

# Rethinking Capital Controls and Capital Flows

Report on a conference jointly organised by SUERF/PSE/CEPII

Held at Amphithéâtre SCOR, Paris on 16 September 2016

Sponsored by Banque de France, CEPREMAP, Ouvrir la Science Economique, SCOR

---

## Conference Report

---

### By Morten Balling

International capital flows have a strong impact on foreign exchange markets, monetary policy and macroeconomic performance. The organizers of the Paris conference had therefore invited experts on these topics from American and European universities and from central banks and international organizations as speakers on September 16, 2016.

As a prelude the evening before, **Benoit Coeuré**, Member of the Executive Board of the ECB gave a dinner speech “The case for rethinking international capital flows”. He said that the global financial and the European sovereign debt crises had shattered the consensus among economists that financial globalization is unconditionally desirable. A reduction of financial integration and more restrictions on capital flows would, however, in his view alleviate the symptoms without addressing the root causes of financial instability and boom and bust cycles. He warned against financial protectionism. We have to redefine the concept of globalization. Policymakers should ensure that financial globalization is efficient, enduring and equitable. Making financial globalization efficient involves channeling capital flows to productive uses, rather than fueling inefficient consumption-led booms and busts. Making financial globalization enduring involves monitoring and where necessary tilting the composition of flows towards less volatile types and avoiding risky gross positions, reducing the likelihood of sudden stops. And making it equitable involves addressing its distributive impact, both across and within countries. The topic is particularly pertinent to the euro area. Freedom of movement of capital is one of the four basic freedoms of the single market. Increasing financial integration by completing the capital markets union will help ensure that capital flows to where it can be most

productively used to boost growth and employment while minimizing its side effects. Financial globalization should be underpinned with institutional, regulatory and structural reforms that strengthen domestic financial markets, improve their resilience and increase their capacity to efficiently allocate funds to productive uses. A key element of the necessary institutional framework is legal certainty. An efficient intermediation of foreign savings into productive domestic uses can only occur with a proper and enforceable legal framework in place. In the case of banks, the latter should include reliable legal frameworks for corporate insolvency and for the resolution of non-performing loans (NPLs), which hold down credit growth and economic activity, in particular in Europe. The quality of capital flows must be improved. Their composition should be tilted away from short-term debt flows towards more enduring longer-term and state-contingent flows. While the academic literature is more favourable in its assessment of the benefits of trade than for financial globalization, it also stresses the distributional implications of trade openness. Ideally, the gains of trade globalization are redistributed by taxation from those made better off to those made worse off. But the current public skepticism, if not outright hostility, towards free trade agreements and the surge in trade restrictions documented by WTO suggests that such redistribution is not effective, if at all achieved. Financial globalization has made it increasingly easy for multinational corporates to shift their profits to low-tax countries and for wealthy individuals to move funds to undeclared bank accounts in offshore tax havens. Tax avoidance facilitated by financial globalization has reduced government tax bases worldwide and limited their ability to redistribute gains from trade integration. Governments need to cooperate better. Such cooperation will not imply loss of sovereignty but will allow them to regain sovereignty over their ability to redistribute wealth equitably. Both the European Commission and

OECD have developed action plans aiming at strengthening of cooperation against tax base erosion and profit shifting.

**Session I – Capital controls and foreign exchange interventions was chaired by Marc-Olivier Strauss-Kahn, Banque de France.**



**Márcio Gomes Pinto Garcia**, Pontificia Universidade Católica do Rio De Janeiro, gave a presentation: “Banks make sterilized FX purchases expansionary”. The speaker referred to the experiences of Central Bank of Brazil and other central banks applying inflation targeting regimes. He argued that sterilized interventions do not immunize the domestic economy from the expansionary effects of capital inflows. In much of the literature, FX purchases by the central bank are implicitly assumed to keep aggregate demand unchanged as contractionary open market operations are supposed to fully mop up the liquidity created by the FX purchases. The speaker showed in a simple model that keeping the interest rate constant is usually not enough to mop up all liquidity created. This result hinges on a portfolio balance effect on banks. After sterilization, the share of

bonds, vis-à-vis loans, increases in banks’ assets. Given imperfect substitution between loans and bonds, the higher bond share requires a higher relative yield on bonds. Since sterilization keeps the market interest rate on bonds constant, the loan rate has to fall. With the fall in the loan rate, loan demand (and supply) increases, and output increases. Higher income at the same interest rate, increases money demand. Therefore, banks make sterilized FX purchases expansionary, even without any effect on the exchange rate. Empirical evidence from Brazil supports the existence of this effect.



