

# UNDERSTANDING THE CAPITAL FLOWS

12<sup>th</sup> February 2016 – Marmara University, Turkey  
Faculty of Economics Conference Room, Goztepe Campus, Istanbul

You are kindly invited to the Workshop of “Understanding the Capital Flows”. Programme and abstracts included below.

9:30 - 10:00	<b>Workshop Registration - Tea and Coffee</b>
10:00 - 11:00	<b>Keynote Speaker</b> Fernando Broner, CREI, Universitat Pompeu Fabra “Rethinking the effects of financial globalization”
11:00 - 11:20	<b>Tea and coffee break</b>
<b>SESSION 1</b>	
11:20 - 11:50	Inci Gumus, Sabanci University “Credit decomposition and business cycles in emerging market economies”
11:50 - 12:20	Mehmet Pinar, Edge Hill University “Effect of long-term policies, institutions, political risk and information flows on capital flows”
12:20 - 12:50	Yasin Mimir, Central Bank of the Republic of Turkey “External shocks, banks and optimal monetary policy in an open economy”
12:50 - 13:00	SESSION 1 Q&A
13:00 - 14:00	<b>Lunch Break</b>
<b>SESSION 2</b>	
14:00 - 14:30	Mustafa Kilinc, Central Bank of the Republic of Turkey “Credit cycles and capital flows: effectiveness of macroprudential policy framework in emerging countries”
14:30 - 15:00	Özgür Orhangazi, Kadir Has University “Capital flows, finance-led growth and fragility in the age of global liquidity and quantitative easing: the case of Turkey”
15:00 - 15:10	SESSION 2 Q&A
15:10 - 15:30	<b>Tea and coffee break</b>
<b>SESSION 3</b>	
15:30 - 16:00	Enes Sunel, Central Bank of the Republic of Turkey “Required reserves as a capital flow management tool”
16:00 - 16:30	Engin Volkan, Marmara University “A new estimation technique of sovereign default risk”
16:30 - 16:40	SESSION 3 Q&A
16:40 - 17:00	GROUP DISCUSSION

## Organizing Committee:

Dr. Engin Volkan, Marmara University, Turkey  
Dr. Mehmet Pinar, Edge Hill University, UK

*The organizers would like to thank in advance the Department of Economics in Marmara University for their assistance and cooperation in facilitating the workshop.*

## Sponsor:

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## **RETHINKING THE EFFECTS OF FINANCIAL GLOBALIZATION** by Fernando Broner (with Jaume Ventura)

### **Abstract**

During the last few decades, many emerging markets lifted restrictions on cross-border financial transactions. In this paper, we present a simple model that can account for the observed effects of financial globalization. The model emphasizes the role of imperfect enforcement of domestic debts and the interactions between domestic and foreign debts. Financial globalization can lead to a variety of outcomes: (i) domestic capital flight and ambiguous effects on net capital flows, investment, and growth; (ii) capital inflows and higher investment and growth; or (iii) volatile capital flows and unstable domestic financial markets. The model shows how the effects of financial globalization depend on the level of development, productivity, domestic savings, and the quality of institutions.

## **CREDIT DECOMPOSITION AND BUSINESS CYCLES IN EMERGING MARKET ECONOMIES** by Inci Gumus (with Berrak Bahadir)

### **Abstract**

This paper analyzes different types of private sector credit in relation to business cycles in emerging market economies. We first provide evidence that the results found in the literature on credit expansions being associated with economic expansions, real exchange rate appreciations and current account deficits hold more strongly for household credit than business credit. Then, using a two-sector real business cycle model of a small open economy, we study the model dynamics generated by shocks to household credit and business credit in tradable and non-tradable sectors. We show that the three types of credit shocks generate different macroeconomic dynamics in sectoral output and input levels as well as the real exchange rate. We also show that the credit shocks are important in matching key business cycle properties observed in the data, especially the moments related to credit.

