



**IMF Institute and Central Bank of Algeria
High Level Seminar**

**NATURAL RESOURCES, FINANCE, AND DEVELOPMENT:
CONFRONTING OLD AND NEW CHALLENGES**

ALGIERS, ALGERIA

NOVEMBER 4—5, 2010

PROGRAM

THURSDAY, NOVEMBER 4, 2010

8:00 a.m.

Welcome by Mohammed Laksaci, Governor, Bank of Algeria

Opening Remarks

Dominique Strauss Kahn, Managing Director, IMF

Ahmed Ouyahia, Prime Minister, Algeria

Overview of Questions and Themes

Leslie Lipschitz, Director, IMF Institute

9:30 a.m. – 11:00 a.m.

SESSION I. COMMODITY MARKETS AND THE MACROECONOMY

Chair: **Masood Ahmed**, Director, Middle East and Central Asia Department, IMF

Speaker: **Thorvaldur Gylfason**, University of Iceland

“Natural Resource Endowment: A Mixed Blessing?”

Speaker: **Marian Radetzki**, Luleå University of Technology

“Primary Commodities: Historical Perspectives and Prospects”

General Discussion

11:00 a.m. – 11:20 a.m.

Coffee Break

11:20 a.m. – 12:40 p.m.

SESSION II. ECONOMIC DIVERSIFICATION

Chair: **Lamido Sanusi**, Governor, Central Bank of Nigeria

Speaker: **Alan Gelb**, Center for Global Development

“Economic Diversification: Theory and Practice”

Speaker: **Asim Khwaja**, Harvard University

“Finance and Diversification in Resource Rich Countries”

Speaker: **Thorsten Beck**, Tilburg University

“Finance and Oil: Is there a Natural Resource Curse in Financial Development?”

General Discussion

12:40 p.m. – 2:00 p.m.

Lunch

Keynote Address by **Jeffrey Frankel**, Harvard University

“How Can Commodity Producers Make Fiscal & Monetary Policy Less Procyclical?”

2:00 p.m. – 3:20 p.m. SESSION III. FISCAL POLICY

Chair: **Gilbert Ondongo**, Minister, Ministry of Economy, Finance and Budget, Republic of Congo

Speaker: **Kirk Hamilton**, World Bank
 “Sustainable fiscal policy in mineral-dependent economies”

Speaker: **Kaddour Hadri**, Queens University Management School
 “What can we learn from primary commodity prices series which is useful to policymakers?”

Speaker: **Rabah Arezki**, IMF Institute
 “Fiscal Policy in Commodity Exporting Countries: Stability and Growth”

General Discussion

3:20 p.m. – 3:40 p.m. Coffee Break

3:40 p.m. – 5:00 p.m. SESSION IV. EXCHANGE RATE AND FINANCIAL STABILITY

Chair: **Aasim Husain**, Senior Advisor, Strategy, Policy, & Review Department, IMF

Speaker: **José De Gregorio**, Governor, Central Bank of Chile
 “Copper and Macroeconomic Fluctuations in Chile”

Discussant: **Jeffrey Frankel**, Harvard University

Speaker: **Mohammed Laksaci**, Governor, Bank of Algeria
 “Natural Resource Management and Financial Stability in Algeria”

Speaker: **Linah Mohohlo**, Governor, Bank of Botswana
 “The Management of Commodity Revenues: The Case of Botswana”

General Discussion

5:20 p.m. – 6:30 p.m. **Panel Discussion**

Chair: **Karim Djoudi**, Minister of Finance, Algeria

Panelists:

Ali Badjo Gamatie, Vice Governor, BCEAO

Fifi Kwetey, Deputy Minister, Ministry of Finance and Economic Planning, Ghana

Jean-Claude Masangu Mulongo, Governor, Bank of Democratic Republic of Congo

Mark Plant, Deputy Director, African Department, IMF

Emmanuel Tumusiime-Mutebile, Governor, Bank of Uganda

7:30 p.m. Dinner

FRIDAY, NOVEMBER 5, 2010

9:00 a.m. – 10:20 a.m. SESSION V. MANAGING VOLATILITY AND ASSET ALLOCATION

Chair: **Mohammed Laksaci**, Governor, Bank of Algeria

Speaker: **Javier Duclaud**, Central Bank of Mexico
 “Mexico’s Oil Price Hedging Program”