**Fabrizio Perri**, Federal Reserve Bank of Minneapolis, called his presentation: “Exchange rate policies at the Zero lower bound”. After 2008, some developed economies have experienced large capital inflows and sustained exchange rate appreciations, large accumulation of foreign reserves and low (or zero) interest rates. The speaker referred in particular to evidence from Switzerland. He presented a simple model of exchange rate policy with limited international arbitrage and a zero lower bound (ZLB) constraint for nominal interest rates. He distinguished between monetary equilibria away from the ZLB and at the ZLB. He argued that there are considerable costs at the ZLB. If negative interest rates are applied, costs will be lower. Interest rate parity theory assumes that domestic and foreign investors cover their open exposures in the spot market by opposite exposures in the forward market. Evidence based on data in euro and Swiss francs demonstrate deviations from covered interest rate parity in periods with turmoil on the foreign exchange market. Deviations from covered interest rate parity are associated with strong demand for assets denominated in Swiss franc. A diagram showed the timing of

respectively deviations from covered interest rate parity and the FX interventions by the Swiss National Bank. When on January 15, 2015 the SNB decided to abandon its peg on the euro/Swiss franc exchange rate, the Swiss currency appreciated strongly and investors with assets in that currency gained.



**Alessandro Rebucci**, Johns Hopkins University Carey Business School, gave a presentation: “Optimal capital controls and real exchange rate policies: a pecuniary externality perspective”. In response to the global financial crisis and its costly aftermath, a new policy paradigm emerged in which old-fashioned government policies such as capital controls and other restrictions on credit flows became part of the standard crisis prevention policy toolkit. A few large emerging market economies experimented with these tools. The key rationale for the use of capital controls is financial stability. According to the speaker, the scope for policy intervention arises because of a pecuniary externality stemming from the presence of a key relative price in the collateral constraint faced by private agents. Agents might internalize the consequences of this externality in their individual decisions. Capital controls in this setting can discourage financial excesses, reduce the amount that agents borrow, thereby lowering the probability of financial crisis, and hence enhance welfare. Based on a simple model for an open economy with two sectors, the speaker argued that policies that support the real exchange rate during a financial crisis dominates by a large margin controls on capital flows.

**Anton Korinek**, Johns Hopkins University and NBER, gave a presentation: “Currency wars or efficient spillovers? A general theory of international policy cooperation.” In a globalized world, national economic policies frequently create international spillover effects.



Important examples are quantitative easing, exchange rate management, capital flow management and fiscal policy. In an interconnected world, spillover effects frequently trigger calls for global cooperation. The speaker presented a model framework of spillovers and international policy cooperation. He argued that inefficient spillovers arise from three categories of problems: monopoly power, imperfect external policy instruments or international market imperfections. If these problems are absent or addressed, global allocation is Pareto efficient and there is no further scope for global cooperation. He outlined guidelines for how policy cooperation can address the three problem areas. Within a simple model he discussed spillovers of respectively current account intervention, export stimulus policy, capital controls and exchange rate stabilization. He concluded that international cooperation is indispensable in the three problem areas: ensuring competitive behavior, dealing with imperfect external policy and addressing imperfections in international markets.

**The Policy Panel – Capital flows and the international dimension of monetary policy was chaired by Francesco Giavazzi, Bocconi University.**



**Kristin J. Forbes**, MIT Sloan School of Management and Bank of England, gave the first contribution to the

policy panel. She said that capital flows can hinder adjustments to monetary policy by generating domestic adjustments that make it more difficult to increase interest rates. Capital flows can also help or facilitate international adjustment to allow monetary policy to focus on supporting the domestic economy. The speaker illustrated these effects by using British 2014-data on actual and predicted consumer price inflation and exchange rate pass-through. The hedging ability of a flexible exchange rate depends on the currency distribution of foreign assets and liabilities and on the sensitivity of the current account to exchange rate movements. Capital flows and exchange rate adjustments can mitigate risks related to large current account deficits if a country meets certain criteria. Most major OECD economies with flexible exchange rates (that are not reserve currencies) meet many of these criteria. Therefore monetary policy can respond to a weaker domestic economy and worry less about supporting capital flows to finance the current account deficit. The bottom line is that international capital flows can be a help and a hindrance to monetary policy.



