Handelsblatt	Technische Universität Dortmund
Heidelberg University	Technische Universität Dresden
Heinrich Heine University Dusseldorf	Technische Universität München
Hertie Foundation	The Scientific and Technological Research Council of Turkey (TÜBİTAK)
Hertie School of Governance	Universität Bremen
Humboldt-Universität zu Berlin	Universität Leipzig
Indian Council of Social Science Research	Universität Regensburg
Industriellenvereinigung Wien	Université Libre de Bruxelles (ULB)
Institute for Economic Research	University Duisburg-Essen
Internationale Bodensee-Hochschule (IBH)	University of Bonn
Japan Society for the Promotion of Science (JSPS)	University of Cologne
Karlsruhe Institute of Technology (KIT)	University of Copenhagen
Leibniz Association	University of Freiburg
Leibniz Universität Hannover	University of Göttingen
Lithuanian Academy of Sciences	University of Hohenheim
Ludwig-Maximilians-Universität München	University of Konstanz
Lund University	>
Maastricht University	
Martin Luther University Halle-Wittenberg	
Mars, Incorporated	
Max Planck Institute for Collective Goods	
Max Planck Society	

Nominating Partners of the 4<sup>th</sup> Lindau Meeting on Economic Sciences

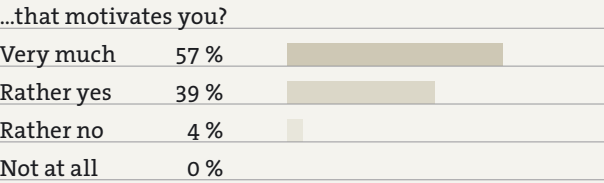
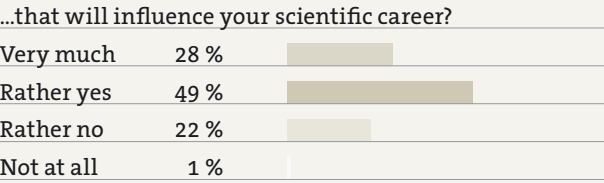
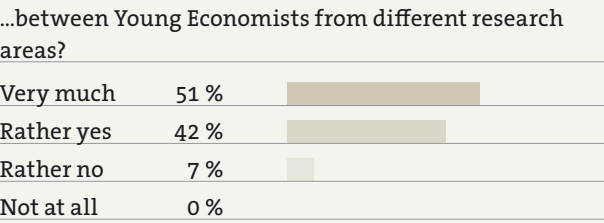
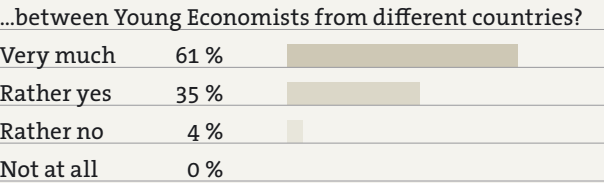
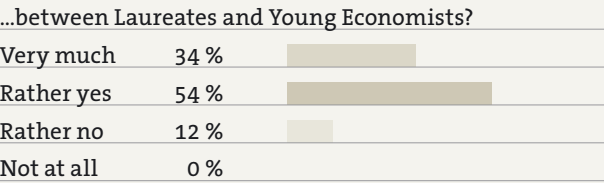
University of Liechtenstein	Central Bank of the Republic of Turkey
University of Luxembourg	Central Bank of the Russian Federation
University of Mannheim	Croatian National Bank
University of Münster	Deutsche Bundesbank
University of Oxford	De Nederlandsche Bank (DNB)
University of St. Gallen	Hong Kong Monetary Authority
University of Tübingen	International Monetary Fund (IMF)
University of Ulm	Magyar Nemzeti Bank (Hungary)
University of Warwick	Monetary Authority of Singapore
University of Würzburg	National Bank of Belgium
Uppsala University	National Bank of Denmark
Volkswagen AG	National Bank of Moldova
Zeppelin University	National Bank of Poland
	National Bank of Serbia
	National Bank of Slovakia
	National Bank of Ukraine
<b>The following National Banks and financial institutions nominated:</b>	Oesterreichische Nationalbank
Bangko Sentral ng Pilipinas	Reserve Bank of Australia
Bank of Canada	Reserve Bank of India
Bank of England	Saudi Arabian Monetary Agency
Bank of Estonia	South African Reserve Bank
Bank of Finland	Sveriges Riksbank (Sweden)
Bank of France	Swiss National Bank
Bank of Greece	
Bank of Israel	
Bank of Italy	<b>The following Economics Laureates nominated:</b>
Bank of Japan	Robert J. Aumann
Bank of Latvia	Robert W. Fogel
Bank of Mexico	Eric S. Maskin
Bank of Spain	Roger B. Myerson
Bank of Thailand	John F. Nash, Jr.
Bank of Zambia	Reinhard Selten
Board of Governors of the Federal Reserve System (USA)	
European Bank for Reconstruction and Development (EBRD)	
European Central Bank	
Central Bank of Argentina	
Central Bank of Armenia	
Central Bank of Azerbaijan Republic	
Central Bank of Brazil	
Central Bank of Chile	
Central Bank of Iceland	
Central Bank of Malaysia	
Central Bank of Norway	

Results from the Participant Survey, Part I

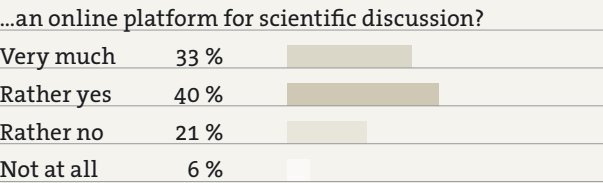
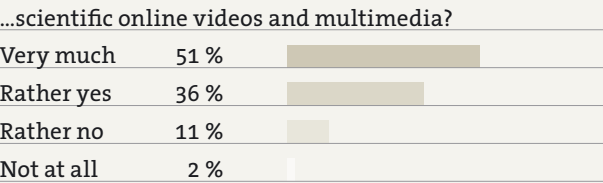
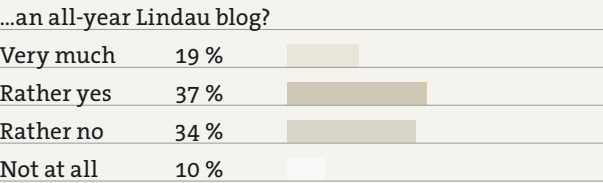
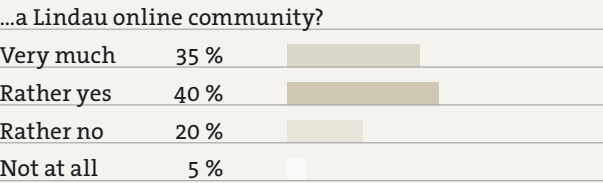
For the purpose of evaluating the success and response of the Lindau Meetings, surveys are regularly conducted among the participants.

This year’s Meeting on Economic Sciences was characterised by a particularly motivating atmosphere, which was acknowledged by 96 % of the participants. The opportunity to network with peers was also highly appreciated, with 96 % of those surveyed stating that the meeting successfully fostered a dialogue with other Young Economists from all around the globe.

Has this year’s Lindau Meeting succeeded in fostering a dialogue...



Are you interested in and would you use...





FACTS & FIGURES

Results from the Participant Survey, Part II

Professional organisation and convenient conditions for all participants are characteristics of all Lindau Meetings. The vast majority of the polled Young Economists acknowledged this by rating the organisers’ overall efforts as “excellent”, whereas 98 % of the participants stated that their expectations were met or exceeded. These results reflect the ongoing efforts of the Council and the Foundation to further improve the Young Researchers’ Lindau experience.

Please rate the following aspects:

Overall Organisation		
Excellent	73 %	
Good	26 %	
Fair	1 %	
Poor	0 %	

Young Researchers Registration Desk		
Excellent	79 %	
Good	20 %	
Fair	1 %	
Poor	0 %	

How do you rate the quality, structure and concept of the meeting?

Scientific Programme in general		
Excellent	44 %	
Good	49 %	
Fair	6 %	
Poor	1 %	

Young Economist Involvement		
Too specific	2 %	
Excellent	46 %	
Appropriate	42 %	
Too little	10 %	

Plenary Lectures		
Excellent	39 %	
Good	48 %	
Fair	12 %	
Poor	1 %	

The general scientific programme was rated good or excellent by 89 % of those surveyed, 69 % rated the overall programme offer as “excellent”. However, in view of the demanding time-schedule, many Young Economists suggested to reserve more time for scientific discussions as well as for networking and socialising with others. These and other constructive suggestions have been evaluated carefully and will be considered for future Lindau Meetings.

Student Discussions		
Excellent	34 %	
Good	47 %	
Fair	17 %	
Poor	2 %	

My expectations were ...		
Exceeded	36 %	
Met	62 %	
Not met	2 %	

Please rate the following social events:

Get-together evening		
Excellent	65 %	
Good	31 %	
Fair	3 %	
Poor	1 %	

Academic Dinner		
Excellent	58 %	
Good	33 %	
Fair	8 %	
Poor	1 %	

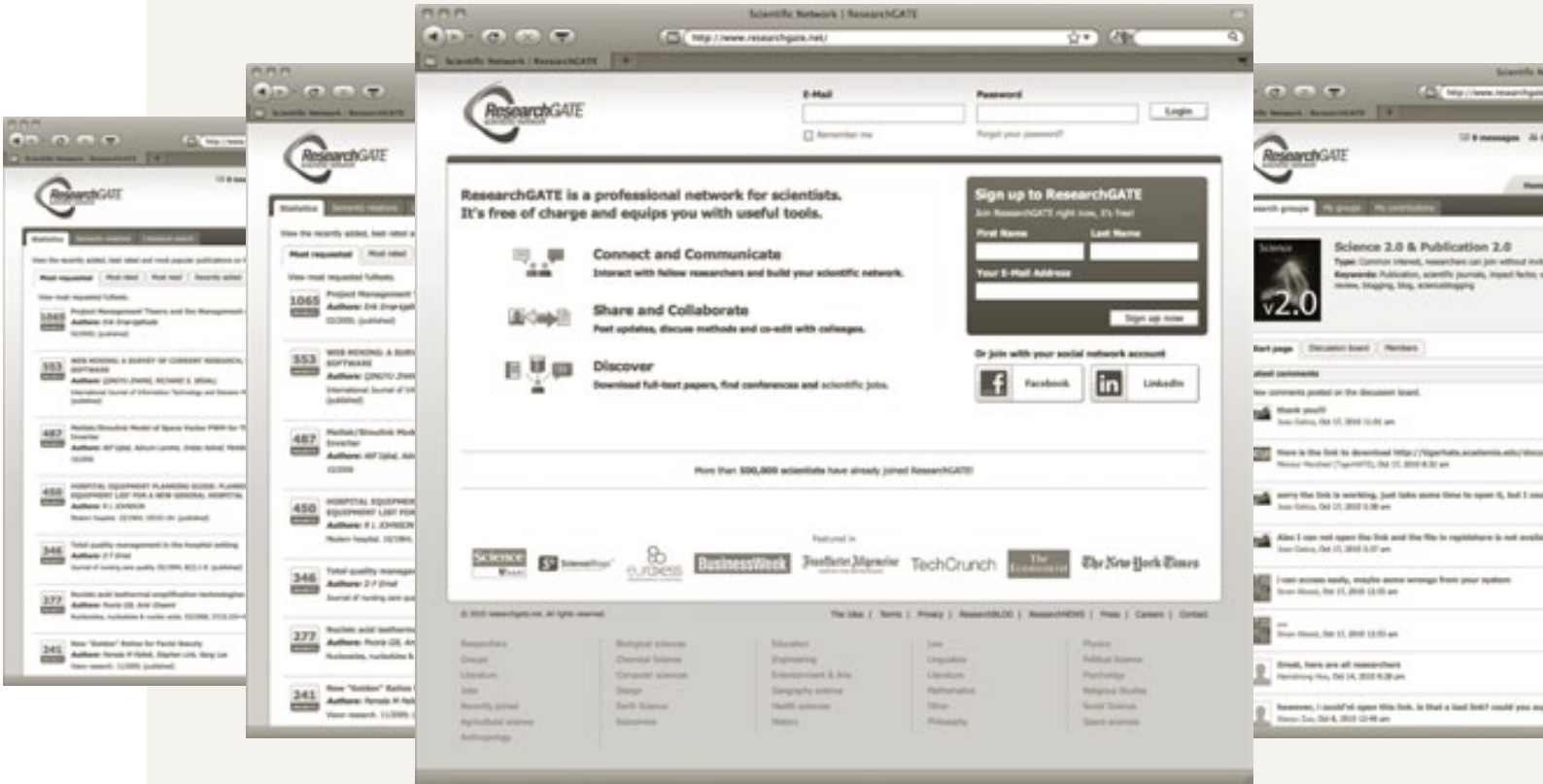
Boat Trip and Afternoon on Mainau Island		
Excellent	57 %	
Good	39 %	
Fair	4 %	
Poor	0 %	

FACTS & FIGURES

The Online Community of the Lindau Meetings at ResearchGATE

Connecting the Lindau community online is a key strategy in the context of the ‘Mission Education’ of the Council and the Foundation. In order to make even better use of the high potential of the networks forged during the Lindau Meetings, the Council and the Foundation launched an exclusive Lindau community platform on ResearchGATE last year. It combines services such as Facebook, Twitter, LinkedIn, and Google-Docs with scientific databases like PubMed, ArXiv, and IEEE. Currently the community has over 400,000 members world-wide. Scientists who have attended the Lindau Nobel Laureate Meetings are invited to join the Lindau Nobel sub-community to connect with their fellow alumni.

ResearchGATE is a place for interactive collaboration. Users can work together on documents, share articles, and get advice about experimental techniques here. They can join interest-based groups to trade ideas via discussion boards, share news with microblogs, and swap files, such as presentations, documents and articles, in the file-sharing section.





THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## Opening Day

Economics Meeting

The Federal President of Germany, Christian Wulff, did not only attend the opening ceremony of the 4<sup>th</sup> Lindau on Economic Sciences. He also met Young Economists for an exchange of ideas.





Countess Bettina Bernadotte, President of the Council, opened the 4<sup>th</sup> Meeting on Economic Sciences.

# Opening Day

Against the backdrop of the continuing global financial and economic vulnerability, the 4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel provided the forum for particularly lively and controversial debates between generations of economists. The speech by the President of the Federal Republic of Germany, Christian Wulff, spurred lively discussions both during the meeting among participants—and in media outlets worldwide. During the opening ceremony, Ulrich Grete, member of the Board of Trustees of Ecoscientia Foundation, and Suleiman J. Al-Herbish, Director-General of the OPEC Fund for International Development (OFID), were inducted into the Honorary Senate of the Foundation.

“This dialogue is more important than ever.”

Countess Bettina Bernadotte

The meeting was opened by Countess Bettina Bernadotte, President of the Council for the Lindau Nobel Laureate Meetings, on August 24 in the presence of the German Federal President, Christian Wulff, distinguished guests from the worlds of science, business and politics, and 17 Laureates, as well as 359 Young Economists from 65 countries.

Countess Bernadotte focused in her welcome address on the importance of cross-cultural and cross-generational scientific exchanges. “In view of the complexity, the dynamic nature and the reciprocal dependencies of our societies, this dialogue is more important than ever,” she said. Referring to Ludwig Erhard’s words “The economy is not everything, but without the economy everything is nothing”, Countess Bernadotte emphasised the special role of economic sciences in meeting the challenges of our societies both at the national and at the international level. “How can we sustainably conceive functioning labour markets and social security systems? How can we sustainably combat poverty? And not least: which methodologies should we use to find answers to these and other important questions?” Summarising some of the core questions of the scientific programme, Countess Bernadotte urged the Young Economists to use their time in Lindau to exchange ideas with each other and the Economics Laureates, to pose the questions which most concern them, and to establish new contacts that can be beneficial for their scientific careers.

On behalf of the Council and Foundation Lindau Nobel-prizewinners Meetings at Lake Constance, Countess Bernadotte expressed her thanks to all Academic Partners for nominating outstanding Young Economists, and in particular to the Bank for International Settlements (BIS), which had coordinated the participation of Young Economists from more than 40 central banks. Furthermore, she thanked all Sponsors, Benefactors, Maecenates and Donors for their support of the Council’s and the Foundation’s joint ‘Mission Education’.



Guests at the opening ceremony included Federal President Christian Wulff, Cornelia Quennet-Thielen, State Secretary at the Federal Ministry of Education and Research, Nils Schmid, Deputy Prime Minister and Minister for Finance and Economics of the State of Baden-Württemberg, and Suleiman J. Al-Herbish, Director-General of the OPEC Fund for International Development (OFID).



Count Björn Bernadotte, General Manager of the Lennart-Bernadotte-Foundation, Kurt Biedenkopf, Former Prime Minister of the Free State of Saxony, and Thomas Ellerbeck, member of the Board of the Foundation and the Council of the Lindau Meetings.



Distinguished guests from the worlds of science, business and politics, Economics Laureates as well as Young Economists from 65 countries attended the opening ceremony.



Federal President Christian Wulff called for a shift towards the principles of fairness and solidarity in a social market economy, and encouraged the search for a new definition and model for individual and common well-being.

**“Decades of trailblazing academic endeavour and many decades of future research and policy consultancy under one roof.”**

Federal President Christian Wulff

Speaking at the opening of the 4<sup>th</sup> Meeting on Economic Sciences, Christian Wulff became the fourth German Federal President to visit the Lindau Nobel Laureate Meetings. He welcomed the Laureates and Young Economists to Germany and saw the meetings as a “symbol for what is more important now than ever. Decades of trailblazing academic endeavour and many decades of future research and policy consultancy under one roof and in one boat.” He continued by encouraging the younger generation: “The future is in the hands of the young generation and we are currently, I am firmly convinced, at a very crucial juncture. At some point it will become clear to us how much our present actions or omissions will determine future decades.”

The Federal President’s speech was noted all over Germany, Europe and the world for its criticism of European governments’ policies in the current debt crisis of the Eurozone states. For the Federal President, inadequate political and market structures as well as an insufficiently strict regulatory framework can be held responsible for the fun-

damental disruption of the economic system. He called for a shift towards the principles of fairness and solidarity in a social market economy, and a search for a new definition and model for individual and community well-being, going beyond material wealth and taking into account the values of self-determination and dignity.

“The politics of brinkmanship has reached its limits. What seemed to always go well—running up new debts—will not go well forever. This injustice towards young people must end. Instead we need an alliance with the young generation,” Federal President Wulff said.

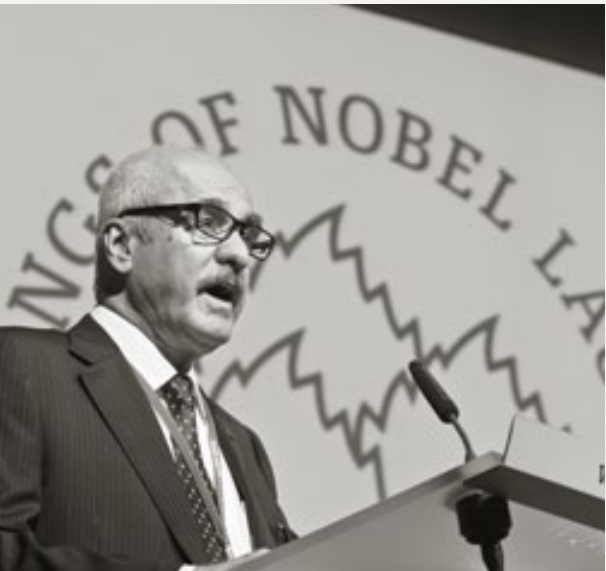
Admitting that the banking and debt crisis has tested politicians, governments and central banks to the limit and that the challenges are immense, Wulff criticised the way the financial sector and political leaders had failed to identify the causes of the crisis, as well as to recognize and minimise the risks. “For many years, many countries kept putting off dealing with problems by raising public expenditure, accumulating debts and issuing cheaper money,” Wulff said. “At the same time, countries were consuming and speculating on a grand scale.” Commenting on the countermeasures governments have implemented, Wulff recalled that when the crisis broke nearly three years ago, a global consensus was quickly reached. Stimulus packages on an unprecedented scale were adopted,

**New Members of the Honorary Senate**



**Ulrich Grete,**  
**Member of the Board of Trustees of**  
**Ecoscientia Foundation**

“Economic Sciences continuously develop influenced by the change in our world. They are neither abstract nor do they generate results with a validity irrespectively of actual political and economic life. New approaches, critical thinking and the courage to express views and conclusions against the wishes of often partial audiences are therefore very important elements to the successful work in Economic Sciences. Critical thinking requires exposure to the views and the results of work of others and the submission of one’s own convictions to being thoroughly scrutinised by others. The set up of the Lindau Meetings strongly supports precisely this. Ecoscientia Foundation was involved from the launching of this youngest subject within the programme of the Council for the Lindau Nobel Laureate Meetings. We were and are proud to be involved with the successful launch and the status of sound consolidation reached with this 4<sup>th</sup> event.”



