Bank of Finland 200th Anniversary Conference

MONETARY POLICY UNDER RESOURCE MOBILITY

May 5-6, 2011

Session 1: Global Shifts: Lessons from the past

In the main invited speech of the session **Professor Barry Eichengreen** (University of California) covered six hundred years in the history of global shifts, with a focus on four major episodes: 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. From the economic point of view, a particularly illustrative historical example is the interwar period: After World War I the declining power, Britain, was incapable of managing the world economy, while the rising power, the US, was unwilling - and perhaps also too inexperienced and too weak- to do so. With the world economy entering a period of crisis and turmoil, the US adopted increasingly protectionist and isolationist policies. According to some interpretations, the lack of economic and political leadership and coordination was a major factor that explains the severity of the Great Depression. A counterexample is then the aftermath of World War II. In the 1950s the US was the world leader, both capable and willing to manage the world economy on its own. Perhaps the most striking illustration of the US sense of responsibility at that time was the Marshall plan.

Today, the balance of power is shifting from advanced to emerging economies, and there are clear symptoms of economic tensions and instability: global imbalances, the financial crisis and the Great Recession. In his presentation, Barry Eichengreen provided two interpretations of the current situation. According to a pessimistic interpretation, the current era resembles the interwar period, with neither the US nor China capable or willing to manage the world economy. There is, however, also a more reassuring interpretation. The institutions of multilateral cooperation are better developed today than in the past. Thus, even in the absence of a leading power, we are in a better position to resolve international conflicts and disagreements. Nevertheless, this potentially optimistic view must be qualified by a number of caveats. First, collaboration requires a shared diagnosis of the problem. It is far from clear that the US and China can reach a common understanding on global imbalances. Second, governance reforms are needed, to give international institutions legitimacy. For example, there should be increasing emerging economy presence in the IMF board.

Governor Masaaki Shirakawa (Bank of Japan) illustrated the process of global shifts by reviewing Japan's transformation from a fast-growing "emerging economy" into an advanced mature economy. There were three main factors that enabled Japan's high growth rate from the mid 1950s till early 1970s. First, Japan had a large working-age population and a low dependency ratio. Second, the Japanese business model was well adapted to the prevailing circumstances. Third, Japan benefited from expanding world markets and world trade. In many respects today's emerging economies resemble the Japan of the 1960s. As Japan's

more recent experiences suggest, an era of high growth is unlikely to last forever, and there are a number of lessons that today's fast-growing economies should bear in mind: First, avoid bubbles and beware of overconfidence. Second, be prepared to review your business model, however successful it may appear today. Third, get ready for a demographic change: a population bonus will be followed by a population onus.

Governor Sergey Ignatiev (Bank of Russia) reviewed the shared history and the on-going cooperation between the Bank of Finland and the Bank of Russia. The Bank of Finland was established in 1811, just two years after Finland had become an autonomous grand duchy in the Russian empire. The Bank of Finland and the Bank of Russia have strong historical ties, and the histories of both central banks in turn also reflect more general political and economic developments. In particular, the 1850s and the 1860s form a crucial period in the monetary history of Russia and Finland. The Crimean War of 1853-1856 and the international financial panic of 1857 were followed by a period of instability in the Russian monetary system. This then triggered economic and monetary reforms in the Russian empire. The Bank of Russia was established in 1860, while in Finland a new currency, the Finnish markka, was launched the very same year.

The final set of invited comments was given by **Governor Miguel Ordóñez** (Banco de España). Ordóñez noted that in his presentation Barry Eichengreen had focused on the risks that global shifts bring about. Although we should keep these risks in mind, it is worth remembering that a multi-polar world has its advantages as well. Overall, globalization has increased the chances of high growth, with both developed and emerging economies benefiting. Ordóñez also highlighted the need for multilateral governance in a multi-polar world. Indeed, the existence of multi-lateral bodies is perhaps the main difference between past global shifts and the current situation. Key areas where cooperation is needed include the management of international reserves and global imbalances, international trade and global warming.