**Jonathan D. Ostry**, IMF's Research Department, said in his presentation that the concept globalization has been under attack in recent years. We should, however, not forget that there are much higher benefits than costs associated with globalization and international trade. We should try to make globalization more effective. Financial instability is reflected in volatile indicators of global risk aversion. Fluctuating asset prices and exchange rates impact on macroeconomic risks. The structure of international capital flows is important. Cross-border transactions in bonds, bank deposits, shares and direct investments give rise to different problems. Monetary authorities should maintain foreign

reserves at an appropriate level and use their policy tools in a countercyclical fashion. They should also develop safer financial structures and implement structural measures to mitigate risks.



**Kevin Noel Cowan**, Inter-American Development Bank, talked about the significant changes in the composition of international capital flows in recent years. Increasing capital requirements for banks in the developed countries and deleveraging exerted a negative influence on cross-border bank intermediation. Foreign direct investment had been less affected by the financial crisis and the post-crisis economic policy.



**Karim El Aynaoui**, OCP Policy Center, works as managing director of the Moroccan think tank. He wanted to provide a perspective from the South on globalization. In recent years, capital flows to emerging markets had not produced the expected gains. Monetary authorities in emerging economies had to manage their foreign reserves cautiously and to strengthen financial supervision. Exposures to foreign exchange risk were a serious concern. Volatile capital flows raised many open questions that academics should study.



**Catherine L. Mann**, OECD Chief Economist, started by asking: How do policies affect the probability of a crisis and shifts in the mean economic growth potential? Authorities can apply two types of policy: external and/or domestic. Trade-offs must be made. She illustrated the trade-offs in a diagram with potential economic growth on the vertical axis and crisis probability on the horizontal axis. The chosen combination of trade openness and capital account openness has an impact on both potential growth and crisis probability. A line in the first quadrant illustrated that higher growth might be associated with higher crisis risk. So, one should distinguish between good and bad risks. Capital account openness should perhaps be welcome due to the potential gain in economic growth. The OECD Code of Liberalization of Capital Movements is from 1961. A review of the Code is under way in cooperation with G20.



**Lorenzo Bini Smaghi**, Société Générale, referred to the American interest rate policies followed by respectively Allan Greenspan, Ben Bernanke and Janet Yellen. They had all focused on the impact of short-term interest rates on economic activity in the US but to an increasing

extent also on the impact on capital flows. Bank of Japan and the ECB also followed international capital movements closely and they have in recent years applied negative interest rates in order to counteract appreciation of the yen and the euro. The business cycle in Europe seems often to be behind the cycle in the US. The speaker compared the leading central banks with a train. When the first car moves, all other central banks have to follow. The whole world is concerned about what the Fed is going to do.

**Session II – Capital flows and macroeconomic performance was chaired by Philippe Trainar, SCOR.**



**Olivier Blanchard**, Peterson Institute for International Economics, presented the paper: “Are capital inflows expansionary or contractionary? Theory, policy implications, and some evidence”. There are two dramatically different views regarding the expansionary or contractionary effect of capital inflows. Standard models along Mundell-Fleming lines conclude that for a given monetary policy rate, inflows lead to appreciation, and thus a contraction in net exports, and, in turn, a contraction in output. Only if the policy rate is decreased sufficiently, can capital inflows be expansionary. Emerging market policy makers have a completely different view. They see capital flows as leading to credit booms and an increase in output, which can only be offset by an increase in the policy rate. They point to a policy dilemma: While the direct effect of an increase in the rate is to limit the increase in output, it may lead to even higher capital inflows, and this second effect may dominate the first. The evidence appears to support the beliefs of policy makers. In order to reconcile theory and reality, the speaker and his co-authors extend the set of

assets included in the Mundell-Fleming model to include both bonds and non-bonds, reducing the cost of financial intermediation and potentially offsetting the contractionary impact of appreciation. The authors look at empirical evidence from a sample of 19 major emerging market countries. It turns out that the effect of bond flows is negative and insignificant, while the effect of non-bond flows is positive and significant. The analyses has important implications for the use of policy tools to deal with inflows.



**Hélène Rey**, London Business School, called her presentation: “World asset markets and the global financial cycle”. She addressed the questions: What are the consequences of financial globalization on the workings of national financial systems? What are the effects of large flows of credit and investments crossing borders on fluctuations in risky asset prices in national markets and on the synchronicity of credit growth and leverage in different economies? How do large international flows of money affect the international transmission of monetary policy? Data on leverage of global banks illustrate the transmission of financial conditions around the world. A global financial cycle in risky assets can be documented. US monetary policy plays an important role within the global financial cycle as illustrated by data on credit risk premia, capital flows and real activity. The effects can be discussed within a simple model with global banks and asset managers. Returns of risky assets depend on wealth-weighted risk aversion. In a world financial market dominated by global banks asset prices are a function of global factors, which are determined by global market variance and the aggregate degree of risk aversion in the market, itself a function of the risk taking attitude of investors. The US effective federal funds rate is the key monetary policy

instrument in the model. US monetary policy is a driver of the global factor in asset prices, of the term spread and of measures of the risk premium. It is also a driver of US and European banks’ leverage, credit growth and cross-border credit flows.