## **EFFECT OF LONG-TERM POLICIES, INSTITUTIONS, POLITICAL RISK AND INFORMATION FLOWS ON CAPITAL FLOWS** by Mehmet Pinar (with Engin Volkan)

### **Abstract**

We analyze the empirical role of different types of long-term policies, institutional quality, political risk factors and information flows' impact on cross-country capital flows. Our findings suggest that countries that have better property rights and lower corruption levels, countries with higher freedom of trade and investment, and financial freedom attract higher levels of capital flows. Even though the long-term policies, institutional quality and political risk factors are important to attract higher capital flows, none of these proxies explain the Lucas paradox (i.e., why poor countries receive relatively low levels of capital flows). We find that "information flows", which measures the level of country's openness to global information and telecommunications infrastructure level, helps to explain the Lucas paradox and this result is significant even we control for institutional quality proxies.

## **EXTERNAL SHOCKS, BANKS AND OPTIMAL MONETARY POLICY IN AN OPEN ECONOMY** by Yasin Mimir (with Enes Sunel)

### **Abstract**

We document empirically that the 2007-09 Global Financial Crisis exposed emerging market economies (EMEs) to an adverse feedback loop of capital outflows, depreciating exchange rates, deteriorating balance sheets, rising credit spreads and falling real economic activity. In order to account for these empirical findings, we build a New-Keynesian DSGE model of a small open economy with a banking sector that has access to both domestic and foreign funding. Using the calibrated model, we investigate optimal, simple and operational monetary policy rules that respond to domestic/external financial variables alongside inflation and output. The Ramsey-optimal policy rule is used as a benchmark. The results suggest that such an optimal policy rule features direct and non-negligible responses to lending spreads over the cost of foreign debt, the real exchange rate and the US policy rate, together with a mild anti-inflationary policy stance in response to domestic and external shocks. Optimal policy faces trade-offs in smoothing inefficient fluctuations in the intratemporal and intertemporal wedges driven by inflation, credit spreads and the real exchange rate. In response to productivity and external shocks, a countercyclical reserve requirement (RR) rule used

in coordination with a conventional interest rate rule attains welfare levels comparable to those implied by spread- and real exchange rate-augmented rules.

## **CREDIT CYCLES AND CAPITAL FLOWS: EFFECTIVENESS OF MACROPRUDENTIAL POLICY FRAMEWORK IN EMERGING COUNTRIES** by Mustafa Kilinc (with Ahmet Faruk Aysan, Salih Fendoglu, Sumeyye Yildiz)

### **Abstract**

Amid volatile capital flows and financial stability concerns, macroprudential measures have become an important part of policy toolkit in emerging countries. In this paper, we first construct a novel index on macroprudential policy stance for emerging countries for 2000-2013. Controlling for monetary and fiscal policies, we then assess effectiveness of macroprudential policy tools in containing financial stability risks associated with credit cycles and swings in capital inflows. The results suggest that (i) Borrower-based measures and domestic measures are successful in containing real credit growth; (ii) Financial-institutions-based measures are effective in reducing sensitivity of credit growth to cross-border capital flows; (iii) Macroprudential measures, on average, are more effective 2-3 quarters after its implementation; and more effective when credit cycles are more pronounced (when credit-to-GDP gap is higher); (iv) Foreign-currency (FX) related macroprudential measures are successful in reducing share of FX loans in total loans; and (v) Foreign-currency reserve requirements are helpful in reducing share of FX loans in total loans and non-core-to-core funding ratio. We further point out potential complementarities among the tools and potential unintended consequences of macroprudential policies. In sum, we provide evidence that macroprudential measures (individually or in combination with other tools) are helpful in supporting macro-financial stability in emerging countries, where each measure (or combination of measures) is effective in containing particular financial aggregates.

