For release on delivery 7:30 a.m. EDT (2:30 p.m. local time) May 6, 2011

Reaping the Full Benefits of Financial Openness

Remarks by

Janet L. Yellen

Vice Chair

Board of Governors of the Federal Reserve System

at the

Bank of Finland 200th Anniversary Conference

Helsinki, Finland

Thank you. I usually begin my remarks by stating that my views are my own and do not necessarily reflect those of anyone else on the Federal Open Market Committee (FOMC). However, in this case, I would like to extend best wishes to the Bank of Finland on its 200th anniversary not only from myself but also on behalf of Chairman Bernanke, of the rest of the FOMC, and of the entire Federal Reserve System. All of us have enjoyed many years of fruitful contact with the Bank of Finland, and we hope to continue to do so for many more to come. Okay, disclaimer back on.<sup>1</sup>

The subject of this session, "Finance and Growth," is aptly chosen, as the severity of the recent global financial crisis has prompted a reappraisal of conventional thinking regarding the role of the financial system in our economies. Because one of the distinguishing features of the crisis was its global reach, this reappraisal should address, among other issues, the benefits of global capital mobility and the extent to which countries should open their financial markets to the rest of the world. Does increased financial openness result in stronger economic growth and improved economic performance more generally? Indeed, even well before the current crisis, a number of economists had begun to question the near-consensus view in favor of unrestricted financial openness. And, more recently, a number of publications from economists at the International Monetary Fund (IMF) have suggested circumstances when capital controls might be appropriate. As a practical matter, during the ongoing recovery from the crisis, some emerging market economies have attracted considerable capital inflows, raising

-

<sup>&</sup>lt;sup>1</sup> I am indebted to Board staff members Brian Doyle, Steven Kamin, and Nathan Sheets for their assistance in preparing these remarks.

<sup>&</sup>lt;sup>2</sup> See Ostry (2010) and International Monetary Fund (2011).

concerns about potential overheating and leading authorities in a number of countries to impose capital controls in an attempt to manage these flows.

As I will discuss today, these issues are complicated, but I continue to believe that open capital markets offer significant benefits in terms of greater efficiency and improved standards of living, and that they represent a long-run goal to which policymakers should remain committed. That said, recent experience suggests that reaping the full benefits of capital mobility requires prerequisites, including a sound legal and institutional infrastructure, solid prudential supervision and regulation, and appropriate incentives for risk management by domestic financial institutions. Suffice it to say that the achievement of these objectives takes time. In the interim, countries may need to employ a variety of tools to effectively manage capital flows. Such tools may include macroeconomic policies, exchange rate flexibility, liberalization of capital outflows, and, perhaps in some particularly challenging instances, constraints on capital inflows. Nevertheless, while successfully managing sizable capital inflows may require a range of policy responses, the need to make these responses is not cause to abandon the pursuit of financial openness as an objective over the longer term.

### **The Case for Financial Openness**

To start off, the arguments in favor of countries being open to financial flows are compelling. First, countries that open their markets to capital flows can be expected to reap stronger economic growth. Indeed, the economic history of a number of small, open advanced economies, such as Australia, Canada, and New Zealand, points to a notable role for foreign capital, especially from the United Kingdom and the United States.<sup>3</sup> And

<sup>&</sup>lt;sup>3</sup> See Layton and Makin (1993), Makin, Zhang, and Scobie (2008), and Dow (1984) for some evidence on the importance of foreign investment in Australia, Canada, and New Zealand.

the United States was itself aided by foreign capital at an early stage of its development.<sup>4</sup> That the advanced economies have achieved high standards of living, while at the same time embracing financial openness, suggests that such openness is likely to bring long-term benefits for other countries as well.

Free capital markets support economic growth by allowing resources to move across borders to their most productive uses. These flows should expand the opportunities for savers and, in the savings-rich countries, likely raise the return on domestic savings. Capital inflows can lower the cost of capital to firms in capital-scarce countries, raising investment. The result is more investment, more productive investment, and faster economic growth than would have occurred in the absence of such capital flows. And these flows do not merely represent the wherewithal to finance investments--they potentially are accompanied by positive spillovers from technological transfer and the adoption of managerial and organizational best practices.

