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EDITORIAL:

Resource mobility and aggregate fluctuations

The basic New Keynesian framework that is at the heart of most modern policy models building on dynamic stochastic general equilibrium analysis gives a central role to price and wage stickiness. At the same time, however, the framework incorporates fairly extreme assumptions about the ability of labour and capital to almost instantaneously move among alternative uses. To take a concrete example, in the baseline New Keynesian policy model the continuum of firms producing differentiated goods find it costly to change their selling prices, but these same firms can hire and fire workers at zero cost, and both workers and capital can instantly shift from one firm to another.[1] These baseline models face great difficulties in matching observed macroeconomic dynamics. This is the basic reason why the versions of these models taken to data more often than not incorporate elements that are, in effect, ad hoc ie not derived from the first principles, but which are necessary in order for these models to be able to account for the type of sluggish adjustment so characteristic of the aggregate data. In order to draw more robust conclusions about their potential usefulness in understanding the way monetary policy actions affect the behaviour of the economy, the costs that impose binding constraints on labour and capital to move swiftly among alternative uses need to be thoroughly analyzed and accounted for. Furthermore, accounting fully for the potential effects of these costs may well turn out to be critical in assessing the welfare costs of economic fluctuations.

The fact that working with one-sector, one-good model of the aggregate (closed) economy allows us to ignore the potential costs associated with shifting real economic resources and should not blind us of the fact that actual economies consist of multiple sectors, which typically behave differently over the course of the business cycle. In particular, aggregate economic fluctuations may be associated with persistent changes in relative prices or demand that may require labour and capital to move across sectors of the economy. However, some degree of specificity of sectoral labour and capital may make sectoral reallocations costly. On the other hand, costs that arise from at least partial specificity of sectoral resources may have consequences on aggregate demand policies.

As part of its 200the anniversary celebrations the Bank of Finland organized a high level international conference on Monetary Policy under Resource Mobility in Helsinki on May 5-6, 2011. A number of distinguished

[1] C. Walsh (2011) "Monetary Policy and Resource Mobility", working paper http://people.ucsc.edu/~walshc/ p. 2.

central bank governors and academics were invited to the conference to discuss issues raised by the title of the conference. Specific topics included lessons from past financial crises, monetary policy and resource immobility, monetary policy and financial markets and financial markets and growth. Below, we provide a summary of the presentations in the conference. The conference programme, including some of the presentations, and more detailed summary notes can be found in the Bank of Finland website http://www.suomenpankki.fi/en/tutkimus/konferenssit/aiemmat_konferenssit/Pages/BOF200_2011.aspx.

Jouko Vilmunen

Monetary policy under resource mobility

As part of its 200th anniversary celebrations the Bank of Finland hosted a high-level international conference on Monetary Policy Under Resource Mobility on May 5-6 in Helsinki. Almost two hundred people attended the conference, where the venue was populated by distinguished central bankers and academics from most corners of the world as well as other participants representing a variety of institutions, both international and domestic.

The conference was split into four sessions covering different issues and challenges for central banking. Two of the sessions were structured so that an invited presentation from academia was discussed by three central bank governors; in the other two sessions, invited central governors and academics took to the podium for panel discussions.

Sergey Ignatiev, Miguel Ordóñez, Masaaki Shirakawa, Seppo Honkapohja, Barry Eichengreen

In the first session on *Global Shifts: Lessons from the past* **Professor Barry Eichengreen** (University of California) focused on four major episodes of global shift during the last six hundred years: the rise of the West, the industrial revolution and the great divergence, the rise of the US, and the current shift from the West to the Rest. According to Eichengreen, shifts in the balance of economic and political power tend to give rise to tensions and instability. Today, the balance of power is shifting from advanced to emerging economies; and global imbalances, the financial crisis and the Great Recession can be seen as symptoms of the associated economic tensions and instability. Having better

institutions for multilateral cooperation today than in the past do not as such reduce tensions and guarantee stability. Collaboration requires a shared diagnosis of problems, and governance reforms are needed to give legitimacy to international institutions.

