TÜRKİYE CUMHURİYET MERKEZ BANKASI

İMB BULLETIN

ISTANBUL SCHOOL OF CENTRAL BANKING

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İMB: A Meeting Point for Technical Cooperation and Research Discussions

Technical cooperation activities between central banks have become more popular worldwide. To this end, the Istanbul School of Central Banking (İMB) organized 10 customized bilateral programs in the first half of 2014, hosting 8 central banks. The programs mainly focused on forecasting methods at central banks, research and policy making, cash management, financial education, payment systems, branch operations, balance of payments statistics, banknote design, cash security elements, counterfeiting prevention and financial consumer protection. Fifty-one central bank experts and officials participated in these customized bilateral programs. Moreover, central bankers had the opportunity to further enhance cooperation at the CBRT's head office in Ankara as well as central bank head offices of other countries.

During the first half of 2014, Juan Pablo Nicolini from the Minneapolis Fed, Mark Aguiar from Princeton University and Tony Smith from Yale University visited the İMB for research meetings and policy discussions. The İMB also hosted İnci Gümüş from Sabancı University, Canan Yıldırım from Kadir Has University and Nihal Bayraktar from Penn State University as long-term visitors. Several activities took place during these visits, including discussions on many recent studies and seminars, along with contributions to the current studies of the central bank economists and experts through invaluable feedback.

ABOUT US

The Istanbul School of Central Banking (İMB), founded by the Central Bank of the Republic of Turkey (CBRT), provides a setting for thought-provoking discussions and analyses on global economic and financial challenges with a specific interest in central banking topics. The School organizes research activities and training programs and engages in technical cooperation with central banks to promote collaboration on central banking.

İMB WEBSITE

imb.tcmb.gov.tr

From Courses and Seminars in the First Half of 2014

The İMB organized one course and two seminars in the first half of 2014. Overall, 67 participants from central banks and related policy institutions attended to the İMB course and seminars. 53 participants from 30 different countries other than Turkey had an opportunity to meet during these course and seminars.

The *"Introduction to Modelling for Policy Analysis"* course was delivered by Francesco Zanetti from the University of Oxford on March 31-April 4 in Istanbul. The program reviewed methods and applications to analyze and solve general equilibrium models for monetary policy making. The course presented the use of general equilibrium models for policy analysis, a review of approximation techniques, micro foundations, policy trade-offs and monetary policy strategy and the use of dynamic stochastic general equilibrium models in central banks.

The second event in Istanbul, the *"Balance of Payments and External Statistics"* seminar, was held on April 28-30 and discussed the methodology for collecting and compiling external sector statistics in line with internationally accepted standards, and also shared the CBRT's experience on many practical issues. The seminar welcomed 21 representatives from 18 different countries and covered the basic concepts of balance of payments and external statistics while enabling representative-presentations from the central banks of Czech Republic and Saudi Arabia to elaborate on their respective country practices.

The *"Payment Systems and Instruments"* seminar, hosting 25 participants from 21 different countries was held on May 5-7 in Istanbul. This seminar introduced participants to the international standards and the recent global developments in the payments area including the payment and securities settlement systems and payment instruments. The seminar also presented detailed information on the main technical terms used in the payment systems and payment instruments areas, discussed the international standards and explained the implementations in Turkey.

Chicago Federal Reserve President Charles L. Evans and Robert Hall of Stanford-Keynote Speakers of the Macro Workshop

On June 2-3, 2014, the İMB organized its second research workshop which brought scholars from academia and policy institutions together to discuss recent advances in theoretical and empirical research on issues regarding macroeconomics and central banking in Istanbul. This workshop welcomed 67 participants from 22 different institutions.

Along with the keynote speakers Charles Evans, the President of the Chicago Federal Reserve Bank, and Robert Hall from Stanford University, the speakers of this year's workshop were: Varadarajan V. Chari (University of Minnesota), Martin Eichenbaum (Northwestern University), Jaume Ventura (Barcelona GSE), Kjetil Storesletten (University of Oslo), Ayşegül Şahin (New York Fed), Mark Aguiar (Princeton University), Şebnem Kalemli-Özcan (University of Maryland) and Marco Bassetto (University College, London).

