



**Regulating Global
Capital Flows for
Long-Run Development**

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Co-Chairs

Kevin P. Gallagher
Stephany Griffith-Jones
José Antonio Ocampo

Task Force Members

Amar Bhattacharya
Mark Blyth
Leonardo Burlamaqui
Gerald Epstein
Kevin P. Gallagher
Ilene Grabel
Stephany Griffith-Jones
Rakesh Mohan
José Antonio Ocampo
Dani Rodrik
Shari Spiegel
Arvind Subramanian
Shinji Takagi
Ming Zhang

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Report Editors: Kevin P. Gallagher, Stephany Griffith-Jones, and José Antonio Ocampo.

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The Frederick S. Pardee Center for the Study of the Longer-Range Future
Boston University
Pardee House
67 Bay State Road
Boston, Massachusetts 02215
Tel: +1 617-358-4000 Fax: +1 617-358-4001
www.bu.edu/pardee
Email: pardee@bu.edu

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ACRONYMS AND ABBREVIATIONS

ADR: American Depository Receipts

AE: Advanced Economy

AEC: ASEAN Economic Community

BI: Bank Indonesia

BIT: Bilateral Investment Treaty

BOK: Bank of Korea

BOVESPA: Sao Paulo Stock Exchange

CAM: Capital Account Management

CAR: Capital Account Regulation

CBB: Central Bank Bills

CFM: Capital Flow Management

CGFS: Committee on the Global Financial System

CRR: Cash Reserve Ratio

EAE: Emerging Asian Economy

EME: Emerging Market Economy

FDI: Foreign Direct Investment

FSB: Financial Stability Board

FTA: Free Trade Agreement

GATS: General Agreement on Trade in Services

GATT: General Agreement on Tariffs and Trade

GDP: Gross Domestic Product

IMF: International Monetary Fund

NAFC: North Atlantic Financial Crisis

NDF: Non-Deliverable Forwards

OECD: Organisation for Economic Co-Operation and Development

PBC: People's Bank of China

QFII: Qualified Foreign Institutional Investor

QDII: Qualified Domestic Institutional Investor

RBI: Reserve Bank of India

RMB: Renminbi (Chinese Currency)

SAFE: Chinese State Administration of Foreign Exchange

SBA: Stand-By Arrangement

SBV: State Bank of Viet Nam

SDA: Special Deposit Account

SWF: Sovereign Wealth Fund

URR: Unremunerated Reserve Requirement

WTO: World Trade Organization

Executive Summary

Capital Account Regulations for Stability and Development: A New Approach

Kevin P. Gallagher, Stephany Griffith-Jones,
and José Antonio Ocampo

Since the revival of global capital markets in the 1960s, cross-border capital flows have increased by orders of magnitude, so much so that international asset positions now outstrip global economic output. Most cross-border capital flows occur among industrialized nations, but emerging markets are increasing participants in the globalization of capital flows. While it is widely recognized that investment is an important ingredient for economic growth, and that capital flows may under certain conditions be a valuable supplement to domestic savings for financing such investment, there is a growing concern that certain capital flows (such as short-term debt) can have destabilizing effects in developing countries.

During the recent financial and currency crises a number of emerging market and developing countries experimented with a variety of measures that have traditionally been referred to as “capital controls”—defined as regulations on capital flows. Given that capital controls have been highly stigmatized, in this paper we will refer to them as capital account regulations (CARs).

The 2008 global financial crisis has opened a new chapter in the debate over the proper policy responses to pro-cyclical capital flows.

Those nations that deployed CARs in the years leading to the financial crisis were among the least hard hit when the global financial crisis wracked the world economy (Ostry et al. 2011).

The 2008 global financial crisis has opened a new chapter in the debate over the proper policy responses to pro-cyclical capital flows. Until very recently certain strands of the economics profession as well as industrialized country national governments and international financial institutions have remained either hostile or

silent to regulating capital movements. Regardless, a number of emerging economies, including Brazil, Taiwan, and South Korea, have been successfully experimenting with CARs to manage volatile capital flows (Gallagher 2011; IMF 2011b). The International Monetary Fund (IMF) has come to partially recognize the appropriateness of capital account regulations and has gone so far as to recommend (and officially endorse) a set of guidelines regarding the appropriate use of CARs.

In September 2011, the Global Economic Governance Initiative at Boston University's Pardee Center for the Study of the Longer-Range Future—along with Columbia University's Initiative for Policy Dialogue and Tufts University's Global Development and Environment Institute—convened a Task Force on Regulating Global Capital Flows for Long-Run Development. Based on discussions among members, we argue that there is a clear rationale for capital account regulations in the post-crisis world, that the design and monitoring of such regulations is essential for their effectiveness, and that a limited amount of global and regional cooperation would be useful to ensure that CARs can form an effective part of the macroeconomic policy toolkit.

This report addresses these issues and provides a protocol for the use of CARs—one that stands in stark contrast to a set of guidelines for the use of capital controls endorsed by the board of the IMF in March 2011 (see IMF 2011b) but now superseded by a G-20 set of “coherent conclusions” on CARs in November 2011. Endorsed by the G-20 finance ministers and central bank governors in October, then endorsed by the G-20 leaders themselves in Cannes, the G-20's conclusions say that “there is no ‘one-size fits all’ approach or rigid definition of conditions for the use of capital flow management measures.” This Task Force report will help policymakers and the IMF navigate their thinking under these newer G-20 recommendations.

CAPITAL FLOWS AND THE TWO-SPEED RECOVERY

A long line of prominent economists throughout history have argued that financial markets can be inherently unstable (see Ocampo, Spiegel, and Stiglitz 2008). Different authors use different terms but there is a consistent concern that during periods of growth, expectations can become extremely optimistic, leading to a reduction in risk aversion, a rapid expansion in credit and a rise in asset prices. Imbalances associated with excessive risk taking build up, and if there are changes in expectations, possibly unleashed by facts that lead to a loss in asset values, the unwinding of positions may lead to instability, panics, and crises. Boom is then followed by bust.

Cross-border capital flows to emerging and developing countries tend to follow a similar pattern. Between 2002 and 2007 there were massive flows of capital into emerging markets and other developing economies. After the collapse of Lehman Brothers, there was capital flight to the “safety” of the U.S. market, which spread the North Atlantic financial crisis to emerging markets. As interest rates were lowered for expansionary purposes in the industrialized world between 2008 and 2011, capital flows again returned to emerging markets, where interest rates and growth were relatively higher. The carry trade was one of the key mechanisms that triggered these flows. Increased liquidity induced investors to go short on the dollar and long on currencies in nations with higher interest rates and expectations of strengthening exchange rates. With significant leverage factors, investors gained on both the interest rate differential and the exchange rate movements.

These sudden surges in capital flows can be de-stabilizing for four reasons. First, if capital flows are large enough, such speculation can cause undue appreciation and volatility of exchange rates and lead to a boom in asset prices in developing economies. Second, relatively small interest rate or currency changes can trigger an unwinding of (highly leveraged) positions, which can cause a sudden stop of external financing and capital flight. Third, a sudden unwinding of positions where the investment entity is highly interconnected with other parts of the financial system might cause systemic risk. Fourth, in an environment where nations have open capital accounts, short-term capital movements reduce the space for independent monetary policies. The dominant tool to stem inflation is the interest rate. However, raising interest rates would actually attract more capital flows, in effect generating expansionary pressures.

Private capital flows to Asia and Latin America have returned to their pre-Lehman Brothers highs. This is the case in nations like Brazil, which saw an appreciation of its currency of more than 40 percent between the third quarter of 2009 and September of 2011, and rising concern over asset bubbles and inflation. Indeed it will come as no surprise that it was Brazil’s finance minister who declared the surge in capital flows, the subsequent appreciations, and the myriad reactions to the surges as the beginning of a “currency war.” In the midst of these capital flows, individual nations have responded in various ways. In Brazil’s case, it has taken the form of a tax on foreign purchases of Brazilian securities and later with a reserve requirement and taxes for firms going short on the nation’s currency and holding some derivative positions in foreign currency. Box 1 outlines the various types of capital account regulations that have been deployed by nations in the run up to and during the crisis.

Box 1: Capital Account Regulations—An Illustrative List

Inflows

- Unremunerated reserve requirements (a proportion of new inflows are kept as reserve requirements in the central bank)
- Taxes on new debt inflows, or on foreign exchange derivatives
- Limits or taxes on net liability position in foreign currency of financial intermediaries
- Restrictions on currency mismatches
- End-use limitations: borrowing abroad only allowed for investment and foreign trade
- Limits on domestic agents that can borrow abroad (e.g., only firms with net revenues in foreign currency)
- Mandatory approvals for all or some capital transactions
- Minimum stay requirements

Outflows

- Mandatory approval for domestic agents to invest abroad or hold bank accounts in foreign currency
- Mandatory requirement for domestic agents to report on foreign investments and transactions done with their foreign account
- Prohibition or limits on sectors in which foreigners can invest
- Limits or approvals on how much non-residents can invest (e.g., on portfolio investments)
- Restrictions on amounts of principal or capital income that foreign investors can send abroad
- Limits on how much non-residents can borrow in the domestic market
- Taxes on capital outflows

Capital account regulations are often deployed to manage exchange rate volatility, avoid currency mismatches, limit speculative activity in an economy, and provide the policy-space for independent monetary policy. Measures often come in two varieties, price-based or quantity-based. Price-based measures alter the price of foreign capital such as with a tax on inflows or outflows, and unremunerated reserve requirements (URRs) that have been deployed by such nations as Chile, Colombia, and Thailand. Quantity-based measures include prohibitions or caps on certain types of transactions (for example, on foreign borrowing below certain maturities, or for purposes other than investment or international trade), or minimum stay periods for capital that comes into the country.