**Suleiman J. Al-Herbish,**  
**Director-General of the OPEC Fund for International**  
**Development (OFID)**

“Our two institutions—the Lindau Foundation and OFID—have been working together for only a short time, but our relationship is already exceptionally strong, based on shared ideals, a common vision and our total conviction in the empowerment of knowledge. As a development institution, OFID’s mission is the eradication of poverty. In striving for this goal, we believe absolutely that poverty alleviation and human capacity building are inextricably linked; that education and knowledge are the foundations for a stable, prosperous and equitable global society. In this regard, we take it as our duty to foster the development of young people.”





Ulrich Grete (left), Member of the Board of Trustees of the Ecoscientia Foundation, was inducted into the Honorary Senate.



Suleiman J. Al-Herbish (left), Director-General of the OPEC Fund for International Development (OFID), receiving the certificate of appointment from Wolfgang Schürer.

and with taxpayers’ money, state guarantees and massive monetary transfusions by the central banks, there was a rush to aid the financial sector and banks. “But today, however, the banking sector is still fragile. Public debts in the major economies are at record levels and in many cases the fundamental problems hindering growth and competitiveness are as present as ever,” the President concluded.

For Federal President Wulff, the crisis could nevertheless be seen as an opportunity to develop a clearer perspective on the global social market economy which was needed together with a clear regulatory framework. Against the background of the prevailing and widespread uncertainty he told the gathered economists, “I am counting on your expertise, to show us powerful, corrective action which is sustainable in the long term.”

**New Members of the Honorary Senate**

After first expressing his sincere thanks to the Federal President, Christian Wulff, for mapping out so clearly the current problems and challenges posed by the global economic situation and thus outlining the main issues for discussion at this 4<sup>th</sup> Lindau Meeting on Economic Sciences, Wolfgang Schürer, Chairman of the Board of the

Foundation Lindau Nobelprizewinners Meetings at Lake Constance, had the honour to induct two new members into the Honorary Senate of the Foundation. He noted that Ulrich Grete, member of the Board of Trustees of Ecoscientia Foundation, and Suleiman J. Al-Herbish, Director-General of the OPEC Fund for International Development (OFID), both shared the strong conviction that education and human capacity-building were vital for maintaining the cohesion and the proper functioning of societies. In this sense, they shared the values and principles of the Lindau ‘Mission Education’, which Schürer characterised as the contribution of the Lindau Meetings to the promotion of education, science and research. The members of the Honorary Senate, which until this moment consisted of 21 distinguished individuals from academia, business and politics, serve as ambassadors of Lindau’s ‘Mission Education’ and as advisers of the Foundation’s Board of Directors. In recognition of their outstanding commitment to academia and education, and on behalf of the Foundation’s Board of Directors, Wolfgang Schürer presented the certificates of appointment to Suleiman J. Al-Herbish and Ulrich Grete.

**Panel Discussion “Sustainability in International Economics”**



Young Economist Stefanie Stantcheva (from left), Economics Laureate Joseph E. Stiglitz, moderator Peter Englund, Laureates Roger Myerson and Daniel McFadden, and Young Economist Theodore Koutmeridis on the panel “Sustainability in International Economics” during the opening ceremony.



A summary of the panel discussion on “Sustainability in International Economics” is available on page 32.

THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## The Scientific Programme of the 4<sup>th</sup> Lindau Meeting on Economic Sciences



Economics Laureate Myron S. Scholes gave a plenary lecture on "Quantitative Finance and the Intermediation Process".



## Panel Discussion: Sustainability in International Economics

Two generations of economists took to the stage to discuss sustainability in international economics, focusing on the many different flaws that exist within the current macro-economic framework. Setting the scene, Roger B. Myerson (2007 Laureate in Economic Sciences) said that while it might be generally acknowledged that the world is a much better place today because of macroeconomics, events since 2008 show that we still need to understand macro-economic stabilization better. “We have a lot to learn, and Young Scientists, older scientists, all of us, this is one of the most important jobs we have in front of us,” he said.

Understanding and integrating factors regarding the microeconomics of banking and financial intermediation is where Myerson thinks progress could be made. To illustrate this, he discussed the role of moral hazard in financial intermediation through the setting of a fictitious island called the Republic of Utopia. Global investors require local agents who have knowledge of the republic’s laws, know where the good investments are, but who also have a reputation for not stealing investors’ money. This reputation and trust creates an intrinsic dynamic. People are willing to invest in Utopia when they expect others to invest, and when they know that the local intermediaries will want to retain their reputation for future business; however, investors will not want to invest if they don’t expect others to do so. According to Myerson’s models, this can create booms and busts in different countries, though one alternative is to create regulatory rules that can restrain moral hazard in financial systems.

Stefanie Stantcheva, a PhD student at MIT, took a step back from the traditional view of sustainability in terms of financial systems and the environment, and highlighted two “pre-requisite issues” of unsustainability that need to be addressed.

The first issue is unsustainability and global health. Developing countries face the demand of malnourishment and undernourishment, while developed countries are plagued by too much abundance with diseases like diabetes, cardiovascular disease and obesity spreading like epidemics. In terms of poverty, Stantcheva said that development economists are creating ingenious ways of getting food or medication to where they are needed most. And behavioral economics is beginning to provide great insight into the other extreme of too much abundance. Stantcheva’s second issue was unsustainability in society and politics. “As economists we’re a bit reluctant to go into theology and politics, but I do think we have something to say,” said Stantcheva. Economists have lots of tools and methods for redistribution that don’t just rely on taxes and subsidies, she said, there are some very smart ways to improve opportunities in education and labor markets.

Donning his farmer’s cap, metaphorically and literally, 2000 Laureate in Economic Sciences Daniel L. McFadden likened the current global situation to the monocultures found in the Napa Valley vineyards, such as the one he owns. Vines that stretch from valley side to valley side might provide a very efficient method of production, but any virus or pest that establishes itself can spread easily and rapidly across the whole valley. Maintaining this monoculture requires strong institutions that can detect infections early, quarantine the area quickly, and keep the infestations from spreading.

And so it is the case with the international market for exports, banking and credit. “We have developed a credit monoculture, and one we have seen that has very few institutions that can detect and quarantine problems,” said McFadden. Existing international institutions, like the IMF and the European Central Bank, have inadequate mandate and resources to provide the kind of supervision and prudent control that’s necessary to sustain the system.



Young Economist Stefanie Stantcheva (from left), Economics Laureate Joseph E. Stiglitz, moderator Peter Englund, Laureates Roger Myerson and Daniel McFadden, and Young Economist Theodore Koutmeridis discussing “Sustainability in International Economics”.

Citing George Stigler’s little-known 1939 paper, McFadden said the answer lies in opting not for systems that are highly efficient in good times yet are extremely fragile, but opting instead for somewhat less efficient, but more robust, systems. “If you are a prudent manager, you may want to do some stress tests on the technology you adopt, and go for a robust technology that can withstand uncertainty, rather than one that operates efficiently under ideal conditions,” he said.

Focusing on Europe, Theodore Koutmeridis, a PhD student at the University of Warwick, UK, said that measures like the creation of the European Financial Stability Facility (EFSF) are useful for smaller economies like Portugal, Ireland and Greece, but are unsustainable for larger economies like Spain and Italy. It must also be made clear that the Greek government cannot undertake any further measures regarding wage reductions or tax increases, and that if other Eurozone members demand more guarantees or measures, all the previous policies that the Greek government has adopted would be threatened.

So economists and policymakers must reconsider the role of economic governance at a national and international level, according to Koutmeridis. Success will be based on fast policy responses, and the direct and indirect messages that these policies send to the market. But they must also

focus on confidence in order to reduce uncertainty in the global economy. As Koutmeridis stressed they must “activate exactly the opposite of the current vicious circle, a virtuous circle of stability and equitable growth.”

Staying within Europe, Joseph E. Stiglitz (2001 Laureate in Economic Sciences) discussed the Euro, or rather its possible demise. He said that the Euro brings great political and economic benefits, but making it work is not going to be easy. “It’s going to take money, and guarantees, to make the Euro work; it’s going to take money to make the Euro not work,” said Stiglitz. “So, unfortunately for Germany, it’s going to lose a lot of money one way or another, and the question is do you want to lose money and have a political venture that actually has a future like the Euro, or do you want to lose money and watch an idea that had great hope, especially for the youth, go down the drain.”

To Stiglitz, therefore, the issue is how to keep the Euro alive. He suggested ways of providing assistance to the under-resourced EFSF: Either put more money in, which doesn’t seem to be a popular option; or allow the European Central Bank to provide a loan, which some people think implies a change in the treaties. To which Stiglitz said in response: “When times change, you have to change.”



Martin Wolf (moderator), Peter A. Diamond, Christopher A. Pissarides, Sir James A. Mirrlees, Edward C. Prescott (from left) on the panel discussion “Demographic Change, Economics and Politics”.

## Panel Discussion: Demographic Change, Economics and Politics

“I was thinking about this session title, and to me it’s a superlative example of the capacity of humanity to turn its greatest triumphs into a source of immense angst, fear and terror.” So Martin Wolf, chief economics commentator at the Financial Times began this panel discussion. Wolf elaborated his point by saying that we might have solved two of the greatest curses of humanity—namely the reduction of fertility through infant mortality declines and liberation of women, and the increased aging of the population as a result of staggering successes in public and private health—yet somehow this has become something that we are desperately worried about because it is going to ruin our world.

Peter A. Diamond, 2010 Laureate, said these demographic developments are nothing new, and argued that there’s been a steady progression since the Stone Age. “So why is there a crisis now?” he asked.

Focusing on issues with pensions, Diamond said the chief culprits were the baby boom, which affected the speed of the trend, and the lack of large pension systems in place during most of the time that the trend was improving. In terms of economics this is a relatively simple issue to resolve, he said, “fix the pension system so that it works to make people work longer when they’re going to live longer, and make it automatic.” The politics, on the other hand, is not quite so simple to resolve. You have to reduce benefits or increase contributions, which mean different things for different countries, and a favorable political climate is required to effect such changes.

Like pensions, healthcare is affected by demography, as we spend more on older people than younger people. But healthcare poses a very different problem, in that it is driven by the development of, and demand for, technological innovations that lead to not only longer lives, but also better lives. We need to change the incentives for research and development, said Diamond, so that resources are devoted more towards doing the same things cheaper, rather than simply towards new and better things. More adequate forms of rationing are also needed, he said, whether through price, rules, or queues. “We need a rationing device... but we need to recognize that we have a stunningly inefficient system in the US.”

His co-Laureate in 2010, Christopher A. Pissarides, had a similar message regarding rationing, but from the European perspective, where healthcare receives heavy subsidization from the public sector. The rising debt burden will impact hugely on health because it has such a big claim on public finances, so something needs to change, said Pissarides. There should be a strictly rationed basic system where people can get free, or at least publicly funded, healthcare, and then the individual should cover the cost of any additional provision. Though where rationing begins is a very difficult question to answer, he admitted.

One question raised by the audience in the discussion session was whether governments could get away with technical defaults on their pension and healthcare commitments, through lowering quality and having longer queues, in much the same way that they have got away with technical defaults on their public debt in the form of inflating away the debt’s value. “We know from basic economic principles that the queuing system is not the best, so we should try to avoid it,” said Pissarides. Diamond said that defaulting by lowering the quality of healthcare provided is not a politically viable answer, and added that there are other ways for governments to lower quality, for example, not maintaining roads and bridges.

Edward C. Prescott, 2004 Laureate, addressed another big issue in his presentation: the expenditure structure and the taxation of savings. Government debt is growing relative to GNP, some European countries are facing a sovereign debt crisis, and world real interest rates are low. Ageing populations and falling number of workers per retiree were the major causes, said Prescott, the need for places to save for retiring versus GNP has increased.

His solution was a radical one: Get rid of all income taxes. “The US income tax becomes a consumption tax, and consumption then becomes a taxable income,” said Prescott. He argued that shifting fully to an expenditure tax structure would lead to significant increases in wealth and the valuation of wealth. He presented calculations that showed that eliminating the income tax would increase the value of production assets, and lead to an increase in the value of businesses.

In the discussion session, Sir James A. Mirrlees (1996 Laureate) and Diamond said they were skeptical about Prescott’s premise. “Ed was looking at it from growing savings out of the demography,” said Diamond, “but as I indicated the demographic trend has been going on for a long time, so I don’t see why that becomes an issue right now.” Both an audience member and Wolf asked Prescott whether tax-free savings accounts provided an answer, to which Prescott responded, “It’s a big part of the solution.” According to his findings, such measures increased the value of the stock market, because it reduced the tax on distributions from corporations to households.

Sir James A. Mirrlees presented an entirely different perspective on the issue, which Wolf described as an “interesting, abstruse question, and extremely important.”

Optimum population was Mirrlees’ theme, in other words, how many people should there be? Mirrlees raised some interesting ways of thinking about it. He said some economists claim that a solution can be found in maximizing the real output per head. Mirrlees said he preferred to discuss optimum population in terms of utilitarianism, that is, using the sum of utilities. These utilities have to be quantifiable in some form, for example, interest, happiness and enjoyment, and that a simple way is to view utilities as a function of consumption. Conceptually this is an awkward problem, admitted Mirrlees, but he added that, “facts are needed, the answer isn’t to say the right thing to do is to reduce the population.”

This might sound like an arcane area to explore, but as Mirrlees noted governments around the world have serious policies in this regard—France and Russia have financial subsidies that encourage people to have more children than they otherwise would have, not to mention China’s efforts at population control. As Wolf concluded at the end of the panel discussion: “The question of what governments do about how many people there should be has the most profound effect on our society, so I think this is a very deep and profound question.”



## Panel Discussion: Behavioural Economics

In simple terms, behavioural economics could be described as the study of how people actually make decisions, as opposed to how the neoclassical economic models say they make them. How this discipline has, and could potentially, contribute to economics on a broader level was the subject of this panel discussion.

Eric S. Maskin, 2007 Laureate in Economic Sciences, threw down a gauntlet to the field at the very beginning of the session. Any success in this area up until now has been limited to the empirical side, said Maskin. However, for the subject to truly permeate the mainstream of economics, it's going to have to be theoretically successful too, and there is a tremendous amount of work that needs to be done in this area. If you add up all the assumptions we have made to account for all the known behavioural findings, such as framing effect and bias towards present consequences, you have a very cumbersome model with 13 or 14 assumptions to work with, he said. As the chairperson Martin Wolf, chief economics commentator at the Financial Times, noted wryly in response to Maskin's challenging statements: "So we know that some of this works in practice, we just don't whether it works in theory."

What followed next was a mesmerizing exploration of the diverse range of factors that could be attached to a theoretical framework for behavioral economics, taking in aspects of rationality, sociology, psychology, physiology, and even human creativity.

Robert J. Aumann and Reinhard Selten, Economic Sciences Laureates in 2005 and 1994, respectively, focused on decision-making processes. Rational people making rational decisions in accordance with neoclassical economics is the "general situation", said Aumann. In contrast, behavioural economics deals with the "sometimes situation"; that is, rational people behave in non-rational ways, especially when placed in unfamiliar situations.

Aumann argued that the concept of "rule rationality" described how people react. People do not act rationally, or even consciously, but they use rules, or "heuristics" as they are often called. People choose mechanisms and rules of behaviour that usually are optimal, but placing them in unusual situations can lead to severe and systematic biases. Selten took another view, one known as bounded rationality, which states that decision making is constrained by the information individuals have, their cognitive limitations, and the limited time they have to make decisions.

Much of the discussion part of the session focused on how different the concepts of rule rationality and bounded rationality really are. Aumann replied that bounded rationality means you are maximizing, you make some errors and approximations, but you're thinking about doing the best in the situation you have at hand. However, rule rationality is not conscious or deliberate and comes in part from the learning experience. You're not optimizing on the act, as Aumann put it, you're optimizing on the thing that you usually do.

Selten agreed that some rules may be based on learning experiences, but added that the reality is far more complex than that. The rules you learn only apply to partial aspects of your environment, as he described it. You could use such a rule, but it has consequences for later decision problems that the rule doesn't take into account. Also, the brain is an all-purpose instrument, argued Selten, it will have developed tools to deal with problems that are applied to a great deal of situations. But, one cannot assume that they are optimal in any way, or that the tools have been optimally selected; they have been selected because they work satisfactorily.

George A. Akerlof, 2001 Laureate, took what Wolf later described as a subversive angle by discussing ways of integrating sociologic theory into the economic framework. Akerlof said he agreed with Maskin's characterization of behavioural economics, but that this should be considered as being the tip of the iceberg. "We may have all these peculiar cognitive ways in which we are thinking about the world, and our role is to figure out what they are and



Martin Wolf (moderator), Edmund S. Phelps, Robert J. Aumann, Daniel L. McFadden, Reinhard Selten, George A. Akerlof, Eric S. Maskin (from left) on the panel "Behavioural Economics".

incorporate them into our models," he said. "But what we want might be peculiar, so there's the whole question as to what people's utility function is.

Psychology says people make a lot of cognitive errors, said Akerlof, particularly the fundamental attribution error of the kind exposed in the infamous Milgram experiment, in which psychology academics couldn't predict correctly how the study subjects would behave. "The fundamental attribution error is important for economics for one simple reason: it makes people manipulative," said Akerlof. "And that is something that we basically don't see in economics."

"Correcting or broadening the neoclassical model in the manner described by the previous panellists is one way of looking at the impact of behavioural economics on consumer choice," began Daniel L. McFadden, 2000 Laureate in Economic Sciences. Another is to look for "invariances", as he described them, adding that "after all science is about finding invariances, finding natural laws." For instance, he said that one of the things we've learned from cognitive psychology is that preferences and perceptions are more volatile than perhaps classical economists thought. And we might be hardwired, physiologically or otherwise, for certain behaviours. Humans evolved as traders and social animals, or as McFadden put it

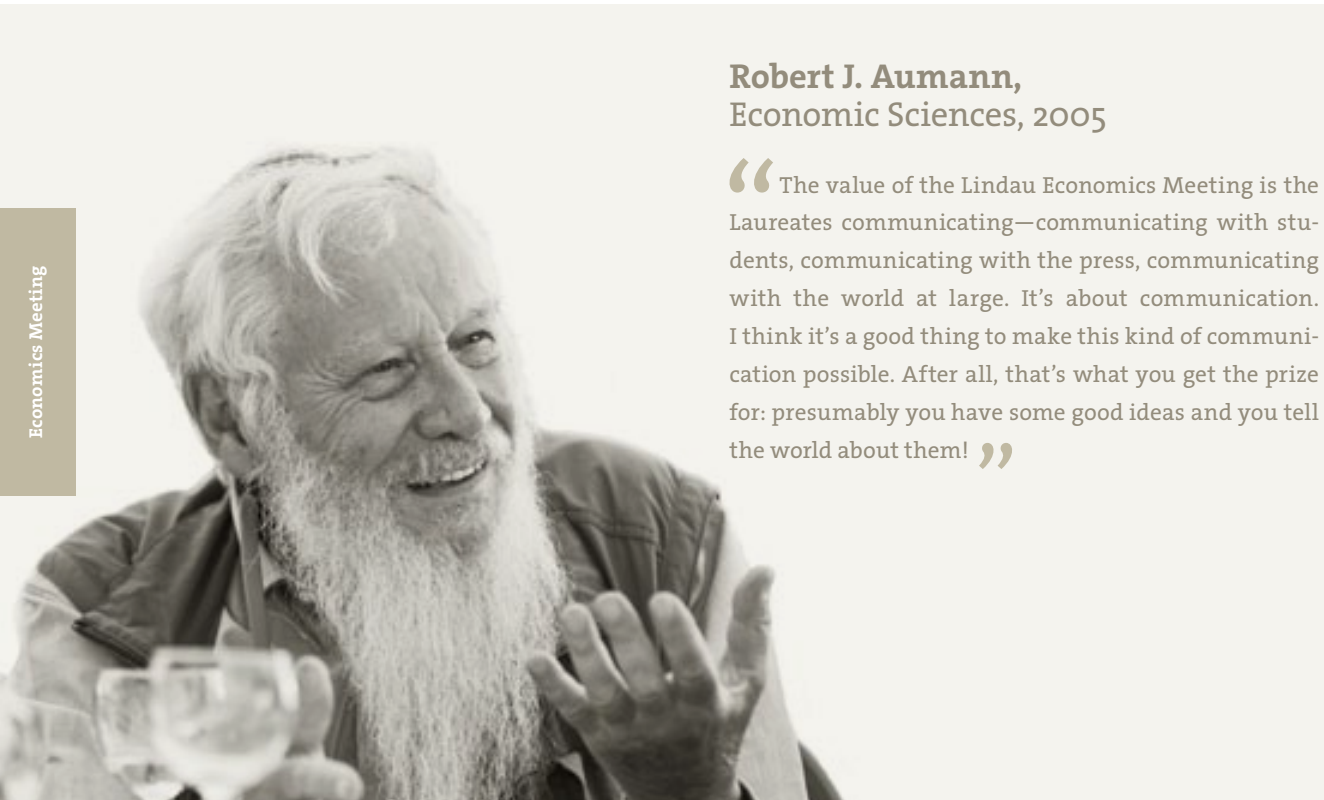
"markets are us", and insights from neuroeconomics imply that these trade relationships are related to primitive elements of brain function.

