INTERVIEW WITH
PROFESSOR RICARDO
CABALLERO

“GLOBAL IMBALANCES”
AND FINANCIAL DEVEL-
OPMENT

Financial market participants and policy makers around the
world are concerned about “global imbalances.” What are these
imbalances?

“Global imbalances” refers to the fact that the Anglo-Saxon
economies and the US in particular, are running large current
account deficits while Japan, emerging markets and commodity
producing economies in general are financing these
deficits. The truth is that, with a brief interruption in the early
1990s, the US has been running current account deficits for
quite a while, but nothing on the scale that began to develop
after the emerging market crisis of the late 1990s. Today, the
deficit is around 800 billion US dollars, or close to six percent of
US GDP.

What is the concern?

I like to use quotes around “global imbalances” to remove
the negative connotation that is often attributed to the word
imbalance. The conventional wisdom - which essentially
amounts to pattern recognition and extrapolation from emerging
market experiences and a few historical episodes in the
developed world of little relevance to the current scenario -
warns that the current situation is unsustainable and that a crisis
is around the corner.

What is wrong with this conventional wisdom?

I began to follow the literature in 2004. I had to prepare a lec-
ture for the largest meeting of the Chilean business and eco-
nomic policy community. At first, I had planned to survey the
main papers and report the facts but I grew increasingly upset
with the literature. It seemed too partial-equilibrium in nature. It
was taken directly from an old IMF manual on the dangers of
large current account deficits, especially when “caused” by
large fiscal deficits. But it turned out that real interest rates were
falling, not rising at the time. Moreover, when an emerging
market economy is in trouble, investors have a large number of
topics and one on corporate
issues, each attended by about
50 researchers. This limited size
allows the conference to gener-
te intense discussions even in
the plenary sessions. Addition-
ally, there are the parallel sessions
of contributed papers, which
allow for even more interaction.
The afternoons give attendees
room to work on their projects,
which often enough end up
being presented in the next year.

This year’s organizers were Pietro
Veronesi (University of Chicago
and CEPR) and David Thesmar
(HEC Paris and CEPR). Their
program covered a diverse array
of research topics and included
a number of top speakers with
over 30 presentations in the plen-
ary sessions plus evening work-
shops. The Focus sessions were
dedicated to the following
research agendas:

"Frictions in Capital Markets:
Implications for Asset Pricing"
- Session chair Darrell Duffie
(Stanford University) summa-
rized the topic as "Market
Microstructure meets Asset
Pricing," and indeed the vari-
ous papers presented showed
how the structure of securities
dealing affects pricing patterns.
For example, in the model of
Terry Hendershott and Mark
Seasholes (both from Universi-
ty of California at Berkeley),
different momentum effects
occur for different stocks
depending on the presence of
liquidity providers in the mar-
et. In joint work with Bruno
nearly perfect substitutes to reallocate their funds to, but the US was at the time absorbing on the order of 600 billion US dollars a year and rising, and I just simply couldn’t imagine where those resources would go instead. Continental Europe and Japan did not look in great economic shape, certainly not relative to the US, which made the analogy with the 1980s more or less irrelevant as well.

What were they missing?

It seemed evident to me at the time that the explanation for the “global imbalances” had to be of a global, not US-alone nature, and that understanding the global sources of the phenomenon is key to deciding whether the situation is fragile and justifies policy intervention of some kind. The conventional wisdom had a diagnostic and a long list of remedies without really having done the homework.

Dick Cooper, and the Deutsche Bank group (Mike Dooley and co-authors) were among the few taking a global perspective and they deserve credit for that. The former focused on the demographic problems of Japan and Europe, the latter on China’s shape, certainly not relative to the US, which made the analogy with the 1980s more or less irrelevant as well.

Your research suggests that persistent current account deficits or surpluses are a natural consequence of cross-country differences in growth and the degree of financial development.