In his comments **Governor Masaaki Shirakawa** (Bank of Japan) referred to Japan's transformation from a fast-growing "emerging economy" into an advanced mature economy and offered some lessons for today's fast-growing economies: avoid bubbles and beware of overconfidence; be prepared to review your business model, however successful it may seem today; prepare for demographic change. **Governor Sergey Ignatiev** (Bank of Russia), on the other hand, reviewed the shared history and on-going cooperation between the Bank of Finland and the Bank of Russia and noted that the histories of both central banks also reflect more general political and economic developments. In the final wave of comments **Governor Miguel Ordóñez** (Banco de España) emphasized that a multi-polar world has its advantages as well, although we should keep in mind the risks associated with global shifts. He also noted the need for multilateral governance in a multi-polar world.

Professor Eichengreen responded to questions from the floor about the role of the US in today's world and about the relative absence of protectionist measures during the Great Recession by arguing that the US is still dominant according to certain measures and by referring to mechanisms, such as WTO rules, which make protectionism less likely today.

Agustin Carstens, Mark J. Carney, Athanasios Orphanides, Jens Weidmann, Carl E. Walsh

In the beginning of his keynote speech in session two on Monetary Policy **Professor Carl Walsh** (University of Santa Cruz) pointed out that understanding costly resource mobility is important. For example, in the US costly reallocation of labour between different uses may help us to understand whether recent high unemployment is structural in nature, whereas in the EU there is a need to understand how potential frictions in the flow of resources among member countries affect EU-wide macroeconomic dynamics.

In the rest of his presentation Walsh focused on two key questions concerning the dynamic macroeconomic effects of resource mobility:

1. How important is resource mobility for the transmission mechanism of monetary policy?
2. How important is resource mobility for the objectives of monetary policy?

Walsh argued that in general resource mobility will matter for both the transmission and the objectives of monetary policy. He elaborated by focusing on factors generating frictions in labour mobility. After reviewing the evidence on the relationship between sectoral reallocation and aggregate unemployment, he further elaborated the role of costly labour adjustment in four models: models with (quadratic) costs of labour adjustment, labour market search in one and two

sector models, and search with skill heterogeneity.

Being first to comment Professor Walsh's presentation **Governor Mark J. Carney** (Bank of Canada) suggested that it is less clear how labour immobility affects the goals of monetary policy. The weight on labour market tightness and changes in employment appear to be quite small, and the central bank's loss function is sensitive to the choice of labour market friction. He also argued that policy makers require rich models with sensible assumptions, a lot of (micro and macro) data and a good dose of judgement.

In his comments Governor **Athanasios Orphanides** (Bank of Cyprus), in turn, suggested sectoral heterogeneity could be interpreted as uncertainty about the natural rate of aggregate unemployment and about the transmission of shocks to the economy. When uncertainty about the transmission of shocks increases, sectoral shocks can shift the natural rate. Hence, the superiority of inflation targeting over other monetary policy strategies needs to be re-evaluated.

The final discussant of the presentation of Professor Walsh, **Governor Augustin Carstens** (Banco de México) reminded the audience that perfect models do not exist and that simple models seem to work better. Similar principles apply to policy making, and Carstens emphasized this by saying: "Keep it simple, do not try to score like Maradona." He also noted that other policy instruments (than monetary policy) may be more efficient for addressing problems arising from imperfect resource mobility and called for further analysis of the macroeconomic implications of shocks to the financial sector, which may actually facilitate sectoral re-allocation in the economy.

A question from the audience, addressed to Professor Walsh, concerned whether US labour markets will become more like European labour markets. Professor Walsh responded by noting that it may be premature to give any definite view on this point. However, our metric for adjustment costs is important here. Furthermore, the size of the recent shock may have hindered labour re-adjustment in the US.