So when investigating choice behaviour McFadden said it is helpful to parse it into perceptions, design processes, and preferences. Of the many factors that underlie these areas, personality, affect, sociality and attention are never emphasized in neoclassical choice theory, only in behavioural economics. And of these factors, personality and sociality are two areas that are very important for explaining what behavioural economics can do. Sociality and social networks define decision making, said McFadden, for instance, how many times have you preferred to enter a restaurant because it is full, rather than one that is empty?

"Why is it so difficult to import sociological ideas into economics?" asked a member of the audience. "Once you've trained as an economist you somehow blank out the sociology, it's hard to understand the language that is being spoken," said Akerlof.

One reason 2006 Laureate, Edmund S. Phelps, said he wanted to appear on this panel was to talk about another agenda for a better understanding of behaviour, and in turn a better understanding of how the macroeconomy works.





**Robert J. Aumann,**  
Economic Sciences, 2005

“ The value of the Lindau Economics Meeting is the Laureates communicating—communicating with students, communicating with the press, communicating with the world at large. It’s about communication. I think it’s a good thing to make this kind of communication possible. After all, that’s what you get the prize for: presumably you have some good ideas and you tell the world about them! ”

A huge force that drives the economy is the force of innovation, he said. Innovation drives everything, productivity, employment, job satisfaction, which brings up ideas of creativity. “How are we to understand new idea formation?” he asked. You can’t represent new ideas through known stochastic processes. If the future were known there wouldn’t be any new ideas. “So I think economists are going to have to try to understand creativity,” concluded Phelps. “We can’t avoid it.”

During the discussion session, Akerlof said that thinking about individual and social behaviour could help the way we think about macroeconomic systems. Looking at the question of what effect you get from a tax on consumption, for example, he said that important issues related to what you think you are entitled to spend can be solved easily and simply by common sense behavioural economics.

In conclusion, Wolf said that while Maskin’s assertion still holds that it’s not clear how tractable behavioural economics is, it’s perfectly obvious that at a very deep sense this is true, or at least truer than we used to think about this. “This has raised my level of confusion to a much higher level,” ended Wolf, “but I consider that to be a test of a good panel on a subject of this kind on a topic of this kind.”

## Panel Discussion: On the Intellectual History of the 2010 Prize in Economic Sciences

Following on from the morning session in which Laureates spoke about their past research activities, this panel discussion aimed to delve deeper inside the scientific production process by exploring the key events that led to the 2010 Prize in Economic Sciences. How the three Laureates formulated better mathematical models for describing the behaviour of labour (as well as other) markets was a particularly interesting story, said the chairman Peter Englund, secretary of the Economics Prize Committee and Scientific Chairman of the meeting. Their initial breakthroughs regarding markets with search frictions came from completely different angles in the early 1970s, and only began to converge in the 1980s into what we know now as the Diamond-Mortensen-Pissarides, or DMP, model.

Peter A. Diamond and Dale T. Mortensen, two of the three Laureates in 2010, were present on stage to tell their sides of the story. (The third Laureate, Christopher Pissarides,



Edmund S. Phelps, Peter A. Diamond, Peter Englund (moderator), Dale T. Mortensen and Edward C. Prescott discussing the intellectual history of the 2010 Prize in Economic Sciences.

couldn’t be present owing to prior commitments as President of the European Economic Association.) Also present were Edmund S. Phelps, 2006 Laureate in Economic Sciences, who organized a highly influential conference in the field in 1969 which provided a fortuitous moment for one of the Laureates, and Edward C. Prescott, 2004 Laureate, who had briefly looked at search theory in a paper from the early 1970s.

Mortensen began by revealing how his unconventional academic training played a crucial role in his breakthroughs. He attended a unique social sciences and mathematics program at Carnegie Tech (now known as Carnegie Mellon) in Pittsburgh, receiving training in operations research, social psychology, psychology, modeling, mathematics and statistics. Moving to Northwestern University to begin a research career in traditional economics, he was asked to teach PhD students. “The training I got at Carnegie Tech was broad,” said Mortensen, “I got my training in depth by teaching first year PhD students.”

Mortensen became interested in how the labour market actually worked, but spotted that the classic supply and demand structure couldn’t account for issues, or “frictions”, like the time it takes workers to find jobs, and that equally qualified people often don’t have the same starting salary. “I was fortunately trained with a breadth that

allowed me to think about this empirical problem outside the box,” said Mortensen. Remembering “something in the toolbox of my training” that he called “the magic of the Poisson arrival process in queuing theory”, he formulated a model and recorded his methodology in a lengthy 90-page monograph. However, all Mortensen’s colleagues said no-one could possibly accept a manuscript that long.

Enter Phelps and the afore-mentioned fortuitous moment. Visiting the university in 1968 to give a seminar, Phelps told an astonished Mortensen that he had read the paper, and that he was planning a conference to discuss similar papers in the field. Mortensen’s paper was published in the collection of papers presented at this conference that became universally known as the “Phelps volume”. “I don’t know if you can claim such a thing,” concluded Mortensen, “but I think there is a role for fortunate circumstances in every successful career.”

Diamond said his story couldn’t have been more different. Sometimes he too arrived at ideas or models through concrete problems he was working on, but the models of search theory that he developed came about through a highly abstract approach.

As an undergraduate student at Yale, Diamond was taught by Gérard Debreu, of Arrow-Debreu model fame. Yet while



Diamond became deeply ingrained in the model that is central to general equilibrium theory, he also saw its shortcomings, namely that there's no difference between the present and the future. At the time, Diamond thought that addressing this issue with no concrete idea in mind might really matter for some allocation questions.

Diamond listed the many times he tried to, as he described it, “get outside of the intellectual box of the Arrow-Debreu model”. For instance, after he published his thesis, Diamond said he thought: “I’m going to think up some arbitrary mechanisms for allocating resources under uncertainty in a world where you don’t have complete markets.” By making up mechanisms he hoped he’d find one interesting enough to start researching. The first one he tried turned out to be the stock market model, published in 1967.

Thinking outside of the intellectual box with regards to the stability question led to the surprising paradox of monopoly pricing, which he published in 1971. Rather than ask the question everyone was asking in this area, that is, whether a price-adjustment process could converge to competitive equilibrium, Diamond said he posed a different question: “If I wrote down a dynamic process that has some plausibility characteristics, what does it converge to?” The result was that small frictions generate large deviations from competitive equilibrium. “The way I showed that people shopped was the basic search model,” said Diamond.

Diamond continued to be interested in this dynamic issue, even when he said he was “spinning his wheels” career-wise, and he decided to take classes in law school. “I realized that my thinking was so embedded in the Arrow-Debreu model, that if I started thinking about modeling and started sliding slowly towards the Arrow-Debreu model I couldn’t answer the questions that I was interested in.”

So to rewire his brain, Diamond looked for a question that made no sense whatsoever in the model. “I needed a new math tool,” admitted Diamond. “I had been a math major, but I’d never seen a Poisson process, and then I read a pa-

per by Dale.” This provided the turning point for Diamond. Working with Eric Maskin (2007 Laureate) he explored issues around rules that occur when you break a contract, and came up with initial equilibrium models that Diamond said, “looked like something that would resemble the labour market”. Maskin left to explore mechanism design theory (for which he was awarded the 2007 Prize), but from these initial models Diamond said he rapidly came up with the papers on labour market models that were published in 1981 and 1982.

“Now perhaps we should say that there was this other guy in the UK!” added Mortensen. “Chris [Pissarides] published the first paper I’m aware of in 1979,” said Mortensen, “but the paper I hold in high regard was his 1985 paper.” In simple terms the 1985 paper showed that the rise in unemployment in a recession would be faster than its fall in an expansionary phase. “I credit a major innovation that Chris brought to this was to introduce the concept of what happens when there is an infinitely elastic supply on one side and an infinitely inelastic supply on the other side,” said Mortensen. “That became an important feature.”

The important feature that emerged loud and clear from this discussion panel, though, was the value that completely different backgrounds, perspectives and approaches can have towards solving the same intellectual problem. Phelps and Prescott briefly discussed the differing perspectives that they had at the time, but perhaps Diamond summed up his and Mortensen’s differing paths to the search model best. “I describe what we were doing in the vocabulary of child psychology,” he said. “We were engaged in parallel play.”



The closing panel with William F. Sharpe, Myron S. Scholes, Martin F. Hellwig (chairman), Roger B. Myerson and William R. White took place at the University of St. Gallen.

## Panel Discussion: From Financial Crisis to Debt Crisis— Financial Markets, Monetary Policy and Public Debt

In his introduction to this panel discussion, chairman Martin F. Hellwig, Director at the Max Planck Institute for Collective Goods and Scientific Chairman of the meeting, provided a somewhat less formal, though no less descriptive title for the session, when he asked: “How did we get into this mess? And how do we get out?”

The question of how we got into this current global financial crisis was answered in different ways by the distinguished panel present at the University of St. Gallen. William White, Chairman of the OECD Economic and Development Review Committee, began proceedings by saying that the roots of the crisis can be found in the financial system, and more so in the monetary and exchange system. One major issue has been the denial of risk, said White. When people were surprised that the period of

so-called “Great Moderation” ended abruptly in 2008, it was first described as a subprime problem, then a liquidity problem, and blame continued to be passed on from one proposed culprit to another.

“But prior to the crisis, all the imbalances that traditionally build up were there, people just didn’t see them,” added White. Credit spreads plummeted to very low levels for sovereigns in Europe, credit growth was very rapid, interest rates were low in many countries, household savings rates fell to zero in the US, volatility went down to the lowest level ever recorded. Many of these imbalances with allocation of resources are still here, said White, and more worryingly some of them have become even worse.

Roger B. Myerson, 2007 Laureate in Economic Sciences, focused on the role of debt. Debt might sound like irresponsible behaviour, he said, but from an informational perspective it might actually be a perfectly natural phenomenon. When deciding whether to sell debt or equity to raise funds, Myerson reminded the audience of the 1984 paper by Stewart Myers and Nicholas Majluf, which stated that those who have the best information in corporations are more likely to issue debt than equity, because of information asymmetries and the winner’s curse problem.

Irving Fisher’s assertion in 1933 that great depressions



are caused by a deflation when there is also too much indebtedness, began to make more sense in this context, said Myerson. Those who have the best information about where investments are to be made in our economy are systematically indebted, and if they are excessively indebted they won't be in a position to take advantage of new opportunities. "If we look at the unemployment data, the sudden decline in new hires is exactly what happened after the US financial crisis in 2008," he said.

Myron S. Scholes (1997 Laureate in Economic Sciences) and William F. Sharpe (1990 Laureate) both placed the blame squarely at issues of moral hazard. Scholes pointed to a lack of discipline on the part of the market and the banks, especially with regards to risk management. When volatility dropped to low levels and banks increased leverage dramatically, the banks highly opaque accounting systems made it almost impossible to know the value of their assets and risk positions. Senior management at financial institutions like Fannie Mae and Freddie Mac did not understand how to manage the proprietary trading activities of these banks, such as the subprime loans given to homeowners, and they failed to assess the risks being taken.

Sharpe pointed the finger firmly at capital regulation. He said the presumption in the competitive, free-enterprise model had always been that people who issued the debt in businesses and financial institutions loaned the money knowing about the potential risks, they built in provisions in the arrangement for the debt, and these issues were taken into account through measures like contracting and debt-equity rituals. "For various reasons this didn't happen, especially when you have the Freddies, the Fannies, the government equities, where the incentives were radically different, and where you had the implicit—and sometimes explicit—understanding that you could bail out if things got too bad," said Sharpe. "That exacerbates the whole optionality problem."

But how best to get out of this mess? Sharpe called for better accounting and regulation practices. Governments probably do this worse than anyone, said Sharpe, but one solution is to attract the brightest talent through offering more competitive salaries. "People with PhDs in physics,

and even Stanford MBAs, who are on Wall Street are a lot smarter, they get paid more, they are a lot quicker, and they can think up the most amazing ways of conforming to a regulation in principle but not in substance," said Sharpe. "However smart and dedicated regulators might be, there's an unfair balance in that way, and that's a problem."

In the discussion part of the session, Myerson said he agreed with Scholes' thoughts on financial bankruptcy reform, before turning his attention to the current Eurozone problem of sovereign debt. "I'd like to toss out a hypothesis that at the root of all of it is that the banking system excessively bought this debt... and that the regulatory rules have been put in place to put minimal capital charge on assets that are sovereign national debt," he said. "Why is the capital charge for sovereign national debt so much lower than for loans to the economically essential function of banks?" asked Myerson. He added that we need a banking system to provide services for the economy, like financing small and medium enterprises; the rest of us could buy the sovereign bonds directly.

White said he agreed with Scholes and Sharpe that the fundamental problem is moral hazard. "Whether it's on the regulatory side, or the bailout side... it's not just the lenders who are induced to behave badly, it's the borrowers too," he said. The situation had gone on without anything serious occurring on the downside for decades, and White said people have been too scared to get off this bad path for fear of the consequences. "It looks so scary that the only answer for the central banks and the politicians is more of the same—put it off until it's on someone else's watch," said White.

Market discipline could get around the moral hazard problem, said Scholes. "We have to think that debtholders can suffer losses, and therefore if they can suffer losses they're going to be disciplined by the marketplace," he said. More transparency in the system is badly needed, he said, the information system has to be changed in such a way that outsiders have a chance to do it. "But if you have an opaque accounting system, then you have to rely on the government to bail out the banking system," said Scholes, "if you can understand what the banking system is doing."

Scientific Chairmen



**Peter Englund**  
**Member of the Council**

Peter Englund is Professor at the Department of Finance of the Stockholm School of Economics and Member of the Royal Swedish Academy of Engineering Sciences. He is Member and Secretary of the Committee for the Prize in Economic Sciences in Memory of Alfred Nobel. Peter Englund has been Member of the Council for the Lindau Nobel Laureate Meetings since 2003.



**Martin F. Hellwig**  
**Member of the Council**

Martin F. Hellwig is Director of the Max-Planck Institute for Research on Collective Goods in Bonn, and Professor of Economics at the University of Bonn. In 2004, Martin F. Hellwig became Corresponding Member, and later Member of the Council for the Lindau Nobel Laureate Meetings.



**Wolfgang Schürer**  
**Chairman of the Board of the Foundation**  
**Vice-President of the Council**

Wolfgang Schürer is a permanent visiting Professor for Public Affairs at the University of St. Gallen, and the founder of the St. Gallen International Management Symposia. He is Chairman of the Board of the Foundation Lindau Nobelprizewinners Meeting at Lake Constance, and Vice-President of the Council for the Lindau Nobel Laureate Meetings.

Scientific Programme of the 4<sup>th</sup> Lindau Meeting on Economic Sciences

Tuesday, 23<sup>rd</sup> August

Arrival & Registration

Wednesday, 24<sup>th</sup> August

09:30–11:00 Opening Ceremony

Opening address of Countess Bettina Bernadotte, President of the Council  
Welcome address of German Federal President Christian Wulff  
Inductions into Honorary Senate

10:15–11:00 Plenary Panel Discussion

Sustainability in International Economics—  
with Laureates Daniel L. McFadden, Roger B. Myerson, Joseph E. Stiglitz and Young Economists Theodore Koutmeridis, Stefanie Stantcheva (Chair: Peter Englund, Scientific Chairman)

11:30–12:00 Plenary Lecture

Peter A. Diamond: Search and Macro

12:00–12:30 Plenary Lecture

Christopher A. Pissarides: The Future of Work in Europe

12:30–14:30 Lunch Break

14:30–16:00 Plenary Panel Discussion

Demographic Change, Economics and Politics—  
with Peter A. Diamond, Sir James A. Mirrlees, Christopher A. Pissarides, Edward C. Prescott (Chair: Martin Wolf, Financial Times)

16:30–18:00 Parallel Discussion Session

Peter A. Diamond, Dale T. Mortensen, Christopher A. Pissarides

Thursday, 25<sup>th</sup> August

09:00–09:30 Plenary Lecture

Myron S. Scholes: Quantitative Finance and the Inter-mediation Process

09:30–10:00 Plenary Lecture

William F. Sharpe: Post-Retirement Economics

10:00–10:30 Plenary Lecture

Sir James A. Mirrlees: Poverty, Inequality, and Food

10:30–11:00 Coffee Break

11:00–11:30 Plenary Lecture

John F. Nash Jr.: Ideal Money and the Motivation of Savings and Thrift

11:30–12:00 Plenary Lecture

Edward C. Prescott: The Current State of Aggregate Economics

12:00–12:30 Plenary Lecture

Robert J. Aumann: Challenging Nash Equilibrium: Rational Expectation in Games

12:30–13:00 Plenary Lecture

Robert A. Mundell: Currency Wars, Euro-Mania and the Price of Gold

13:00–15:00 Lunch Break

15:00–16:30 Plenary Panel Discussion

Behavioural Economics—with George A. Akerlof, Robert J. Aumann, Eric S. Maskin, Daniel L. McFadden, Edmund S. Phelps, Reinhard Selten (Chair: Martin Wolf, Financial Times)

17:00–18:30 Parallel Discussion Session

Robert J. Aumann, Sir James A. Mirrlees, Robert A. Mundell, John F. Nash Jr., Edward C. Prescott, Myron S. Scholes, William F. Sharpe

Friday, 26<sup>th</sup> August

09:00–09:30 Plenary Lecture

George A. Akerlof: Identity Economics

09:30–10:00 Plenary Lecture

Eric S. Maskin: Elections and Strategic Voting: Condorcet and Borda

10:00–10:30 Plenary Lecture

Daniel L. McFadden: Sick Insurance: Adverse Selection and Regulation of Health Insurance Markets

10:30–11:00 Plenary Lecture

Coffee Break

11:00–11:30 Plenary Lecture

Roger B. Myerson: A Model of Moral-Hazard Credit Cycles

11:30–12:00 Plenary Lecture

Edmund S. Phelps: Modeling Corporatist Economies of the West and Those of North Africa

12:00–12:30 Plenary Lecture

Joseph E. Stiglitz: Imagining an Economics that Works: Crisis, Contagion and the Need for a New Paradigm

12:30–13:00 Plenary Lecture

Reinhard Selten: Reaching Good Decisions without Utility and Probability Judgements—The Approach of Bounded Rationality

13:00–15:00 Lunch Break

15:00–16:00 Plenary Panel Discussion

On the Intellectual History of the 2010 Prize in Economic Sciences—with Peter A. Diamond, Dale T. Mortensen, Edmund S. Phelps, Edward C. Prescott (Chair: Peter Englund, Scientific Chairman)

16:30–18:00 Parallel Discussion Session

George A. Akerlof, Eric S. Maskin, Daniel L. McFadden, Roger B. Myerson, Edmund S. Phelps, Reinhard Selten, Joseph E. Stiglitz

Saturday, 27<sup>th</sup> August

10:00–11:45 Plenary Panel Discussion

From Financial Crisis to Debt Crisis—Financial Markets, Monetary Policy and Public Debt—with Roger B. Myerson, Myron S. Scholes, William F. Sharpe, William R. White (Chair: Martin F. Hellwig, Scientific Chairman)


11:45–12:00 Closing Remarks

Wolfgang Schäuble, Federal Minister of Finance, Germany

14:00–16:00 Boat Trip to Mainau Island

18:00–18:30 Farewell Ceremony

Countess Bettina Bernadotte, President of the Council, Economics Laureate Roger B. Myerson and Young Economist Daniel Beltran

“The 4<sup>th</sup> Lindau Economics Meeting provided upcoming researchers like us to interact with some of the most brilliant economists of our times who have influenced the world with their research. The Laureates were truly inspirational by the way they perceive and theorize issues. It was a high-voltage, but informal knowledge sharing space for the Young Researchers. I was fortunate to discuss my research issue with laureates like Sir James Mirrlees, Edward Prescott and get their comments on my research issues.”  **Nirmal Roy** VP, India






Abstracts of Lectures


	$L_1$	$L_2$	$M_1$	$M_2$	$M_3$	$R_1$	$R_2$
$T_1$	00	00	45	45	45	54	54
$T_2$	00	00	45	45	45	54	54
$C_1$	54	54	00	00	00	45	45
$C_2$	54	54	00	00	00	45	45
$C_3$	54	54	00	00	00	45	45
$C_4$	54	54	00	00	00	45	45
$C_5$	54	54	00	00	00	45	45
$B_1$	45	45	54	54	54	00	00

Robert J. Aumann, Economics Laureate 2005.


Economics Meeting



**George A. Akerlof**  
**Identity Economics**  
Available Online\*



**Robert J. Aumann**  
**Challenging Nash Equilibrium: Rational Expectations in Games**  
Available Online



**Peter A. Diamond**  
**Search and Macro**  
Available Online

\*Available Online: corresponding lecture available at [www.mediatheque.lindau-nobel.org](http://www.mediatheque.lindau-nobel.org)

**George A. Akerlof**  
**Identity Economics**

Identity economics constitutes the first sustained effort to incorporate the effects of social context into our understanding of why people make the economic decisions they do, and why certain people, given different identities, make markedly different decisions in the same situations. It yields a more realistic and deeper account of behaviour, and thereby a better basis for shaping organisations and public policies. The lecture will give a brief introduction to the book “Identity Economics” by George Akerlof and Rachel Kranton. It will give a motivation for identity economics and why it matters.