Questions from the floor concerned the role of the US in today's world, and the relative absence of protectionist measures during the Great Recession. According to Professor Eichengreen, the US is still dominant according to certain measures, for example military power. When addressing the latter question, Eichengreen argued that mechanisms in place, like WTO rules, make protectionism less likely today. Moreover, unlike in the 1930s, nowadays countries have other instruments to counter the recessions, such as monetary and fiscal policies. Referring to current circumstances, it was asked whether Germany is still oversensitive to hyperinflation, given its history. Eichengreen replied that history casts a long shadow. This applies to the US as well as to Germany: in the US, the 1970s experiences of high inflation are still very influential.

Session 2: Monetary Policy

Carl Walsh: Monetary Policy and Resource Mobility

Professor Carl Walsh started his presentation by pointing out that understanding costly resource mobility is important. For example in the US costly reallocation of labour between different uses may help us in understanding 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. He continued his presentation by showing that there has been strong trend and cyclical movement in sectoral employment in the US during the last 25 years: While there is a relatively smooth downward trend in manufacturing employment, the construction sector displays high employment fluctuations at the business cycle frequency. A major trend shift in employment to the leisure, education, health and professional sectors has taken place at the same time.

Walsh further motivated his presentation on the macroeconomic effects of resource *immobility* by noting that the imperfect nature of resource mobility plays a surprisingly small role in most modern policy models. For example, in the standard New Keynesian model, it is costly for firms to adjust their selling prices, but they can costlessly hire and fire workers and capital can costlessly shift from one firm to another.

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?

Anticipating the conclusions from his analysis, Walsh argued that in general resource mobility will matter for both the transmission and the objectives of monetary policy. He illustrated these conclusions by focusing on factors generating frictions in labour mobility. After reviewing the evidence on the relationship between sectoral reallocation and aggregate unemployment, he further illustrated 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, as well as search with skill heterogeneity.

In two of the models that Walsh reviewed - quadratic adjustment costs and labour market search in a one sector model - frictions to labour mobility can be formally shown to affect both the aggregate dynamics of the economy and the objectives of monetary policy. Of the implications concerning the relationship between skill and sector heterogeneity and aggregate unemployment, Walsh emphasized externalities and compositional effects.

Walsh concluded his presentation by arguing that evidence from the Beveridge Curve and the decline in the vacancy yield in US suggests that the mismatch of workers and job openings may have changed. He also emphasized that because labour immobility affects the cost of fluctuations, labour market conditions should affect monetary policy objectives. The general conclusions Walsh presented apply to other factors of production and to other situations in which there are costs of adjustment that reflect the imperfect mobility of resources.

Walsh's paper and presentation was discussed by three governors. **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. Furthermore the central bank's loss function is sensitive to the choice of labour market friction. In addressing future directions of research he argued that current models (for monetary policy analysis) probably do not capture the welfare effects of unemployment. 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.

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. Sectoral shocks can then shift the natural rate. If uncertainty about the transmission of shocks has increased, superiority of inflation targeting over other monetary policy strategies needs to be re-evaluated. Orphanides argued this last point is even more important when we think about other imperfections, like deviations from rational expectations that are relevant for policy makers.

Governor Augustin Carstens (Banco de México) wanted to remind the audience that perfect models do not exist and that simple models seem to work better. Similar principles apply to policy making. As Governor Carstens put it: "Keep it simple, do not try to score like Maradona." He also noted that other policy instruments (than monetary policy) may be more efficient in addressing problems arising from imperfect resource mobility. Finally, Carstens called for further analysis on the aggregate implications of shocks to the financial sector, which, in one of its roles, can facilitate sectoral re-allocation in the economy. He closed his comments by noting that openness of the economy may be a very important element for the design of monetary policy.

A question from the audience, addressed to Professor Walsh, asked whether US labour markets will become more like European labour markets. Professor Walsh responded to this question by noting that it may be premature to give any definite view on this point. However, it is important how we measure adjustment costs. Furthermore, the size of the shock may have hindered labour re-adjustment in the US. Responding to his discussants, Professor Walsh noted it is surprising that price stability comes close to being optimal in so many circumstances. Maybe this is the case, or maybe we are working with the wrong models. Furthermore often models (for monetary policy) that incorporate adjustment costs (e.g., quadratic costs) are used in ways (eg. linearized) that end up ignoring the actual resources the economy must devote to the adjustment costs.

Session 3: Panel discussion 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 forums highlight how topical the issues discussed in the session have become.