Discussant: **Aasim Husain**, Senior Advisor, Strategy, Policy, & Review
 Department, IMF

Speaker: **Thomas Ekeli**, Ministry of Finance, Norway
 “Optimal Level of Reserve and Financial Asset Allocation”

Discussant: **Amadou Sy**, IMF Institute

General Discussion

10:20 a.m. – 10:40 a.m. Coffee Break

10:40 a.m. – 12:00 p.m. SESSION VI. INSTITUTIONAL ASPECTS

Chair: **Situmbeko Musokotwane**, Minister of Finance and National Planning,
 Zambia

Speaker: **Ragnar Torvik**, Norwegian University of Science and Technology
 “The Political Economy of Reform in Resource Rich Countries”

Discussant: **Antoine Heuty**, Revenue Watch Institute

Speaker: **Augustin Fosu**, UNU-WIDER

“Terms of Trade and Growth of Resource Economies: A Tale of Two Countries”

Discussant: **Thorvaldur Gylfason**, University of Iceland

General Discussion

12:30 p.m. – 2:00 p.m. **Lunch**

2:00 p.m. – 3:30 p.m. SESSION VII. PANEL DISCUSSION

Chair: **Leslie Lipschitz**, Director, IMF Institute

Panelists:

José De Gregorio, Governor, Central Bank of Chile

Jeffrey Frankel, Harvard University

Alan Gelb, Center for Global Development

Mustapha Nabli, Economic Research Forum

Christof Rühl, BP

General Discussion

3:30 p.m. – 3:45 p.m. **Closing Remarks**

MOTIVATION AND SUMMARY

“... in resource-rich countries, the blessing of riches can turn rapidly into the curse of conflict.”

Dominique Strauss-Kahn,
Kenya International Conference Center,
Nairobi March 8, 2010.

Despite their abundance in natural resources many countries, including several sub-Saharan African countries show a record of relatively poor economic performance compared to non-resource rich countries. The consensus in academic as well as policy circles is that the presence of natural resources in a country poses a number of challenges—long recognized ones such as loss of competitiveness, and a weakening of institutional arrangements, as well as newer ones such as confronting macro-economic volatility and maintaining financial stability.

The jury is still out on how macroeconomic policies and financial systems should be tailored to assist resource-rich countries in addressing these challenges. The relevance of addressing these issues in a high level seminar (HLS) is further demonstrated by the growing number of countries—such as Ghana, Uganda and Angola in Africa—that recently discovered new oil and gas fields.

The objective of this HLS would be, starting from a diagnosis of the challenges to macroeconomic management and financial sector policies in resource rich countries, to propose implementable, context-specific solutions with a focus on Africa. The seminar would be organized around three themes.

First, it would focus on the **macroeconomic policies** to address the challenges that the existence of natural resources poses. Participants will reflect on the historical developments and future prospects of international commodity markets (in a context of the global fight against climate change), consider the wisdom of using fiscal institutions to avoid overspending during good times, and examine the role that monetary and exchange regimes could play in limiting the volatility pertaining to international commodity prices.

Second, participants would discuss the **role the financial system** could play in supporting the economic diversification efforts and address the interaction between financial wealth management and macroeconomic volatility.

Finally, participants would build on **success stories**, comparing experiences across regions and discussing the **political economy** of reforms in context of weak institutional conditions, where rent seeking behavior operates.



Rabah Arezki

Rabah Arezki is an Economist at the IMF Institute and holds a PhD in Economics from the European University Institute in Florence, Italy. He has conducted research on different areas of macroeconomics and development economics including on the economics of natural resource rich countries. Prior to joining the African Division at the IMF Institute, Rabah has worked in the Fiscal Affairs Department and the Middle East and Central Asia Department at the IMF.



Thorsten Beck

Thorsten Beck is Professor of Economics and Chairman of the European Banking Center. Before joining Tilburg University and the CentER, he worked at the Development Research Group of the World Bank.