The central feature of my perspective on the world economy, both in the paper with Emmanuel and Pierre-Olivier as well as in a previous paper with Arvind Krishnamurthy focusing on emerging markets, is that the world economy suffers from a shortage of assets for store of value. Emerging markets and many of the commodity economies have a much greater ability to produce output and income from their stock of capital than to produce financial assets. This is a consequence of limited creditor rights and many other factors. Through globalization, the chronic asset shortage in these economies has spread to the global economy. The emerging market crises of the late 1990s destroyed a substantial share of the supply of assets in those economies, and more recently the high commodity prices and the Chinese surge have generated enormous demand for store of value assets. In this environment, countries with more financial development obtain significant capital gains and flows from countries seeking to store value. The US has been the main winner in this environment, especially when potential growth in continental Europe and Japan, which are its natural competitors in asset-production, has not been stellar until very recently.

By the way, the asset shortage perspective has implications beyond the “global imbalances,” as it also helps account for the observed low real interest rates and inflation, as well as the recurrent emergence of speculative bubbles. These are all market mechanisms to build asset supply.

Does this imply that “global imbalances” are harmless?

No. For once, they are dangerous in the same sense that banks are dangerous because they create the possibility of bank runs. Of course, whenever there is leverage, borrowers and lenders, things can go wrong. But this does not mean that we must eliminate them, for the cost of doing so may be much larger than the benefit.

However, the most serious danger is that politicians decide to “solve” the problem and start resorting to protectionist policies to do so. In a recent paper with Pol Antras we show that, somewhat paradoxically, raising tariffs may backfire, in the sense that it may initially exacerbate the so called “global imbalances.” The reason is that tariffs may hurt the South’s capacity to generate financial assets, and hence exacerbate the reason for capital outflows. Needless to say, if that were the case and politicians responded by raising tariffs further, the costs may be immense.

Will “global imbalances” disappear any time soon?

I’m not in the forecasting business. Too many things can happen that can change the global scenario. The good thing of having a framework to think about these issues is that one can at least describe the impact of a few factors. For example, if growth in Europe and Japan picks up relative to that in the US, then I would expect some reallocation of global funds to those regions. Or if the speed of financial development picks up in emerging markets, or local bubbles within these economies develop, then I would expect a reduction in capital flows toward the US. What I don’t believe, however, is that the current situation is an aberration that can go away in any instant without a major driving force behind this shift.

Indeed, for emerging market economies, financial underdevelopment has many costs. Aside from the standard microeconomic costs associated to limited financial infrastructure, there are major macroeconomic costs. These economies oscillate between periods when they experience net capital outflows as agents seek to store value abroad, and periods of booms and large capital inflows when speculative bubbles develop in domestic financial markets, which in turn end up in sudden stops and large crises. Arvind and I have shown in several papers that in this environment the private sector typically undervalues the social cost of this volatility. The pecuniary externality behind this undervaluation is the direct result of financial underdevelopment.

Which policy responses do you suggest?

There is no substitute for financial development and this must be the main mechanism to deal with this problem. This is important to keep in mind when ranking second best policies as well. For example, taxing capital inflows and imposing large liquidity ratios on the domestic banking system appear as natural instruments to deal with the pecuniary externality,
but I do not like such policies. Not only do they seldom work for long, as economic agents find ways around them, but they also retard financial development and hence prolong the agony.

Of course, in extreme situations there may not be another option but to use these extreme measures. For the others, there are more subtle mechanisms that may suffice, such as modifying the inflation targeting mechanism so as to embed better incentives for the private sector (Arvind and I showed that simply overweighting non-tradable goods could do much of the trick).

In any event, regardless of the degree of underdevelopment of domestic financial markets, these countries would all benefit from better external risk management practices. For example, they could invest part of their international reserves in assets with better hedging features than US Treasuries; they could also issue external liabilities with these insurance features. Stavros Panageas and I have written several papers showing the substantial benefits that would derive from such practices.

Discussions about financial stability increasingly focus on liquidity rather than solvency issues. At the same time, the instruments traded on financial markets have become more and more complex. Do you see a connection between these developments?

The word “liquidity” is rather vague, perhaps abused. My interpretation of it is as something that facilitates positive value transactions. Thus a liquidity crisis is one that prevents, for financial reasons, many transactions that have strictly positive expected net present value. Financial innovation facilitates transactions that before would not have been possible. But innovation also brings with it Knightian uncertainty, as nobody quite knows how the new system works under duress. As Arvind and I have shown in recent work, Knightian uncertainty has the potential to generate acute flight-to-quality episodes in which private liquidity does not disappear but it freezes.