Governor Nout Wellink, chairman of the Basel Committee, described the Basel III process. The functioning of financial markets is very important for central banks because the transmission of monetary policy takes place through them. Over the past few years we have witnessed shocks that would have seemed nearly impossible before they happened. The resilience of the global financial system must be strengthened by increasing banks' capital and liquidity buffers. Preparations of the new regulatory framework have taken place rapidly because policy makers in various countries have agreed on the urgency of the reform. Timely implementation of Basel III is also critical. Basel III not only strengthens banks' overall capitalisation; it also improves the quality of capital. Acquiring new capital may take place partly through equity issues and partly by accumulating retained earnings. Moreover, new liquidity requirements will be introduced. There is broad political support for the reform and some countries have already implemented liquidity requirements. However, calibrating liquidity requirements is probably more difficult than developing the basic ideas behind them. The intention is to change both incentives and behaviour. Maturity mismatches will be reduced. Moreover, banks must widen their investor bases in order to be able to issue more long-term securities. Even though the precise long-term impact of regulatory reforms is somewhat difficult to assess, Basle III will pave the road to a less volatile financial system.

Governor Yves Mersch began his presentation by making a few remarks on the highly volatile financial history of Luxembourg. After several turbulent episodes the country has become the 21st most important financial centre of the world. As the importance of financial markets has risen, questions on macroprudential policies have become highly topical. Unfortunately good answers are outnumbered by open questions. There are few purely macroprudential policy tools, and in many cases policy makers need to rely on microprudential instruments. The financial sector is constantly changing, and its sources of risk do not remain the same. Systemic risk is difficult to measure and define. It is still unclear how the shadow banking system and systemically important institutions should be taken into account in monitoring and regulation. The credit to GDP ratio is not a particularly good indicator of risks. Financial cycles often last longer than business cycles. The probability of different shocks may be difficult to estimate, but their impact is even more difficult to assess because of e.g. non-linearities. The Tinbergen rule ("One tool – one objective") is less and less valid. Cross-border groups, regulatory arbitrage and too-big-to-fail-and-rescue banking groups pose further problems. Policies should aim at the roots of problems, not at their superficial manifestations. There is insufficient analysis on the transmission of proposed new policy tools. Basel III may "penalise" the European financial system because of the central role of banks. We need to recognise the limits of our understanding; these difficult questions must be approached with a certain degree of humility.

Governor Stefan Ingves started by explaining that his views are typical for a representative of a small open economy. Swedish experience from as far back as the 19th century demonstrates that financial developments abroad can have unexpected effects in the domestic financial market. Today, we are even more affected by one another's actions because of increasing interconnectedness, and further regulatory and other improvements are necessary. Basel III is a compromise; in some countries the optimal capital

requirement would be either higher or lower. Systemically-important financial institutions might need special policies, but we do not have a good definition for them at the global, regional or national level. Central counterparties have been created to reduce risk, but they also concentrate risk. In the case of a small country, these institutions are moreover both located and regulated abroad. Foreign exchange lending has not been a central theme in recent international regulatory discussions, but is still a topical issue in small currency areas. A central bank can act as the lender of last resort in its own currency, but arranging liquidity in foreign currencies may become necessary. This requires special arrangements and international cooperation. Banks are still backed by nation states. Hence, nation states must have the authority to decide on the required degree of capitalisation. The Basel accord defines an international minimum for capitalisation, but this is only a minimum. Finally, since sovereign debt can no longer always be considered completely risk-free, we run the risk of losing the measuring rod we once had. These are some of the issues we need to discuss and handle together, with the purpose of creating a more stable and sound financial system. Because, whatever we do, new "black swans "will affect us even in the future.

Professor Bengt Holmström started his speech by defining himself as a theorist, free from institutional constraints. Holmström claimed that the nature of the crisis has been somewhat misunderstood. Fundamental questions must be asked if one wants to understand recent developments. Why were there no crises for 70 years in the U.S. banking sector? Why did liquidity problems begin so abruptly? Blaming market participants for stupidity and irresponsible behaviour is not a satisfactory answer. The market for debt can provide liquidity, not the market for equities. Payment media can be created if the market is arranged in such a way that no questions are needed. For many decades the deposit insurance system kept banks' financiers tranquil. The shadow banking system had no deposit insurance, but liquidity could be maintained despite asymmetric information. Information sensitivity was low because of over-collateralisation. When property prices began to fall, collateral became less reliable, and informational asymmetries started to affect market liquidity. It may not be necessarily true that increasing transparency would improve liquidity, even though many commentators seem to think it would. The basic theory, the "lemons" model by Akerlof, tells us that informational asymmetries impede the functioning of markets whereas in general opaqueness may not. Successful market institutions have sometimes been built on purposeful lack of transparency. Transparency may even worsen informational asymmetries instead of alleviating them if the alternative is common lack of information.