His research and policy work has focused on two main questions: What is the effect of financial sector development on economic growth and poverty alleviation? What are the determinants of a sound and effective financial sector? Recently, his research has focused on access to financial services by small and medium-sized enterprises and households. He is co-author of "Making Finance Work for Africa" and "Finance for All? Policies and Pitfalls in Expanding Access". His country experience in both research and policy work includes Bangladesh, Bolivia, Brazil, China, Colombia, Mexico, Peru, Russia and several sub-Saharan African countries.



José De Gregorio Rebeco

Jose De Gregorio R. has been Governor of the Central Bank of Chile since December 2007. He was formerly Vice-Governor from December 2003, and member of the Bank's Board from June 2001. From March 2000 to June 2001, Mr. De Gregorio was a “tri-minister”, acting as the minister of the combined portfolios of the Economy, Mining and Energy. He is moreover full professor at the Universidad de Chile and Universidad Católica. Between 1997 and 2000 he was professor and head of post-graduate programs at the Center of Applied Economics at the University of Chile. From 1994 to 1997, he was Coordinator of Economic Policy at the Ministry of Finance, Chile. From 1990 to 1994 he worked as an economist in the research department of the International Monetary Fund. He has a degree in civil engineering and a master’s degree in engineering from the University of Chile (1984). He obtained a PhD in Economics in 1990 at the MIT. He has published widely in international academic reviews and books on issues including stabilization policies, foreign exchange regimes and economic growth.



Javier Duclaud

Javier Duclaud is General Director of Central Banking Operations at the Bank of Mexico.

Undergraduate studies in Economics at the Instituto Tecnológico Autónomo de México (ITAM 1987). Master in Business Administration (MBA). University of Rochester, NY, William E. Simon Graduate School of Business Administration (1992). Concentration: Finance. His thesis to obtain the degree in Economics “Optimal hedging strategies against interest rate and oil price fluctuations” was awarded the Third Place in Premio Nacional de Economía Banamex (1991). Mr. Duclaud has had many responsibilities at the Central Bank of Mexico. He is currently General Director of Central Banking Operations, and as such is responsible for domestic and international operations of the Central Bank. Among his most important duties are the implementation of foreign exchange and monetary policy, and the investment of the Central Bank’s foreign currency reserves. The Central Bank is also the financial agent of the Federal Government, and as such is responsible for the placement of peso denominated debt and the implementation of hedging programs on their behalf. Mr. Duclaud supervises these operations.



Thomas Ekeli

Thomas Ekeli is Counselor for Economic and Financial Affairs with the Norwegian Delegation to the OECD in Paris, following several years as Investment Director in the Asset Management Department of the Norwegian Ministry of Finance. He has previously worked on monetary policy and financial market issues in the Ministry and served as Deputy Director General of the Economic Policy Department. He was also International Economist with Lehman Brothers in London (1997-2000), Chief Economist with Pareto Securities in Oslo (2001-04), IMF Petroleum Fund Advisor in Timor-Leste (2004-05) and portfolio manager with Norges Bank Investment Management in London (2005-06). He has an economics degree from the University of Oslo.



Augustin Fosu

Augustin K. FOSU is Deputy Director, UN University-WIDER, Helsinki, Finland; honorary RDRC Research Fellow, University of California-Berkeley, USA; and honorary BWPI Research Associate, University of Manchester, UK. Previous positions include Director (Economic and Social Policy Division) and Senior Policy Advisor /Chief Economist, UN Economic Commission for Africa; and Director of Research, African Economic Research Consortium. He holds PhD and master's degrees in economics from Northwestern University, USA, and a bachelor's (honors: *cum laude*, 'distinction', *Phi Beta Kappa*) in mathematics and economics from Lawrence University, USA. He has published widely in both labor and development economics and is ranked among the "top 500 economists" worldwide:

Prof. Fosu is co-editor of the *Journal of African Economies* (Oxford) and serves on the editorial boards of several other journals, including: *African Development Review*, *Feminist Economics*, *Journal of Development Studies*, *Oxford Development Studies*, *World Bank Economic Review*, and *World Development*.