RULES OF THUMB FOR DEPLOYING CARs

With respect to CARs, in February 2010 the IMF published a staff position note which found that capital controls on the inflows of capital that were deployed over the past 15 years have been fairly effective. It also found that those nations that used capital controls were among the least hard hit during the world financial crisis (Ostry et al. 2010). A comprehensive review of the literature on

this topic published by the National Bureau of Economic Research in the United States found, in turn, that capital regulation on inflows can make monetary policy more independent, alter the composition of capital flows towards longer-term flows and reduce real exchange rate pressures, and that regulations on outflows can be effective as well (Magud et al. 2011).

The IMF now recognizes that CARs should be part of the policy toolkit for financial stability. Moreover, the IMF also recognizes that the very use of the term “capital controls” can bring a stigma to some nations that may impact the way investors perceive the investment climate in a nation. Indeed, in the 1990s credit rating agencies would downgrade the credit of nations that deployed controls (Abdelal 2007). Therefore, the IMF proposed a new nomenclature for capital controls, suggesting they be referred to as capital flow management measures (CFMs). Others have previously suggested the term “capital management techniques” to the same end (see Epstein et al. 2003; Ocampo et al. 2008). As we have indicated, we prefer to use the term “capital account regulations,” to underscore the fact they belong to the broader family of financial regulations.

The IMF formulated and approved at the board level a set of guidelines pertaining to when a nation should and should not deploy CARs. In a nutshell, the official report recommends that CARs be used as a last resort and as a temporary measure, and only after a

nation has accumulated sufficient reserves, adjusted interest rates, and let its currency appreciate, among other measures. When capital account

regulations are used, the IMF suggests that controls be price-based and that they not discriminate against the residence of the investor that makes the flow.

Though the IMF should be applauded for recognizing that CARs are useful, its prescriptions fall short of being sound advice for developing countries on a number of fronts.

Though the IMF should be applauded for recognizing that CARs are useful, its prescriptions fall short of being sound advice for developing countries on a number of fronts. Without the advice of the IMF many nations have deployed CARs, alongside a host of other macroeconomic and macroprudential policies as they have seen appropriate. And, according to the IMF’s own research, CARs have been a success even though they have sometimes not met those guidelines. We outline an alternative set of guidelines in Box 2. In no way do we think these should be binding protocols at the global level. Rather, we hope they can serve as useful rules of thumb for national policymakers.

Box 2: Guidelines for the Use of Capital Account Regulations in Developing Countries

- Capital Account Regulations (CARs) should be seen as an essential part of the macroeconomic policy toolkit and not seen as measures of last resort.
- CARs should be considered differently in nations where the capital account is still largely closed versus those nations where CARs are prudential regulations to manage an open capital account.
- Price-based CARs have the advantage of being more market neutral, but quantity-based CARs may be more effective, especially in nations with relatively closed capital accounts, weaker central banks, or when incentives to bring in capital are very large.
- CARs should not only be relegated to regulations on capital inflows. Capital outflow restrictions may be among the most significant deterrents of undesirable inflows and can serve other uses as well.
- CARs can be seen as alternatives to foreign exchange reserve accumulation, particularly to reduce the costs of reserve accumulation.
- CARs should not be seen as solely temporary measures, but should be thought of as permanent mechanisms to be used in a counter-cyclical way to smooth booms and busts. Their permanence will strengthen institutional capacity to implement them effectively.
- Therefore, CARs should be seen as dynamic, requiring a significant degree of market monitoring and ‘fine tuning,’ as investors adapt and circumvent regulation. Investors can increasingly circumvent CARs through mis-invoicing trade flows, derivative operations, or foreign direct investments that are in fact debt flows. Regulators constantly need to monitor and adapt.
- It may be useful for effective CARs to distinguish between residents and non-residents.
- The full burden of managing capital flows should not be on emerging market and developing countries, but the ‘source’ countries of capital flows should also play a role in capital flow management, including supporting the effectiveness of those regulations put in place by recipient countries.
- Neither industrialized nations nor international institutions should limit the ability of nations to deploy CARs, whether through trade and investment treaties or through loan conditionality.
- Industrialized nations should examine more fully the global spillover effects of their own monetary policies and evaluate measures to reduce excessive outflows of short-term capital that can be undesirable both for them and emerging countries.
- The stigma attached to CARs should be removed, so nations have ample confidence that they will not be rebuked for taking action. The IMF could play a valuable role in taking away the stigma of CARs, as well as doing comparative analysis of which CARs are most effective.

Source: Pardee Task Force on Regulating Global Capital Flows for Long-Run Development

First and foremost, CARs should be seen as an essential part of the macroeconomic policy toolkit and not as mere measures of last resort. In the econometric work that recognizes the utility of CARs, such regulations were part of a battery of approaches taken in tandem to manage the capital account. CARs should thus be seen as part of the arsenal that needs to be used to prevent and mitigate

crises. In turn, they should not be seen as solely temporary measures, but rather as permanent tools that can be used in a counter-cyclical way to smooth booms and busts.

Second, CARs should be considered differently in nations where capital accounts remain largely closed—and in which they may be used as part of a strategy to gradually open the capital account—versus those nations where CARs are prudential regulations to manage an already open capital account. The IMF report acts as if the set of nations it was talking to were nations with open capital accounts and floating exchange rates, but many developing countries deploy capital account regulations as a regular macroprudential management technique and intervene heavily in foreign exchange markets.

Third, quantity-based CARs may be more effective than price-based CARs, especially in those nations with relatively closed capital accounts, weaker central banks or when incentives to bring in capital are very large (large interest rate differentials or strong expectations of exchange rate appreciation). This is consistent with economic theory and some IMF staff work. Because of uncertainties and asymmetric information about the private sector's response, price-based measures may be difficult to calibrate correctly and therefore a quantity-based measure may be more appropriate. Indeed, IMF research has shown that quantity-based CARs have proven to be more effective under several conditions (Ariyoshi et al. 2000).

In addition, while there has been a sea change in thinking regarding CARs on capital inflows, regulations on capital outflows have largely been shunned. CARs should not only be relegated to regulations on capital inflows. Capital outflow restrictions may be among the most significant deterrents of undesirable inflows and can serve other uses as well. Moreover, in times of acute crisis capital controls on outflows may be necessary to help stop the precipitous slide of a currency and a run on banks.

Indeed, the IMF sanctioned controls on outflows in Iceland as part of its rescue package with that nation during the financial crisis. Finally, some members of our task force argued that regulating outflows can help channel credit and investment into the “real economy.”

Capital outflow restrictions may be among the most significant deterrents of undesirable inflows and can serve other uses as well.

CARs should also be seen as alternatives to foreign exchange reserve accumulation. Recent work has shown that the social costs of foreign reserve accumulation

in developing countries can reach two to three percent of GDP (Aizenman 2009; Rodrik 2006). CARs are an instrument to reduce excessive reserve accumulation.

THE NEED FOR MONITORING AND FINE-TUNING

The IMF guidelines give scant attention to the policy design issues related to CARs. Though IMF econometric work shows that CARs have been effective, there is to date a lack of research regarding how nations administratively have designed and fine-tuned such regulations to make them successful. Much of the literature shows that, without the proper fine-tuning, capital regulations may lose their effectiveness due to the ability of foreign investors to evade and circumvent such regulations. This can be done by ‘misinvoicing’ trade flows, disguising debt flows as foreign direct investment, and by using derivatives.

Nations such as Brazil and South Korea have increasingly “fine-tuned” their regulations in an attempt to keep up with the various levels of circumvention. Fine-tuning of CARs is essential for their effectiveness—and may be far simpler than some may argue, especially if they target the large actors. When regulations are price-based and administered by the tax system, violators could see criminal penalty—creating a strong incentive to comply. Table 1 illustrates examples of the use of CARs in the wake of the crisis and shows how Brazil and South Korea have been constantly strengthening and changing the composition of their capital account regulations in response to new market conditions.

Table 1

<u>Country</u>	<u>Date</u>	<u>Measure</u>
<u>Brazil</u>	19-Oct-09	Inflows tax (2 percent)
	18-Nov-09	ADR tax (1.5 percent)
	3-Oct-10	Inflows tax (4 percent)
	17-Oct-10	Inflows tax (6 percent)
	5-Jan-11	Reserve requirement
	26-Jul-11	Tax on derivatives
<u>South Korea</u>	30-Jun-10	Currency controls
	30-Jun-10	End use limitations
	18-Dec-10	Outflows tax

Source: Gallagher 2011a

THE NEED FOR INTERNATIONAL COOPERATION

Rather than a globally enforceable code of conduct that could lead to the requirement to open capital accounts across the globe, the IMF, G-20, the Financial Stability Board (FSB) and other bodies should make a stronger effort to reduce the stigma attached to CARs and protect the ability of nations to deploy CARs to prevent and mitigate crises. Moreover, these bodies can be part of a global dialogue about the extent to which nation states should coordinate CARs.