**Robert J. Aumann**  
**Challenging Nash Equilibrium: Rational Expectations in Games**

The Nash Equilibrium is without doubt the most widely used solution concept in Game Theory, and also in its applications to Economics, Political Science, International Relations, Law, Business, Computers, Evolutionary Biology, and many other disciplines. Yet its conceptual foundations are murky. The most common justification—offered already by von Neumann and Morgenstern—is that if Game Theory is to recommend strategies to the players in a game, then the resulting strategy profile must be known; for example, because it could be read off from a game theory text. It follows that each strategy must be a best reply to the others, which means that the strategies constitute a Nash equilibrium.

The difficulty with this is that Game Theory need not recommend any particular strategy. Rather, it needs to recommend a “procedure” for arriving at a strategy. For example, such a procedure could be, “maximize your expected payoff given how you think the others will play.” The resulting strategy of a player would not be known to the others, so a Nash equilibrium need not result.

Other serious criticisms of Nash equilibrium have been raised, inter alia by Bernheim and by Pearce in their 1984

Econometrica articles introducing the concept of rationalizability. Yet whereas that concept became widely known and applied, their criticism of Nash equilibrium was largely ignored. Perhaps, that is because rationalizability is a fairly “loose” concept; in many games it is very far from providing precise solutions. In particular, in the benchmark case of two-person zero-sum games, it can yield payoffs that are very far from the value. The lecture will explore these ideas. We will see that they lead to a solution notion that while somewhat “looser” than Nash equilibrium, is still fairly “tight;” in particular, in two-person zerosum games, it does yield precisely the value. Auxiliary use will be made of the concept of correlated equilibrium. The lecture is based on joint work with Jacques Dreze.

**Recommended Readings:**

R. Aumann and J. Dreze, “Rational Expectations in Games,” American Economic Review 98 (2008), pp. 72-86.  
<http://www.ma.huji.ac.il/raumann/pdf/86.pdf>  
Wikipedia: Correlated Equilibrium  
[http://en.wikipedia.org/wiki/Correlated\\_equilibrium](http://en.wikipedia.org/wiki/Correlated_equilibrium)

**Peter A. Diamond**  
**Search and Macro**

At any time, a modern economy has both unemployed workers and posted vacancies. Thinking about this fact in a static setting might lead one to think there is a serious mismatch between the workers and the jobs, in skills or in location, for example. Or it might lead one to think that the primary problem is that wages are not at the right levels to clear the markets, referred to as “sticky wages” since wages are not changing adequately as circumstances change. A search perspective puts these two ideas into a richer, more informative context. That is, the quality of matches between workers and jobs matters, and limited rates of wage change matter, but understanding the extent and effect of these two issues is best done in a dynamic setting.

Basic search analyses of the labour market for “normal times” proceed by taking the value of a worker to a firm as given primarily by technology; and the value to a worker

of being without a job as given by preferences (and unemployment insurance). This is partial equilibrium modeling, leaving out the role of the output market. As a method of capturing labour market outcomes around turning points in the business cycle, analyses have examined the dynamics of an economy when these exogenous values shift. However, this still leaves the critical task of endogenizing the values of production and the costs of lack of work. That task is particularly important for times of high unemployment.

While commonly referred to both as changes in the “value of output” and as shocks to “productivity,” the broad range of changes around turning points is strongly supportive of an aggregate demand interpretation. While the term “productivity” may be useful metaphoric shorthand, we should not think that output per worker provides a reasonable measure of the value of additional output for business cycle analysis. With a Walrasian output market, productivity does measure the value of output, but with a search model of the output market, and so a limited ability to make sales, productivity is not necessarily a good measure of the value of output.

In other words, a labour market model is a partial equilibrium model, not a general equilibrium model. As such it can shed light on partial equilibrium questions and partial equilibrium aspects of general equilibrium issues, but can not, by itself, fully evaluate general equilibrium questions, such as the role of aggregate demand stimulation. Combining a frictional labour market with a Walrasian output market seems likely to miss some important links that matter for policy design for extended periods of high unemployment. While the bulk of search analyses have focused on the labour market per se, search also has been used to see how the presence of frictions affects the aggregate economy.



Economics Meeting



**Eric S. Maskin**  
Elections and Strategic Voting: Condorcet and Borda  
Available Online



**Daniel L. McFadden**  
Sick Insurance: Adverse Selection and Regulation of Health Insurance Markets  
Available Online

**Eric S. Maskin**  
**Elections and Strategic Voting: Condorcet and Borda**

There are many different voting rules that could be used to elect a public official such as a president. Plurality rule (first-past-the-post), majority rule (Condorcet’s method), rank-order voting (Borda count), and runoff voting are just a few of the rules that have been used practically and studied theoretically. One way to decide which rule is “best” is to proceed axiomatically. We can specify a set of desiderata (axioms) that we would like a voting rule to satisfy and then determine which rule(s) come closest to satisfying them.

Unfortunately, the best-known result in the voting literature is negative: the Gibbard-Satterthwaite theorem implies that there is no voting rule that always satisfies the following axioms: Pareto efficiency, anonymity (all voters should be treated equally), neutrality (all candidates should be treated equally), decisiveness (there should be a clear-cut winner), independence of irrelevant alternatives (the election outcome should be insensitive to removing marginal candidates from the ballot), and strategy-proofness (there should be no incentive to vote strategically, i.e., to vote for candidate A even though one prefers B).

We show, however, that there is a sense in which majority rule satisfies these axioms more often than any other. If we drop the independence axiom, then majority rule and rank-order voting jointly satisfy the axioms the most often.

**Daniel L. McFadden**  
**Sick Insurance: Adverse Selection and Regulation of Health Insurance Markets**

When heterogeneity in consumer tastes and needs, and in cost and quality of products, are publically observable, markets can price, sort, and match these variations, and product choices made by consumers yield demand signals that foster efficient resource allocation. These conditions hold, roughly, for a broad swath of economic activity, allowing lightly regulated private markets to successfully approximate allocative efficiency. However, in health care systems around the globe today, participants do not necessarily see the big picture of lifetime health costs and quality of life, and in many systems the incentives that consumers and providers face do not promote efficient allocation of health care resources. Information asymmetries are the fundamental source of difficulties in health insurance markets and in efficient provision of health services. Additional factors contributing to poor performance of health markets include

- (1) government regulation that is intended to protect the disadvantaged and promote equity, but creates incentives antagonistic to allocative efficiency,
- (2) inefficient provider organisations and non-competitive conduct, sometimes sheltered by government policies, and
- (3) behavioural shortcomings of consumers in promoting their own self-interest, including inconsistent beliefs regarding low-probability future events, myopia, and inconsistent risk assessment.

The seminal contributions to economic analysis of Kenneth Arrow, George Akerlof, Joe Stiglitz, Mike Spence, Mike Rothschild, and John Riley establish that when there are information asymmetries between buyers and sellers, adverse selection, moral hazard, and counter-party risk can result, causing markets to operate inefficiently or unravel. Asymmetric information between buyers and sellers, or market regulations that restrict competitive underwriting and force common prices for disparate products, can induce adverse selection. Moral hazard occurs when effort to avoid risks cannot be observed by sellers

and stipulated in insurance contracts, and buyers have less incentive for risk-reducing effort when some of their potential losses are covered. When the productivity and cost of medical interventions is not known to all parties, then buyers and third-party-payers may not make informed decisions on therapies. Counter-party risk occurs when sellers evade payment of benefits for losses, or fail as agents to respect the interests of the consumers who are their principals. Adverse selection of buyers with high latent risk or low risk-reducing effort, or sellers with high counterparty risk, make insurance less attractive to buyers, and may cause insurance markets to unravel. Administrative overhead will induce less than full insurance. By itself, this does not make insurance market outcomes inefficient, but increasing returns to scale in administrative costs may lead to an inefficient concentrated market.

In principle, the problems of asymmetric information can be overcome by government operation or regulation of health services; in practice, there remains a major mechanism design problem of designing incentives that handle the asymmetries; e.g., “single payer” systems permit additional levers of control, but information asymmetries cause principal-agent problems even in command organisations. Legal mandates and regulations can make adverse selection worse. Government policy on private health insurance markets often reflects a social ethic that individuals should not be denied health care because of inability to pay, expressed for example in requirements that hospitals admit uninsured patients with life-threatening conditions, and a social ethic that insurance contract underwriting should not be based on risk factors such as gender, race, and preexisting conditions. When these requirements are not publically financed, they are implicit taxes on insurers and providers that are at least in part passed through to consumers as higher premiums that increase the effective load for low-risk consumers. Both the higher loads and the prospect of public assistance as a last resort reduce the incentive for consumers to buy insurance and to pay (or copay) for preventative care.

The United States has, more than any other developed country, relied on private markets for health insurance and health care delivery. These markets have performed poorly.



**Sir James A. Mirrlees**  
**Poverty, Inequality, and Food**  
Available Online

Denials and cancellations, exclusion of pre-existing conditions, and actuarially unattractive premiums have left many Americans with no insurance or financially risky gaps in coverage. Administrative costs for health insurance in the United States are seven times the OECD average. These are symptoms of adverse selection. Delayed and inconsistent preventative and chronic care, arguably induced by incomplete coverage, have had substantial health consequences: the United States ranks 25<sup>th</sup> among nations in the survival rate from age 15 to age 60. This impacts the population of workers and young parents whose loss is a substantial cost to families and to the economy. If the U.S. could raise its survival rate for this group to that of Switzerland, a country that has mandatory standardized coverage offered by private insurers, this would prevent more than 190,000 deaths per year.

Given the damage that information asymmetries can inflict on private market allocation mechanisms, the obvious next question is what regulatory mechanisms can be used to blunt or eliminate these problems. This involves examining closely the action of adverse selection and moral hazard, and the tools from principal-agent theory and from regulatory theory that can blunt these actions. There is an extensive literature relevant to this analysis that can be focused on the regulatory design question. Less well investigated are the impacts of consumer behavior, particularly mistaken beliefs. This paper examines these issues, and studies the impacts of regulations intended to promote equity and efficiency. More practically, this paper investigates these issues with reference to the private market in the United States for prescription drug coverage for seniors, introduced in 2006 and subsidized and regulated as part of Medicare.



**Robert A. Mundell**  
**Currency Wars, Euro-Mania and the Price of Gold**  
Available Online

**Sir James A. Mirrlees**  
**Poverty, Inequality, and Food**

Poverty can be reduced by economic growth and by redistribution. Growth in the form of industrialization reduces poverty mainly by drawing people into urban areas and employing them at wages above the poverty line; and to some extent increases rural incomes by reducing labour supply in rural areas. Agricultural growth has a more direct impact, since it increases the incomes of poor farmers, farm workers, and rural households generally. Direct transfers, whether money or in kind, or better schools, clinics roads and other public services, or even land redistribution, may be a more effective policy, though the administrative difficulties may be large. The relative efficiency of these different policies, within developing economies such as China, and in the world economy as a whole, will be discussed.

The impact of food prices on poverty has received much attention in the last few years. Food prices have shown large fluctuations in these years, after a long period when they had remained relatively stable. The demand function for food will be discussed, and a small general equilibrium model constructed, using a simple food-demand function. It will be used first to consider how sensitive food prices might be to variations in supply, and to examine the likely impact on poverty. The model will then be applied to consider the influence of poverty-reduction policies, particularly income transfers, on food prices. Food prices will be shown to rise, possibly a great deal, depending on supply response, if poverty is successfully reduced. We shall look at implications for the desirable level of transfers.

**Robert A. Mundell**  
**Currency Wars, Euro-Mania and the Price of Gold**

This paper reviews the evolution of international monetary phenomenon over the past century and makes the case for restoring an international monetary system anchored to a stable global currency. It argues that since the Bretton Woods System broke down in 1971, the international economy has experienced crises of a frequency and severity not seen in centuries. The oil crises of the 1970s, the savings and loan and international debt crises of the 1980s, the Asian Crisis of the 1990s, and the crisis fiascos of 2007-9 were all strongly affected if not caused by huge swings of major currencies. The sub-prime mortgage crisis of 2007 was transformed into the great panic of the third quarter of 2008 by tight money, reflected in the soaring dollar, collapsing price of oil, steep fall in the gold price and the dramatic collapse of the change in the U.S. consumer price index from 5.5% in June 2008 to 0% in December to negative in the first half of 2009. The soaring dollar aggravated the downturn in the housing market and chased foreign suitors of the failing banks away. When Lehman went bankrupt, confidence was shattered, credit markets dried up and trillions of dollars of bailout money did not restore equilibrium. The Sarkozy Proposals for reform of the international monetary system have addressed three problems: the instability of raw material prices, the instability of major exchange rates and the need for improved governance of the system. This critique is correct in my view and could be addressed if the dollar-euro rate were stabilized within limits with monetary coordination between the Fed and the ECB. The stabilization could be achieved with each country supporting the other countries currency at its lower bound. China could join the group to make it a triad, the DEY, which could be designated for a renewable period of ten years as the anchor for a global currency in which all IMF members are included.



Economics Meeting



**Roger B. Myerson**  
**A Model of Moral-Hazard Credit Cycles**  
Available Online



**John F. Nash, Jr.**  
**Ideal Money and the Motivation of Savings and Thrift**  
Available Online



**Edmund S. Phelps**  
**Modeling Corporatist Economies of the West and Those of North Africa**  
Available Online

**Roger B. Myerson**  
**A Model of Moral-Hazard Credit Cycles**

This paper considers a simple model of credit cycles driven by moral hazard in financial intermediation. Investment advisers or bankers must earn moral-hazard rents, but the cost of these rents can be efficiently spread over a banker’s entire career, by promising large back-loaded rewards if the banker achieves a record of consistently successful investments. The dynamic interactions among different generations of bankers can create equilibrium credit cycles with repeated booms and recessions. We find conditions when taxing workers to subsidize bankers can increase investment and employment enough to make the workers better off.

The full paper is available at  
<http://home.uchicago.edu/~rmyerson/research/bankers.pdf>

**John F. Nash, Jr.**  
**Ideal Money and the Motivation of Savings and Thrift**

There are many things that can be said about the advantages, for a national state or for a “currency area”, of there being a money (or “currency”) in use there which is of higher quality (that is, being less subject to currency inflation or ideally exempt from this form of inflation (which derives, ultimately, from sovereign default). But at this time and occasion we wish to focus on the economic processes of “savings”, to the extent that these occur and to study how these are influenced by the apparent “quality” of the money established by a national government (or by a confederation in some cases). There are also related issues of justice, applicable to contracts that deal with delayed payments and receipts. Connected also with these considerations are considerations of what monetary and financial circumstances might favour the existence of large numbers of profitably employed financial workers (these perhaps including some mathematical “quants”) in localized centers like London or Zuerich.

**Edmund S. Phelps**  
**Modeling Corporatist Economies of the West and Those of North Africa**

Classic corporatism, such as Mussolini’s, sought to restructure the capitalist economy so as to speed economic growth—growth of productivity and national power—beyond the capacity of Continental capitalism. This meant more state initiative in the public sector and more state direction in the private sector. This quest was to be subject to “solidarity” and “social protection.” That meant “concertation” with the “social partners,” subsidies for regions or industries, and social charges. Put equivalently, the state took whatever measures it deemed desirable in the name of solidarity and protection, constrained by the need to show efforts to restore growth whenever the economy flagged.

This system, in which, in principle, the state may intervene at its own discretion without any restraints, poses serious moral hazards. Self-interested legislators are apt to use their votes, and agency heads their powers, to award projects in order to win the support of interest groups that can keep them in office. For those in office dispensing patronage, it is more convenient to award clients and cronies monopoly power than to award them contracts paid with scarce tax revenue. The gain of these “insiders” disadvantages “outsiders,” who may be unable to start a business, break into an industry or have a rewarding career—whether or not “protected” with subsidies for medical care, food and heat. This is the burden of extreme corporatism: the deprivations for few or many of basic goods like careers, which are not morally compensated by the spoils of the advantaged, few or many.

In Tunisia the insiders were those well connected to the ruling family and in Egypt the insiders were the members of the military, who had a share in the ownership or management of privatized enterprises. The youth protesting in Tunis and Cairo wanted to start businesses, enter industries, compete for places in companies and see an end to excessive licensing.

Now, in corporatist Tunisia, foreign banking interests are teaming up with Tunisian insiders to launch a new round of infrastructure projects, including important initiatives in the desert. These projects would not contribute to the advancement of the young Tunisians, who are looking for a career, not temporary construction work. In Egypt, the interim government and the military seek loans to start new infrastructure projects. In the past, if projects do not pay back, the IMF made it possible for governments in fiscal trouble to pay back their creditors. With the repayment of the loan from the IMF, the latter signaled it was safe for private creditors to resume lending, secure in the knowledge the IMF will guarantee repayment again.

In corporatist Europe, a new sort of alliance has emerged. The politicians want sovereign bonds rated risk-free in order to be able to borrow at very low interest rates and the banks want sovereign debt to be rated so risk-free that no capital is required against bank holdings of these assets. This was accomplished through an implicit commitment to bail out a government in the event that it has serious difficulty servicing its sovereign debt. This alliance may seem to benefit the insiders, both the politicians and the banks. But the implicit bond guarantees impose costs on the public. The economic system would work better if creditors bore the risk of the state’s default and set interest rates correspondingly high. That way, the state would no longer have an artificial advantage in debt markets over the private enterprises that borrow—an advantage on top of the advantage the state derives from its ize and whatever reputation it can establish. And the governments will no longer be subsidized to take the risks caused by heavy debt levels.

Economics Meeting



**Christopher A. Pissarides**  
**The Future of Work in Europe**  
Available Online



**Edward C. Prescott**  
**The Current State of Aggregate Economics**  
Available Online



**Myron S. Scholes**  
**Quantitative Finance and the Intermediation Process**  
Available Online



**Reinhard Selten**  
**Reaching Good Decisions without Utility and Probability Judgements—The Approach of Bounded Rationality**  
Available Online

**Christopher A. Pissarides**  
**The Future of Work in Europe**

Employment in Europe is still behind the targets set by European leaders more than ten years ago. Although in some countries the targets of 70 per cent employment rate for men and 60 per cent for women are met, in others they are not likely to be met in the near future, especially for women. Employment rates for the over-55 year old are also too low, compared with the objectives. With an ageing population and still high unemployment rates, questions arise whether we are entering a new era of low employment rates, high taxes to finance increasingly expensive pensions and high unemployment.

Yet when comparing European employment patterns with US patterns, and when looking at trends, it emerges that Europe is still behind America in the creation of jobs in business services and in the health and education sectors. Health and education in Europe is largely funded by governments, and this might explain why there is restraint in the creation of more jobs. The fiscal costs might be too high for voters. Business services need to operate in a flexible environment, because in a regulated market firms might prefer to service their own business internally. The presentation will review the work patters in Europe and compare them both across Europe and with America, and reach conclusions about the type of jobs that can be created in Europe to satisfy the overall employment objectives of the Union.

**Edward C. Prescott**  
**The Current State of Aggregate Economics**

This is the golden age of aggregate economics. So much has been learned, and so much more remains to be learned. Economists use theory and economic statistics to construct a model economy and determine the quantitative answer to a given question. The model used, which is an instrument to draw scientific inference, is an abstraction of a complex reality. Economists following this discipline come up with the same answers independent of their political persuasions. I will briefly review the successes of this methodology in explaining why economies display business cycle fluctuations. I will review work that uses this methodology to answer questions in financial economics, in trade, in development, in prosperity and depressions, and in public finance. I will discuss deviations from theories that need resolution as well as the successes. The nature of shocks is important. With totally free preferences and technology, general equilibrium theory is vacuous. A model can be constructed which gives any answer that might be sought.

Micro observations are increasingly used to test the aggregate model being used. Everyone using this methodology finds that only a high willingness of the aggregate household(s) can account for the aggregate behaviour of labour supply. The micro observation for full-time, continuously working males is that there is little variation in hours worked associated with variation in compensation per hour. This suggests to those ignorant of aggregation theory that the aggregate willingness is small. If the variation in labour supply is primarily in the number working and not in hours per working person, aggregation theory predicts that the aggregate labour supply elasticity should be as it is, much larger than the labour supply elasticity of the people being aggregated.

Some important puzzles remain: Why are the empirically determined gains from openness so much bigger than those predicted by any of the three trade models? Why is the stock market so volatile? What gave rise to the Great Depression? Why is there now such great disparity in average consumption across countries?

**Myron S. Scholes**  
**Quantitative Finance and the Intermediation Process**

Discuss ways in which to earn returns in finance and the role of quantitative finance in each. Intermediation is one way to earn returns, and is the entire backbone of all of economics and business. To intermediate, entities must decide on these major issues: (i) levels of capital, (ii) capital structure, (iii) optimization technologies, (iv) level of risk taking, (v) compensation policies, (vi) feedback systems, (vii) management systems. Many of these need to be augmented and developed in quantitative finance. These map into questions associated with bank capital (under Basil III) and financial regulatory policy.