A question from the audience raised the issue on the difficulties to achieve a level playing field between banks in Europe; mobility of capital is free, but banks are regulated nationally. A second question emphasised the difficulties of analysing market-wide phenomena in stress testing and our limited understanding of the joint impact of regulations imposed separately on different sectors of the financial industry.

Session 4: Finance and economic growth

Janet Yellen: Reaping the Full Benefits of Financial Openness

In her presentation **Vice-Chairman Janet Yellen** discussed the role of the financial system in our economies, in particular the benefits of global capital mobility and 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 perquisites 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.

Yellen made the case for financial openness by citing a number of arguments in favor of open financial flows. First, Yellen quoted historical cases to make the point that countries open to capital flows can be expected to enjoy stronger economic growth. Second, opening capital flows increases competition, efficiency and transparency of domestic financial institutions. Third, openness in financial markets and trade may help countries to absorb economic shocks. Fourth, by allowing countries greater scope to share risk, openness increases welfare.

Despite the strong case for openness, Yellen pointed to practical challenges that exist. 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. Also, 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. The empirical literature is still inconclusive about the connection between openness and growth, but Yellen pointed out that this may be due to methodological difficulties in e.g. measuring financial openness and the coincidence of greater openness with other types of reform.

Despite the practical difficulties involved in managing capital inflows, limiting them may not be right response. An alternative to limiting capital mobility may be to rely on more standard policy tools, e.g. using a mix of fiscal and monetary policy. Experience has also shown that attempts to limit financial openness are imperfect. When applied forcefully, capital controls can affect capital flows: but how effective can they be and at what cost? Studies show that success has been mixed. As global capital flows have increased dramatically, countries trying to control them may face higher and higher costs. Also, incentives to circumvent capital flows may lead to adverse results. At most capital controls should be seen as only one of possible tools to control capital flows, and should be used with prudence. Yellen quoted the work of the IMF, which advocates turning to macroprudential tools before resorting to capital controls.

Where to go from here to reap the full benefits of financial openness? Yellen emphasized that all countries should improve resilience of their financial systems to gain from international financial flows. This includes improving supervision, encouraging market transparency etc. Setting up adequate financial policy frameworks takes time and resources. Effective regulation and supervision are not a panacea, but they do increase the chances of benefiting from financial openness. Efforts are ongoing for all countries. The U.S.

has improved its institutional underpinnings with domestic policies, but also further progress is needed in international cooperation. The case for increased financial openness is indeed complicated and getting the appropriate policy frameworks 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.

Professor Philippe Aghion discussed the relation between financial development and growth, posing 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 to support innovative investments. While this view provides some 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 long-run growth effects working primarily through the supply side of the economy whereas the adepts of the multiplier emphasize short-run demand effects. Unlike conservatives (tax and spending cuts), Aghion's view did not advocate tax cuts in recessions but insisted that tax revenues should target growth enhancing investments.

In his presentation **Governor Stanley Fischer** asked whether a more developed financial system is associated with higher growth rates. The bulk of the work in this area, for example that of Ross Levine, finds that the answer is yes. However it is clear that having an efficient financial system is not a necessary condition for fast 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 – for example providing access to deposit and payment services – are necessary for growth, while others – for example fancy financial engineering – are not. He also touched upon another major theme of the very interesting and balanced paper of Janet 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 use such measures to try to prevent excessive appreciation of the currency.

According to **Professor Martin Hellwig** 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 **Senior Economics Reporter Steve Liesman** (CNBC) asked the panelists what the orthodoxy is on the openness of markets. Fischer replied to this that it was to get your budget in shape and do your prudential, but nobody was doing this. According to Yellen in thye1990s the orthodoxy was equal to the liberalization and open markets, today's orthodoxy is open markets, except when there are better alternatives.