## **CAPITAL FLOWS, FINANCE-LED GROWTH AND FRAGILITY IN THE AGE OF GLOBAL LIQUIDITY AND QUANTITATIVE EASING: THE CASE OF TURKEY** by Ozgur Orhangazi (with Gokce Ozgur)

### **Abstract**

Capital flows to the “developing and emerging economies” (DEEs) have surged in the 2000s. After a brief interruption during the 2008 global financial crisis, quantitative easing policies led to even stronger capital flows. This is reminiscent of the earlier capital flow waves that ended with financial crises. At the end of those waves, DEEs ran into problems due to three main issues: high government borrowing requirements, fixed exchange rate systems, and/or weak banking sectors. Turkey is a case in point. After capital account liberalization in 1989, it ran into crises in 1994, 1998 and 2001. Since then, the government borrowing requirement has gone down, the banking sector has been reformed and a more flexible exchange rate system adopted. However, we argue that, first, a capital-inflows-dependent, finance-led growth model emerged in the 2000s. Second, we show that this model led to an accumulation of fragilities both in the external accounts and within the domestic economy. As such, “this time is different” for the Turkish economy as the fragilities do not originate from these three issues, but rather from the dependence of the economy on foreign capital inflows and private sector credit expansion. Our analysis reveals three particular issues: First, similar to the earlier experiences of both Turkey and other DEEs, the economy is still subject to a sudden stop risk. In fact, the risk is now higher as the country received record volumes of capital inflows, mostly in the form of short-term investments. Second, a main difference this time around is that the private sector (both banks and nonfinancial corporations) has significantly increased its foreign exchange borrowing and is now faced with a large net open position, increasing the risk of a currency mismatch. Moreover, the nonfinancial corporate sectors' foreign-currency-denominated debt to the domestic banking sector renders both sectors fragile at the same time. Third, the capital-inflow-dependent, finance-led growth model led to a significant expansion in credit to the private sector. The banking sector's credit to deposit ratios climbed up, nonfinancial corporations' debt to tangible asset ratios and household debt ratios rapidly increased, leading to an accumulation of a range of financial fragilities in the economy.

**REQUIRED RESERVES AS A CAPITAL FLOW MANAGEMENT TOOL** by Enes Sunel (with Hasan Sadık Arık, Salih Fendođlu, Yasin Mimir and Temel Tařkın)

**Abstract**

This paper investigates the Reserve Option Mechanism (ROM) introduced by the Central Bank of the Republic of Turkey as an automatic stabilizer in the face of volatile capital flows. The mechanism provides commercial banks with a facility which enables them to fulfill a fraction of their local currency denominated reserve requirements with foreign currency funds. The degree of utilization of the facility is determined by the banks but is subject to an upper bound determined by the central bank. We develop a monetary DSGE model with a banking sector which funds itself from both domestic and foreign depositors. We then model the ROM within this framework and explore its role in smoothing out capital flow fluctuations in response to shocks to the cost of borrowing from abroad. The results suggest that ROM might be useful in containing excess fluctuations in capital and the exchange rate, provided that it mitigates the agency problem between foreign creditors and domestic banks.

**A NEW ESTIMATION TECHNIQUE OF SOVEREIGN DEFAULT RISK** by Engin Volkan (with Mehmet Ali Soytas)

**Abstract**

This paper applies the Hotz-Miller estimation technique (Hotz and Miller (1993) often used in applied microeconomic literature- to dynamic general equilibrium models of sovereign default. Using the fixed-point theorem, sovereign default models are solved by numerical value function iteration and calibration methods, which due to their computational constraints, greatly limits the models' quantitative performance and completely foregoes its quantitative projection ability. By reverse engineering the Hotz-Miller technique, given the structural parameter values obtained from country-specific business-cycle statistics and relevant literature, the ex-ante default probability of economies will be estimated. Through this technique, the computational constraints are bypassed, the quantitative inference ability of these models are improved, and these models' country-based quantitative projection ability are achieved.