Second, opening up domestic financial markets to the rest of the world subjects domestic financial institutions to foreign competition. Increased competition should make domestic financial institutions more efficient as well as more transparent and better governed. Financial openness may also provide impetus for institutional reform within countries. Such reforms might include a better legal system to enforce contracts and other property rights, better accounting and disclosure standards as domestic firms compete for foreign funds, and improved prudential supervision as domestic regulators observe the risk-management practices of foreign financial institutions. In addition, some

<sup>&</sup>lt;sup>4</sup>Bordo, Eichengreen, and Irwin (1999) note that in the 19th century most foreign investment in the United States and in other countries was directed to certain sectors of the economy, including railways, resource extraction, public utilities, and government.

observers argue that greater financial openness may even yield better macroeconomic policy, as countries are subject to the discipline of outside capital markets.

Third, being more open to the rest of the world--both to financial flows and to trade--may help countries better absorb economic shocks by allowing temporary current account surpluses and deficits. For example, a spending boom that leads the economy to overheat could induce a rise in the country's currency and a decline in exports, restoring more normal conditions and avoiding an undesirable rise in inflation. Any impediments to the free operation of international capital markets, including their role in setting exchange rates, can hamper this rebalancing of demand across countries.

Finally, openness also improves welfare by allowing countries greater scope to share risk. Although financial openness may or may not reduce the volatility of an economy's output, risk-averse consumers should benefit by diversifying their portfolios across countries and thus insuring themselves against the shocks hitting their own particular economy. During domestic recessions, lower income from domestic assets may be offset by higher income from abroad, thereby reducing consumption volatility, as long as the shocks hitting the domestic and foreign economies are not too similar.

# **Some Practical Challenges**

Despite the strong case for financial openness, countries have faced some practical challenges in the pursuit of this objective. In particular, capital flows can be volatile, and many countries have struggled with the adverse effects of this volatility on the domestic economy. Access to foreign capital may also exacerbate domestic financial distortions, such as maturity mismatches or agency problems, by channeling funds into the domestic system that would not have otherwise been available. A related matter is

that the domestic financial system may simply not have the capacity to effectively intermediate large volumes of inflows. For example, if financial supervision is not sufficient to ward off such problems, short-term lending from abroad (so-called hot money) can result in maturity mismatches, which can bankrupt domestic institutions in the event of sharp and sudden outflows. Unhedged borrowing in foreign currencies creates an additional mismatch, where a sharp currency depreciation can dramatically boost debt burdens, push borrowers into insolvency, and, in a vicious circle, induce further curtailment of finance from abroad. Heavily managed exchange rate regimes may also provide incentives for such mismatches to arise. In addition, increased financial openness may increase countries' exposure to the risk of contagion and spillovers from financial shocks elsewhere in the global economy.

Many of these vulnerabilities have been manifest in the emerging market crises of the past several decades. For example, in the lead-up to the 1997-98 Asian crisis, domestic financial intermediation failed to prudently allocate capital, and these deficiencies were amplified by large amounts of external borrowing in foreign currencies, encouraged by heavily managed exchange rate regimes. As such deficiencies came to light, exchange rates collapsed, resulting in large balance sheet losses. Foreign investors lost confidence in much of the region, precipitating capital flight, the spread of the crisis to additional countries, and a sharp downturn in activity in these economies.

Consistent with the broad set of practical challenges posed by capital flows that I have just highlighted, the empirical literature on the connection between openness and growth contains a wide range of findings. For example, work using firm-level data finds notable positive effects, while other papers that draw on cross-country data find little or

no effect. <sup>5</sup> In addition, there is limited evidence of any decline in consumption volatility due to increased financial openness. More generally, capital has been observed to flow from capital-poor emerging market economies to capital-rich advanced economies over the past decade, a finding that appears to undermine one of the central rationales for free capital mobility.

These empirical results notwithstanding, it may be that benefits exist but are difficult to identify in empirical research due to methodological difficulties in measuring financial openness, issues of endogeneity, and the coincidence of greater openness with other types of reform. But the failure of the empirical literature to identify clear gains from financial openness likely also reflects that countries have struggled to effectively manage sizable flows of capital.