What is the role of central banks in such episodes?

A credible lender of last resort facility that focuses on extreme events has the ability to significantly reduce the likelihood of a flight-to-quality episode. It is not so much the actual resources that the central bank injects that really matter, as is the fact that with the trust that the central bank will help in rare events, private liquidity does not become locked up easily during normal recessions and adversity.

Thank you very much!

This edited interview was conducted by Dirk Niepelt while Professor Caballero taught an Advanced Doctoral Course in Financial Stability in the Open Economy at the Study Center.

Professor Ricardo J. Caballero is the Ford International Professor of Economics, Co-Director of the World Economic Laboratory at the Massachusetts Institute of Technology, and an NBER Research Associate in economic fluctuations and growth. A Chilean native, he received his Ph.D. from MIT. Before returning to MIT, he taught at Columbia University for three years, and was an Olin Fellow at the NBER. Professor Caballero has been a visiting scholar and consultant at the American Enterprise Institute, the European Central Bank, the Federal Reserve Board, the Inter-American Development Bank, the International Monetary Fund, the World Bank, and several central banks and government institutions around the world. He serves on the editorial board of several academic journals and was the winner of the 2002 Frisch Medal of the Econometric Society.

Professor Caballero’s teaching and research is in macroeconomics, international economics, and finance. His current research looks at global capital markets, speculative episodes and financial bubbles, systemic crises prevention mechanisms, and dynamic restructuring. His policy work focuses on aggregate risk management and insurance arrangements for emerging market economies. Professor Caballero has also written about aggregate consumption and investment, exchange rates, externalities, growth, price rigidities, and dynamic aggregation.
Strulovici (University of Oxford), Duffie stressed the asset price implications of idiosyncratic risk, which are absent in the benchmark model. But when frictions prevent diversification at least temporarily, such risks must be compensated. Dimitri Vayanos (London School of Economics and CEPR) and Jean-Luc Villa (Merrill Lynch) presented a model designed to explain recent movements in the term structure of interest rates, where long yields have decreased substantially, despite increases in short-term rates. Their model is build around the interaction between arbitrageurs and clienteles with different maturity preferences, for example pension funds. In their model, the short end of the term structure is primarily determined by the trading of arbitrageurs whilst the long end is demand-driven and depends more on clientele effects.

"Household Finance: The Liability Side" - This focus session was organized by Annette Vissing Jorgensen (Northwestern University and CEPR) who has studied financial decisions of individuals extensively in her own work. She invited three papers to the session studying various aspects of how US households can and do raise money, in particular to finance housing. Important aspects of mortgage financing are whether to take out a fixed- or adjustable-rate contract and whether to invest available income in tax-deferred savings accounts instead of paying down mortgage obligations. On the latter issue, Clemens Sialm, Jennifer Huang (both from the University of Texas) and Gene Amromin (Chicago Fed) documented how consumers are led to defer mortgage payments, when there are tax-advantages on savings accounts. On the former issue, James Vickery (New York Fed) showed that households are very sensitive to interest rates when taking out fixed rate mortgages: A rate rise of 1 basis point leads to a roughly 1 percent increase in the market share of fixed rate contracts which Vickery interprets as a high sensitivity of the market to small changes in liquidity or competition amongst mortgage providers. A related model of optimal mortgage timing by consumers was presented later in the conference by NYU’s Stijn van Nieuwerburgh (joint with NYU’s Otto van Hemert and Ralph Koijen, Tilburg University). Turning away from housing finance, Adair Morse (University of Chicago) gave a lively talk on the welfare effects of high-interest rate lending to low income households. Morse compares the occurrence of welfare proxies such as alcohol and drug abuse, foreclosures and births in communities with and without the availability of such short-term finance for cash-strapped individuals. She finds that communities show a greater resilience to overcome the effects of natural disasters when such financing facilities are present. This would suggest that there may be social benefits from such lending practices, despite their appallingly high interest rates of around 400%.