Jeffrey Frankel

Jeffrey Frankel is James W. Harpel Professor of Capital Formation and Growth at Harvard University's Kennedy School of Government. He directs the program in International Finance and Macroeconomics at the National Bureau of Economic Research, where he is also a member of the Business Cycle Dating Committee, which officially declares recessions. Appointed to the Council of Economic Advisers by President Clinton in 1996 and subsequently confirmed by the Senate, he served until 1999. Before moving East, he had been professor of economics at the University of California, Berkeley. He is on advisory panels for the Federal Reserve Banks of New York and Boston, the Peterson Institute for International Economics, and the Bureau of Economic Analysis. His research interests include international finance, currencies, monetary and fiscal policy, commodities, regional blocs, and global environmental issues. He was born in San Francisco, graduated from Swarthmore College, and received his Economics PhD from MIT



Alan Gelb

Alan Gelb is a senior fellow at the Center for Global Development. He had previously been Director of Development Policy at the World Bank; prior to this Chief Economist for the Africa Region and Staff Director for the 1996 World Development Report “From Plan to Market”. His main recent areas of work have included the special development challenges of resource-rich countries, aid and development outcomes, the transition from planned to market economies, and Africa, including directing a major study “Can Africa Claim the 21st Century”.

Education: D. Phil, B. Phil Oxford University, BSc (Hons) University of Natal



Thorvaldur Gylfason

Thorvaldur Gylfason is Professor of Economics at the University of Iceland, Editor of the *European Economic Review*, and Research Fellow at CEPR (Centre for Economic Policy Research) in London as well as at CESifo (Center for Economic Studies) at the University of Munich and the Center for U.S.-Japan Business and Economic Studies at New York University. A Princeton Ph.D., he has worked at the International Monetary Fund (IMF) in Washington, D.C., taught at Princeton, and was long associated with the Institute for International Economic Studies at Stockholm University. He has published over 100 scholarly articles and fifteen books, including seven collections of essays in Icelandic as well as *Understanding the Market Economy* (with Isachsen and Hamilton, Oxford, 1992), which has appeared in 17 languages, and *Principles of Economic Growth* (Oxford, 1999). He has lectured extensively around the world. He writes a weekly column for Iceland's largest daily newspaper, *Fréttablaðið*. His current research is mostly in the field of economic reforms, institutions, and growth.



Kaddour Hadri

Kaddour Hadri is Professor of Economics in Queens University Management School. He is the Research Director for Economics Analysis and Behaviour at QUB (January 2009-present). Before joining Queen's University, Kaddour Hadri was Professor of Econometrics and Finance at Durham University. Hadri is a visiting professor at The University of Liverpool. He held visiting position in many universities including Fudan University (China), Marseille University (France), University of Sydney (Australia) and Nanjing University (China). He has also been a Chairman of the Liverpool Economic and Statistical Society during the period 2000-2003. He is an elected member of the Executive Committee of the African Econometric Society (2006-2009). He has been elected President of the African Econometrics Society in July 2009.

In addition, he is a resource person for the African Economic Research Consortium (AERC) to advise researchers and PhD students from Sub-Saharan Africa (2004-present). He is an Associate Editor of the Bulletin of Economic Research and member of the Board of Editors of The German Economic Review.

Hadri has published widely in top economics journals, including *Econometrica*, *Journal of Econometrics*, *Econometrics Journal*, *Journal of Business & Economic Statistics*, *Economic Journal*, *Oxford Bulletin of Economics and Statistics*, *Journal of Time Series Analysis and Economic Letters*.



Kirk E. Hamilton

Kirk Hamilton is Lead Economist in the Development Economics Research Group of The World Bank and co-author of World Development Report 2010 *Development and Climate Change*. He is principal author of the World Bank report *Where is the Wealth of Nations?* and leads research on the links between poverty and environment, ‘greening’ the national accounts, and the economics of climate change. Previously senior research fellow at the UK Centre for Social and Economic Research on the Global Environment, Dr. Hamilton has researched and published extensively on growth theory and the economics of sustainable development. He also served as Assistant Director of National Accounts for the government of Canada, where his responsibilities included developing an environmental national accounting program. His degrees include a PhD in Economics and MSc in Resource and Environmental Economics from University College London, as well as a BSc (Eng.) from Queen's University at Kingston.