**Reinhard Selten**  
**Reaching Good Decisions without Utility and Probability Judgements—The Approach of Bounded Rationality**

We give an introduction to the notion of Bounded Rationality. In accordance with experimental evidence, Bounded Rationality is a theory of decision-making not reliant on the decision-maker's capability to form consistent probability and utility judgments. As a general building block of a theory of Bounded Rationality, we sketch Aspiration Adaptation Theory, an approach to decision-making based on multiple incomparable goals, and briefly outline recent experimental results demonstrating its descriptive and prescriptive validity.





**William F. Sharpe**  
**Post-Retirement Economics**  
Available Online

**William F. Sharpe**  
**Post-Retirement Economics**

This lecture is concerned with the economics of financial strategies regarding the use of accumulated funds by an individual or couple after retirement. More specifically, I consider an investor or pair of investors with a fixed amount of money to be used to finance consumption and possibly bequests over a finite period of future years.

My goal is to develop a framework for evaluating a proposed strategy of this type, then use it to analyze some generic approaches based on industry practice.

To keep the analysis simple, I do not take into account other sources of income, liabilities, real property, insurance, taxes and other important aspects that may need to be considered in actual cases.

In most of the paper I follow the approach used in many papers in practitioner journals, assuming a fixed period of 30 years over which payments are made, without regard for mortality and the consequences for possible recipients of the fund (the initial investor or investors or beneficiaries). I will, however, argue that any of the strategies considered could be used as the basis for an annuity offered to a pool of investors with similar projected mortality probabilities, with such an annuity offered for a lower initial investment.

I use a relatively standard capital market model in which annual real returns on a diversified global portfolio of bonds and stocks are independent and identically distributed and follow a lognormal distribution for every horizon from one to multiple years. I employ an Arrow-Debreu state-price model and assume that only this global bond/stock portfolio is priced for any horizon. This determines a pricing kernel that can be used for valuation of any possible set of state-contingent cash flows. Moreover, for any given post-retirement financial strategy, the pricing kernel it can be utilized to infer functions for each multi-year horizon that would represent the marginal utility functions of any investor with time-separable utility for which the strategy is optimal.



**Joseph E. Stiglitz**  
**Imagining an Economics that Works: Crisis, Contagion and the Need for a New Paradigm**  
Available Online

Finally, I use this set of analytic tools to examine the properties of a few strategies based on industry practice, focusing on multiyear probability distributions of income, values of prospects for different horizons, and suitability for investors with different types of preferences.

**Joseph E. Stiglitz**  
**Imagining an Economics that Works: Crisis, Contagion and the Need for a New Paradigm**

The standard macroeconomic models have failed, by all the most important tests of scientific theory. They did not predict that the financial crisis would happen; and when it did, they understated its effects. Monetary authorities allowed bubbles to grow and focused on keeping inflation low, partly because the standard models suggested that low inflation was necessary and almost sufficient for efficiency and growth. Advocates of capital market liberalization argued that it would lead to greater stability:

countries faced with a negative shock borrow from the rest of the world, allowing cross-country smoothing. The crisis showed the deep flaws in this thinking, but policymakers have been slow to rethink the paradigms they relied on. There is a need for a fundamental re-examination of the models. This lecture first describes the failures of the standard models in broad terms, and then develops the economics of deep downturns, and shows that such downturns are endogenous. Further, the lecture will argue that there have been systemic changes to the structure of the economy that made the economy more vulnerable to crisis, contrary to what the standard models argued. In particular, the lecture will explore how integration can exacerbate contagion; and how a failure in one country can more easily spread to others. There are conditions under which such adverse effects overwhelm the putative positive effects. Finally, the lecture will contrast the policy implications of our framework with those of the standard models; for instance, how capital controls can be welfare enhancing, reducing the risk of adverse effects from contagion.



**Joseph E. Stiglitz,**  
USA, Economic Sciences, 2001

“With the world still reeling from the financial crisis and widespread economic uncertainty persisting, the need for new economic thinking is more pressing than ever. The Lindau Meeting is an ideal venue for advancing the discussion.”



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## Closing Day



The closing panel of the 4<sup>th</sup> Meeting on Economic Sciences took place at the University of St. Gallen, Switzerland.





Thomas Bieger, President of the University of St. Gallen, welcomed participants to the closing panel.



State Minister Karin Keller-Sutter, President of the Government of the Canton of St. Gallen, thanked the organisers for enriching international relations through the Lindau Meetings.

## Closing Day

The Lindau Nobel Laureate Meetings are deeply rooted in the Lake Constance region, none more so than the Meetings on Economic Sciences. While the opening day and the main part of the scientific programme took place in Lindau, the session with the closing panel was hosted by the University of St. Gallen. As at all Lindau Meetings, the official farewell ceremony for the participants was held on Mainau Island.

### Closing Panel in St. Gallen

The University of St. Gallen offered an outstanding setting for the meeting's closing day and the discussion moderated by Martin F. Hellwig, "From Financial Crisis to Debt Crisis—Financial Markets, Monetary Policy and Public Debt".

The President of the University of St. Gallen, Thomas Bieger, welcomed the meeting participants to St. Gallen. "The University of St. Gallen is proud to host this outstanding event with so eminent people," he said. Looking at the different stops of the participants during that last day of the meeting, Thomas Bieger said: "You truly go on an international travel today through Bavaria, Switzerland and Baden-Württemberg. The Lake of Constance is a culturally

rich region with a history of cooperation and exchange between countries since the medieval times." Speaking in front of Economics Laureates and Young Economists from around the globe, he stated that an "integrated understanding of culture, politics, economics and law is necessary to solve today's problems of the economies".

Canton State Minister Karin Keller-Sutter welcomed Germany's Minister of Finance Wolfgang Schäuble to the stage after the panel discussion. In her speech, she thanked the organisers for enriching international relations through the encounters that took place during the Lindau Meeting. She emphasized the importance of "transdisciplinarity as guiding principle" of the 21<sup>st</sup> century. "Only when you possess expertise in your own discipline and openness to the findings of other specialists, can better—in other words: more sustainable—solutions and common language be found," said Karin Keller-Sutter.

In his closing remarks, Wolfgang Schäuble emphasised that in his view regaining credibility is probably the biggest challenge facing the governments of developed Western nations. He said that governments needed to be capable of finding a longer-term solution to the structural problems that have come to light, and that they had to ask themselves how they could find their way back onto a sustainable development path. He sees the global econ-

### Closing Panel at the University of St. Gallen



The panel "From Financial Crisis to Debt Crisis—Financial Markets, Monetary Policy and Public Debt" with William F. Sharpe, Myron S. Scholes, moderator Martin F. Hellwig, Roger B. Myerson and William R. White (from left).

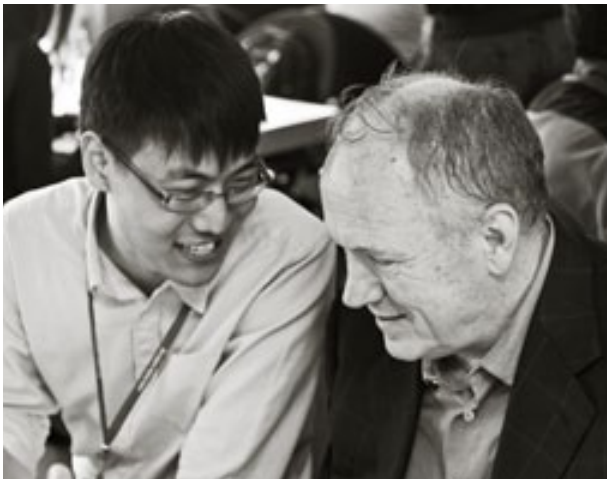


Countess Bettina Bernadotte followed the discussion together with Karl Güntzel, President of the Cantonal Parliament of St. Gallen.



Germany's Minister of Finance Wolfgang Schäuble emphasised in his closing remarks his view that regaining credibility is probably the biggest challenge facing the governments of developed Western nations right now.





The boat trip to Mainau Island offered manifold opportunities for personal exchanges between Laureates (here Edward C. Prescott) and Young Economists.

omy facing “seven hard years” of consolidation. In light of these challenges, he called for a new balance between the financial sector and the state.

Farewell Ceremony on Mainau Island

After a scenic boat cruise to Mainau Island, the official farewell ceremony for all participants was held in the courtyard of the Bernadotte family’s castle. In his speech, Economics Laureate Roger B. Myerson referred to the slogan of the Lindau Meetings: “Educate. Inspire. Connect”. He said he had made many new and valuable connections in the past few days and hoped the Lindau network would hold. “And I hope the Young Economists have learned as much as I have.” On behalf of the Young Economists from across the globe, Daniel Beltran from the USA thanked the Council, the Foundation and the employees of the Lindau office for the past few days and their perfect organisation. He called on his fellow economists from 65 countries to do more to ensure that politicians and the public at large are able to understand what is going on in the economy, and guide it in the right direction in the interest of humanity. Finally, Countess Bettina Bernadotte wished the participants a pleasant journey and called upon them to take home what they had learned in Lindau and incorporate it in their own work.



Roger B. Myerson (from left), Countess Bettina Bernadotte and Young Economist Daniel Beltran after the closing ceremony on Mainau Island.

Foundation Dinner

The Foundation Dinner of the Foundation Lindau Nobel-prizewinners Meetings at Lake Constance has become, in the meantime, a firm feature in the calendar for representatives of the scientific, business and political spheres and the world of foundations. And so it was no different with the 4<sup>th</sup> Meeting on Economic Sciences: the Foundation Board invited guests to an evening of exchange and dialogue on Mainau Island. The guest list included two members of the Honorary Senate of the Foundation, the newly inducted Ulrich Grete (Ecoscientia Foundation) and Malcom D. Knight (Deutsche Bank AG). Also among the guests were Alexander Biner (MS Management Service AG), Rudolf Böhmler (Deutsche Bundesbank), Alexander Erdland (Wüstenrot & Württembergische AG), Rainer Esser (Zeitverlag Gerd Bucerius GmbH & Co. KG), Michael Heinz (BASF SE), Stefan Kölliker (Governing Council of St. Gallen), Ulrich Rüdiger (University of Constance), Andreas Schlüter (Stifterverband für die Deutsche Wissenschaft) and Carl Christian von Weizsäcker (Max Planck Institute).



From left: Wolfgang Schürer, Michael Heinz, BASF SE, Monika Schürer, Peter Frankenberg, Heinrich-Vetter-Stiftung, and Rudi Bogni.



From left: Johannes Graf von Schmettow, Alexander L. Dembitz, Viveka Ringren, and Peter Englund, Scientific Chairman, Stockholm School of Economics.



From left clockwise: Theresa Grete, Uwe Birk, Mayor of Lindau, Philipp Haug, Renate Böhmler, Willi Stächele, Member of Parliament in Baden-Württemberg, Countess Bettina Bernadotte, Ulrich Grete, Ecoscientia Foundation, new member of the Foundation’s Honorary Senate, Rudolf Böhmler, Deutsche Bundesbank, and Stefan Kölliker, Governing Council of St. Gallen.



From left: Malcolm D. Knight, Deutsche Bank AG, Florence Bogni, Thomas Hess, Swiss Re, Alexander Erdland, Wüstenrot & Württembergische AG, Wolfgang Schürer.



From left: Martin F. Hellwig, Scientific Chairman, Max Planck Institute for Research on Collective Goods, Nobel Laureate Daniel L. McFadden, Andreas Böhm, Sabine Schulze, Johann Buttinger, Deutsche Bank AG.



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## Social Programme

Sir James A. Mirrlees and a Young Economist at the conference venue Inselhalle.



# Social Programme

The Lindau Meetings are characterised by a unique atmosphere of dialogue, embracing internationality, interdisciplinarity, and the free exchange of opinions, ideas and experience. Enabling personal encounters between Laureates and Young Economists is an essential feature of the meetings. The social programme—including a get-together evening, various dinner events, Science Breakfasts and a cruise to Mainau Island—is therefore an integral part of the meetings.

## Get-together evening

This year, the get-together evening was held on the opening day. Laureates, Young Economists and numerous guests of honour assembled in the Inselhalle in Lindau for an evening of lively dialogue. The event offered plenty of opportunities for encounters between participants: as table neighbours, in a personal conversations or on the dancefloor, which was opened after dinner. The band “Martin Stark and friends” catered for just the right mood for dance. The Lindau Meetings are a platform for networking between international scientists. The get-together evening gave all participants the opportunity to make new acquaintances and get to know each others better.

## Dinners

After an eventful Thursday (see programme page 44), the Council and the Foundation invited participants to several dinners in restaurants all over Lindau. This evening offered yet another opportunity for exchange, this time in smaller groups. The participants appreciated the relaxed atmosphere, which allowed for intense discussions.



Roger B. Myerson and a group of Young Economists during the get-together evening.



From left: Roland Doschka, curator of the celebrated exhibition “Pablo Picasso” in Lindau, and Alexander Warmbrunn, head of the cultural office of the city of Lindau, met Nicolas Berggruen of Nicolas Berggruen Holdings at the get-together evening.



Christopher A. Pissarides and participants.



Edmond S. Phelps joined Young Economists for dinner who had been nominated for participation in the meeting by the business paper Handelsblatt.



Robert J. Aumann during one of the joint dinners for all participants.



Science Breakfasts

Science Breakfasts provided an additional opportunity for informal exchange between Laureates and Young Researchers. Science Breakfasts can vary in their arrangement, featuring talks, discussions or just a joint breakfast with a Laureate. During the 2011 Economics Meeting, two Science Breakfasts were held, one hosted by the GfK Group, the other by the European Bank for Reconstruction and Development (EBRD). They both took place, early on Friday morning.

GfK Science Breakfast

The Science Breakfast hosted by the biggest German market research company had the title “Consumption during the crisis”. Three panelists, Economics Laureate Edward Prescott, the CEO of the GfK Group Klaus Wübbenhorst and Young Economist Maria Gerhardt from Germany debated and took questions from the audience. The discussion was moderated by economics journalist Romesh Vaitilingam. In his opening speech, Klaus Wübbenhorst outlined that planning security and confidence are essential prerequisites for strong consumption and painted a rather optimistic picture of the German consumption behaviour. Edward Prescott then pointed out that there is also a strong need for secure savings opportunities, if consumer confidence is to be built, especially for exporting countries like Germany. In her ensuing remarks, Young Economist Maria Gerhardt eventually focused on the importance of a stable banking system for healthy consumption. While the German banking system took the recent international crises rather well, political uncertainty could destabilise the sector, causing a lower availability of loans and thus lower consumption, Gerhardt said.

EBRD Science Breakfast

Can Europe’s economic governance be fixed? This was the question on the menu for a Science Breakfast chaired by Olaf Storbeck of the German business daily “Handelsblatt”. Joining him was Sir James Mirrlees, the 1996 Economics Laureate, Jeromin Zettelmeyer of the European Bank for Reconstruction and Development and the Young Economist Sujit Kapadia, nominated by the Bank of England. This was an informal and off-the-record discussion. Leaping to defend the euro, one Young Economist pointed out that the UK has hardly been immune to the problems in Europe. Its banking system has been nationalised and economic output is down significantly despite having its own currency. The conversation moved to suggested solutions, among which was the idea of a ‘Eurobond’. These bonds would combine the debt of all euro area countries and share out the burden between them. Combined, the euro area countries have a lower debt-to-GDP ratio than, say, the US. However, the political barriers to such a move were clear. In effect, wealthier, more stable economies such as Germany and Denmark would guarantee the debt of Mediterranean countries.

For many, the solution was summarised by Christoph Trebesch, a Young Economist nominated by the Free University in Berlin: “Only a political breakthrough will solve this mess”.

Science Breakfasts



The Science Breakfast hosted by GfK featured a panel with the CEO of the GfK Group Klaus Wubbenhorst (second from left), Economics Laureate Edward Prescott, and Young Economist Maria Gerhardt from Germany. The panel was moderated by economics journalist Romesh Vaitilingam (left).



Young Economists were invited to engage into the discussions at the Science Breakfasts.



The Science Breakfast hosted by the EBRD with Jeromin Zettelmeyer of the EBRD (second from left), Economics Laureate Sir James Mirrlees and Young Economist Sujit Kapadia. It was chaired by Handelsblatt economics editor Olaf Storbeck (from left).



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

Communications

Economics Meeting

More than 150 journalists covered the 2011 Economics Meeting. The image shows the arrival of Federal President Christian Wulff at the Inselhalle.



## Communications

More than 150 journalists from 23 countries reported from the 4<sup>th</sup> Lindau Meeting on Economic Sciences and many media organisations in Germany and abroad made use of the agencies reporting directly from Lindau, including Reuters, Bloomberg, Xinhua and dpa. The meeting topics received extraordinarily wide coverage, particularly in light of the current public debate on the financial and debt crises, and owing to the opening speech by German President Christian Wulff. A partnership was launched with Palgrave Macmillan for the Economics Meeting to make the content and debates accessible to a wider audience.

The Bank for International Settlements and 44 central banks, which also nominated Young Economists for the meeting, supported the communications team in the run-up to the 4<sup>th</sup> Meeting on Economic Sciences by addressing the relevant international media. Romesh Vaitilingham, an expert in the communication of economic information to the public at large, also supported the team. In particular, he raised the awareness of the English-speaking media about the meeting. He also worked with several Young Economists on media briefings, where certain aspects of the academic work of participants were presented. These presentations were also distributed to journalists prior to and during the meeting, setting out the future of economics to media representatives.

During the meeting, a daily newsletter was distributed by the communications department to all participating journalists and a large number of editorial departments in Germany and abroad. Daily German and English versions were produced. With daily summaries, short interviews with the Laureates and information on the research work of Young Economists, it provided a much-appreciated service, as was confirmed by feedback from journalists. Romesh Vaitilingam and Bob Denham produced the English version, while Sabine Kwapik wrote the German one.

In light of the public debate about the financial and debt crises, there was great interest from journalists in Ger-



Major German and international newspapers covered the meeting.

many and abroad in obtaining information on solutions to the crises from Economics Laureates in Lindau. Over 150 journalists from 23 countries were accredited. Almost 1,500 articles on the meeting were published in Germany within the first two days alone.

## Partnership with Palgrave Macmillan

In addition to the partnership with the Nature Publishing Group for the Meetings on Natural Sciences, the Foundation Lindau Nobelprizewinners Meetings at Lake Constance entered into a joint initiative with Palgrave Macmillan for this Meeting on Economic Sciences. Palgrave Macmillan is a global publisher, serving learning and scholarship in higher education and the professional world. They have an established and distinguished track record in international academic publishing with considerable strengths in the humanities, social sciences and business. The academic publishing programme includes textbooks, journals, monographs, professional and reference works in print and online.

The cooperation initiative involved the production of educational videos and a joint book project. Palgrave Macmillan also provided relevant publications of the participating



## Video Project with Palgrave Macmillan

## Introducing the 4<sup>th</sup> Meeting on Economic Sciences at Lindau

This film is an overview of the 2011 Lindau Meeting on Economic Sciences, featuring on location interviews with Laureates and Young Economists. The film explores the “special energy” of the scientific meetings in Lindau as well as the origins of the Economics Meetings. Held in the midst of the biggest economic crisis since the Great Depression, the 2011 meeting was an amazing opportunity for intergenerational dialogue on the most pressing issues in the world today.

## Behavioural Economics and the Changing Profession

Behavioral Economics has been a thriving area of research for some time, but the current economic crisis has brought many of the core ideas of the subject, such as crowd behavior and rationality, to the fore. In this provocative short film, Laureates and Young Economists at the 2011 Lindau Meeting on Economic Sciences, discuss the intellectual contribution of behavioural economics, examine its place within the discipline of economics, and discuss where it must go in order to have a future. On the theme of scientific progress, the film closes with some lively discussion on the openness of the field to the influence of other social sciences. Featuring Laureates George A. Akerlof, Robert J. Aumann, Eric S. Maskin, Daniel L. McFadden, and Edmond S. Phelps.

## The Laureates on the Crisis

The global economic crisis triggered by the 2008 collapse of the US housing market has forced economists to re-examine the models used by policy makers and central bankers to guide macroeconomic policy, as well as those used in the banks and other financial institutions to manage risk. This short film, shot on location at the 2011 Lindau Meeting on Economic Sciences and featuring interviews with Young Economists and with Laureates Joseph E. Stiglitz, Christopher A. Pissarides, Robert A. Mundell, Daniel L. McFadden, and Roger B. Myerson, presents fresh perspectives on the major causes of the crisis as well as its effect on economic research.





All major German TV stations reported from the meeting, including ARD, ZDF, RTL and n-tv.



The 4<sup>th</sup> Meeting on Economic Sciences received broad national and international media coverage.



Thanks to the support of the International Lake Constance Conference (IBK), lectures and panel discussions held during the meeting are made available online through the new Lindau Mediatheque.

Laureates for meeting participants online on a specially set-up website, and made parts of its extensive content available free-of-charge for a limited time period. This included articles from the highly regarded “Palgrave Dictionary of Economics” and the Palgrave Macmillan Journals in Economics, including the IMF Economic Review.

The educational videos feature one-on-one interviews with Economics Laureates and Young Economists selected among the participants of the 2011 Lindau Meeting. They explore broad themes in economic research as well as participants’ personal perspectives on recent developments in research relevant to the understanding of the causes of the financial crises and their impact. The videos are hosted and made freely available on [www.palgrave.com/lindau](http://www.palgrave.com/lindau), [www.dictionaryofeconomics.com](http://www.dictionaryofeconomics.com), Palgrave Macmillan’s definitive online resource for economists, and by Worth Publishers at [www.youreconportal.com](http://www.youreconportal.com).