The "corporate finance week" featured a focus session on "Cash Policy" and a session on the growing literature connecting neuroscience with financial decision making, titled "Microfoundations and Financial Choices: Trust, Overconfidence and Risk Preferences." The latter session offered a striking example of how economic research is breaching new grounds into hitherto uncharted territories — in this case by meshing economic analysis with results from neuroscience.

Cash Policy is a traditional corporate finance issue. Session organizer Toni Whited (Wisconsin University) introduced theoretical and empirical work on firms’ ‘preferences’ for cash holdings. Common intuition would suggest that “safe” firms hold much cash and enjoy low credit spreads. But as shown by Ilya Strebulaev (Stanford University), Viral Acharya (LBS) and Sergei Davydenko (University of Toronto), the opposite holds in the data. The authors explain this observation based on a precautionary savings motive of risky businesses. Whited’s theoretical work (joint with Leigh A. Riddick from the American University) shows how firms’ propensity to save depends negatively on cash flows. Finally, Enrique Schroth (University of Lausanne) and Dezso Szalay (Warwick University) document empirically that pharmaceutical firms with relatively large cash holdings tend to win patent races.

The neuroscience session presented exciting results from a growing field that is about to change our understanding of decision making under risk and uncertainty. One starting point of this field is clinical research that documents how different parts of the brain respond when subjects choose among risky alternatives. Chaired by Paola Sapienza (Northwestern University and CEPR), the session featured evidence from neuroscience about the “transmission mechanisms” that risky decisions activate in the human brain (presented by Northwestern’s Camelia Kuhnen). Ernst Fehr, Urs Fischbacher and Michael Kosfeld (all from the University of Zurich) surveyed how people value trust and analyzed how such valuation can be influenced by administering a particular hormone to human candidates in behavioral experiments.

Beyond the focus sessions, topics ranged from stock return predictability, venture capital and buy-outs to managerial incentive issues. Inside and outside the sessions, discussions were lively and animated. There were many familiar faces from previous years but also many new participants who visibly enjoyed the working atmosphere of the conference.
From July 2 to 13, the Study Center once more hosted the annual European Summer Symposium in Economic Theory (ESSET), co-organized with CEPR. Leonardo Felli (London School of Economics and CEPR) and Lucy White (Harvard Business School, Université de Lausanne and CEPR) organized the meeting. Its purpose was to bring together both established scholars and promising young researchers who share an interest in microeconomic theory and its applications.

About 35 papers were presented during the Symposium in morning or evening sessions. In the first week, Volker Nocke (University of Oxford and CEPR) organized a focus session on “Competition and Antitrust Enforcement”. In the second week, Antonio Merlo (University of Pennsylvania and CEPR) organized a focus session on “Theoretical Models of Political Economy”.

The full program of ESSET, as well as the program of the European Summer Symposium in Financial Markets (ESSFM) is available on our homepage at www.szgerzensee.ch/conferences/.

Switzerland is not only the home of a globally renowned banking industry; it is also nourishing an ever growing community of world-class financial academics. For several years, the federally funded NCCR Finrisk project has been contributing to this end. And lately, these efforts have been boosted by the creation of the Swiss Finance Institute (SFI) which is backed by generous funding from the country’s financial sector. Amongst others, the Swiss Finance Institute is collaborating with the Study Center in teaching financial economics in our Central Bankers Courses.

Each year, NCCR organizes a Doctoral Workshop and since 2003 the event takes place at the Study Center. This year’s workshop was co-organized with the SFI. During two days in June, doctoral students presented their projects and received comments from faculty members, including Rene Stulz (Ohio State University) and Jerome Detemple (Boston University). In parallel, various project groups presented their work at the Finrisk Research Day.

In his keynote speech, Peter Bossaerts (EPFL Lausanne and Swiss Finance Institute) described how results from neuroscience about the workings of the human brain help understand the decision making process of traders. Bossaerts has just received a senior SFI chair at EPFL Lausanne.