In his opening remarks, the Deputy Governor of the CBRT, Mehmet Yörükoğlu, explained the underlying causes of the huge gap that emerged between macroeconomics literature and policy practices of central banks in both advanced and emerging economies during the recent global financial crisis. Yörükoğlu pointed out that the crisis left the field of macroeconomics subject to intense debate in terms of the modeling approaches pursued so far, whereas central banks were highly criticized in terms of deploying their policy instruments ineffectively and inefficiently to meet their objectives. The Deputy Governor first briefly elaborated on how monetary policy implementation evolved in the aftermath of the financial crisis in response to a "multiple objectives-multiple tools" situation, underlining the interaction between those of advanced and emerging countries and then gave the audience some insight into the monetary policy practices that are pursued at the CBRT.

Following the opening remarks, in the first keynote speech of the workshop, the Chicago Fed President Charles L. Evans laid out the academic foundations of central banking in the U.S. shaped by the big events in the Fed history including the Great Depression and the Great Inflation, leading to the Fed's dual mandate and its stated long-term goals of a 2% inflation rate and 5.2-5.6% unemployment rate. Evans illustrated the balanced approach to achieving their dual-mandate goals with a bull's eye framework, which provides accountability, operational monetary policy and guidance for the public at the same time. The President pointed out several reasons why achieving dual mandate is so difficult, including especially the policy rate constrained by the zero lower bound. Evans then elaborated on the three policy tools that can be employed at the zero lower bound, namely state-contingent price level targeting, large-scale asset purchases and forward guidance. The Chicago Fed President also presented the FOMC's long-run projections of the Fed funds rate as well as the projected behavior of the Fed's balance sheet. He discussed how monetary and macro prudential policy tools should be used together to achieve the dual mandate and financial stability. Evans concluded his speech by laying out the exit principles and how they should normalize their unconventional policy.

In the second day of the workshop, the second keynote speaker, Robert Hall of Stanford University, presented his recent paper discussing the lingering effects of the financial crisis on the U.S. economy. The impacts of the crisis on the U.S. economy were examined by computing the shortfall of output from its 1990-2007 trend path. This shortfall was then decomposed into the shortfall in total factor productivity, business capital, labor-force participation, and slackness in the labor market in the form of abnormal unemployment. Based on the results from this exercise, Hall stated that the decline in capital stock and productivity are the biggest contributors to the short fall followed by the decline in labor force participation and higher unemployment rates. The Professor also elaborated on how fast these components can return to normal with a boost in demand. According to the results from his analysis, productivity and capital stock are not expected to respond to a boost to product demand within a few years. The long run behavior of technology growth is ambiguous, but for capital stock the entire gap is expected to close. Lastly, Hall emphasized that the effects of the crisis on unemployment will not be persistent; however, some part of the decline in labor force participation after the recession will remain since this decline is mainly due to changing demographic conditions and a continual increase in disability and food-stamp programs.

Monetary Policy in Developing Economies Workshop - Merging Theory with Practice

The *"Monetary Policy in Developing Economies"* workshop, in Izmir on May 21-24 2014, which hosted 39 participants from 17 different central banks, brought together central bankers and leading academics to discuss three major topics for monetary policy-making in the current global environment: (i)Monetary Policy, Capital Flows and Exchange Rates, (ii) Macroprudential and Monetary Policies for Financial Stability, (iii) Monetary Policy and Commodity Price Movements. In the morning sessions, each of the three topics was discussed by an academic scholar within a short lecture format, using empirical and theoretical literature. In the afternoon sessions that followed, experts from several central banks delivered presentations on the given topics about their experiences and relevant policy applications in their countries.