Notably, a separate literature that considers the link between domestic financial development and growth finds somewhat stronger evidence for such a relationship.<sup>6</sup> This research finds that countries with stronger domestic financial systems grow faster, partly because firms are better able to access financing from sources besides their own retained earnings.<sup>7</sup> This finding suggests that the benefits of greater financial openness among countries may be larger than has been identified to date.

# **Managing Capital Inflows**

Despite the practical challenges associated with managing capital inflows, we should be careful not to conclude that limiting capital mobility is a first-best policy

<sup>5</sup> See Obstfeld (2008) and Kose and others (2006) for a survey of the empirical literature. One example of a paper using cross-country data that finds little evidence of a connection is Edison and others (2002); an example of a paper using firm-level data that finds a more substantial effect is Chari and Henry (2004).

<sup>&</sup>lt;sup>6</sup> See Levine (2005) for a survey of research on the link between financial development and growth.

<sup>7</sup> Recently some researchers have argued that the financial sector can become so large relative to the size of the economy that it begins to harm growth. See Arcand, Berkes, and Panizza (2011) for an example.

outcome. The recent financial crisis certainly highlighted the fact that financial markets are prone to speculative excesses and behavior that may exacerbate systemic risk. But, as central bankers and supervisors, we must remain humble about our ability to preempt market forces in ways that predictably enhance welfare.

An alternative to limiting capital mobility is for countries to rely on morestandard policy tools as an initial line of defense against the challenges posed by capital flows. For example, the effects of undesired capital movements prompted by variations in the business cycle can be addressed directly with the mix of fiscal and monetary policies. Countries facing overheating, with strong capital flows being attracted by rising interest rates, may consider a tighter fiscal policy to reduce both the extent of overheating and the related strength of capital inflows. And some countries facing strong capital inflows may help alleviate pressures by lifting controls on capital outflows. Exchange rate flexibility can also play a crucial role in helping modulate the effects of capital flows, as exchange rates appreciate in response to an inflow (or depreciate in the face of outflows), thereby contributing to external balance and damping further such flows by altering asset valuations. Increased exchange rate flexibility should also discourage excessive currency mismatches, as market participants better gauge the risks of future currency movements. Notably, in some cases, volatile capital flows have been a symptom of deeper distortions within the recipient country, and addressing these distortions has required a shift in the underlying mix of the country's policies.

Past experience also highlights that attempts to limit financial openness are themselves imperfect. Clearly, capital controls can influence capital flows if applied with enough force. But how effective are they and at what cost? The Chilean controls on

capital inflows during the 1990s are often cited as an example of an approach that other countries might use. But studies of these controls, including by staff members at the Central Bank of Chile itself, suggest that the success of the Chilean controls was mixed. The controls did shift the composition of flows away from assets with shorter maturities, but the effects on the volume of flows and the exchange rate--two key goals of the controls--are less clear. Some evidence also suggests that the controls harmed small firms in Chile by reducing the availability of financing and raising interest rates.

In addition, the incentives to circumvent capital controls are powerful when the returns that these flows might reap are large. In the extreme, controls can lead to rent-seeking behavior or, worse, result in corruption among public officials. Controls can also result in unintended distortions in prices in other financial markets or in goods prices as investors use those markets to try to move funds into or out of a country. Moreover, global capital flows have increased dramatically in recent decades. Although these substantial flows are the very reason that many countries wish to impose capital controls, the size of the flows--as well as the sophistication of investors who might seek to circumvent controls--means that countries that avoid opening up may face higher and higher costs in trying to control them.

Finally, capital controls have global implications, as restricting financial openness can impede current account adjustment and thus hinder the world economy from reaching a more balanced equilibrium. Indeed, as I have noted in an earlier speech, the current international monetary system is a mixture of economies, some with open capital accounts and flexible exchange rates, and others with managed exchange rates, more-

<sup>&</sup>lt;sup>8</sup> See Edwards (1999) and Cowan and De Gregorio (2007) for a further discussion.