In the original design of the IMF, it was charged with both permitting and helping to enforce CARs. Both John Maynard Keynes and Harry Dexter White saw them as a core component of the Bretton Woods system. In those deliberations Keynes said that, “control of capital movements, both inward and outward, should be a permanent feature of the post-war system.” Indeed, the IMF was not given jurisdiction over liberalization of the capital account at all under its articles of agreement. Article VI of those articles goes further to say that members may “exercise such controls as are necessary to regulate international capital movements” (see Helleiner 1994).

The IMF, G-20, the FSB, and their respective members could clarify the new thinking on CARs in communiqués, speeches and other venues, including official reports such as the *World Economic Outlook*. Such continued attention to CARs would help continue to remove the stigma associated with their use. Not only would it calm both national governments and market participants, it may also trickle into the legal discourse and help broaden the way the global community legally interprets macroprudential regulations.

This is important because the policy space provided under the IMF articles of agreement is being eroded by trade and investment agreements. Increasingly, these agreements prohibit the use of CARs, and those treaties that have exceptions for measures to manage balance of payments crises only allow CARs to be temporary in nature. In Asia, where CARs on both inflows and outflows are the most prevalent, ASEAN will require nations to eliminate most CARs by 2015, with relatively narrow exceptions. Trade and investment agreements with the United States provide the least flexibility. In January 2011, some 250 economists from across the globe called on the United States to recognize the recent consensus on CARs and to permit nations the flexibility to deploy controls to prevent and mitigate crises. The letter was rebuked by prominent business associations and the U.S. government. In response to the letter, U.S. Treasury Secretary Timothy Geithner replied that U.S. policy would go unchanged. Secretary Geithner wrote:

“In general, we believe that those risks are best managed through a mix of fiscal and monetary policy measures, exchange rate adjustment, and carefully designed non-discriminatory prudential measures, such as bank reserve or capital requirements and limitations on exposure to exchange rate risk.”

This is ironic given that the U.S. approved the guidelines for CARs at the IMF.

Finally, the global community should start a conversation regarding the extent to which there should be coordination among national governments regarding CARs—especially between inflow and outflow nations. In the meetings leading up to the establishment of the IMF both Harry Dexter White and John Maynard Keynes agreed that capital controls be targeted at “both ends” of a capital flow (Helleiner 1994). Furthermore, the industrialized nations are more often the

The global community should start a conversation regarding the extent to which there should be coordination among national governments regarding CARs—especially between inflow and outflow nations.

source of such flows but generally ignore the negative spillover effects of their actions. The expansionary monetary policy by the U.S.—which is quite justified in order to generate employment

and recovery in that country—leads to the harmful carry trade effects discussed earlier. However, despite this fact, thus far the entire burden of managing capital flows has fallen on those countries that are the recipients of those inflows.

One member of the Task Force, Arvind Subramanian, goes so far as to suggest that an entirely new global regime is needed to regulate global capital flows. And moreover, the focus should not only be on North-South flows but South-South and North-North as well.

There may be an alignment of interests to coordinate on capital flows. Industrialized nations are aiming to recover from the crisis and hope that credit and capital stays in their nations. Meanwhile the developing world has little interest in having to receive those flows. There is therefore some alignment of interests that could form the means for industrialized nations to adjust their tax codes and deploy other types of regulation to keep capital in their countries, as emerging markets deploy CARs to change the composition and reduce the level of those capital flows that may destabilize their economies.

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Section I: The Rationale for Capital Account Regulation

1. The Case For and Experience With Capital Account Regulations*

José Antonio Ocampo

A major agreement during the recent crisis was that deregulated financial activities can be a source of major macroeconomic disruptions. The G-20 thus led a major effort to re-regulate finance, mainly at the national level. However, *cross-border* finance was left almost entirely out of the agenda, as if it did not require any regulation—or indeed as if it was not part of finance. A particular twist of terminology is also involved in traditional discussions of this issue: domestic financial regulations are called by that name, but if they involve cross-border flows, they are called ‘controls’. We would refer to them by their appropriate name: capital account *regulations*.

The essential problem here is that capital flows, like finance in general, is pro-cyclical. Agents that are perceived to be risky borrowers are subject to the strongest swings in the availability and costs of financing. These riskier agents include small firms and poor households in all domestic markets and emerging markets and, more generally, developing country borrowers in global markets. There is overwhelming evidence that capital flows to developing countries are pro-cyclical and have become one of the major determinants (and perhaps *the* major determinant) of business cycles in emerging economies (Prasad et al. 2003; Ocampo et al. 2008a,b). Furthermore, the cyclical supply of finance is increasingly driven by portfolio

decisions in industrial countries, which may be entirely delinked from demand for capital by emerging and developing countries. These countries face further problems: their domestic financial markets are significantly more ‘incomplete’ and, as a result, they are

It is important to emphasize that the cyclical behavior that characterizes capital flows goes beyond volatility of short-term flows.

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plagued by variable mixes of currency and maturity mismatches, and their capital markets are shallower and small relative to the magnitude of the speculative pressures they face.

It is important to emphasize that the cyclical behavior that characterizes capital flows goes beyond volatility of short-term flows. Even more important are the medium-term cycles in the availability and costs of financing. Since the mid 1970s, we have experienced three full *medium-term* cycles—from the mid 1970s to the end of the 1980s, from 1990 to 2002, and from 2003 to 2009—and we are at the beginning of a fourth one. The major problem with these cyclical swings is their strong effect on major macroeconomic variables: that is, on exchange rates, interest rates, domestic credit, and asset prices. As a result of this, pro-cyclical capital flows exacerbate major macroeconomic policy trade-offs, significantly limiting the space to undertake counter-cyclical macroeconomic policies. For example, during a boom, countries may float the exchange rate to maintain some degree of monetary policy autonomy, but this merely displaces the effects of pro-cyclical capital flows to the exchange rate. The resulting deterioration in the current account allows these countries to ‘absorb’ the increasing flows but experience indicates that it also increases the probability and costs of crises. More exchange rate volatility generates, in turn, disincentives to invest in export and import-competing sectors. If there is hysteresis associated to dynamic economies of scale (e.g., if productivity tomorrow depends on production today), there may be permanent losses in production structure during booms, and therefore adverse effects on growth.¹

Since a restrictive monetary policy would only exacerbate appreciation pressures, an alternative for authorities to reduce the expansionary pressures generated by capital inflows is to adopt a contractionary fiscal policy. But this makes fiscal policy hostage to capital account volatility. Fiscal policy may lack the flexibility to respond rapidly to variations in capital flows, and there may not be political backing for doing so. Authorities may also try to stabilize the exchange rate by accumulating foreign exchange reserves while sterilizing their domestic monetary effects. But such sterilized accumulation generates quasi-fiscal losses that are particularly costly in countries with high domestic interest rates. When foreign exchange reserves are already high, as they are in many emerging and developing countries, these costs are hard to justify. Such interventions also destroy the rationale for capital inflows in the first place, which is to transfer resources to the country. To the extent that such reserves are a way to counter-

1 See the review of the literature in Frenkel and Rapetti (2010).

balance the risk of future reversals of capital flows, they destroy the additional rationale for capital account liberalization, which is to diversify risks. In fact, experience indicates that they are rather a source of additional risk.

During boom periods, capital account regulations can therefore be justified as a way to help authorities manage booms while avoiding exchange rate appreciation, the risks associated with rising current account deficits and/or useless foreign exchange reserve accumulation. During crisis, they may also be used as a way to avoid or mitigate capital flight, which has the opposite macroeconomic effects. More generally, these regulations can play a dual role: they can be a complementary macroeconomic policy tool and help reduce the risks associated with liability structures tilted towards reversible capital flows. As a macroeconomic policy tool, they provide some room for counter-cyclical monetary policies. During booms, they increase the policy space to undertake contractionary monetary policy while reducing exchange rate appreciation pressures. In turn, during crises, they can create some room for expansionary monetary policies. Viewed as a liability policy, capital account regulations recognize the fact that pro-cyclical behavior and, particularly, reversibility, varies significantly according to the nature of capital flows: foreign direct investment is more stable than portfolio and debt flows and, among the latter, short-term debt flows are particularly volatile.²

Capital market regulations obviously *segment* domestic from international markets, but this recognizes the fact that markets are already segmented. Indeed, the basic flaw of capital account liberalization is that it does not recognize the implications of this basic fact. As with prudential regulations, capital account regulations can be either quantitative (or administrative) or price-based, but there are more complex typologies (see, for example, IMF 2011a).³ The former include, among others, prohibitions or ceilings on certain capital flows, derivative operations or net exposure in foreign currencies; minimum stay periods; and restrictions on foreign investors taking positions in domestic securities or rules on what type of agent can undertake some capital transactions (residents versus non-residents, and corporate versus non-corporate). In turn, price-based regulations include unremunerated reserve requirements on capital inflows, taxes on inflows or outflows, and larger reserve requirements for external liabilities of net

² See, for example, Reddy (2010: ch. 21). The classic treatment of the riskiness of short-term capital is Rodrik and Velasco (2000).