Stefan Ingves, Christian Noyer, Yves Mersch, Bengt Holmström

The chairperson of third session, which was a panel on Financial Markets, **Governor Christian Noyer** opened the session by reminding the audience of the main problems experienced during the last few years. Unprecedented developments have taken place in various markets, including the markets for securitised subprime loans and sovereign debt. Regulatory debates in the G20 and other fora highlight the topicality of the issues discussed in the session.

To start off the panellist, **Governor Nout Wellink**, chairman of the Basel Committee, described the Basel III process. Preparation of the new regulatory framework has moved ahead swiftly because policy makers in various countries have agreed on the urgency of the reform. Timely implementation of Basel III is also critical. In addition to strengthening banks' overall capitalisation, Basel III also improves the quality of capital. Acquiring new capital may be accomplished partly via equity issues and partly via accumulation of retained earnings.

Moreover, new liquidity requirements will be introduced. However, calibrating liquidity requirements is probably more difficult than developing the basic ideas behind them. The intention is to change both incentives and behaviour and to reduce maturity mismatches. Wellink also argued that banks must widen their investor bases in order to be able to issue more long-term securities.

In his panel intervention **Governor Yves Mersch** noted that as financial markets have become increasingly important, questions of macroprudential policy have become critical. He argued that currently good answers are unfortunately outnumbered by open questions. There are few purely macroprudential policy tools, and in many cases policy makers have to rely on microprudential instruments. However, he emphasized that policies should aim at the roots of problems, not at their superficial manifestations. He called for further systematic analysis of the transmission of proposed new policy tools. In his view, Basel III may "penalise" the European financial system because of the central role of banks. Moreover, we must recognise the limits of our understanding, which in turn forces us to approach these difficult questions with appropriate humility.

The third panellist of the session, **Governor Stefan Ingves** argued that because of increasing interconnectedness, we are now so much affected by each other's actions that further regulatory and other improvements are necessary. Ingves saw Basel III as a compromise and pondered whether systemically-important financial institutions might require special policies. He also noted that although foreign exchange lending has not been a central theme in recent international regulatory discussions, it is still a topical issue in small currency areas. A central bank can, for example, act as lender of last resort in its own currency, but arranging liquidity in foreign currencies may become necessary. And, because banks are still backed by nation states, nation states must have the authority to decide on required levels of capitalization .Towards the end of his talk, Ingves raised the interesting idea that since sovereign debt can no longer always be considered totally risk-free, we run the risk of losing our measuring rod. Concluding, he urged policymakers to tackle these issues so as to create a more stable and sound financial system. Because, whatever we do, new "black swans "will swoop in again and again.

The final panellist of the session, Professor **Bengt Holmström** (MIT) claimed that fundamental questions of banking must be answered if one wants to understand recent developments. He argued that at the core of the crisis is the banking system in the sense that something happened to the banking system that needs to be understood. 1) Why 70 years of banking stability (in the US)? 2) Why did the banking system fall? 3) Why did it fall now? The last question suggests that suddenness is important. In providing answers to these important questions, Holmström referred to the deposit-insurance system, problems in the interbank market, and the role of the shadow banking system, respectively. He focused in particular on the role of the shadow banking system and argued that public calls for increased transparency of banks should not blind us to the fact that banking opacity - lack of information - has its purpose. More specifically, he argued that if debt is the problem, agents should go the stock market where risk is diversified, as asset pricing theory tells us. So, debt is used, because no questions need to be asked, which in turn implies that liquidity is symmetry of information or a shared view. Holmström concluded from this that banks remain opaque to preserve symmetry of information and that debt is a very lowly information-sensitive instrument: over-collateralizing means one need not worry whether others are borrowing excessively. Hence, commonality of information and understanding is critical for liquidity. Transparency may break a shared view and so worsen informational asymmetries.