<sup>&</sup>lt;sup>9</sup> See Forbes (2007).

<sup>&</sup>lt;sup>10</sup> See Edwards (1999) for a survey of problems associated with controls on capital outflows.

restricted capital mobility, and more-limited monetary policy independence. Many of these latter economies also have current account surpluses, in part because authorities have been able to resist currency appreciation, and thus inhibit external adjustment, for prolonged periods. This feature of the international system inhibits the process of global rebalancing and could restrain the current recovery.

Thus, at most, capital controls should be seen as just one of many tools that can be used to manage capital inflows, and one to be used only in particularly challenging situations. The IMF work that I mentioned earlier concludes that capital controls may be appropriate in conjunction with other policy tools as long as countries meet certain conditions. Foreign currency reserves should already be adequate, and exchange rates should not be undervalued. Controls should not be used as a substitute for necessary macroeconomic policy adjustments; for example, if the economy is overheating, controls should only be used along with a suitable monetary-fiscal policy mix. Moreover, controls should be lifted once these prerequisites no longer apply.<sup>11</sup>

In addition, the IMF's work encourages countries to turn to macroprudential tools before making use of capital controls. Although admittedly no bright line differentiates these two types of policies, macroprudential tools generally are designed to enhance the resilience of the financial system, a broader and more enduring objective than directly managing capital flows. Operationally, macroprudential tools typically do not discriminate between residents and nonresidents, nor differentiate by currency. Examples of such prudential policies would include guidance on loan-to-value ratios, capital adequacy standards, and limits on net open foreign exchange positions. <sup>12</sup>

\_

<sup>&</sup>lt;sup>11</sup> See Ostry (2010) and International Monetary Fund (2011).

<sup>&</sup>lt;sup>12</sup> See Ostry (2010) and International Monetary Fund (2011).

## **Reaping the Full Benefits of Financial Openness**

So where do we go from here? What needs to be done for countries to reap the full benefits of financial openness? In my view, all countries must continue working toward improving the resilience of their domestic financial systems to better take advantage of the potential gains from free international financial flows. Policymakers should strive to mitigate financial distortions by improving the regulation and supervision of financial markets and institutions, encouraging market transparency, and setting rules to enhance corporate governance. Effective microprudential policy frameworks should promote robust domestic financial institutions that are able to suitably intermediate both domestic and foreign capital. Prudential regulation should also be alert for risks from abroad, such as a buildup of liquidity risk, foreign currency exposure, or, more generally, inadequate intermediation of foreign credit. Indeed, some empirical studies find greater benefits from financial openness when domestic financial markets are more developed and where institutions and markets are well supervised.<sup>13</sup>

Granted, setting up an adequate financial policy framework takes significant time and resources. Moreover, putting such a framework in place before liberalizing capital flows is not a guarantee that countries will capture the full gains to financial openness without any attendant stresses. Indeed, the recent crisis highlights that these efforts are ongoing for all countries, including the United States. However, though effective regulation and supervision are not a panacea, they doubtless increase the chance that economies will benefit from financial innovation and openness.

<sup>&</sup>lt;sup>13</sup> See Obstfeld (2008) for a discussion of this literature. Edwards (1999) surveys some of the literature on sequencing reforms.

The United States has taken an important step toward strengthening the institutional underpinnings of its financial system with the Dodd-Frank Wall Street Reform and Consumer Protection Act. The act will improve the monitoring of systemic risks, strengthen the supervision of systemically important institutions, support an effective resolution mechanism for large institutions, bring greater transparency to derivatives markets, and improve the effectiveness of consumer financial protection regulation. The act gives the Federal Reserve some new responsibilities. Among them are participating in the new Financial Stability Oversight Council and developing enhanced prudential standards for systemic nonbank financial firms and bank holding companies. We are working diligently to meet our new responsibilities and to enhance our monitoring of emerging risks to the financial system.