³ There are also terminological differences. IMF (2011) coins the term 'capital flow management measures', and Epstein et al. (2003) have suggested the term 'capital management techniques'.

balances in foreign currencies. Furthermore, they can be partly substituted by domestic prudential regulations when they involve domestic financial intermediation, though not when they entail access to external capital markets by non-financial domestic agents.⁴

They thus belong to the family of what have come to be called ‘macroprudential regulations’, including particularly of counter-cyclical prudential regulations (for an early analysis of this link, see Ocampo 2003). Indeed, they may be seen as part of the continuum, which goes from regulation on financial transactions of domestic residents in the domestic currency (normal prudential regulation, including now countercyclical prudential regulations), to those of domestic residents in foreign currency (e.g., managing dollar/euroized financial systems, or correcting the risks associated with currency mismatches in domestic portfolios), to finally those involving domestic agents’ transactions with foreign residents (capital account regulations).

The concrete analysis of experiences with the use of capital account regulations leads to several conclusions.⁵ First, regulations on either inflows or outflows can work (though the more orthodox literature is skeptical of the effectiveness of the latter), but the authorities must have administrative capacity to manage them, which includes acting on time to close loopholes and respond to ‘innovations’ by private agents aimed at circumventing regulations. As a result of the link with administrative capacity, permanent regulatory regimes that tighten or loosen the norms in response to external conditions may be the best choice rather than improvising a system in the face of shocks. Second, regulations help generate a mix of increased monetary autonomy, reduce exchange rate pressures and alter the magnitude of flows, with greater skepticism on the latter effect by several authors. Some of these effects may be temporary, largely due to greater circumvention of regulations as time passes, and in this sense regulations may act as ‘speed bumps’⁶ rather than permanent restrictions; this implies that further reinforcement may be required to maintain their effectiveness. Third, capital account regulations on inflows help improve debt profiles and thus act as an effective liability policy that reduces external vulnerability. Finally, and perhaps

4 In the latter case, price-based regulations can also be substituted by tax provisions applying to foreign-currency liabilities (see, for example, Stiglitz and Bhattacharya 2000).

5 See, among others, three papers by the IMF and IMF experts (Ariyoshi et al. 2000; Ostry et al. 2010; IMF 2011), Magud and Reinhart (2007), Kawai and Lamberte (2010) and my own work (Ocampo 2003, 2008).

6 This is the term used by Palma (2002) and Ocampo and Palma (2008).

most importantly, regulations are a complement to sound macroeconomic policies, not a substitute for them.

Overall, the evidence is therefore that capital account regulations are a useful and effective complementary instrument of counter-cyclical policy management (IMF 2011a). There is also evidence that countries using regulations on capital inflows fared better during the recent global financial crisis (Ostry et al. 2010), and that the new regulations put in place by some countries since 2010 have been at least partly effective (Gallagher 2011; IMF 2011a).

Debates on this issue since 2010 have emphasized some *global* dimensions of these regulations that must be at the center of attention. The first and essential problem is the asymmetry generated between the strength of several emerging economies and the continuing weakness of most industrial countries. This situation, which is likely to continue, implies that the latter have to maintain expansionary policies, but the former are gradually moving towards more restrictive policies, though partially constrained for doing so by massive capital inflows. In short, the 'multi-speed' character of the recovery creates a need for a mirror asymmetry in monetary policies, which would be very difficult to manage without some restrictions on capital flows.

A second problem is that monetary expansion may be largely ineffective in industrial countries but can generate large externalities on emerging markets. This is particularly problematic when it involves the country issuing the major global reserve currency. Indeed, expansionary monetary policies in the U.S., including now quantitative easing, has had at best mixed effects in generating a reactivation of credit, the major transmission mechanism of monetary expansion to domestic economic activity, but the low dollar interest rates associated with that policy are inducing massive capital flows to emerging markets, where they are generating appreciation pressures and risks of asset price bubbles. They may also be contributing to the weakening of the dollar, with negative effects on trading partners.

A third problem is that unilateral actions by countries also have negative externalities on other countries; that is, regulations by some countries may generate even stronger flows towards those not doing so. This is also true, of course, of interventions in foreign exchange markets.

Thus cross-border capital account regulations are an essential part of global monetary reform. Actually, the basic principle that should guide actions in this

field is the 'embedded liberalism' under which the IMF was built: that it is in the best interest of all members to allow countries to pursue their own full employment macroeconomic policies, even if this requires blocking free capital movements. It is therefore positive that the Fund has recognized that capital account regulations can play a positive role, as part of the broader family of macroprudential regulations, and has taken the step to openly discuss this issue and has suggested a possible 'policy framework' for discussion (IMF 2011b). Furthermore, this is the first step taken to include cross-border capital flows within ongoing efforts at strengthening prudential regulation worldwide.

Such policy framework should start, however, by designing mechanisms to cooperate with countries using these policies, helping in particular make those regulations effective. In fact this may require eliminating provisions in several free trade agreements (particularly those signed by the U.S.) that restrict the use of such regulations. This type of cooperation is excluded from the IMF guidelines even while recognizing that capital account volatility is a negative externality inflicted upon recipient countries.

The guidelines try to identify 'best practices' in this area. As indicated, such best practices include the recognition that they are a complement and not a substitute for counter-cyclical macroeconomic policies. However, the guidelines tend to view them as interventions of 'last resort' (or a second, third, or fourth line of defense), to be used once other macroeconomic policies have been exhausted: exchange rate adjustments, reserve accumulation, and restrictive macroeconomic policies. This is a limited view of their role. They must, therefore, be seen as part of the normal counter-cyclical packages, and particularly as tools to avoid excessive exchange rate appreciation and reserve accumulation.

In addition, the IMF guidelines tend to view CARs as temporary measures. This goes against another IMF recommendation, which calls for "strengthening the institutional framework on an ongoing basis." This implies that regulations should be part of the permanent toolkit of countries, which are strengthened or weakened in a counter-cyclical way. Also, and again against the guidelines, almost by necessity they require some discrimination between residents and non-residents, which reflects the segmentation that characterizes financial markets in an international system: as different moneys are used in different territories, residents and non-residents have asymmetric demands for assets denominated in those currencies.

In any case, any guidelines in this area should recognize that there is no obligation to capital account convertibility under the IMF Articles of Agreement—an issue that was settled in the 1997 debates—and therefore countries have full freedom to manage their capital account. In the words of the Group of Twenty-Four (G-24 2011: par. 8): “Policy makers of countries facing large and volatile capital flows must have the flexibility and discretion to adopt policies that they consider appropriate

Although the IMF has made a positive contribution by bringing the issue of capital account regulations into the global debate, it can only be taken as a first step in the necessary task of including this issue in the efforts to re-regulate finance and avoid global macroeconomic imbalances.

and effective to mitigate risks.” So, although the IMF has made a positive contribution by bringing the issue of capital account regulations into the global debate, it can only be taken as a first step in the necessary task of including this issue in the efforts to re-regulate finance and avoid global macroeconomic imbalances.

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2. Capital Account Management: The Need for a New Consensus¹

Rakesh Mohan

The North Atlantic Financial Crisis (NAFC) that started in 2008 has been an epoch-changing one in many respects. Among its consequences is the attention that the IMF is paying to issues related to cross-border capital flows and the need for capital account management (CAM), what it calls capital flow management. There has been a spate of papers on this topic, both research and policy-related over the last couple of years (IMF 2011a, 2011b; Habermeier et al. 2011; Ostry et al. 2010; Ostry et al. 2011). Their conclusion, broadly stated, is that capital flow management measures can be considered in certain circumstances, but only after exhausting traditional policy avenues of tighter fiscal policy, accommodative monetary policy, and exchange rate flexibility that allows appreciation in the face of large capital flows. In this paper I argue that in emerging market economies (EMEs) CAM should, instead, form part of the normal toolkit of overall macroeconomic management, and should not be seen as an extreme measure only to be used in specific special circumstances.

Capital flows to EMEs, both gross and net, have been rising in volume, along with increasing volatility since the early 1980s (CGFS 2009). They reached their peak in 2007 just before the NAFC broke out; and then there was a typical sudden reversal in 2008–2009, followed by recovery in 2010 and 2011 as the extended and continuing (almost) zero interest rate policy has been in place in advanced economies (AEs). As funds from AEs have again flowed to EMEs in search of yield, the latter have experienced renewed appreciation pressures on their real exchange rates. They have therefore had to resort to CAM measures in a variety of ways in the interest of preserving their growth trajectories while ensuring continued financial stability. That provides the context for the IMF's increased interest in this issue.