Martin Hellwig, Philippe Aghion, Stanley Fisher, Steve Liesman, Janet L. Yellen

In her invited speech at the start of the final session, a panel on Financial markets and Growth, **Vice-Chair Janet Yellen** (Board of Governors, Federal Reserve System) focused, in particular, on the benefits of global capital mobility and on the extent to which countries should open their financial markets to the rest of the world. Although some voices have questioned unrestricted financial openness and advocated capital controls, Yellen expressed her belief that open capital markets offer significant benefits in terms of greater efficiency and improved standards of living, and that they represent a goal to which policy makers should remain committed. Some prerequisites are necessary, however, including sound legal and institutional structures, and solid prudential supervision and regulation. That these objectives take time to achieve and require interim policy responses does not imply that the goal of financial openness should be abandoned.

Despite the strong case for openness, Yellen pointed out some practical challenges. Capital flows can be volatile, and they may induce distortions to domestic markets such as maturity mismatches and agency problems. These problems arise especially if a country doesn't have the capacity to intermediate large capital flows. And, increased financial openness may increase countries' exposure to contagion and spillovers from financial shocks stemming from other countries. Indeed, many of these distortions have manifested themselves in recent decades. However, she pointed out that despite the practical difficulties of managing capital inflows, limiting them may not be the best response.

In concluding Yellen emphasized that to reap the full benefits of financial openness all countries should raise the resilience of their financial systems. This includes improving supervision, encouraging market transparency etc. Setting up an adequate financial policy framework takes time and resources. Effective regulation and supervision are not a panacea, but they do increase the chances of benefiting from financial openness. The case for increased financial openness is indeed complicated, and getting the appropriate policy framework in place is time consuming. While we should be pragmatic about the tools we use to manage capital flows, we should keep in mind the long term benefits that financial openness promises.

In his panel intervention **Professor Philippe Aghion** discussed the relation between financial development and growth and posed the question of how can we reduce macroeconomic volatility to foster growth in credit constrained environments? Aghion presented a "Schumpeterian view", where countercyclical macroeconomic policies help financially constrained firms maintain growth-enhancing investment over the cycle. In his view, countercyclical fiscal and monetary policies are appropriate means of supporting innovative investments. While this view provides a measure of justification for stimulus packages during recessions, this justification is quite distinct from the argument based on the Keynesian multiplier (non-discriminatory increase in

public spending). Aghion emphasized that long-run growth effects work primarily through the supply side of the economy whereas multiplier analysis emphasizes short-run demand effects.

In his turn **Governor Stanley Fischer** asked whether a more developed financial system is associated with higher growth. Despite the fact that the bulk of results in this area suggesting a positive answer, Fischer argued that having an efficient financial system is not a necessary condition for rapid growth – for instance China grew very fast well before its financial system was strengthened. Nor is having a strong financial system a sufficient condition for growth – for instance South Africa has a well-developed and efficient financial system, but grows relatively slowly. To understand this issue, we need to understand that the financial system is multidimensional, and that very likely some aspects of financial systems are necessary for growth, while others are not. He also touched upon another major theme discussed by Vice-Chair Yellen – the role of efforts by countries, such as Israel, to deal with short-term capital inflows. He argued that while such measures are typically difficult and untidy to implement, a country faced with major short-term capital inflows might have to resort to such measures in an effort to prevent excessive appreciation of the currency.

Governor Fischer was followed by **Professor Martin Hellwig** according to whom sustained growth requires innovative activities and technical progress. The financial sector may affect such activities in two ways: First it affects the allocation of funds for innovative investments. Second, it competes with other sectors for human capital and intellectual resources. Is it efficient to have physicists running the quantitative risk models of banks rather instead of being active in nanotechnology? In principle, we rely on the market system to find out. However, market outcomes are distorted if e.g. too-big-to-fail protection subsidizes financial activities. They are also distorted if financial activities have more to do with redistribution than with reallocation of resources. With such distortions, a very large financial sector could actually be harmful to economic growth.