The workshop started its first day with a lecture by Professor Tim Kehoe of the University of Minnesota. The first part of Kehoe's lecture mainly focused on the relation between bilateral exchange rates and the relative price of non-traded goods to traded goods. The Professor summarized the results from his research with Caroline Betts which analyze the U.S case. In the second part, Kehoe elaborated on the link between capital flows and currency crises, studying the 1994-1995 Mexican crises as an example. Subsequently, the impact of the end of the savings glut on the US economy was discussed with two different exit scenarios. The scenarios examined were a gradual rebalancing and a disorderly sudden stop. The results from the paper suggest that sudden stop creates a larger and more abrupt trade balance and real exchange rate reversals on impact. However in the long run trade balance, the exchange rate and employment share follow almost the same path as if the sudden stop had never happened.

Kehoe's lecture was followed by two sessions of country presentations. In the first session, participants from the Central Bank of Brazil (CBB) and the Central Bank of Russia (CBR) described their countries' experiences with respect to capital flows and exchange rates. Afterwards presentations were made by the participants from the CBRT and Bank Indonesia (BI). Emmanuel Kohlscheen, Consultant with the CBB explained the policy framework of Brazil with three main components: inflation targeting (since 1999), floating exchange rate and primary surplus

targets. Kohlscheen explained that the country has been experiencing increasing portfolio and FDI flows and that exports in Brazil are largely insensitive to real exchange rate fluctuations. Following Brazil, Ivan Shevchuk, Head of the Macroprudential Analysis Division of the CBR discussed the Russian experience. Shevchuk presented the risk factors with the highest impact on the country, some of which are considerable decline in oil prices and growth of financial market instability. During his talk, Shevchuk also explained the macroprudential toolkit to regulate capital flows in Russia that includes using reserve requirements, imposing direct restrictions on credit and liquidity requirements.

In the second country session, Iskandar Simorangkir, Head of the Economic Research Bureau of the BI summarized the recent developments in the Rupiah exchange rate and capital inflows to the country. Simorangkir finished his talk by discussing the macroeconomic policy mix which contains monetary policy and macroprudential policies targeting capital flows to the country. Lastly, the Deputy Director of the Research Department, Yavuz Arslan from the CBRT, describes the economic developments and the monetary policy framework in Turkey. Arslan explained that both nominal and real exchange rates depreciated significantly since 2009 and emphasized the role of exchange-rate pass through as the main driver of inflation. The Deputy Director also drew attention to the concerns about financial stability in the country and presented the new instruments designed to weaken the impact of capital flows on credit and exchange rates; i.e., the asymmetric interest rate corridor and the reserve options mechanism.

In the second day of the workshop, Gianluca Benigno of the London School of Economics delivered a lecture on macroprudential policies in open economies, highlighting the roles of capital control and reserve accumulation.

Did you know?

Super-cycles of commodity prices since the mid-nineteenth century

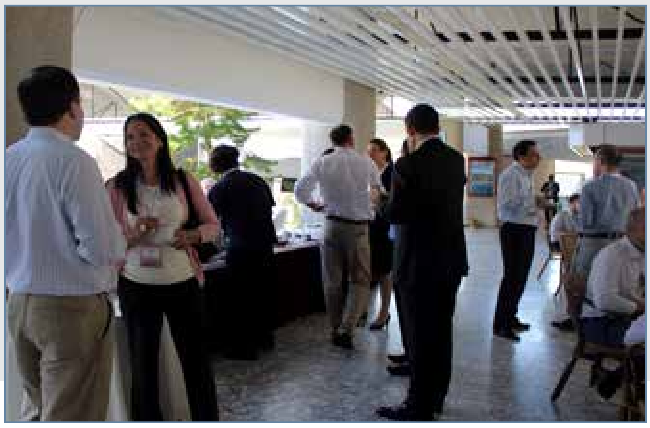
Super-cycles are the cycles around the long-run trend of commodity prices that tend to span a long period of time with upswings of 10-35 years and with full cycle of 20-70 years.