The Lindau Foundation and Palgrave Macmillan will also collaborate on a book project which will be edited by and contain contributions from the Laureates. Under the patronage of Economics Laureate Robert Solow the book should serve as an inspiration for pupils and college students to engage in Economic Sciences. Janice Murray who has closely collaborated with Paul Samuelson and Robert Solow is in charge regarding the coordination. Further details will be provided in due course.

## TV and Radio Coverage

All of Germany’s leading television stations and news channels were represented at the meeting in Lindau or on the closing day in St. Gallen with their own teams. With external support, live broadcasts to Greece were also organised. The Turkish business channel CNBC-E reported directly from Lindau in several live broadcasts and conducted interviews with Laureates and other guests at the meeting. As a preview, Bloomberg TV reported live from Lindau a day before the official opening and discussed current economic and financial market issues with Laureates. The Chinese news agency Xinhua also covered the entire meeting with a TV team.

Germany’s international broadcaster, Deutsche Welle TV, covered the meeting extensively and interviewed Economics Laureate Joseph Stiglitz about the current financial crisis and the importance of the Lindau Meeting for the programme “Das Interview”.

The speech by German President Christian Wulff generated great interest among German TV and radio stations. All of the relevant news programmes of public and private broadcasting stations reported on the meeting, with special focus on the speech. Almost 500 reports were produced by German TV and radio stations in the four-week period surrounding the meeting.

## Online Broadcast

Thanks to the support of the International Lake Constance Conference (IBK), videos of the lectures and panel discussions held during the 4<sup>th</sup> Lindau Meeting on Economic Sciences were made available online in the new Lindau Mediatheque (see page 88). Based on smooth streaming technology, users from around the world were able to watch videos of meeting events just about an hour after they had happened.

Thomas Ellerbeck is the spokesman and member of the Council and a member of the Board of the Foundation. On an honorary basis, he is responsible for the communication activities of the Lindau Nobel Laureate Meetings.

The communications department of the Executive Secretariat in Lindau is headed by Christian Rapp. He is tasked with the planning and implementation of the Council’s and the Foundation’s communications projects. His team includes communications officer Jan Keese and trainee Christian Schumacher. During the Economics Meeting, the communications team was supported by Maria Regele and Felice Puopolo.



International Press Coverage



AL-AHRAM / AL-AKHBAR / BANGKOK POST / BAYERISCHER RUNDFUNK / BBC / BLOOMBERG TELEVISION/EUROPE / CALCALIST / CHINA DAILY / CLARIN / CNBC-E / DAGENS NÆRINGS LIV / DE STANDAARD / DE TIJD / DEUTSCHE WELLE / DEUTSCHLANDFUNK / DIE WELT / DNEVNIK (SOFIA) / DPA / DZIENNIK GAZETA PRAWNA / EL MERCURIO / EL UNIVERSAL (MEXICO-CITY) / EXPERT (MOSCOW) / FINANCE (LJUBLJANA) / FINANCIAL TIMES DEUTSCHLAND / FOLHA DE S. PAULO /

FRANKFURTER ALLGEMEINE SONNTAGSZEITUNG / FRANKFURTER ALLGEMEINE ZEITUNG / GLOBUS (ZAGREB) / HANDELSBLATT / HINDUSTAN TIMES / LA NACIÓN / LA TERCERA / MINT (NEW DELHI) / NEUE ZÜRCHER ZEITUNG / N-TV / N24 / ORF / SCHWEIZER FERNSEHEN / SCHWEIZER MONAT / SÜDDEUTSCHE ZEITUNG / SWR / THE DAILY TELEGRAPH / THE ECONOMIST / THE GLOBE AND MAIL / THE INDIAN EXPRESS / THOMSON REUTERS / WELT AM SONNTAG / XINHUA NEWS AGENCY / ZDF



Beyond the  
2011 Lindau Meetings

61<sup>st</sup> Meeting of Nobel Laureates  
from 26<sup>th</sup> June to 1<sup>st</sup> July 2011

4<sup>th</sup> Meeting of the Winners of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel from 23<sup>rd</sup> to 27<sup>th</sup> August 2011



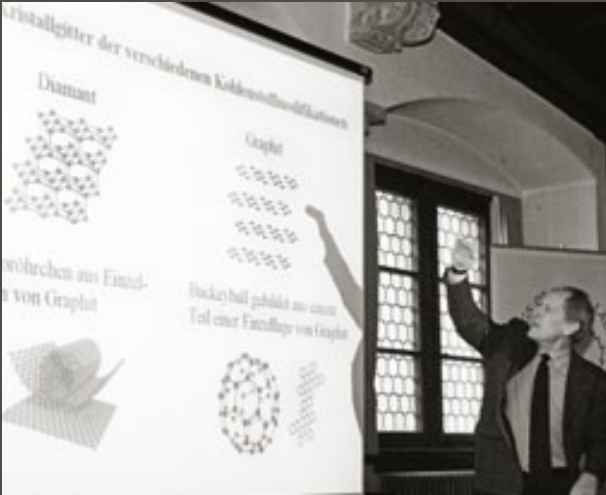
“Discoveries 2011: Health”  
Exhibition on Mainau Island  
from May 20<sup>th</sup> to September 4<sup>th</sup> 2011

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The new Lindau Mediatheque

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Outreach Initiatives

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THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## "Discoveries 2011: Health"

Exhibition on Mainau Island  
from May 20<sup>th</sup> to September 4<sup>th</sup> 2011

ENTDECKUNGEN  
/DISCOVERIES  
GESUNDHEIT  
/HEALTH

20  
11

"Discoveries 2011: Health"

The third exhibition of the "Discoveries" series advertised a healthy lifestyle and showcased cutting-edge health research areas.



# “Discoveries 2011: Health”

The third exhibition of the series “Discoveries” constituted another link in the chain of successful approaches to extend the debate on the significance of science and research to the broad public. Aligned with the nationwide campaign “Year of Science 2011—Research for our Health”, this year’s exhibition centred on key issues in health research, and was thus also closely interconnected with the guiding themes of the 61<sup>st</sup> Lindau Meeting of Nobel Laureates on Physiology or Medicine which took place from 26 June to 1 July 2011.

## Exhibition Partners

Organised jointly by the Foundation Lindau Nobelprize-winners Meetings at Lake Constance and Mainau GmbH and funded by the Federal Ministry of Education and Research, the exhibition consisted of 18 outdoor pavilions in the setting of the Isle of Mainau, each arranged and maintained with great dedication by a different partner. In addition, an educational trail of herbs and medicinal plants and an art installation on the subject of rare diseases were set up.

## Scientific Support

The expert support and advice of all members of the scientific council, chaired—like in the previous two years—with exceptional engagement by Bernhard Graf, was invaluable for the conception of the exhibition. In her function as deputy chairperson, Andrea Wegener rendered considerable services to the project in offering tours of the exhibition on special occasions and taking care of important guests.



The exhibition “Discoveries 2011: Health” was officially opened by Countess Bettina Bernadotte (President of the Council), Wolfgang Schürer (Chairman of the Foundation) and Helge Braun (Parliamentary State Secretary at the Federal Ministry of Education and Research, MP).



A team of competent exhibition guides offered tours and readily answered visitors’ questions.

## Exhibition Partners and Topics

- **Foundation Lindau Nobelprizewinners Meetings at Lake Constance**  
Introductory Pavilion: Healthy Throughout Life
- **Federal Ministry of Education and Research (BMBF)**  
Research for Our Health
- **Deutsches Hygiene-Museum Dresden**  
Hormones: Mighty Molecules
- **German Centre for Diabetes Research**  
Research for a Future without Diabetes
- **Boehringer Ingelheim**  
Explore Diabetes: The Treasure of the Islets of Langerhans
- **Interdisziplinäre Diabetes-Fußstation Klinikum Konstanz (Clinical Centre of Constance)**  
The Foot: A Marvel at Risk?
- **Institute of Sport-Gerontology, German Sport University Cologne**  
Prevention—From Childhood to Old Age
- **Werner Reichardt Centre for Integrative Neuroscience, University of Tübingen**  
A Pure Question of Nerves—Understanding Brain Functions
- **Max Planck Society for the Advancement of Science**  
“To Your Health!”—Research for the Medicine of Tomorrow
- **German Cancer Research Center (DKFZ)**  
Cancer Protection is Possible
- **BIOPRO Baden-Württemberg GmbH**  
Benefiting People: Biotechnology Research in Baden-Württemberg
- **Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V.**  
With All Our Senses
- **Department for Plastic Surgery and Hand Surgery, Klinikum rechts der Isar and Faculty of Medicine, Technische Universität München, Research Group CAPS (Computer Aided Plastic Surgery)**  
Engineering Meets Medicine
- **Weleda AG**  
Life is Rhythm—Rhythm is Life
- **University of Konstanz**  
“Healthy for Life”—Health Research at the University of Konstanz
- **University Hospital and Medical Faculty of Heidelberg**  
Rare Diseases—What Counts is the Individual
- **Mars, Incorporated**  
Discovering the Benefits of Flavanols for Human Health
- **Mainau GmbH**  
Activity Pavilion: “What You’ve Always Wanted To Know”
- **Walther Schoenenberger Pflanzensaftwerk GmbH & Co. KG**  
Info Tour Herbs & Natural Remedies: Ancient Herbal Science for a Modern Life
- **Akademie für Lebenskunst/Galerie im Einstein, Berlin**  
Art Installation “seltenes alphabet”





## Activity Days—Cooperation Partners

AOK Baden-Württemberg: Project “ScienceKids – Kinder entdecken Gesundheit”, Federal Ministry of Education and Research: Year of Science 2011—Research for Our Health, German Cancer Research Center (DKFZ): Cancer Information Service, Diabetes Forum Konstanz e. V., Europa-Miniköche Bodensee, Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V./Fraunhofer Institute for Process Engineering and Packaging IVV, GEA – Zentrum für Gesundheit Radolfzell, Grundschule Engen, Jugend forscht – Landeswettbewerb Baden-Württemberg, Jugend forscht – Landeswettbewerb Bayern/“Schüler experimentieren”, Karate Team Bodensee e. V., Kirstin Diehl Stiftung/Verein zur Förderung der Krebsmedizin e. V./Klinik für Tumoriologie Freiburg, Klinikum Konstanz/Klinik für Viszeral-, Kinder- und Gefäßchirurgie, Krumbach Familienstiftung, Landratsamt Konstanz: Initiatives “BeKi Bewusste Kinderernährung” and “Blickpunkt Ernährung”, Landratsamt Konstanz/Amt für Gesundheit und Versorgung, Landratsamt Ravensburg: Initiative “KIG Kinder im Gleichgewicht” (Project of Euregio Adipositas), University of Konstanz, University Hospital and Medical Faculty of Heidelberg, Walther Schoenenberger Pflanzen-saftwerk GmbH & Co. KG

## Scientific Council

- Bernhard Graf, Chairman of the Council  
Institute for Museum Research,  
Prussian Cultural Heritage Foundation
- Philipp Baum  
Boehringer Ingelheim
- Michael Boutros  
German Cancer Research Center
- Annette Grüters-Kieslich  
Charité-Universitätsmedizin Berlin
- Claus-Dieter Kroggel  
Fraunhofer Life Sciences Alliance
- Gisela Olias  
German Institute of Human Nutrition  
Potsdam-Rehbrücke
- Klaus Vogel  
Stiftung Deutsches Hygiene-Museum
- Andrea Wegener, Deputy Chair of the Council  
Max Planck Society for the Advancement of Science e.V.

## “Join in and discover!”

Directed at visitors of all ages and with different educational backgrounds, the exhibition primarily provided interactive elements to convey comprehensible information and inspire ongoing debates on its topics. Each pavilion contained at least one interactive exhibit, which illustrated and visualised the information given in texts and pictures on the walls. Boehringer Ingelheim presented a research expedition trail explaining the causes of the widespread disease diabetes, suggesting preventive measures and showcasing the latest research findings for treatment. Mars gave an example of corporate funded research in their pavilion on the health benefits of flavanols, secondary plant components found in cocoa and other fruits and vegetables. Visitors could further test their senses of sight, hearing, smell, touch and taste at the Fraunhofer pavilion, and find out about senses-related research projects. Everyone was invited to do fitness and dexterity exercises in the pavilion of the University of Konstanz, or to try their luck at the genetics lottery developed by the University Hospital and Medical Faculty of Heidelberg to reflect upon the difficult issue of rare diseases.

A team of competent exhibition guides offered tours and were at the visitors’ disposal for further explanations on the topics. As part of a “Rallye” leading through the 18 pavilions of the exhibition, children were provided with booklets containing questions, tasks and illustrations. Everyone who managed to work out the correct answering word could take part in a draw with many attractive prizes.

## Special Events

Kids, families, adults and seniors were all invited to join in the many activities of three so called “Activity Days” on May 28, July 15 and August 6. The additional programme on these days was set up with the support of the exhibitors and several initiatives, associations and foundations from the Lake Constance region. Children were taught how to prepare healthy meals and snacks, which groceries are essential for a healthy nutrition, and why sports and physical exercise are indispensable to stay fit. There were stands for adults giving inoculation advice, providing detailed information on cancer and diabetes, or presenting methods of complementary medicinal treatment. Karate shows, theatre plays, a children’s choir, and degustations of purely vegetal ice-cream and medicinal plant cocktails added to the interactivity of the exhibition.



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

The New Lindau  
Mediatheque—  
A Digital Treasure Trove



The new Mediatheque of the Lindau Meetings is available as a beta version now at [www.mediatheque.lindau-nobel.org](http://www.mediatheque.lindau-nobel.org)



# The New Lindau Mediatheque—A Digital Treasure Trove

The Lindau Mediatheque is an ambitious project within the framework of the ‘Mission Education’ of the Council and the Foundation. The Lindau Nobel Laureate Meetings bring together Laureates and Young Researchers for one week—the Mediatheque will bring the work of Laureates to life for the remaining 51 weeks of the year. A basic test version was launched in 2008 and this will be shut down in order to start the new Mediatheque in early 2012.

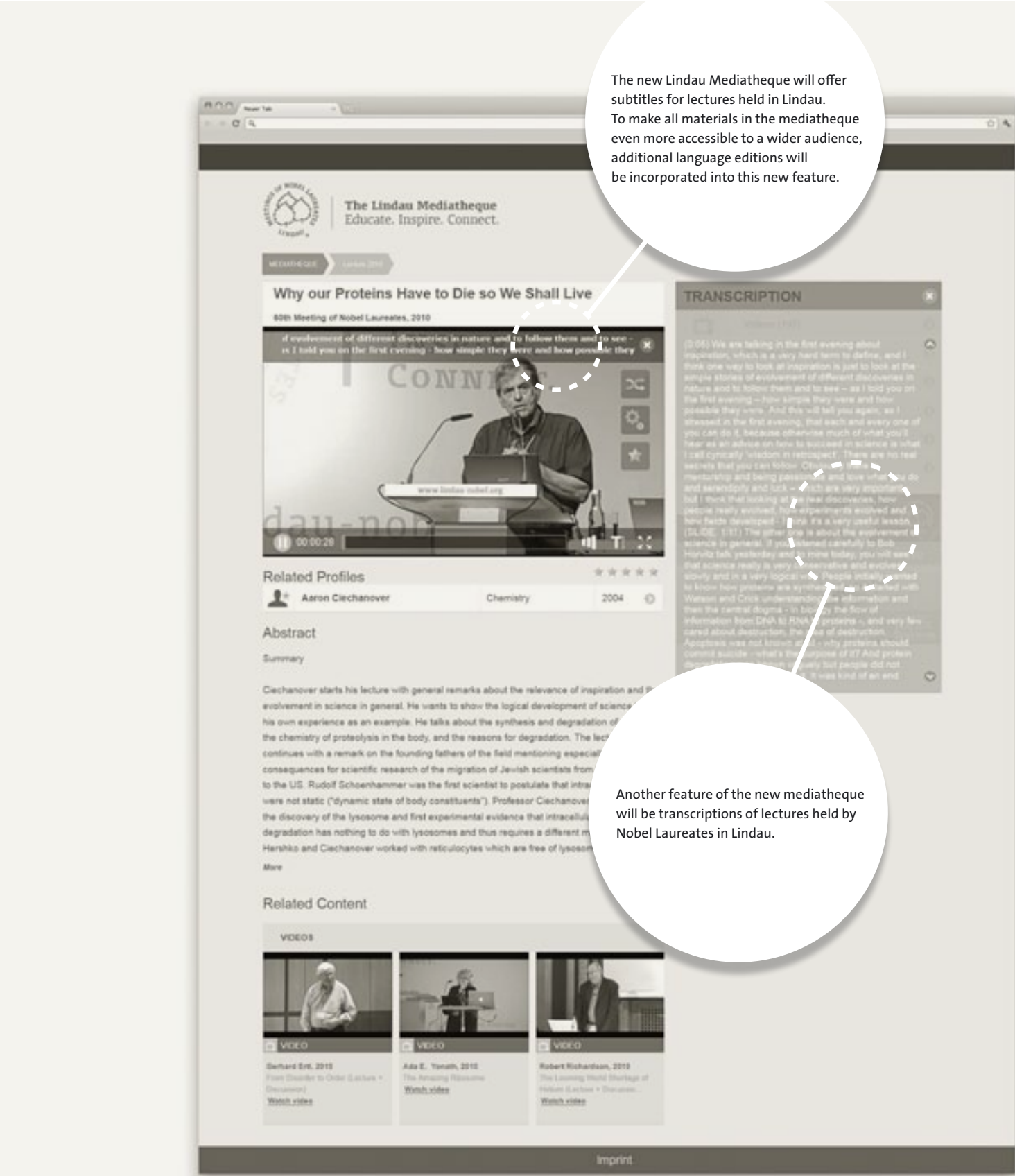
The Lindau Meetings have been carefully documented since 1951. All the lectures given by Nobel Laureates as well as the many panel discussions were audiorecorded, videorecordings were made from 2005 on. Combined with an extensive photo collection, these documentations compose a multimedia archive, which is truly among the most substantial of its kind in the field of science. The resulting multimedia archive represents one of the most substantial collections of top-level scientific lectures. The objective of the Lindau Mediatheque is to make this “digital treasure trove” (Frankfurter Allgemeine Zeitung FAZ) available to users and visitors from across the globe by means of a state-of-the-art web-interface.

Significant advances in the digitalisation of the content have been made in the last three years thanks to the financial support of the Gerda Henkel Foundation. In 2012, the Mediatheque project will start into the next phase with the launch of the “New Mediatheque”, during which a comprehensive editorial concept will be realised and content will be added on a continuous basis. This extension process includes the definition of topic clusters, continuous cataloguing and digitalisation as well as the translation and transcription of content. The project, which will be financed by the German Federal Ministry of Education and Research and the Carl Zeiss Foundation, is to be finalised in three years’ time. In the meantime, a beta version is accessible at [www.mediatheque.lindau-nobel.org](http://www.mediatheque.lindau-nobel.org).

## Content Covering 428 Laureates and 65 Lindau Meetings

To date, 195 video lectures, 304 abstracts and 279 CVs covering 428 Laureates and 65 meetings are available online. This includes all released content of the 4<sup>th</sup> Meeting on Economic Science, e.g. videos of 16 lectures, 4 panel discussions and the opening ceremony featuring the much-noticed speech of German Federal President Christian Wulff. The economic sciences are further represented by historical lectures of Friedrich von Hayek, Ragnar Frisch and others.

The overall mediatheque timeline begins with two lectures from the 1952 Lindau Meeting: Otto Hahn (Nobel Prize for Chemistry in 1944) lecturing on “Radiochemistry and the Fission of Uranium”, and Frederick Soddy (Nobel Prize for Chemistry in 1922) speaking about “Isotopes”. In cooperation with the Council’s Executive Secretariat, Anders Bárány, former Vice-Director of the Nobel Museum and member of the Royal Swedish Academy of Sciences, continues to edit every lecture available online. He also provides a commentary, that establishes the historical context for the lectures. Adam Smith, the Editorial Director of [nobelprize.org](http://nobelprize.org), is another advisor to the mediatheque project, and is responsible for ensuring the accuracy and relevance of the published media.



The new Lindau Mediatheque will offer subtitles for lectures held in Lindau. To make all materials in the mediatheque even more accessible to a wider audience, additional language editions will be incorporated into this new feature.

Another feature of the new mediatheque will be transcriptions of lectures held by Nobel Laureates in Lindau.



Audio documents and annotated historical pictures are put in context with atmospheric video films. Lectures in languages other than English—a limited number of lectures is available in the original German language, particularly from the early years of the meetings—are going to be transcribed and translated into English to make them accessible to a broad international audience. An expansion of the spectrum of languages covered through cooperations with international Academic Partners and academies of science will be considered—Spanish, Italian or Chinese transcriptions may then be available. A first step in this direction is a cooperation agreement with the Italian Fondazione Cariplo. This international outreach project will not only improve the mediatheque’s accessibility, but will also raise international awareness of the ‘Mission Education’.