The full program of ESSET and its purpose was to bring together both established scholars and promising young researchers who share an interest in microeconomic theory and its applications.
This conference, organized jointly by the National Bank of Poland (NBP) and the Swiss National Bank (SNB), was held from May 31 to June 1, 2007, at the Study Center Gerzensee. The main goal of the conference was to bring together academics and central bankers in order to discuss theoretical and practical aspects of financial systems and monetary policy, including some case studies from transition countries. The central banks represented at the conference included those from Albania, Armenia, Austria, Azerbaijan, Georgia, Kyrgyz Republic, Macedonia, Moldova, Poland, Serbia, Switzerland, Tajikistan, Turkey, and Ukraine.

Conference sessions were devoted to the issues of financial systems and the real economy, financial sector development, financial systems and monetary policy, exchange rates, and interest rates. The academics contributed to the conference by presenting theories and empirical evidence, while the central bankers shared their practical experiences and challenges. The resulting exchange of ideas proved very fruitful and helped participants’ understanding of the important links between financial systems and monetary policy.

The rising popularity of Dynamic Stochastic General Equilibrium (DSGE) models in policy analysis has made computational skills an indispensable tool for central bankers. Since long, the Study Center has helped to disseminate such skills as part of its Central Bankers’ Courses – in particular the two-week courses on advanced topics in finance and monetary economics. This year, a special one-day program has been designed for researchers and analysts at the Swiss National Bank. The program focuses on the MATLAB software and applications in DSGE analysis. After its first two installments, the course has been very well received and we are looking forward to future training events.

The conference program included contributions from a wide range of experts, including:

- **Josef Perrez**, Swiss National Bank
- **Nicole Allenspach**, Swiss National Bank
- **Jean Imbs**, University of Lausanne
- **Jason Sturgess**, London Business School
- **Martin Brown**, Swiss National Bank
- **Tullio Jappelli** and **Marco Pagano**, University of Naples Federico II
- **Asim Zulfugarov**, National Bank of Azerbaijan
- **Xavier Freixas**, University Pompeu Fabra
- **José Jorge**, University of Porto
- **Sylvia Kaufmann**, Swiss National Bank
- **Johann Scharler**, University of Linz
- **Suerkul Abdyboly tegin**, National Bank of the Kyrgyz Republic
- **Jamsheed Yusupov**, National Bank of Tajikistan
- **Ulrich Kohli**, Swiss National Bank
- **Philippe Bacchetta**, Study Center Gerzensee
- **Petra Gerlach-Kristen**, Swiss National Bank
- **Michal Brzoza-Brzezina**, National Bank of Poland
- **Tomasz Chmielewski** and **Adam Kot**, National Bank of Poland
- **Michal Brzoza-Brzezina**, National Bank of Poland
- **Jesús Crespo Cuaresma**, University of Innsbruck
- **Katrin Assenmacher-Wesche**, Swiss National Bank
- **Stefan Gerlach**, Bank for International Settlements

*The Interaction between the Swiss Banking Sector and the Macroeconomy: Results from a Vector-Autoregression Analysis*

*Finance and Efficiency: Do Bank Branching Deregulations Matter?*

*Financial System Development in Azerbaijan*

*Challenges of Monetary Policy in Kyrgyzstan*

*Implementation of Monetary Policy in Tajikistan*

*Monetary Policy, Prices and Exchange Rates – the Swiss Case*

*Information and Exchange Rates*

*Three Aspects of the Swiss Term Structure: An Empirical Survey*

*Global Factors and Monetary Transmission in Poland – What is to be Blamed for Policy Maker’s Headache?*

*Mr. Wicksell and the Global Economy: What Drives Real Interest Rates?*

*The Term Structure of Interest Rates across Frequencies*
Many changes in the staff occurred in 2007. Dirk Niepelt was promoted to deputy director last April. Martin Wyss—who joined the Study Center as deputy director in 1998—took a new challenge at the Swiss National Bank in Berne and left the Study Center at the end of September. Also in September, Samuel Reynard replaced Marco Cavaliere—who took a position at the Swiss Banking Commission—as program manager for our central bankers’ courses. Teo Ruiz replaced Judith Urf er as administrative assistant for our doctoral programs. Jacqueline Rothacher started in December and will be in charge of accounting and administration. Pinar Yesin gave birth to her second child and decided to leave her part-time association with the Study Center to work fully with the Swiss National Bank in Zurich. Two of our assistants also left the Study Center in 2007. Patrick Winistörfer joined the Swiss Banking Commission and Daniel Burren decided to start a Master’s program in statistics. We would like to congratulate Elmar Mertens, who obtained his doctoral degree from the University of Lausanne. He will remain at the Study Center as lecturer.