	Metal prices				Agricultural prices				Crude oil prices			
	1885-1921	1921-1945	1945-1999	1999-ongoing	1894-1932	1932-1971	1971-1999	1999-ongoing	1892-1947	1947-1973	1973-1998	1998-ongoing
Peak year	1916	1929	1956	2007	1917	1951	1973	2010	1920	1958	1980	2008
Percent rise in prices during upswing (%)	105.7	66.6	98.0	202.4	52.8	90.3	52.0	76.6	402.8	27.4	363.2	466.5
Percent fall in prices during downswing (%)	-70.2	-51.9	-47.4	-	-56.2	-49.6	-56.0	-	-65.2	-23.1	-69.9	-
Upswing (years)	31	8	11	8	23	19	2	11	28	11	7	10
Downswing (years)	5	16	43	-	15	20	26	-	27	15	18	-

Source: Erten, Bilge, and J. Antonio Ocampo (2012)." Super-cycles of commodity prices since the mid-nineteenth century". Working Paper No. 110, Department of Economic and Social Affairs, United Nations.

Benigno argued that increased financial integration has raised the importance of cross border capital flows, especially at a time in which excess global liquidity flows into emerging markets. He defined crisis as the time when borrowing is constrained and addressed capital control taxes and exchange rate intervention as optimal policy tools.

Benigno discussed the misallocation of resources as a result of inflows and argued that while sector specific policies can achieve first best, FX intervention and reserve accumulation can be desirable in the absence of such sectoral policies.



In the afternoon session, officials from the National Bank of Poland (NBP), the Central Bank of Mexico (CBM), the Bank Indonesia (BI) and the National Bank of Hungary (NBH) presented their countries' experiences and practices on macroprudential policy and financial stability. Piotr Banbula from the Bureau of Macroprudential Policy of the NBP discussed banking sector leverage, capital requirements and FX lending in Poland. The Director of Economic Studies, Ana Maria Aguilar Argaez from the CBM, then took the stage and emphasized the importance of financial stability. In the second session, Iskandar Simorangkir from the BI presented the Indonesian case, describing different macroprudential tools such as loan-to-value ratios (LTVs) and reserve requirements based on LTVs. Finally Adam Banai, Head of Applied Research and Stress Testing Department of the NBH gave an overview of the Bank's macroprudential toolkit, such as the countercyclical capital buffer and payment-to-income ratios.

On the last day of the workshop, Professor Juan Pablo Nicolini from the Minneapolis Fed lectured on the optimal response of monetary policy in small open economies following a shock to commodity prices. According to Nicolini, the high volatility of exchange rates and commodity prices, non-stable terms of trade because of commodity price movements, and their adverse effects on the economy in commodity exporter/importer countries could justify policy interventions that abandon price stability. Nicolini showed a small open economy model with commodity trade in which there are still cases in which price stability is optimal. In general, the Professor successfully combined the practice and the theory by addressing the empirical regularities and country examples

Snapshot: A Critical Glance at Piketty's Predictions

Tony Smith from Yale University visited the İMB and gave a seminar during his stay in which he discussed his recent work, a joint paper with Per Krusell of the Institute for International Studies. This paper, titled *"Is Piketty's `Second Law` Fundamental?"*, contributes to the debate on inequality centered on the world-famous book by Thomas Piketty. In the book titled *"Capital in the Twenty-First Century"*, Piketty discusses wealth and income inequality.

One important contribution of the book is its documentation of the data regarding economic inequality over time, especially among rich countries. In addition to documenting the data, the book uses a growth model and predicts that a future slowdown in growth-due to possible slowdown in productivity and decline in population growth-will deliver a very high return on capital. Hence, a wide gap between capital and labor, the two different factors of production, will emerge. Therefore, unless action is taken, wealth inequality will surge in the future. The book proposes a global capital tax to remedy this inequality. It is this prediction and the proposed remedy far more than its data documentation that made the book a bestseller.