Antoine Heuty

Antoine Heuty has served as a public finance economist at the United Nations Development Program and as an economist for water projects in Armenia and Azerbaijan. He is the co-author of *Fiscal Space – Policy Options for Financing Human Development* and various articles on public investment, fiscal policy and economic development.

As deputy director of Revenue Watch, he shares responsibility for strategic planning, programs policy development, oversight, monitoring and evaluation. He manages Revenue Watch Institute's research, capacity building and technical assistance work and oversees the budget. He previously led all RWI technical assistance and economic policy research, in countries ranging from Peru to Sierra Leone to Indonesia to Mongolia.

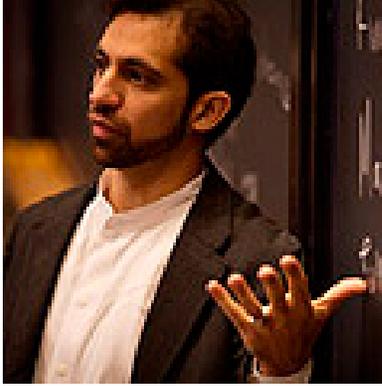
He studied at the Institut d'Etudes Politiques, Paris, Oxford University and Columbia University's School of International and Public Affairs.



Aasim Husain

Aasim Husain is currently Senior Advisor in the Strategy, Policy, and Review (SPR) Department of the International Monetary Fund (IMF), where he is involved in the Fund's policy development work in surveillance of emerging market economies (EMEs) and is responsible for reviewing the Fund's country work on many of the large EMEs. Prior to joining SPR, Mr. Husain served in the Middle East and Central Asia Department—as mission chief for Egypt, Jordan, and Kazakhstan—and in the Research Department, where he headed the Fund's work on oil and non-fuel commodity issues. Much of his early career at the Fund was spent in the Asia-Pacific Department.

Mr. Husain is a native of Pakistan. He received his Bachelors of Arts in Economics and Mathematical Sciences from Rice University and his Doctor of Philosophy in Economics from the University of Pennsylvania. He has been at the IMF since 1990.



Asim Khwaja

Asim Ijaz Khwaja is Professor of Public Policy at the Harvard Kennedy School of Government. His areas of interest include economic development, finance, education, political economy, institutions, and contract theory/mechanism design. His research combines extensive fieldwork, rigorous empirical analysis, and microeconomic theory to answer questions that are motivated by and engage with policy. It has been published in the leading economics journals, such as the *American Economic Review*, and the *Quarterly Journal of Economics*, and has received coverage in numerous media outlets such as the *Economist*, *NY Times*, *Washington Post*, *International Herald Tribune*, *Al-Jazeera*, *BBC*, and *CNN*. His recent work ranges from understanding market failures in emerging financial markets to examining the private education market in low-income countries. He was selected as a Carnegie Scholar in 2009 to pursue research on how religious institutions impact individual beliefs. Khwaja received BS degrees in economics and in mathematics with computer science from MIT and a PhD in economics from Harvard. A Pakistani, UK, and US citizen, he was born in London, U.K., lived for eight years in Kano, Nigeria, the next eight in Lahore, Pakistan, and the last eighteen years in Cambridge, Massachusetts. He continues to enjoy interacting with people around the globe.



Mohammed Laksaci

Mr. Laksaci has been Governor of the Bank of Algeria since June 2001. He is a former university professor and held different positions at the Bank of Algeria since the early 1990s. He holds a PhD in economics from Louvain University, Belgium.



Leslie Lipschitz

Leslie Lipschitz has been Director of the IMF Institute since December 2003. He joined the IMF in 1974, and during his more than 35 years of service at the Fund has held increasingly senior positions in four area departments (Western Hemisphere, Asia and Pacific, European, and African) and the Policy Development and Review Department (PDR). He received his PhD in economics from the University of London.