Three employees who were at the Study Center since its beginning retired in 2007: our head of premises Erwin Aeschlimann, our librarian Rösli Scheidegger, and our gardener Willy Kammermann. Our other gardener, Beat Mühlmatter, also left for another job in Thune. Finally, four full-time employees joined our business partner SV as a consequence of the outsourcing: Dora Badertscher, in charge of accounting and external meetings, and three staff members in charge of housekeeping and equipment engineering: Manfred Baumann, Pascal Krüger, and Roland Schertenleib.

We express our gratitude to all the staff members who have contributed to the good working of the Study Center Gerzen see in the last two decades and wish them all the best for the future. At the same time, we cordially welcome the newcomers.

On July 1st, the foundation of the Study Center Gerzensee extended the degree of its outsourcing with its long-time business partner, SV (Schweiz) AG. Having been in charge of the restaurant and the hotel for many years, SV now is fully responsible for the management of the seminar hotel as well as the facilities. This change triggered a significant restructuring of the staff of the foundation. It also implies that all business customers should directly deal with SV in the future. In this context, we would like to welcome Clemens Stampfli as hotel manager and wish him all the best in his new challenging position.
WORKING PAPERS

07.05

07.04
Oya Celasun and Philipp Harms: "How does private foreign borrowing affect the risk of sovereign default in developing countries?"

07.03
Harms, Philipp and Marco Kretschmann: "Words, Deeds, and Outcomes: A Survey on the Growth Effects of Exchange Rate Regimes"

07.02
Martin Gonzalez-Eiras, and Dirk Niepelt: "The Future of Social Security"

07.01
Philipp Bacchetta, and Eric van Wincoop: "Random Walk Expectations and the Forward Discount Puzzle"

COURSE PROGRAM 2008

In addition to the "Swiss Program for Beginning Doctoral Students in Economics" we will offer the following courses:

CENTRAL BANKERS COURSES

04.02 - 15.02 Advanced Topics in Monetary Economics I
25.02 - 13.03 Monetary Policy, Exchange Rates, and Capital Flows
05.05 - 16.05 Monetary Policy and Financial Stability (jointly with Joint Vienna Institute)
04.08 - 15.08 Advanced Topics in Monetary Economics II
01.09 - 18.09 Instruments of Financial Markets (jointly with Swiss Finance Institute)
22.09 - 03.10 Financial Stability (jointly with Swiss National Bank)

PROGRAM FOR ADVANCED DOCTORAL STUDENTS IN ECONOMICS

28.07 – 01.08 Labor Economics
04.08 – 08.08 Liquidity and Financial Stability
11.08 – 15.08 International Trade
18.08 – 22.08 Macroeconomics and Finance

PROGRAM FOR DOCTORAL STUDENTS IN LAW AND ECONOMICS

26.05 - 30.05 Constitutional Law and Economics
09.06 - 13.06 Introduction to Law, Economics and Business

DISSERTATIONS


PUBLICATION

Conference on "Microeconomic Adjustment and Macroeconomic Dynamics"

In September 2007, the Journal of Monetary Economics published the papers of a research conference sponsored by the Swiss National Bank and the Study Center Gerzensee that was held in Gerzensee on October 20 – 21, 2006. This research conference brought together academic and central bank economists from around the world in order to discuss issues of major importance for monetary policy.

FOUNDATION COUNCIL

The chairman of our foundation council since November 2003, Niklaus Blattner stepped down at the end of April 2007. He was replaced by Philipp M. Hildebrand, Vice-Chairman of the Swiss National Bank and Member of the Governing Board.

Dr. Philipp M. Hildebrand