The surprising feature of this ongoing NAFC has been the dog that didn't bark: the resilience exhibited by Asian and Latin American EMEs. The immediate

¹ The paper has benefited from very thoughtful comments from Shinji Takagi.

impact of the crisis during 2008–2010 on these economies was through two channels. First, there was a sudden reversal of capital flows, which had been unprecedented in magnitude during the years prior to the crisis. This reversal in 2008–2009 had significant impact on capital and foreign exchange markets in these countries. Second, the fall in global trade far exceeded the contraction in global GDP. Despite these setbacks no significant banks or financial institutions in these countries exhibited substantial stress: none required a bailout. Furthermore, in spite of stagnation in the major advanced economies, these economies have experienced a strong recovery. Evidently, these countries have been doing something right since the various Latin American crises of the 1980s and 1990s, and the Asian crisis of the late 1990s. Given the volatility observed in

The general conclusion is that for EMEs, capital account management in its broad form should become part of the normal overall tool kit for macroeconomic management oriented towards ensuring growth with price and financial stability.

capital flows and the need to ensure broad-based stability of the financial sector, most Asian and Latin American EME governments and central banks have employed multiple instruments related to CAM, along with traditional

monetary and fiscal policy, and financial regulation and supervision. Judging from their performance in terms of growth, and maintenance of price and financial stability—both over the decade preceding the crisis and in the subsequent period—it must be concluded that their overall policy stance, including CAM measures has been broadly in the right direction.

The general conclusion is that for EMEs, capital account management in its broad form should become part of the normal overall toolkit for macroeconomic management oriented towards ensuring growth with price and financial stability. It should not be regarded as a tool that is only used as an extreme measure, as the IMF papers tend to emphasize. Accumulation and management of forex reserves also needs to be consistent with this overall approach.

THE NEED FOR CAPITAL ACCOUNT MANAGEMENT

Until recent years most developing countries suffered from the inadequacy of savings relative to the investment levels needed for the economic growth that they aspired to. Consequently the mobilization of external savings, and hence capital flows, was necessary in the interest of promoting economic growth. Thus a well-managed and somewhat steady flow of external capital can clearly

be beneficial to EMEs that need to enhance resources for investment. In earlier decades most of these flows consisted of official flows from multilateral and bilateral donors, which were relatively stable.

However, after the opening of capital markets in varying degrees, the record of capital volatility has been stark over the last three decades. Before this past decade the previous peak of net capital flows to emerging-market economies was around U.S. \$190 billion in 1995. The average over the four years prior to that was around U.S. \$100 billion. There was a big reversal after the Asian crisis, but then there was a recovery to about U.S. \$240 billion, on average, during 2003–06. Net capital flows jumped to almost U.S. \$700 billion in 2007 but then slumped to an average of around U.S. \$200 billion during 2008 and 2009 (Mohan and Kapur 2011b). With the extended continuation of monetary accommodation in the advanced economies after their financial crisis, capital flows to EMEs have surged further. The volume of gross capital flows has of course been even higher, along with its volatility. There has been a continuing cycle of capital flows from at least the early 1980s, with the amplitude of the cycles increasing consistently.

It is then not surprising that emerging-market economies have had to resort to capital account management in varying degrees. It is a little difficult to imagine what would happen if these countries had not actively resorted to capital account management. The IMF has now begun recognition of this element of macroeconomic management as being effective and legitimate, albeit with many caveats. However, its approach is hierarchical, and CAM is regarded by the IMF as a last resort. Whereas it is understandable that aggressive CAM can be seen as disruptive from a multilateral perspective if it leads to beggar-thy-neighbor policies, there is little evidence of such practices.

Second, on average, there is a persistent inflation differential between advanced economies and EMEs. It is very interesting that in the 10 or 12 years before the crisis, there was a persistent inflation differential of around 2 or 3 percent on average between advanced-economy inflation and emerging market inflation, though with significant variance between different countries. Hence there was a persistent interest rate differential as well, and that gave rise to huge opportunities for interest rate arbitrage, and the existence of the carry-trade on an enduring basis. The differential has been persistent and is now further exacerbated by the extended zero interest rate policy of the United States: hence, the expectation of rising capital flows and the enhanced need for managing them.

Third, there has been a good deal of volatility in the monetary policies of advanced economies, and that has also given rise to capital flow volatility. If we examine the record of AE monetary policy over the past 30 years there has been broad correspondence between episodes of accommodative monetary policy in advanced economies and capital flows to emerging-market economies; and also the reverse: each tightening produced the reversal of capital flows and the crises that occurred in EMEs in the 1980s and 1990s. These episodes were well documented in the Committee on the Global Financial System's Report (2009) on capital flows to EMEs (a report surprisingly ignored by all the IMF papers). Since the policies of advanced economies are driven by their own domestic needs, emerging markets need to take adequate defensive action in the interest of preserving their own growth and stability.

Fourth, there is now the emergence of a persistent growth differential between the AEs and EMEs, which has been getting starker. The two-speed recovery after the North Atlantic Financial Crisis has only served to bring this phenomenon to more pointed attention of both policymakers and financial markets alike. Overall, there is a huge incentive for large capital flows, which then lead to large exchange rate appreciation, the possibility of credit booms, and asset-price booms in recipient countries, followed eventually by higher trade and current account deficits over time. There is then a reversal of capital flows at some point or other, leading to substantial output and unemployment costs. All of this could not have been managed by financial development, as shown by the United States itself. This demonstrates the need for a combination of measures, including CAM, particularly since markets can be irrational for extended periods.

Fifth, exchange rate fluctuation poses greater difficulties for economic stability in EMEs. Typically, their export baskets are more dependent on relatively low technology labour using products that are price sensitive and which are therefore easily substitutable; their competitiveness is much more dependent on the level of their exchange rates. Thus even temporary real exchange rate appreciation resulting from a surge of capital flows can have significant effects on economic activity in EMEs, both through a possible surge in imports and lull in such exports. The social effects through labor displacement can be difficult to manage, particularly in the absence of appropriate social security mechanisms. With the lack of well developed financial markets it is also not easy to hedge against such exchange rate fluctuations. Whereas exchange rate appreciation that results from improved competitiveness should not be resisted, the same cannot be said

for exchange rate fluctuation arising from capital flow volatility unrelated to host country domestic fundamentals.

Sixth, the basic assumption behind much of the discussion on CAM, in principle, is that the flow of capital across borders brings benefits to both capital importers and capital exporters. The traditional view has been that EMEs are capital scarce and AEs are capital rich so the former would only gain by greater freedom in the flow of cross border capital flows. What is different about the recent experience with capital flows is that many EMEs have run significant current account surpluses, so net flows are actually in the opposite direction. Even in those countries that do not exhibit current account surpluses, the capital inflows have tended to be far in excess of their financing needs. Excess incoming capital flows have then only added to the capital account management problem. Moreover, even with domestic savings rates in excess of their investment rates, their investment levels have been much higher than those of AEs, so they have exhibited relatively high economic growth rates. The argument that more liberal capital account regimes would have produced even higher growth rates is difficult to sustain.

Seventh, in any case, historical evidence, reinforced by the current North Atlantic Financial Crisis—not the global financial crisis—clearly shows that it can create new exposures and bring new risks. The failure to understand and analyze such risks, as well as the excessive haste that many countries have shown over time in liberalizing capital accounts, has compromised financial or monetary stability, particularly in many EMEs. Such liberalization has usually been done without placing adequate prudential buffers that are needed to cope with the greater volatility characteristic of market-based capital movements. Consequently, many EMEs in Latin America and Asia suffered repeated financial crises during the 1980s and 1990s. They appear to have learned their lessons well, and have generally succeeded in avoiding crises since the Asian crisis of the late 1990s. However, such failure became manifest in the current crisis in an even more virulent form in the North Atlantic advanced economies.

ROLE OF CAPITAL ACCOUNT MANAGEMENT IN OVERALL MACRO-ECONOMIC MANAGEMENT

In addressing issues related to capital account management, and after examining the recent record of Asia and Latin American EMEs, I see them in the broader context of prudent macroeconomic and monetary management, with a particular focus on maintaining financial stability. I believe that some of the errors in the approach to capital account management arise from looking at it from a very

narrow viewpoint of capital controls. The reality of capital flows to emerging markets over the past decade and a half is one of rising volumes accompanied by high volatility. The optimal management of these large and volatile flows is not one-dimensional.

Overall, my conclusion is that what is needed broadly is a combination of policies:

- sound macroeconomic policies, both fiscal and monetary
- exchange rate flexibility with some degree of management through forex intervention as needed, along with appropriate sterilization
- relatively open capital account but with some degree of management including use of specific capital controls
- prudent debt management
- the use of micro- and macroprudential tools
- accumulation of appropriate levels of reserves as self insurance and their symmetric use in the face of volatility in capital flows
- and the development of resilient domestic financial markets

That sounds like motherhood and apple pie, but it is different from looking at CAM *in extremis*. Capital account management should not be discussed in isolation: it must be seen as an integral and legitimate element of the overall toolkit deployed in macroeconomic management. Just as different instruments are used at different times in achieving fiscal policy and monetary policy goals, the deployment of the various instruments available in the CAM toolkit would depend on the extant circumstances, both domestic and external.