In the heart of this prediction lies a growth model. It is the assumption on savings behavior of individuals in the model that is essential to generate increasing concentration of economic and political power among the very richest as growth weakens. Smith calls this essential assumption into question. He shows that this assumption is indeed the core of the growing inequality prediction. The paper finds that for capital in Piketty's model to grow, people need to save almost all their income in the presence of very low growth.

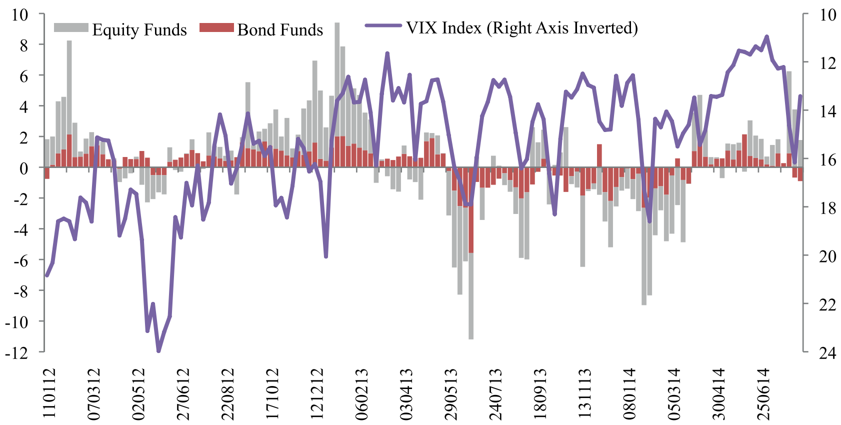
A growth model in which savings behavior is different than what Piketty assumes does not imply a concentration of wealth towards capital in a future with low growth. Then, the question of which assumption to use settles into the center of the discussion. Tony Smith uses US data to answer this question and argues that the data testifies against Piketty's assumption. Smith concludes that a closer look at Piketty's model shows that the book's predictions of a grim future (which is also the reason to call for a global capital tax) require implausible assumptions regarding the saving behavior of individuals. Seen through the lenses of a standard growth model with assumptions on savings behavior that are backed by the data, capitalism does not necessarily deliver higher inequality.

during his presentation which was highly welcomed by the seminar participants.

In the afternoon session, participants from three intense commodity trading countries, namely Chile, Kazakhstan and Azerbaijan presented country experiences. A Board Member from the Central Bank of Chile, Pablo García Silva, outlined the conditions for the optimal monetary policy response to commodity price fluctuations in a small open economy like Chile. Economist Indira Talkhanbayeva from the National Bank of Kazakhstan (NBK) pointed out the challenges that the NBK faces while maintaining price stability and gave some details of the recent changes in the implementation of monetary policy in Kazakhstan to reduce the adverse effects of exchange rate fluctuations. Finally, the Head of the Modeling and Forecasting Division, Salman Huseynov from the Central Bank of Azerbaijan, presented the case of Azerbaijan with a discussion of similarities and differences between Azerbaijan and other oil exporting countries.

Emerging Markets Snapshot

Fund Flows to Emerging Markets (weekly, US$ billion)



Source: EPFR

Events from the İMB Catalog in the Second Half of 2014

The İMB organizes its activities under five main categories: courses, seminars, workshops, customized bilateral programs and visiting programs. The İMB will organize one **course** and five **seminars** in the second half of 2014.

The 2014 İMB catalog has been published. For details please visit the İMB website: **imb.tcmb.gov.tr**

Course	Date
Financial Crises and Credit Frictions in Open Economies	December 15-19
Seminars	**Dates**
Bayesian Econometric Methods and Forecasting	August 25 - 29
Inflation Targeting after the Crisis: Foundations, Results and Policy Challenges	September 8-12
Financial Stability, Financial Crises and Monetary Policy	September 15-19
Foreign Exchange Reserves and Risk Management	September 29 – October 1
Short-term Forecasting at Central Banks	November 10-14

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