In the general discussion, the moderator of the panel **Senior Economics Reporter Steve Liesman** (CNBC) asked the panelists where orthodoxy came down on the issue of the openness of markets. Fischer replied that it was to get your budget in shape and to do your prudential job, but nobody was doing this. According to Yellen in the 1990s orthodoxy was flagged for liberalization and open markets, whereas today's orthodoxy is open markets, except when there are better alternatives.

Jouko Vilmunen

China's monetary and exchange rate policies

Iikka Korhonen

Bank of Finland's Institute for Economies in Transition (BOFIT) held a high-level international workshop on 16–17 May on the subject of China's monetary and exchange rate policies. Workshop participants represented both central banks and the academic world. The topic of interest was approached from numerous perspectives, as would be expected in light of the complexities involved.

Some of the sessions focused on the transmission of Chinese monetary policy and its domestic objectives. Because the Chinese authorities regulate eg capital flows and banking in a variety of ways, it is not obvious how monetary policy eg impacts bank lending. Moreover, the much of financing in China is intermediated outside the banking system, which further complicates the measurement of monetary policy effects. Ms **Xuechun Zhang**, from the People's Bank of China (the central bank), described the financial indicators developed at the central bank. He noted that, while the ultimate goal is liberalization of the financial markets, the central bank will for the present have to rely more eg on bank-specific reserve requirements in order to control the growth of lending.

Some papers dealt with the external value of China's currency, the yuan. Although many felt that the yuan is somewhat undervalued vis-à-vis its equilibrium value, the presentation of **Yin-Wong Cheung** (University of California, Santa Cruz) showed how sensitive the various equilibrium-value metrics are to revisions of the data. In the ensuing discussion, it was emphasised that, because of the structure of China's foreign trade, changes in exchange rates have only minor effects on the foreign trade balance.

The papers presented at the Workshop will be published in the BOFIT Discussion Paper series.

Iikka Korhonen

Conferences and seminars

The Future of Risk Management

The Bank of Finland, CEPR (Center for Economic Policy Research), Journal of Financial Intermediation and SUERF (European Money and Finance Forum) jointly organize a two-day conference on **The Future of Risk Management** on 22-23 September 2011 in Helsinki. The Journal of Financial Intermediation will publish a special issue on the basis of the conference.

Workshop on Frequency Domain Research in Macroeconomics and Finance

A **Workshop on Frequency Domain Research in Macroeconomics and Finance** will be organized 20–21 October 2011 by the Bank of Finland in cooperation with Texas A&M University Corpus Christi, University of East London and the International Network of Economic Research (INFER).

The main objective of this workshop is to share innovative macroeconomic research using frequency domain methods and also to initiate greater collaboration between economists who work in this area. A broader objective will be to demonstrate the usefulness of these techniques in empirical macroeconomics so as to generate wider acceptance of these techniques.

For further information, please visit the upcoming conferences site.

Bank of Finland Research Seminars

Thursday 1 September 2011
Ph.D. Tianxi Wang
University of Essex
Is the Banking Sector Too Big?

Thursday 3 November 2011
Ass. Prof. Christian Matthes
Universitat Pompeu Fabra
TBA.

Research seminars organized by the Bank of Finland's research unit are held on the first Thursday of the month at 13.30–15 in Rauhankatu 19, 3rd floor big meeting room (unless indicated otherwise). Research seminars are open to all interested parties. Please register in advance at seminars@bof.fi by noon of the preceding day. For further information please visit the seminar site.

BOFIT seminars

BOFIT seminars, open to all interested parties, are held on Tuesdays at 10.30 in Rauhankatu 19, 3rd floor big meeting room (unless indicated otherwise). Please register in advance via Liisa Mannila (firstname.lastname@bof.fi, + 358 10 8312268). For further information please visit the seminar site.

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Yin-Wong Cheung and Eiji Fujii: **Exchange rate misalignment estimates – Sources of differences**

Zhichao Zhang, Nan Shi, Xiaoli Zhang: **China's New Exchange Rate Regime, Optimal Basket Currency and Currency Diversification**

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