Much discussion on CAM is sidetracked on the use of capital account controls, but these should be seen as only one element in the overall toolkit (as illustrated in the menu above), which are used whenever they need to be. Just as advanced economy central banks have used a variety of instruments to stabilize their economies in the wake of the North Atlantic Financial Crisis, from (almost) zero interest rate policy to aggressive quantitative easing, EMEs have used different forms of CAM to ensure the continuance of growth with financial stability in their economies. There is increasing discussion on the use of prudential regulation for CAM, both micro and macro. Again, I see these as legitimate tools in the CAM armory for ensuring financial stability. Similarly, there is renewed discussion

on the management of exchange rates, intensified by the recent action of the Swiss National Bank announcing the initiation of aggressive intervention in the foreign exchange market. Much of the discussion is contaminated by going to the extremes of total flexibility or fixed exchange rates. In fact, what many emerging markets have practiced since the Asian crisis is a greater degree of flexibility in exchange rates, but with some degree of management. Similarly, emerging markets have maintained relatively open capital accounts, but again with some degree of management. The discussion is contaminated by going to extremes here as well: either a totally open capital account or totally closed, when the reality for Latin American and Asian EMEs has been somewhere in the middle over the past decade or so.

A good deal of discussion on management of the capital account and foreign exchange intervention has been influenced by the existence of the open economy trilemma. No country can simultaneously enjoy free capital mobility, operate a fixed exchange rate, and practice independent monetary policy directed at managing domestic objectives. In fact, most Asian countries have actually managed this open economy trilemma successfully since the 1990s crisis. Whereas they have operated managed exchange rates, they have allowed increased flexibility: their exchange rates no longer exhibit rigidity. Similarly, whereas they have actively managed their capital accounts, they have been neither totally open nor totally closed at any time. This middle ground of managed but flexible exchange rates and managed but mostly open capital accounts have enabled Asian EMEs to operate independent monetary policies despite high volatility in external capital flows during the post-Asian crisis period. By and large, Asian countries have been able to set their own policy for interest rates even in the presence of persistent interest rate differentials with advanced countries. The practice of adequate sterilization has been successful in preventing the unwarranted growth of base money and other monetary aggregates in the face of rising foreign exchange reserves. Hence, by and large, they have also been successful in containing inflation (Mohan and Kapur 2011b).

On the other hand, rigidities in capital account management can also lead to difficulties in macroeconomic and monetary management. As can be expected, whereas theory has much to say on the conditions desirable for an end state equilibrium, it has little guidance to offer on the sequencing of capital account liberalization.

INDIAN EXPERIENCE WITH CAPITAL ACCOUNT MANAGEMENT

In recent years, many EMEs have received capital flows much larger than their financing requirements. When capital flows are significantly in excess of a sustainable level of current account deficit, and the exchange rate is flexible, it is obvious that they cannot be absorbed domestically, however efficient the financial system may be. Real exchange rate misalignment, current account imbalances, excesses in credit markets, asset price booms, overheating, and inflation are the most likely outcomes. It would be a question of time before financial fragility leads to crisis. Thus, surging capital flows should not be perceived as a sign of strength, but as a potential source of disequilibrium (UNCTAD 2009).

Capital flows, therefore, need to be managed actively, particularly when financial markets are still in a nascent state of development. Absorption of capital flows becomes easier as domestic financial markets develop along with the emergence of strong domestic financial institutions and investors. High gross inflows can then also be balanced by increasing outflows. As seen in the outbreak of the NAFC, however, even the most developed financial markets in Europe and the United States had difficulty in coping with the explosion of cross border capital flows that occurred in the years prior to the crisis (Bernanke 2011).

Capital controls can be effective, even though they may not be foolproof, and are in fact subject to leakages in the context of the current global financial market

Capital controls have to be a part of an overall package comprising exchange rate flexibility, the maintenance of adequate reserves, sterilization, and the development of the financial sector. There is a clear need for the deployment of multiple instruments.

environment. Capital controls have to be a part of an overall package comprising exchange rate flexibility, the maintenance of adequate reserves, sterilization, and the development of the financial sector. There is a clear need for the deployment

of multiple instruments. The current fashion of a single objective, single instrument monetary policy is undoubtedly inadequate to deal with capital flows.

Against this backdrop, the Indian experience holds important lessons. Monetary policy in India has faced growing challenges from large and volatile capital flows since 1993–1994, especially during 2007–2009. In response to these capital flows, a multi-pronged approach was adopted including active management of the capital account, especially of debt flows. Tighter prudential restrictions

were placed on access of financial intermediaries to external borrowings; greater flexibility in exchange rate movements was introduced but with capacity to intervene in times of excessive volatility; treating capital flows as largely volatile unless proven otherwise; building up of adequate reserves; sterilization of interventions in the foreign exchange market through multiple instruments, including cash reserve requirements and issuance of new market stabilization bonds; continuous development of financial markets in terms of participants and instruments, but with a cautious approach to risky instruments; strengthening of the financial sector through prudential regulation while also enhancing competition; pre-emptive tightening of prudential norms; and refinements in the institutional framework for monetary policy.

Policies operate symmetrically. During periods of heavy inflows, liquidity is absorbed through increases in the cash reserve ratio (CRR) and issuances under the market stabilization scheme. During periods of reversal, liquidity is injected through cuts in CRR and the unwinding of the market stabilization scheme. Overall, rather than relying on a single instrument, many instruments have been used in a coordinated manner. This was enabled by the fact that both monetary policy and the regulation of banks and other financial institutions and key financial markets are under the jurisdiction of the Reserve Bank of India (RBI), which permitted smooth use of various policy instruments. Unlike many EMEs, India has been running trade and current account deficits. While the current account deficit is modest and manageable, the trade deficit is high. Management of the capital account and exchange rate is also important from this perspective.

The outcomes have been satisfactory. Growth in monetary and credit aggregates was, by and large, contained within desired trajectories and consistent with the overall GDP growth objective. There has been significant financial deepening. Though inflation has been high again in 2010–2011, it had been reduced significantly in the decade prior to 2008 from its levels prevailing during the 40-year period until the late 1990s. Growth has witnessed significant acceleration on the back of productivity gains, which are also reflected in the growth of exports of goods and services. Domestic investment has increased substantially since the beginning of this decade, and this is predominantly financed by domestic savings. The surge in investment and savings was made possible by an efficient allocation of resources by the domestic banking system and financial markets, despite many constraints. Overall, financial stability has been maintained (see Mohan and Kapur 2011a for details).

The volatility in capital flows poses large challenges but these can be managed. The key lessons from the Indian experience are that monetary policy needs to move away from the narrow price stability/inflation targeting objective. Central banks need to be concerned not only with monetary policy but also with

The key lessons from the Indian experience are that monetary policy needs to move away from the narrow price stability/inflation targeting objective.

development and regulation of banks and key financial markets—money, credit, bond, and currency. Depending on the institutional legacy within different countries,

if these additional functions are not vested within the central bank, adequate coordination mechanisms need to be put in place to enable the central bank to interact with the other agencies and act on needed prudential measures. Given the volatility and the need to ensure broader stability of the financial system, central banks need multiple instruments. Capital account management has to be counter-cyclical, just as is the case of monetary and fiscal policies. Judgments in capital account management are no more complex than those made in monetary management.

Overall, as the CGFS (2009) concludes, it is a combination of sound macroeconomic policies, prudent debt management, exchange rate flexibility, the effective management of the capital account, the accumulation of appropriate levels of reserves as self-insurance, purposive use of prudential regulation, and the development of resilient domestic financial markets that provides the optimal response to the large and volatile capital flows to the EMEs. Individual countries have used different combinations of measures from time to time. If the pressure of excess flows is very high, as it was in India in 2007, it becomes necessary to use almost all the possible measure available. Thus how these elements can be best combined will depend on the country and on the period: there is no “one size fits all.”

Such a discretionary approach does put great premium on the skill of policy-makers in both finance ministries and central banks. It also runs the risk of markets perceiving central bank actions to become uncomfortably unpredictable. If, however, as many Asian countries have demonstrated in recent years, the actions of the authorities do result in the virtuous circle of high growth, low inflation and financial stability, such an approach has much to commend it. One such example is that of India.

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3. Managing Capital Flows: Lessons from the Recent Experiences of Emerging Asian Economies

Masahiro Kawai, Mario B. Lamberte, and Shinji Takagi¹

INTRODUCTION

The essay draws lessons from the recent experiences of emerging Asian economies (EAEs)² for managing capital inflows. While capital inflows bring about invaluable benefits, large flows, if not managed properly, can expose the recipients to various types of risks. EAEs collectively were a significant recipient of capital inflows prior to the global financial crisis. Although the Republic of Korea (hereafter Korea) and Indonesia were affected by capital outflows to some extent, most of Asia did not suffer as much as eastern European and Baltic countries did. Following the crisis, they were among the first to recover and are now experiencing a new surge of inflows. The issue of how best to manage capital inflows is therefore especially relevant for Asia. We frame our discussion primarily on the basis of the country and analytical chapters of Kawai and Lamberte (2010) with some updated information.

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1 The authors are, respectively, Dean and Chief Executive Officer, Asian Development Bank Institute; Director of Research, Asian Development Bank Institute; and Professor of Economics, Graduate School of Economics, Osaka University, and a member of the Pardee Center Task Force on Regulating Global Capital Flows for Long-Run Development.