‘Mission Education’: From Data to Comprehensive Understanding

Bridging the worlds of science and society is a major motivator behind the mediatheque. The Nobel Laureates who have utilized their scientific expertise to the greatest benefit of society are ambassadors and role models of this approach—as mediators between the two spheres and as guarantors of a sublime level of content quality. Thanks to the support of Donors and the assistance of experts the mediatheque is in a position to provide high-quality and high-value information free of charge to everyone with an interest in science.

Benefiting from the New Mediatheque

The mediatheque is an excellent resource for aspiring and established scientists, as it offers enriched and developed but unabridged and unfiltered original scientific material. The comprehensive supply of media is an ideal source of information for carrying out research and preparing topics for particular meetings, in some cases maybe even a Lindau Meeting. The high scientific relevance of the mediatheque content is exemplified by the recent creation of a habilitation project, which focuses exclusively on the picture archives associated with the Lindau Meetings and investigates the changes in the visual language of scientific communication. The extensive content processing of lectures and other documentation available in the archive means that we can expect a range of exciting, perhaps even surprising, insights into the history of science in the future. For example, it was recently discovered that the last lecture given by Laureate Niels Bohr was in fact a Lindau lecture.

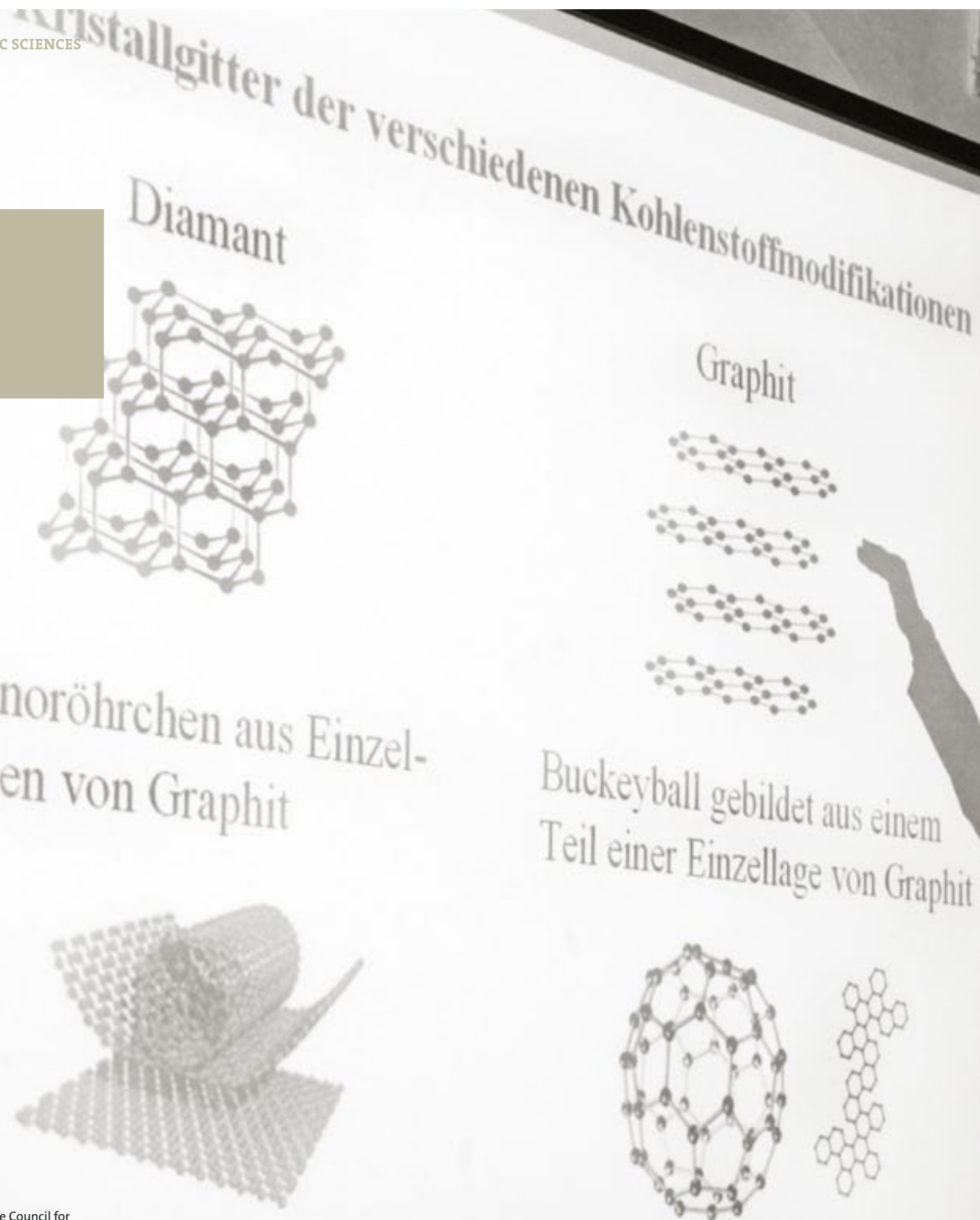
The mediatheque will not only conserve the Laureates’ contributions to the Lindau Meetings for years to come, it will make their lectures available for free, 365 days of the year. Hence, the mediatheque may encourage Laureates to come back to Lindau to share their new results and insights, especially knowing that these will be heard beyond Lindau.

Communication between Nobel Laureates will also benefit from the possibilities of an extensive historical archive. Journalists will be able to use the mediatheque for their own research and thus supplement their scientific-historical research with “Lindau perspectives”. In addition, new cooperation possibilities will open up as a result of transcribed and translated lectures in different languages.



THE 4<sup>TH</sup> LINDAU MEETING ON ECONOMIC SCIENCES

## Outreach Initiatives



Burkhard Fricke, Physics Professor and member of the Council for the Lindau Nobel Laureate Meetings explained how the experimental physicists Andre Geim and Konstantin Novoselov uncovered graphene.

# Outreach Initiatives

## Exhibitions in Paris and Madrid

The “International Year of Chemistry” of the United Nations in 2011 is coordinated by UNESCO and the International Union of Pure and Applied Chemistry (IUPAC). Its objective is to familiarise the broad public with achievements in chemistry and their contributions to human wellbeing. In this context, the achievements of outstanding chemists are recalled. The “International Year of Chemistry” was opened with an exhibition of 76 portraits of living Nobel Laureates in Chemistry made by Peter Badge, all part of the artist’s photography project, which has been supported by the Foundation Lindau Nobelprizewinners Meetings at Lake Constance for many years, Badge’s portraits show the Laureates as people beyond their research institutions. The project to depict all Nobel Laureates, initiated in 2000, features snapshots taken in empathy, often with a very personal character. They all reflect the intelligence, curiosity and wisdom of each individual scientist. The exhibition was held in January in the Musée des Arts et Métiers in Paris and was organised with the support of the new Academic Partner of the Nobel Laureate Meetings, the Centre National de la Recherche Scientifique (CNRS). De Gruyter published the “Peter Badge—Nobel Chemists” catalogue with articles by authors such as Irina Bokova (Director General of UNESCO) and Nobel Laureate Aaron Ciechanover.

Under the title “Internationale Exzellenznetzwerke”: Perspektiven für die deutsch-spanische Zusammenarbeit in Wissenschaft und Forschung” (lit: “International Excellence Networks: Perspectives for German-Spanish Cooperation in Science and Research”), the German Academic Exchange Service (DAAD) and the Universidad Autónoma de Madrid (UAM) organised German-Spanish “University Days” from 6<sup>th</sup> to 7<sup>th</sup> June. The event was part of the Espacio de encuentro hispano-alemán series, which took place until the end of June across Spain under the patronage of King Juan Carlos I and Federal President Christian Wulff. Nobel Laureate in Physiology or Medicine, Erwin Neher, was a guest speaker at the opening of the “University Days”. Neher has many contacts with expert colleagues and institutions in Spain. As part of the event, the DAAD and the Executive Secretariat of the Nobel Laureate Meetings jointly organised an exhibition with Badge portraits of German Nobel Laureates. 21 photographs were shown in the UAM.

## Exhibition in Munich

After this year’s Nobel Laureate Meeting on Physiology/Medicine, a panel discussion on the future of medical technology was organised by Siemens in cooperation with the Foundation Lindau Nobelprizewinners Meetings at Lake Constance and the Technical University of Munich. After the discussion, the audience had the chance to visit the exhibition “Nobelpreisträger in Lebensgröße” (lit: “Nobel Laureates in Life Size”) by the renowned science photographer Volker Steger. Many of these photographs were taken during past Lindau Meetings.

## Future Exhibition Projects

Exhibitions of the portraits of Peter Badge are also planned in 2012. The project by the Foundation Lindau Nobelprizewinners Meetings at Lake Constance began in 2000 and has been continued ever since with the support of Klaus Tschira Stiftung gGmbH. Exhibitions in Israel, the USA, Germany and other countries as well as book projects (e.g. Wiley-VCH, “Nobels—Nobel Laureates photographed by Peter Badge”, 2008) have made the portraits accessible to an international audience. The series is set to continue into the future.



With an exhibition of 76 portraits of living Nobel Laureates in Chemistry by Peter Badge, a project supported for many years by the Foundation Lindau Nobelprizewinners Meetings at Lake Constance was featured at the official opening of the “International Year of Chemistry” in Paris, France.



(From left) German Ambassador Reinhard Silberberg and Christine Arndt from the DAAD España together with Nobel Laureate Erwin Neher at the opening of the “University Days” in Madrid, Spain.



Nobel Laureate and member of the Council for the Lindau Nobel Laureate Meetings Hartmut Michel at the exhibition of Volker Steger in Munich. It was organised by Siemens and the Technical University of Munich in cooperation with the Foundation Lindau Nobelprizewinners Meetings at Lake Constance.



With the Nobel Museum in Stockholm and Munich-based photographer Volker Steger, discussions on a joint, international exhibition project were held in 2011. Olov Amelin, Director of the Nobel Museum, and Adam Smith, Editorial Director of nobelprize.org, held talks with representatives from the Council and the Foundation in the Lindau office for this purpose. The launch of the exhibition is scheduled for the 62<sup>nd</sup> Meeting of Nobel Laureates (2012).

Matinee “Explaining Nobel Prizes”

Before the 2010 Nobel Laureates came to Lindau themselves, their achievements were introduced to the public in Lindau. About 150 Lindau residents came to this matinee, which was organised by the Executive Secretariat of the Nobel Laureate Meetings and Lindauer Zeitung. Burkhard Fricke, Physics Professor from Kassel, Member of the Council for the Lindau Nobel Laureate Meetings and himself an alumnus, used coal and sellotape to demonstrate how the experimental physicists Andre Geim and Konstantin Novoselov uncovered graphene. The work of the Nobel Laureates in Chemistry Richard Heck, Ei-ichi Negishi and Akira Suzuki, was introduced by Alexander Düfert, a young alumnus participant of the Lindau Meeting in 2009. The research findings of Robert Edwards, Nobel Laureate in Physiology or Medicine, were explained by Marcel Leist, Professor at the University of Konstanz and Academic Partner of the Lindau Meetings. Wolfgang Schürer, Chairman of the Board of the Foundation and Scientific Co-Chairman of the Economics Meeting, provided information on the theories and models of the Economics Laureates Peter A. Diamond, Dale T. Mortensen and Christopher Pissarides. Ralf Geisenhanslüke, Editor-in-Chief of Schwäbische Zeitung, was moderator of the matinee.

Lindau Economics Talk with Norbert Walter

Even before the 4<sup>th</sup> Meeting on Economic Sciences, the Executive Secretariat of the Nobel Laureate Meetings in Lindau worked in cooperation with the local newspaper Lindauer Zeitung and the Lindau-Westallgäu Junior Economists to get people in the region interested in the subject of economy. As part of the “Lindau Economics Talks”, a public event took place in the atrium of Tanner Denkfabrik on 4 August. The audience enjoyed a talk by the renowned financial and economic expert Norbert Walter, the former Chief Economist of Deutsche Bank AG. He presented a talk on “The Euro in Crisis: Endless Rescue, Advantage through Panic—a German Recipe for Success?”, in which he considered the effect of the euro crisis on Europe’s economy. He also took questions from the audience in the atrium.



Norbert Walter, former Chied Economist at Deutsche Bank AG, presented a talk on “The Euro in Crisis: Endless Rescue, Advantage through Panic—A German Recipe for Success?” at the Lindau Economics Talks.



Wolfgang Schürer, Scientific Co-Chair of the Economics Meeting, introduced Lindau residents to the work of Economics Laureates Peter A. Diamond, Dale T. Mortensen and Christopher Pissarides during the matinee.



About 150 Lindau residents visited the matinee at the fully packed old townhall.



ENABLING THE 'MISSION EDUCATION'

Enabling the  
'Mission Education'

Enabling 'Mission Education'



The Laureates' Gallery at the entrance to Lindau island.



# Enabling the ‘Mission Education’

In 2011, the Foundation has continued its successful strategy of securing financial stability for the meetings and the ‘Mission Education’. The establishment of a public-private partnership for the Lindau Meetings has proven to be a sustainable concept. The total contributions to the endowment of the Foundation could be increased to €24 million; however, due to historically low interest rates, earnings have remained rather low. Project-related support and donations in kind are thus more important than ever for securing the standard of the meetings and enhancing their dynamic development. The Council and the Foundation are committed to sustain this development.

## Contributions to the Endowment

Although the severe disturbances in global financial markets have also had their impact on the Lindau Nobel Laureate Meetings, it must be noted that all endowment contributors have continued their commitment. Furthermore, new supporters could be attracted to Lindau’s ‘Mission Education’. This reflects the relevance of Lindau’s scientific dialogue across and among generations and cultures as well as its continuous progress.

McKinsey & Company is a new Maecenate of the Foundation. Swiss Re Ltd. has joined the endowment as Principle Patron and also had taken on the role of Academic Partner by nominating candidates for the 4<sup>th</sup> Lindau Meeting on Economic Sciences. Mars, Incorporated, Porsche AG, Lockheed Martin, Siemens, Bayer and the Volkswagen Group have increased their donation. They have joined a circle of excellence with members from the public and the private sector.



Despite the smaller size of the 4<sup>th</sup> Economics Meetings it was the clear intention of the organisers to retain the high standard of the ‘Lindau Dialogue’.



JURA Elektroapparate AG supplied all participants with coffee-making facilities.



Sennheiser electronic GmbH & Co. KG provided high quality microphone systems and support for all events.

## Support of the 4<sup>th</sup> Lindau Meeting on Economic Sciences

Despite the smaller size of the 4<sup>th</sup> Meeting on Economic Sciences it was the clear intention of the organisers to retain the high standard of the ‘Lindau Dialogue’. Consequently, the quality of service in the areas of meeting infrastructure, technology and services as well as of accommodation and catering has been maintained or increased.

The generous support of the Benefactors of the 4<sup>th</sup> Lindau Meeting on Economic Sciences enabled the Lindau institutions to welcome all selected candidates to Lindau, regardless of their financial background, solely based on their scientific achievements.

All long-term public partners such as the International Lake Constance Conference (IBK), the Canton of St. Gallen and various national banks have continued their support, providing highly welcomed stability and sustainability.

The ongoing commitment of science promoting foundations is another important cornerstone of Lindau’s framework. This year, the AKB Stiftung, the Alexander S. Onassis Public Benefit Foundation, the Carl-Zeiss-Stiftung, the Fon-

dazione Cariplo, the Jacobs Foundation, the Joachim-Herz-Stiftung, the Klaus-Tschira-Stiftung, the OPEC Fund for International Development, the Robert Bosch Stiftung, the Stiftung van Meeteren as well as the Stifterverband für die Deutsche Wissenschaft have fostered the ‘Mission Education’ with their contributions.

Some of those foundations have partnered with the Lindau Foundation in establishing fellowship programmes, which have become crucial in ensuring the participation of Young Researchers from countries enduring economic hardship. As the Lindau Meetings are reaching out to more and more countries every year, with a special focus on Africa and South America, these fellowship programmes have proven to foster the very core of Lindau’s goals. As a consequence, the Foundation aims at establishing further fellowship programmes with additional partners in the years to come.

The highly successful new format of Science Breakfasts was realized jointly with GfK SE & GfK Verein and the European Bank for Reconstruction and Development.

Brevan Howard joined the meetings as Benefactor for the first time, while Mars, Incorporated and Microsoft Corporation have continued their support.



The Volkswagen Group kindly provided transport for Nobel Laureates and other special guests.



Deutsche Telekom AG kindly supplied participants with wireless internet access and fully equipped Internet working stations.

## Donations in Kind

Especially in challenging economic times, only the interplay of project-related support and donations in kind makes it possible to organise the Nobel Laureate Meetings to a high standard without putting further burden on the budget. The Council and the Foundation are grateful that many long-term partnerships could be continued for the 4<sup>th</sup> Economics Meeting; among them are:

- The wireless network infrastructure and 40 fully equipped internet working stations were realized by the Deutsche Telekom AG/ T-Systems.
- Audi and VW shuttle limousines for the transport of Laureates and other special guests were provided by the Volkswagen Group.
- An allotment of world-wide flight tickets provided by Deutsche Lufthansa AG allowed smooth booking of flights for Laureates.
- Bottled water was provided by EnBW Energie Baden-Württemberg AG.
- Mondi Europe & International has provided high-quality paper for selected printed matters produced by the Council and Foundation.
- Usage of the city bus lines was offered for free by the Stadtwerke Lindau, as well as entrance to most local public bathes and to the Picasso exhibition (City of Lindau/Office of Cultural Affairs).
- Hewlett-Packard GmbH again provided IT infrastructure for the Executive Secretariat including laptops and monitors.

## Lindau Mediatheque

The preparatory phase of the Lindau Mediatheque had been supported by the Gerda Henkel Foundation and is completed now. The new mediatheque can be officially launched now as the funding for the upcoming three-year project cycle has been taken over by the Carl Zeiss Stiftung and the German Federal Ministry of Education and Research. Their commitment ensures the long-term success of this ambitious new venture. Further details can be found on page 88.

## Exhibition

Due to the interactivity of the presentation and the relevance of the showcased topics, the exhibition “Discoveries 2011: Health” was a very successful conclusion of the three-year exhibition series “Discoveries”. It was realised jointly with the Federal Ministry of Education and Research and 19 partners from science, business and society.” Learn more about the exhibition on page 82.

## Prospects

The Foundation is committed to continue its successful partnerships with endowment contributors and to welcome new partners to the ‘Mission Education’. The Foundation and the Council plan to establish new fellowship programmes for all disciplines that allow the participation of Young Scientists from all countries of the world, regardless of their financial capabilities. Besides financial support, institutions such as the Alexander von

Humboldt Foundation, the OPEC Fund for International Development (OFID), the German Research Association (DFG), the German Academic Exchange Service (DAAD) and others are contributing to this by identifying, nominating and supporting candidates from the less privileged regions of the world.

Donations in kind will continue to play an important role, especially with the challenging situation of the out-of-date venue “Inselhalle”, which requires strenuous efforts to ensure the excellence of the ‘Lindau Dialogue’.

The responsibility of the Foundation’s strategy, of its acquisitions and of negotiations with endowment partners lies with the Chairman of the Board, Wolfgang Schürer. The relation management is a joint task of Chairman Wolfgang Schürer and Managing Director Nikolaus Turner. Werner Ebke is responsible of legal issues, as is Thomas Ellerbeck for communications. The close cooperation with the Council and its Executive Secretariat has ensured the continued and increased level of support. The investment committee of the Foundation decides on the portfolio strategy of the Foundation’s endowment, thus ensuring the financial stability of the meetings. Adding to that are the close relations to decision-makers in the fields of science, business and politics, both on a national and international level. The work of the Boards of the Foundation and the Council is carried out on a pro-bono-basis, summing up to several hundred working days per year.

## Stefan Seidel Liechtenstein

“Attending the 4<sup>th</sup> Lindau Meeting on Economic Sciences was a great experience, both personally and academically. Not only did it provide me with the opportunity to learn about the views of some of the world’s leading economists, it also enabled an open dialog with many peers from around the globe. This was particularly fascinating against the background of recent developments such as the Euro crisis as well as other major ecological and societal issues that were also debated, most notably climate change, environmental degradation, and the social divide. Above all, the 4<sup>th</sup> Lindau Meeting on Economic Sciences was inspiring and motivating as it further strengthened my belief that economic science can play a crucial role in future societal development—for good and bad. I really enjoyed the atmosphere and am grateful that I was given the opportunity to participate in this venue.”





BEYOND THE 2011 LINDAU MEETING

# Organisation

The year 2011 has seen a peak in activities, organised in the best interest of the ‘Mission Education’. Realising two Nobel Laureate Meetings, the third part of the exhibition series “Discoveries”, the kickoff of the ambitious new project “Lindau Mediatheque”, as well as a variety of complementing projects and procedural changes has only been possible through joint efforts of the Council and the Foundation members and the staff at the Executive Secretariat.

The Young Researchers’ Support at the conference venue Inselhalle.