Mr. Lipschitz has worked extensively in Asia, Africa, and Europe and has led numerous IMF missions. He has participated in the Fund's work on surveillance over the major industrial countries, led program negotiations for both emerging and developing countries, and been closely involved in the Fund's policy development work in surveillance and conditionality.

Mr. Lipschitz has been a guest scholar at the Brookings Institution and has taught at Johns Hopkins University's School of Advanced International Studies. His publications are primarily in open economy macroeconomics and exchange rate policy.



Linah Mohohlo

Mrs Mohohlo is the Governor of the Bank of Botswana, the position she has held for more than 10 years, following a 23-year career with the Bank. She has also worked for the International Monetary Fund (Special Appointee: 1994-96) and, in her capacity as Governor of the International Monetary Fund for Botswana, she has been a member of the International Monetary and Financial Committee (2000–2002), representing 21 English speaking sub-Saharan African countries.

Mrs Mohohlo serves on boards of major corporations in Botswana and abroad. Among her international engagements, she was appointed Eminent Person in 2001 by the then Secretary General of the UN, Mr Kofi Annan, to oversee the evaluation of the United Nations New Agenda for the Development of Africa. She also served as a member of the Commission for Africa (chaired by former UK Prime Minister Tony Blair), which addressed Africa's poverty and stagnation problems, as contained in the Report (2005), "Our Common Interest". Mrs Mohohlo is a member of the Investment Committee of the United Nations Joint Staff Pension Fund, and a member of the Africa Progress Panel. She chairs the World Economic Forum's Global Agenda Council on Poverty and Development Finance.

Mrs Mohohlo is a recipient of a number of national and international awards, among which is Botswana's highest public service award for efficient and devoted service (Presidential Order of Honour).

She has read accounting and business, economics, finance and investments at the University of Botswana, The George Washington University(USA) and University of Exeter(UK), and has authored and/or published several papers and book chapters in economics, finance, reserves management and governance.



Mustapha Nabli

Mr. Nabli has been the Regional Chief Economist and Director of the Social and Economic Development Group within the Middle East and North Africa Region of the World Bank since 1999. Mr. Nabli joined the World Bank in 1997 as Senior Economic Advisor with the Development Prospects Group, Development Economics. Prior to joining the Bank, Mr. Nabli was an international consultant, before which he served as Minister of Economic Development and Minister of Planning and Regional Development in the Government of Tunisia from 1990 to 1995. From 1988-1990, Mr. Nabli held the position of Chairman of the Tunis Stock Exchange. Prior to 1988, Mr. Nabli was Professor of economics, Faculté de Droit et des Sciences Politiques et Economiques de Tunis and served as visiting professor at various universities in Canada, USA, Belgium and France. Mr. Nabli holds a Ph.D. and a Masters degree in Economics from the University of California at Los Angeles.



Mark Plant

Mark Plant is currently Deputy Director in the African Department of the International Monetary Fund (IMF), where he is responsible for departmental operations. Prior to that, Mr. Plant served in the IMF's Policy Development and Review Department, where he was in charge of the Fund's policies towards low-income countries. Earlier he served as the chief of the division responsible for reviewing all loans to low-income countries. Mr. Plant began his career at the IMF in the African Department where he was chief of IMF missions to Ghana, Guinea, Cape Verde and Chad.

Preceding his career at the IMF, Mr. Plant served as Deputy Under Secretary and Acting Under Secretary for Economic Affairs in the United States Department of Commerce. Prior to that, he spent two years as a Senior Economist at the General Motors Corporation. He began his career teaching economics at the University of California, Los Angeles and at Princeton University, where he published papers in the fields of labor economics, econometrics and macroeconomics. Recently he served as a visiting professor at the University of Virginia.

A native of Ann Arbor, Michigan, Mr. Plant received his Bachelors of Arts in Economics and Mathematics at the University of Virginia and his Masters of Arts and Doctor of Philosophy in Economics at Princeton University.



Marc Quintyn

Marc Quintyn is the Division Chief in the African Division of the IMF Institute. He has worked at the Fund since 1989. He is a Belgian national, and holds a PhD in economics from University of Ghent.