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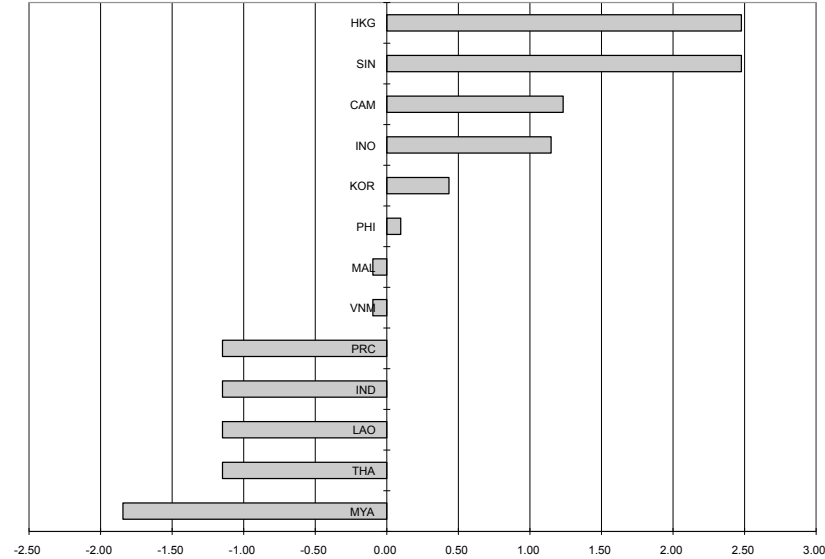
2 Unless noted otherwise, emerging Asian economies (EAEs) include the following 14 economies: Cambodia (CAM); People's Republic of China (PRC); Hong Kong, China (HKG); India (IND); Indonesia (INO); Republic of Korea (KOR); Lao PDR (LAO); Malaysia (MAL); Myanmar (MYA); the Philippines (PHI); Singapore (SIN); Taipei, China (TAP); Thailand (THA); and Viet Nam (VNM). Of these, we pay particular attention to nine economies for which Kawai and Lamberte (2010) include country chapters.

CAPITAL FLOWS IN EMERGING ASIAN ECONOMIES

Degree of Capital Account Openness

Capital account openness varies across EAEs, according to both de jure and de facto measures. First, Chinn and Ito (2009) constructed an index of financial openness based on the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions*, where a higher index value indicates greater openness (Figure 1). Except for Hong Kong and Singapore, most EAEs maintain various controls on cross-border capital flows, though many are substantially open with respect to foreign direct investment (FDI) inflows and portfolio inflows through purchases by nonresidents of domestic securities.

Figure 1: De Jure Capital Account Openness in Emerging Asia, 2009



Source: Chinn and Ito 2009.

Second, Lane and Milesi-Ferretti (2006) developed a volume-based measure of international financial integration, defined as the ratio of the stock of assets and liabilities to GDP (Table 1). We have updated data for 2005 and 2009 by using the IMF's *International Financial Statistics* stock data, where available, or capital flow data, where stock data are not available. For Asia, the ratio generally rose for all economies from 1990 to 2009. Despite the relatively low overall de jure openness (as indicated by the Chinn-Ito index), the capital account of many economies in fact appears to have been sufficiently open to allow a sizable

Table 1: External Assets and Liabilities as a Share of GDP in Emerging Asia, 1990–2009(%)

Economies	1990	1995	2000	2005	2009
Cambodia (CAM)		96.3	176.8	145.2	156.0
China, People's Republic of (PRC)	38.9	58.7	84.7	90.6	108.3
Hong Kong, China (HKG)	1462.9	1338.6	1246.5	1434.5	2097.1
India (IND)	30.2	39.7	42.3	49.1	64.1
Indonesia (INO)	80.6	86.2	136.8	86.1	76.9
Korea, Republic of (KOR)	35.4	50.9	82.7	107.5	161.9
Lao PDR (LAO)	215.3	147.5	198.7	148.0	153.2
Malaysia (MAL)	121.6	160.8	185.5	183.9	242.2
Philippines (PHI)	95.0	97.3	143.3	114.7	99.2
Singapore (SIN)	361.3	419.5	809.5	966.7	1216.4
Taipei, China (TAP)	103.4	97.7	132.3	257.0	369.7
Thailand (THA)	68.8	114.4	142.7	135.1	168.0
Viet Nam (VN)		96.2	110.7	100.2	129.8

Sources: For 1990, 1995 and 2000, the figures came from Lane and Milesi-Ferretti (2006), except for Taipei, China, whose figures were obtained from the China Economic Information Center (CEIC) database. For 2005 and 2009, the figures were calculated using IMF IFS stock data, where available, or capital flow data, where stock data are not available. For Lao PDR and Viet Nam, the latest data are for 2007.

accumulation of external assets and liabilities over time, with the ratio exceeding or close to 100 percent for all but two economies in 2009.

Patterns of Capital Flows

EAEs saw a resurgence of capital flows after the 1997–1998 Asian financial crisis, with inflows reaching \$856 billion in 2007, before the onset of the global financial crisis (Table 2). The People's Republic of China's (PRC) inflows rose dramatically, posting \$241 billion in 2007, which accounted for 28 percent of the total in EAEs; India also saw rapid increases in inflows, which reached \$98 billion in 2007. Capital outflows also picked up, suggesting that capital flows in the region have become increasingly two-way. The PRC and Hong Kong had the largest capital outflows in 2007. Together, they accounted for 60 percent of the total outflows from EAEs, followed by Singapore and Korea.

As to the composition of capital flows, FDI began to take the dominant role in the middle of the 1990s (Figure 2). By the late 1990s, FDI had accounted for more than half of all private capital inflows to EAEs. Portfolio equity inflows increased following the Asian financial crisis. Most Asian economies reduced barriers to investment on equity markets to recapitalize ailing banks and non-financial corporations. As a result, equity inflows rapidly increased in 1999, but

Table 2: Capital Flows in Emerging Asia, 1990–2009 (US\$ billion)

Year	Gross Capital Flows	Gross Capital Flows (% of GDP)	Capital Inflows	Capital Inflows (% of GDP)	Capital Outflows	Capital Outflows (% of GDP)	Net Inflows	Net Inflows (% of GDP)
1990	52.85	4.18	42.96	3.40	9.90	0.78	33.06	2.62
1991	55.01	4.17	50.79	3.85	4.22	0.32	46.57	3.53
1992	72.10	5.11	56.14	3.98	15.97	1.13	40.17	2.85
1993	133.06	8.63	97.91	6.35	35.15	2.28	62.76	4.07
1994	148.74	8.10	108.13	5.89	40.61	2.21	67.53	3.68
1995	209.30	9.43	155.76	7.02	53.54	2.41	102.22	4.61
1996	243.94	9.81	181.56	7.30	62.39	2.51	119.17	4.79
1997	277.68	11.00	143.10	5.67	134.58	5.33	8.52	0.34
1998	-198.11	-8.34	-128.14	-5.40	-69.97	-2.95	-58.17	-2.45
1999	151.26	5.72	73.76	2.79	77.50	2.93	-3.75	-0.14
2000	332.11	11.41	167.11	5.74	165.00	5.67	2.10	0.07
2001	47.70	1.59	32.29	1.08	15.41	0.51	16.88	0.56
2002	95.19	2.89	55.93	1.70	39.26	1.19	16.66	0.51
2003	260.85	7.04	149.21	4.03	111.65	3.01	37.56	1.01
2004	479.42	11.20	300.36	7.02	179.06	4.18	121.30	2.83
2005	571.24	11.56	310.28	6.28	260.96	5.28	49.32	1.00
2006	973.47	16.79	499.91	8.62	473.57	8.17	26.34	0.45
2007	1,595.29	22.22	855.97	11.92	739.32	10.30	116.65	1.62
2008	237.95	2.88	91.13	1.10	146.82	1.78	-55.69	-0.67
2009	318.60	3.67	271.67	3.13	46.93	0.54	224.74	2.59

Sources: International Financial Statistics (IMF); World Development Indicators (World Bank); CEIC.