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Council for the Lindau Nobel Laureate Meetings

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Alexandra Wimbauer
Communications
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Christian Schumacher
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David Siegel (as of 1 <sup>st</sup> July 2011)
Office Management, Guest Relations, Accounting
Anke Elben
Monika Reichert

Words of Thanks

The year 2011 has also been a year of change, with two of the most distinguished, longest-standing Council members leaving the Council after three decades. The dedicated and excellent contributions of Laureate Werner Arber as well as of Jürgen Uhlenbusch will be seriously missed, as well as their much-sought-after advice and foresight. The Council would like to express its warmest words of thanks for their outstanding work.

At the same time, Laureate Hartmut Michel has been welcomed as a new member to the Council.

After six years of service for the Executive Secretariat, the team’s head of communications, Christian Rapp, has chosen to follow new paths; together with speaker of the Council, Thomas Ellerbeck, he built up the communications work for the Lindau Laureate Meetings almost from scratch. The Council would like to convey it sincerest thanks and appreciation for his enormous commitment and the many eminent milestones accomplished.

The Executive Secretariat has been supported in the conduct of the meetings by Maria Regele, Lisa Suckert, Felice Puopolo, Melachrini Georgas, Markita Landry and Sabine Neufang. The exhibition “Discoveries 2011: Health” has been supported by the Mainau staff and Lena Hermann in particular. Highly valued contributions to the media-theque have been made by Anders Bárány and Adam Smith.

Last but not least, the ‘Mission Education’ would have been much less successful without the contributions of the Chairman’s office at St. Gallen, namely Andreas Böhm and Gabriella Hauser.

The Council and Foundation Board would like to thank all who have contributed to this year’s successes for their outstanding work.



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Deutsche Bank Stiftung	Lockheed Martin Corporation	Swiss National Bank
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Deutsche Lufthansa AG	Max-Planck-Gesellschaft	U.S. Department of Energy
Deutscher Akademischer Austauschdienst	Mondi Europe & International	University of St. Gallen
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Fraunhofer-Gesellschaft	ProLindau Marketing GmbH & Co. KG	Gottfried Wilhelm Leibniz
Fundação Calouste Gulbenkian	Sennheiser electronic GmbH & Co. KG	Zumtobel Lighting GmbH
Förderverein Römerbad	Siemens AG	
Gebrüder Weiss GmbH	Sparkasse Memmingen-Lindau-Mindelheim	and anonymous Benefactors
Gerda Henkel Stiftung	Spielbank Lindau	
GfK SE	Staatliche Lotterieverwaltung (Bayern)	
GfK Verein	Stadt Lindau (B)	

Preliminary Account for the 4<sup>th</sup> Lindau Meeting on Economic Sciences 2011(as of 31<sup>st</sup> September 2011, including expected income and expenses until 31<sup>st</sup> December 2011)

## REVENUES PART I

**Donations and funds from the public sector** (Bayerisches Staatsministerium für Wissenschaft, Forschung und Kunst, Bundesministerium für Bildung und Forschung (BMBF), Canton St. Gallen, European Commission, International Lake Constance Conference (IBK), Stadt Lindau, Stadt St. Gallen, U.S. Department of Energy), **from industry** (Brevar Howard Asset Management LLP, Deutsche Telekom AG, Dr. Ing. h.c. F. Porsche AG, EnBW Energie Baden-Württemberg AG, Mars, Incorporated, Microsoft Corporation, Volkswagen Group, Deutsche Bank AG, Lockheed Martin Corporation, MS Management Service AG, ProLindau Marketing GmbH & Co. KG, Siemens AG, Sparkasse Memmingen-Lindau-Mindelheim, Stadtverkehr Lindau (B) GmbH, Stadtwerke Konstanz GmbH, Stadtwerke Lindau (B) GmbH & Co. KG) and **charitable or non-profit organisations** (Carl Zeiss Stiftung, Jacobs Foundation, Joachim Herz Stiftung, Klaus Tschira Stiftung gGmbH, The OPEC Fund for International Development (OFID), Robert Bosch Stiftung, AKB Stiftung, Alexander S. Onassis Public Benefit Foundation, Bank for International Settlements, Christa und Hermann Laur-Stiftung, Deutsche Bank AG, Deutsche Bank Stiftung, Elitenetzwerk Bayern, Fondazione Cariplo, Fundação Caluste Gulbenkian, Gerda Henkel Stiftung, Österreichische Nationalbank, Peter Dornier Stiftung, Stifterverband für die Deutsche Wissenschaft, Stiftung van Meeteren, Wellcome Trust) and the **Foundation Lindau Nobelprizewinners Meetings at Lake Constance** with its **Maecenates** (Audi AG, Bayer AG, Deutsche Bank AG, Dr. Ing. h.c. F. Porsche AG, Ecoscientia Stiftung, EnBW Energie Baden-Württemberg AG, Freistaat Bayern, Lockheed Martin Corporation, Mars, Incorporated, McKinsey & Company, Microsoft Corporation, RWE AG, SAP AG, Siemens AG, Verband der Bayerischen Metall- u. Elektroindustrie), **Principal Patrons** (Bertarelli Foundation, Lonza AG, NOVARTIS International AG, Principality of Liechtenstein, Südwestmetall Verband der Metall und Elektroindustrie Baden-Württemberg e.V., Swiss Re, Verein der Bayerischen Chemischen Industrie e.V., Volkswagen AG), **Patrons** (Deutsche Telekom Stiftung, Holcim Ltd, Klaus Tschira Stiftung gGmbH, Robert Bosch GmbH, Verein Deutscher Ingenieure e.V.), **Principal Donors** (Jacobs

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AMOUNT	1.082.481,60 EUR
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## REVENUES PART II

**Participant Fees and Travel, Boarding or Lodging Reimbursements for Young Economists** (Banco Central do Brasil, Bangko Sentral ng Philipinas, Bank Negara Malaysia, Bank of Canada, Bank of England, Bank of Estonia, Bank of Finland, Bank of Israel, Bank of Italy, Bank of Latvia, Bank of Mexico, Bank of Russia, Bank of Spain, Banque de France, Banque Nationale de Belgique, Central Bank of Hungary, Central Bank of Chile, Central Bank of Iceland, Central Bank of Japan, Central Bank of Thailand, Central Bank of the Republic of Turkey, Danish Agency for Science Technology and Innovation, Danmarks Nationalbank, European Bank for Reconstruction and Development (EBRD), European Central Bank, German Foreign Exchange Service (DAAD), German Research Foundation (DFG), Fraunhofer – Gesellschaft zur Förderung der angewandten Forschung e.V., Graduate Institute of International and Development Studies (Switzerland), Helmholtz Association of German Research Centres, Hertie School of Governance (Germany), Indian Council of Social

Science Research, Industriellenvereinigung Wien (Austria), International Affairs CSIC (Spain), International Cooperation Department (Poland), International Monetary Fund (USA), Internationale Bodensee-Hochschule, Japan Society for the Promotion of Science (JSPS), Koninklijke Nederlandse Akademie van Wetenschappen (Netherlands), Lithuanian Academy of Sciences, Lund University (Sweden), Max-Planck-Gesellschaft (Germany), Monetary Authority of Singapore, National Bank of Serbia, National Bank of Slovakia, National Science and Technology Agency (Thailand), Norges Bank (Norway), Oak Ridge Associated Universities (USA), Pakistan Science Foundation, Palgrave Macmillan (GB), Polish Financial Supervision Authority, Research Council of Canada, Research Group Econometrics Maastricht (The Netherlands), Reserve Bank of Australia, RWE Stiftung (Germany), Said Business School—University of Oxford (UK), Swiss National Bank, Sino-German Center, Stockholm School of Economics (Sweden), Südwestmetall (Germany), Sveriges Riksbank (Sweden), Universität Liechtenstein, Université Libre de Bruxelles, University Carlos III of Madrid (Spain), University of Warwick (UK), University of Zurich, Uppsala University (Sweden), Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e.V., Zeppelin University (Germany))

AMOUNT	202.825,70 EUR
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AMOUNT REVENUES PART I	1.082.481,60 EUR
AMOUNT REVENUES PART II	202.825,70 EUR

TOTAL AMOUNT OF REVENUES	1.285.307,30 EUR
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Any deficit that may arise upon presentation of all costs as of 31<sup>st</sup> December 2011, will be balanced by an existing letter of indemnity provided by the Foundation Lindau Nobelprizewinners Meetings at Lake Constance.

**ADDITIONAL DONATIONS IN KIND AND PRO-BONO SERVICES:**

Artificial Image, Audi AG, Big Image GmbH, Deutsche Lufthansa AG, Deutsche Telekom AG, EnBW Energie Baden-Württemberg, Gebrüder Weiss GmbH, Jura Elektro-apparatebau AG, Lennart-Bernadotte-Stiftung, Lindauer Zeitung, LISTA Office AG, Mainau GmbH, Mondi Europe & International, MS Management Service AG, Nobel Foundation, ProLindau Marketing GmbH & Co. KG, PwC Price-waterhouseCoopers AG, Sennheiser electronic GmbH & Co. KG, Stadtwerke Lindau (B) GmbH & Co. KG, Vacheron Constantin, Volkswagen Group, Warth, Klein & Leutenecker, Zumtobel Lighting GmbH.



Preliminary Account for the 4<sup>th</sup> Lindau Meeting on Economic Sciences 2011

(as of 31<sup>st</sup> September 2011, including expected income and expenses until 31<sup>st</sup> December 2011)

EXPENDITURES	(AMOUNT)		(AMOUNT)
<b>Travel</b>		<b>Outreach</b>	
Laureates	59.362,85 EUR	Web Stream, Recording	34.045,90 EUR
Young Researchers	4.844,00 EUR	EB Teams & Broadcasting	14.504,42 EUR
Media	15.819,02 EUR	Nomination Outreach	40.000,00 EUR
Other	2.144,68 EUR	Mediatheque	49.253,46 EUR
<b>Lodging</b>		<b>Press &amp; Media</b>	
Laureates	22.623,20 EUR	Consulting & Production	23.845,00 EUR
Young Researchers	130.738,50 EUR	Photographers	13.211,78 EUR
Media	13.689,80 EUR	Distribution & Monitoring	6.213,60 EUR
Other	21.557,50 EUR	Website	10.000,00 EUR
		Other Services	17,51 EUR
<b>Boarding</b>		<b>Other Meeting Costs</b>	14.929,18 EUR
Laureates	3.954,30 EUR		
Young Researchers	87.121,83 EUR	<b>Executive Secretariat*</b>	
Media	5.880,50 EUR	Staff	160.112,10 EUR
Other	15.171,01 EUR	Operating Costs (Rent, Utilities, etc.)	8.944,77 EUR
<b>Scientific Programme &amp; YR Selection</b>	5.500,00 EUR	Communications	2.348,23 EUR
		Accounting, Legal Advice	2.817,74 EUR
<b>Venues &amp; Equipment</b>		Office Supplies	3.850,64 EUR
Rental Fees Locations	20.242,59 EUR	Office Equipment & Maintenance	767,32 EUR
Tents, inc. Mainau	35.570,23 EUR	Insurances	832,13 EUR
Technical Equipment	95.725,65 EUR	IT Services, Hardware, Software	15.993,74 EUR
Utilities & Services	289,97 EUR	Job Trainings & Job Applications	5.077,61 EUR
Onsite Staff	84.187,88 EUR		
Signage	3.791,91 EUR		
Transfers	3.927,00 EUR		
Various Items	17.049,23 EUR		
<b>Supporting Programme</b>	53.628,77 EUR		
<b>Printed Matters</b>	9.560,62 EUR		
<b>EXPENDITURES as of 31<sup>st</sup> October 2011</b>			<b>1.119.146,17 EUR</b>
Expected Expenditures until 31 <sup>st</sup> December 2011			166.943,26 EUR
<b>TOTAL AMOUNT OF EXPENDITURES</b>			<b>1.286.089,43 EUR</b>

\* The total annual expenses of the Executive Secretariat have only in part been attributed to the 4<sup>th</sup> Lindau Meeting on Economic Sciences.

Wasutadon Nakawiroj  
Thailand

“ The Lindau Meeting has clearly achieved all of its three objectives, “Educate. Inspire. Connect.”. Putting forward cutting-edge research information, the meeting was much more than an educational academic session. This unique opportunity to connect with so many interesting fellow Young Economists and to meet some of the most imposing scientists of our discipline has by far surpassed my prior expectations. These encounters have inspired me to consider the chances of interdisciplinary research and cooperate with the new made friends from all over the world. ”

Kaushik Basu  
India

“ The 2011 Lindau Meeting on Economic Sciences encouraged all participants to broaden their perspectives on the discipline and expand their cultural horizons. I personally gained a deeper understanding of the current global financial crisis and its subsequent impacts on our societies by exchanging views with the Nobel Laureates and the many Young Economists from around the world. With many participants coming from developing countries, the meeting gave even the often unheard voices a forum and an audience. ”



Founders’ Assembly of the Foundation with 244 Nobel Laureates

The Founders’ Assembly of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance can currently count more than 240 Laureate among its members. They all share the common ideals of the Lindau ‘Mission Education’, to educate, inspire and connect. More Laureates have joined the assembly in the past few months: Ei-ichi Negishi, Akira Suzuki, Christopher A. Pissarides, Thomas A. Steitz, Elizabeth H. Blackburn, Peter A. Diamond and Dale T. Mortensen.

A	Stanley Cohen	Donald Glaser
Alexei Abrikosov	Claude Cohen-Tannoudji	Sheldon L. Glashow
Peter C. Agre	Leon Cooper	Roy J. Glauber
Martti Ahtisaari	Elias J. Corey	Joseph L. Goldstein
George A. Akerlof	John Warcup Cornforth	Mikhail Gorbachev
Zhores Alferov	James W. Cronin	Clive Granger
Maurice Allais	Paul J. Crutzen	Paul Greengard
Sidney Altman	Robert F. Curl jr.	David J. Gross
Philip W. Anderson	D	Robert H. Grubbs
Werner Arber	Hans G. Dehmelt	Peter Grünberg
Kenneth J. Arrow	Johann Deisenhofer	H
Robert J. Aumann	Peter A. Diamond	Theodor W. Hänsch
Richard Axel	Peter C. Doherty	John L. Hall
Julius Axelrod	Renato Dulbecco	Lee Hartwell
B	Christian de Duve	Herbert A. Hauptman
David Baltimore	E	Harald zur Hausen
Francoise Barré-Sinoussi	Gerald Edelman	Richard Heck
Gary S. Becker	Manfred Eigen	Alan C. Heeger
Johannes Georg Bednorz	Robert Engle	Dudley R. Herschbach
Baruj Benacerraf	Richard R. Ernst	Avram Hershko
Paul Berg	Gerhard Ertl	Antony Hewish
Hans A. Bethe	Leo Esaki	Roald Hoffmann
J. Michael Bishop	Sir Martin J. Evans	Gerardus ’t Hooft
Sir James Black	F	Robert H. Horvitz
Elizabeth H. Blackburn	John B. Fenn	David H. Hubel
Günter Blobel	Albert Fert	Robert Huber
Nicolaas Bloembergen	Edmond H. Fischer	Russel Hulse
Baruch S. Blumberg	Ernst Otto Fischer	Tim Hunt
Paul D. Boyer	Robert W. Fogel	Leonid Hurwicz
James M. Buchanan	Jerome Friedman	Andrew F. Huxley
Linda Buck	Milton Friedman	I
C	Robert F. Furchgott	Louis Ignarro
Mario R. Capecchi	G	J
Jimmy Carter	D. Caleton Gajdusek	Brian D. Josephson
Thomas R. Cech	Andre Geim	K
Martin Chalfie	Murray Gell-Mann	Eric R. Kandel
Georges Charpak	Riccardo Giacconi	Charles K. Kao
Yves Chauvin	Ivar Giaever	Jerome Karle
Steven Chu	Walter Gilbert	Wolfgang Ketterle
Aaron Ciechanover	Alfred G. Gilman	Har Gobind Khorana
Ronald H. Coase	Vitaly L. Ginzburg	Lawrence R. Klein

Klaus von Klitzing	Joseph E. Murray	William F. Sharpe
Aaron Klug	Roger B. Myerson	K. Barry Sharpless
Makato Kobayashi	N	Osamu Shimomura
Walter Kohn	Yoichiro Nambu	Kai M. Siegbahn
Arthur Kornberg	John F. Nash jr.	Jens C. Skou
Roger D. Kornberg	Ei-ichi Negishi	Richard Smalley
Masatoshi Koshiha	Erwin Neher	Hamilton O. Smith
Edwin Krebs	Marshall Nirenberg	Michael Smith
Herbert Kroemer	Douglass C. North	Oliver Smithies
Sir Harold W. Kroto	Konstantin Novoselov	George F. Smoot
Finn Kydland	Ryoji Noyori	Robert M. Solow
L	Christiane Nüsslein-Volhard	Jack Steinberger
Willis E. Lamb	Paul M. Nurse	Thomas A. Steitz
Robert Laughlin	O	Joseph E. Stiglitz
Paul C. Lauterbur	George A. Olah	John Sulston
Leon M. Lederman	Douglas Osheroff	Akira Suzuki
David M. Lee	P	Jack W. Szostak
Tsung-Dao Lee	Arno Allen Penzias	T
Yuan Tseh Lee	Edmund S. Phelps	Henry Taube
Jean-Marie Lehn	William D. Phillips	Joseph Taylor
Rita Levi-Montalcini	Christopher A. Pissarides	Samuel C. C. Ting
Edward B. Lewis	John Polanyi	Susumu Tonegawa
William N. Lipscomb	John Pople	Charles H. Townes
Robert E. Lucas Jr.	Lord George Porter	Roger Y. Tsien
M	Edward C. Prescott	Daniel C. Tsui
Alan G. MacDiarmid	Ilja Prigogine	V
Roderick MacKinnon	R	Simon van der Meer
Peter Mansfield	José Ramos-Horta	Harold E. Varmus
Rudolph A. Marcus	Norman F. Ramsey	Martinus J. G. Veltman
Harry M. Markowitz	Robert Richardson	W
Barry Marshall	Richard J. Roberts	Sir John E. Walker
Toshihide Maskawa	Heinrich Rohrer	Robin Warren
Eric S. Maskin	Joseph Rotblat	James D. Watson
John C. Mather	F. Sherwood Rowland	Thomas H. Weller
Daniel L. McFadden	Carlo Rubbia	Eric F. Wieschaus
Craig C. Mello	S	Torsten N. Wiesel
Bruce Merrifield	Bert Sakmann	Frank Wilczek
Robert C. Merton	Paul A. Samuelson	Maurice H.F. Wilkens
Hartmut Michel	Bengt Samuelsson	Robert W. Wilson
James A. Mirrlees	Frederick Sanger	Kurt Wüthrich
Rudolf Mößbauer	Andrew V. Schally	Y
Mario Molina	Thomas C. Schelling	Rosalyn Yalow
Luc Montagnier	Myron S. Scholes	Ada E. Yonath
Dale T. Mortensen	John Robert Schrieffer	Chen Ning Yang
Karl Alexander Müller	Richard R. Schrock	Muhammad Yunus
Kary B. Mullis	Melvin Schwartz	Z
Robert A. Mundell	Reinhard Selten	Ahmed Zewail
Ferid Murad	Amartya Sen	Rolf Zinkernagel





Upcoming Lindau Meetings

**62<sup>nd</sup> Meeting of Nobel Laureates**  
(dedicated to Physics) from 1<sup>st</sup> July—6<sup>th</sup> July 2012

**63<sup>rd</sup> Meeting of Nobel Laureates**  
(dedicated to Chemistry) from 30<sup>th</sup> June—5<sup>th</sup> July 2013

**64<sup>th</sup> Meeting of Nobel Laureates**  
(dedicated to Physiology or Medicine) from 29<sup>th</sup> June—4<sup>th</sup> July 2014

**5<sup>th</sup> Lindau Meeting on Economic Sciences**  
from 19<sup>th</sup> August—23<sup>rd</sup> August 2014

**65<sup>th</sup> Meeting of Nobel Laureates**  
(4<sup>th</sup> Interdisciplinary Meeting with Nobel Laureates from the fields of Physics, Physiology or Medicine and Chemistry) from 28<sup>th</sup> June—3<sup>rd</sup> July 2015

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**ResearchGATE** [researchgate.net/community/lindaunobel](https://researchgate.net/community/lindaunobel)

359 Young Economists from 65 countries came together at the shores of Lake Constance for almost a week of personal encounters and scientific exchange.

Kuratorium für  
die Tagungen  
der Nobelpreisträger  
in Lindau  
Council for the Lindau  
Nobel Laureate Meetings



Stiftung Lindauer  
Nobelpreisträgertreffen  
am Bodensee  
Foundation Lindau  
Nobelprizewinners Meetings  
at Lake Constance

Council for the Lindau Nobel Laureate Meetings  
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“ Remembering my stay in Lindau, I first and foremost recall the many encounters with fellow young economists. At a dinner with three other participants—a girl from China and two German students—we had a professional discussion on the different undergraduate and graduate programs in our respective countries, and a talk about the various differences between our cultures (such as how Europeans pay in cash while Americans prefer to just charge everything!). Conversations like these occurred throughout the week—they will forever remain with me. I cannot think of a single thing about the meetings that I would change, and I cannot imagine having a better week and in a more beautiful place than Lindau. ”





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AT LAKE CONSTANCE