He worked in the Research department at the National Bank of Belgium and was a professor at University of Limburg before joining the International Monetary Fund. Before joining the Institute, he worked in the Monetary and Capital Markets department (MCM).

His current research covers Banking Supervision, Monetary Policy and Governance in the financial sector.



Marian Radetzki

Marian Radetzki, since long Swedish citizen, was born in 1936 in Warsaw, Poland. He obtained his doctoral degree from the Stockholm School of Economics in 1972. In the early 1970s he worked as chief economist of CIPEC, the international copper cartel. After the mid-1970s, he has been mainly preoccupied in academia, including positions as senior researcher at the Institute for International Economic Studies, Stockholm University, as Visiting Professor of Mineral Economics at the Colorado School of Mines and at the Catholic University, Santiago de Chile, as President of SNS Energy, a research institute focusing on international energy markets, and, from the early 1990s, as Professor of Economics, Luleå University of Technology in Sweden. Throughout his career the focus of his work has been on issues related to raw materials, and in particular to minerals, metals and energy. He has published a number of books and numerous papers in academic journals in the fields of his expertise. His most recent book, *A Handbook of Primary Commodities in the Global Economy*, was published in 2008 by Cambridge University Press, and subsequently Swedish and Spanish translations have appeared. He has also undertaken a number of consulting assignments for multinational corporations, governments of developing countries, and international organizations like the World Bank, UNCTAD and UNIDO.



Christof Rühl

Christof Rühl is Group Chief Economist and Vice President of BP plc. He manages BP's global Economics Team, providing economic input into the firm's commercial decisions. BP's Economics Team also produces the annual *Statistical Review of World Energy*.

Christof has a distinguished track record in both academia and economic policy making. Prior to joining BP, he was at the World Bank (1998-2005) where he served as the Bank's Chief Economist in Russia and in Brazil. Before that, Christof worked in the Office of the Chief Economist at the EBRD in London. Previously, he was an academic economist, first in Germany and from 1991 as Professor of Economics at the University of California in Los Angeles. In addition, Christof held Visiting Professorships at academic institutions worldwide, amongst them the University of Chicago. His areas of specialisation are macroeconomics and energy economics; he has published widely in these fields.



Amadou Nicolas Racine Sy

Amadou Sy—a national of Senegal—is Deputy Chief, Africa at the IMF Institute where he teaches macroeconomics and finance. He also advises researchers as a resource person for the Nairobi-based African Economic Research Consortium (AERC).

Amadou started his IMF career during the Asian crisis in the Research Department working on international capital markets. He has subsequently worked in a number of areas, including global financial stability, financial sector assessment programs, and debt and reserves management. He recently contributed to the *Santiago Principles* published by the International Working Group of Sovereign Wealth Funds.

He has contributed to a number of books and journal articles including *The Journal of Banking and Finance*, *IMF Staff Paper*, *Emerging Markets Review*, and *The Review of International Economics*. He has contributed to a number of columns in the financial press, including *Finance & Development*, *The Korea Herald (Forum for the 2010 G20 Meetings)*, *The Analyst* (India), *IMF Survey*, and *VoxEU*. He has been interviewed by *Agence France Presse*, and quoted in *Le Point*, *The Kuwaiti Times*, *Invertia* (Chile), and *El Pais*.

Amadou holds a Ph.D. in Finance from McGill University in Canada. He is a CFA Charter holder and a Certified Financial Risk Manager (FRM).



Ragnar Torvik

Ragnar Torvik is Professor of Economics at the Norwegian University of Science and Technology, Scientific advisor the Central Bank of Norway, and Editor of the Scandinavian Journal of Economics. He has been a visiting scholar at UC Berkeley, Harvard, and MIT. Torvik received his PhD in 1995 (University of Oslo). He was awarded the 1996 King of Norway's Gold Medal for the best thesis in Social Sciences, and the 2007/08 Trygve Lie Fulbright fellowship (Harvard University). His main areas of research are political economy, development economics and macroeconomics. His current research concentrates on the connection between resource abundance on the one hand, and economic and political development on the other.