**Frank E. Warnock**, Darden Business School, University of Virginia, presented the paper: “Decomposing international portfolio flows”. Capital flows to emerging market economies were sizable before the 2008/2009 global financial crisis, they plummeted during the crisis and rebounded strongly after the crisis. The question is if the observed pattern of the flows was the result of active portfolio decisions by US investors to reallocate their portfolios to and from emerging market equities. The drivers behind the pattern can be better understood, if it is recognized that portfolio flows have two components: Baseline flows unrelated to recipient country conditions and more active reallocations. Investors’ behavior can be characterized by inertia and influenced by transaction costs. Institutional features of the financial intermediation industry can also explain a relative passive portfolio policy. Portfolio weights can change for passive reasons (relative price changes) or from active decisions. Isolating the active reallocations requires good returns data. A considerable part of capital flows to emerging market economies can be characterized as relatively stable portfolio growth flows. Reallocation flows are more volatile, sometimes positive sometimes negative. If in an empirical analysis a relative weight measure is applied, it suggests that the increase of emerging market equities in US portfolios was due not to active reallocations. The robust equity inflows from the US experienced by the emerging market economies were due more to portfolio growth related to US savings than to active reallocations.



**Natacha Valla**, EIB and SUERF, called her presentation: “Domestic and international sectoral portfolios: network structure and contagion effects”. She and her co-authors use a unique comprehensive dataset on French portfolio assets and liability holdings to study the dynamics of domestic and international sector portfolios, to understand their network structure and to estimate a model of contagion through intersectoral security linkages. The net external portfolio position of France deteriorated between 2008 and 2014 from a creditor position of 4.7 percent of GDP to a debtor position of – 35.7 percent of GDP. This dramatic change had been driven by banking sector retrenchment on the asset side and foreign expansion on the liability side. The foreign liabilities of the public and corporate sectors increased but was mitigated by the expansion of domestic and foreign assets of the insurance sector. The financial sectors of the economy are strongly affected by financial contagion. The public sector and the corporate sector do not in the same way propagate shocks through their balance sheets. The financial sectors are exposed to balance sheet contagion. Protide is a database on security holdings by French residents collected by Banque de France. By two-stage GMM applied on data from Protide, the speaker and her co-authors have estimated sectoral vulnerabilities. She compared sectoral networks in respectively 2008 and 2014. At the end of the presentation, the speaker presented a balance-sheet contagion model, which in a flexible way can be used to quantify balance sheet contagion at the sectoral level.

**Pierre-Olivier Gourinchas**, University of California, Berkeley, gave a presentation: “Global imbalances and

currency wars at the ZLB”. Partly due to declining oil prices, global imbalances have fallen considerably since 2008. Global interest rates have declined substantially since 1980. In the US, Eurozone, UK and Japan output gaps fell in 2008 and are still significantly below the pre-crisis level. Economic growth is low. The speaker presented a simple model to shed light on these developments. He characterizes the zero lower bound on interest rates (ZLB) as the tipping point for global imbalances. At the ZLB, recessions are propagated via current account adjustments. His model includes liquidity traps both at the local and global level. Traps in one country can propagate to other countries. Exchange rate policies affect the distribution of traps. If a country’s currency is expected to appreciate in bad times, the country is more likely to experience a liquidity trap. A diagram showed so-called net safe positions in recent years for a sample of big countries. The positions are defined as the sum of official reserves (minus gold), portfolio investments and other assets abroad minus portfolio debt and other liabilities. Spectacular positions reflect Chinese holdings of US government bonds. The observed pattern put the reserve currency paradox and the exorbitant privilege of the US into perspective.

**Romain Rancière**, Paris School of Economics, concluded the conference. He thanked the speakers for their contributions, which had given the audience important knowledge about ongoing research in international capital flows and their policy implications. He thanked the sponsors for their generous support and SCOR for being a wonderful host. Finally, he thanked the staff of SUERF and CEPII for efficient organization.

The conference report and the conference presentations are available online at:

[www.suerf.org/paris2016](http://www.suerf.org/paris2016)