Beyond strengthening our domestic prudential framework, we need to make further progress in international cooperation on improving financial regulation and the international monetary system. Central banks and regulatory agencies are working to design and implement a stronger set of prudential requirements for large, internationally active banking firms. Last year's agreement on the framework for Basel III was an important step, and the Federal Reserve is committed to its timely adoption. Its requirements for more and higher-quality capital and more-stringent liquidity buffers should increase the stability of the financial system and reduce the probability of future crises. In addition, we need to continue to make progress in setting rigorous international standards, clarifying the responsibilities of national regulators of internationally diverse financial institutions, and preventing regulatory arbitrage. We also need to continue to

work toward an international monetary system characterized by more-flexible exchange rates and independent monetary policies.

The case for increased financial openness is complicated, and one where many of us have seen our views evolve. As I have already noted, the challenges to opening domestic financial systems to international capital flows are real, and getting the appropriate policy frameworks in place to permit the successful intermediation of these flows, while crucially important, is likely to take time. But while we should be pragmatic about the tools we use to manage capital flows, we should also keep in mind the long-term benefits that financial openness promises.

#### References

- Arcand, Jean-Louis, Enrico Berkes, and Ugo Panizza (2011). "Too Much Finance?" unpublished paper, available at *No Original Content* (blog), March, http://upanizza.blogspot.com/2011/03/too-much-finance.html.
- Bordo, Michael D., Barry Eichengreen, and Douglas A. Irwin (1999). "Is Globalization Today Really Different from Globalization a Hundred Years Ago?" in Robert Z. Lawrence and Susan M. Collins, eds., *Brookings Trade Forum*: 1999. Washington: Brookings Institution Press, pp. 1-72.
- Chari, Anusha, and Peter Blair Henry (2004). "Risk Sharing and Asset Prices: Evidence from a Natural Experiment," *Journal of Finance*, vol. 59 (June), pp. 1295-1324.
- Cowan, Kevin, and José De Gregorio (2007). "International Borrowing, Capital Controls, and the Exchange Rate: Lessons from Chile," in Sebastián Edwards, ed., Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences. Chicago: University of Chicago Press, pp. 241-96.
- Dow, Alexander (1984). "Finance and Foreign Control in Canadian Base Metal Mining, 1948–55," *Economic History Review*, vol. 37 (February), pp. 54-67.
- Edison, Hali J., Ross Levine, Luca Ricci, and Torsten Sløk, (2002). "International Financial Integration and Economic Growth," *Journal of International Money and Finance*, vol. 21 (6), pp. 749-76.
- Edwards, Sebastián (1999). "How Effective Are Capital Controls?" *Journal of Economic Perspectives*, vol. 13 (Fall), pp. 65-84.
- Forbes, Kristin J. (2007). "The Microeconomic Evidence on Capital Controls: No Free Lunch," in Sebastián Edwards, ed., *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences.* Chicago: University of Chicago Press, pp. 171-99.
- International Monetary Fund (2011). Recent Experiences in Managing Capital Inflows— Cross-Cutting Themes and Possible Policy Framework. Washington: IMF, February.
- Kose, M. Ayhan, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei (2006). "Financial Globalization: A Reappraisal," IMF Working Paper. Washington: IMF, August.
- Layton, Allan P., and Anthony Makin (1993). "Estimates of the Macroeconomic Impact of Foreign Investment in Australia," *International Economic Journal*, vol. 7 (Winter), pp. 35-42.

- Levine, Ross (2005). "Finance and Growth: Theory and Evidence," in Philippe Aghion and Steven N. Durlauf, eds., *Handbook of Economic Growth*. Amsterdam: Elsevier, pp. 866-923.
- Makin, Anthony, Wei Zhang, and Grant Scobie (2008). "The Contribution of Foreign Borrowing to the New Zealand Economy," New Zealand Treasury Working Paper. Wellington, New Zealand: New Zealand Treasury, July.
- Obstfeld, Maurice (2008). "International Finance and Growth in Developing Countries: What Have We Learned?" Commission on Growth and Development Working Paper Series. Washington: Commission on Growth and Development, October.
- Ostry, Jonathan D., Atish R. Ghosh, Karl Habermeier, Marcos Chamon, Mahvash S. Qureshi, and Dennis B.S. Reinhardt (2010). "Capital Inflows: The Role of Controls," International Monetary Fund Staff Position Note. Washington: IMF, February.