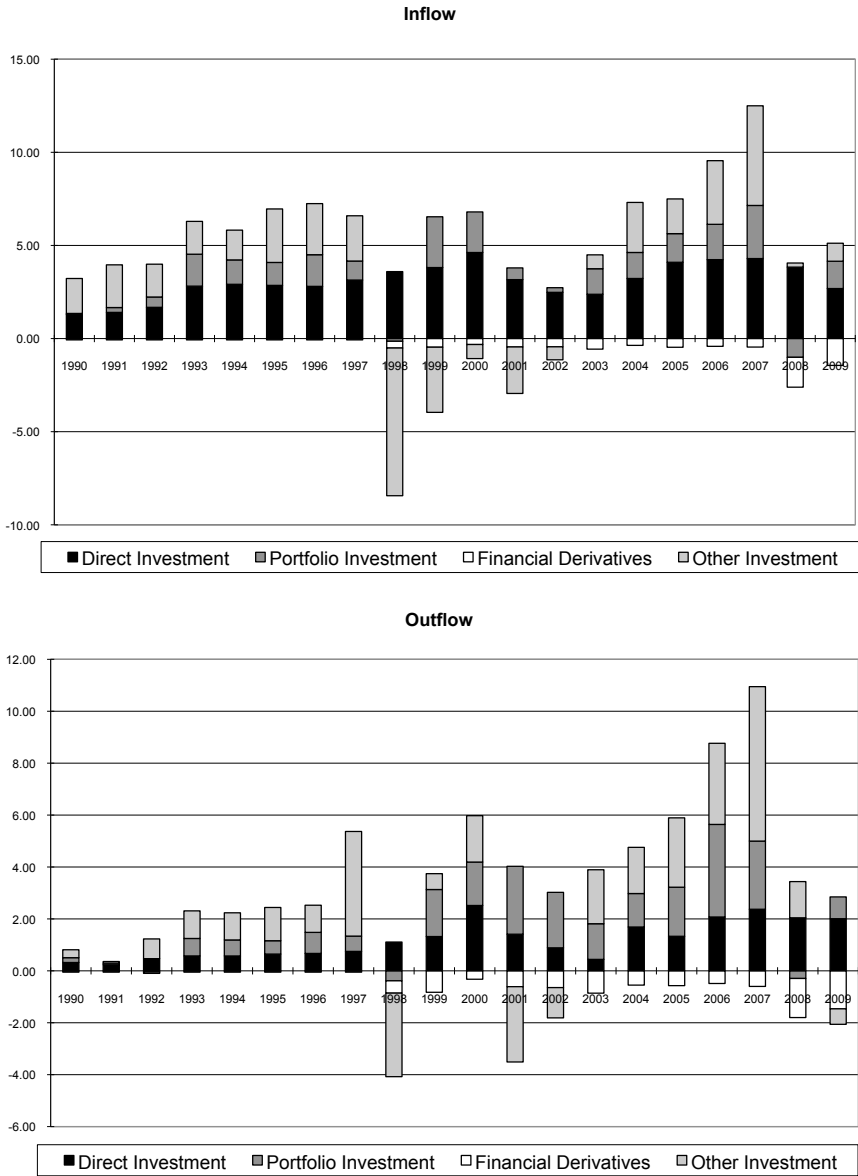
momentum was reversed in 2000. Portfolio equity inflows resurged in 2003, peaking at \$205 billion in 2007. Equity inflows turned negative (-\$81 billion) in 2008 as the global crisis deepened, but rebounded strongly in 2009.

Unlike portfolio equity inflows, debt securities inflows were a relatively small component of capital inflows in EAEs, although they have been on the rise, especially in Korea. Underdevelopment of the local currency bond market has been pointed out as one of the main reasons. Currently, several policy initiatives are under way to promote local-currency denominated bond markets, and debt securities inflows are expected to increase over time. Bank financing in EAEs was relatively small in the 1990s except during the three years prior to the 1997–1998 crisis. Thereafter, bank financing accounted for a negligible proportion of capital inflows in Asia until 2006. In 2007 it rose sharply to almost \$70 billion, with Korea accounting for almost two-thirds of the total. In 2008, bank financing turned negative (-\$12 billion), with Korea accounting for almost all of it.

Impact of Capital Flows

Persistent current account surpluses and rising capital inflows exerted upward pressure on the exchange rates in most EAEs until right before the global finan-

Figure 2: Composition of Capital Flows in Emerging Asia, 1990–2009 (% GDP)



Sources: International Financial Statistics (IMF); World Development Indicators (World Bank); CEIC accessed on 15 April 2011.

cial crisis. In part to contain the appreciation pressure, the monetary authorities of most economies intervened in the foreign exchange market and thereby accu-

mulated massive foreign exchange reserves. Total reserves held by EAEs rose from \$214 billion or 5 percent of GDP in 1990 to \$4.8 trillion or 44 percent of GDP in 2010, with the PRC contributing three-fifths. In 2006 and 2007, many EAEs experienced higher increases in money supply growth, indicating that sterilization was incomplete. Although goods and services price inflation had generally remained low until the global financial crisis (except for what appears to be the temporary impact of increases in world commodity prices in 2008), it has been rising in recent months. Equity prices saw a rising trend since 2003 notably in Indonesia, India, and the PRC. They dropped sharply at the onset of the global financial crisis, but recovered quickly as foreign capital returned to the EAEs.

POLICY RESPONSES TO CAPITAL FLOWS

Policy responses by EAEs until the onset of the global financial crisis can broadly be classified into sterilized intervention, interest rate reductions, and capital controls.³

Intervention in the Foreign Exchange Market

The monetary authorities of all nine case study economies intervened in the foreign exchange market, at least partially sterilizing its impact. Lack of suitable government paper was often a challenge. The People's Bank of China (PBOC), when it ran out of treasury bonds, started selling its own low-yielding central bank bills (CBBs) to commercial banks (while raising reserve requirements 15 times from September 2003 to end-2007). Likewise, the Reserve Bank of India (RBI) ran out of government securities and agreed with the government in January 2004 to put in place the Market Stabilization Scheme (MSS), which authorizes RBI to sell bonds on behalf of the government for the purpose of sterilization (while also raising reserve requirements).

Some economies resorted to creative ways of sterilization. The Bank of Korea (BOK) used its own monetary stabilization bonds (MSBs), but as the balance rose sharply, it became costly to remain so engaged. The Korean government then initiated a scheme under which it sold securities and deposited the proceeds with the BOK, thereby allowing the central bank to use the won for currency market intervention. Another case is the Bangko Sentral ng Pilipinas (BSP). After exhausting the conventional tools, in 2007, BSP opened a special deposit account (SDA) facility to banks in order to absorb excess liquidity. Later, the counterparties were expanded to include non-bank government corporations as well as banks' pension funds and trust operations.

³ This section draws on the nine country chapters of Kawai and Lamberte (2010).

Sterilization created its own challenges. Bank Indonesia (BI) partially sterilized intervention mainly using one-month and three-month Bank Indonesia Certificates (SBI), but as the SBI interest rates were more than 8 percent, the operation attracted even more portfolio inflows. BI was therefore compelled to allow the exchange rate to appreciate, partially absorbing the impact of capital inflows thereby. The State Bank of Vietnam (SBV), finding open market operations and reserve requirements less than fully effective, required commercial banks to purchase newly introduced 365-day bills in March 2008. This measure forced banks to run to the inter-bank market, pushing up the inter-bank rates sharply. As banks competed intensively to mobilize deposits to comply with the compulsory purchase of the 365-day bills, the deposit rates also rose.

Interest Rate Policy

When a large interest rate differential attracts additional foreign capital, the monetary authorities may need to narrow the gap by lowering domestic interest rates. This explains why the PBOC was cautious in tightening monetary policy: when it raised interest rates it made sure to maintain a 3 percent spread in favor of the dollar LIBOR, with the intention of letting the renminbi appreciate at 3 percent per annum. Likewise, in India, while the RBI raised the reverse repurchase and repurchase rates between January 2006 and April 2007, it reduced the interest rates on non-resident deposits. Similar interest rate cuts were observed in Indonesia (from January 2006 to December 2007), the Philippines (from March 2007 to March 2008), and Thailand (from January to July 2007). Viet Nam was an exception, however, as the SBV raised all official interest rates in February 2007 in order to contain the acceleration of money supply growth and inflation.

Capital Controls

Use of capital controls was exceptional. Prior to the global financial crisis, only four EAAs tightened or introduced capital controls to stem the tide of capital inflows. Two cases should clearly be separated. In one case, countries with a tightly controlled regime reversed the pace of capital account liberalization. In 2006, the PRC restricted the ability of foreign banks to borrow dollars abroad to fund dollar assets within the country, which was subsequently reinforced by the regulation that banks meet an increase in reserve requirements with dollar deposits with the central bank. In 2007, India tightened limits on external commercial borrowing by placing a cap on the amount of foreign exchange domestic firms could convert into rupees; it also introduced controls against “participatory

notes,” which are over-the-counter derivatives sold by a registered foreign institutional investor to a non-registered investor.

The other case involved measures introduced by a country with a substantially open capital account regime, especially with respect to capital inflows. On 18 December 2006, Thailand imposed a 30 percent unremunerated reserve requirement (URR) on all equity and short-term securities investment inflows with maturities of less than one year, which was however lifted on the following day for equity flows. The URR for fixed income inflows remained until March 2008. There is statistical evidence to suggest that capital inflows shifted to equity flows, but the econometric analysis of Coelho and Gallagher (2010) shows that the Thai URR reduced the overall volume of inflows by 0.75 percent of GDP (which was marginally significant statistically).⁴ In 2007, Korea re-imposed limits on lending in foreign currency to Korean firms, while restricting foreign banks’ swapping dollars borrowed abroad for won. These measures were intended to slow down foreign banks’ funding of their branches in Korea.

MANAGING CAPITAL INFLOWS IN THE POST-CRISIS ERA

As the world’s engine of growth, Asia has seen a resumption of capital inflows. Conventional macroeconomic tools seem to offer limited effectiveness in managing large capital inflows, especially given the large balance of foreign exchange reserves

Conventional macroeconomic tools seem to offer limited effectiveness in managing large capital inflows, especially given the large balance of foreign exchange reserves many of the economies have accumulated.

many of the economies have accumulated. Allowing the exchange rate to appreciate is often the best way to cope with large capital inflows (this is the standard response of most industrial countries), but

emerging economies are naturally reluctant to allow a significant appreciation of their currencies. In view of this limited policy space, some EAEs have introduced prudential and other regulatory measures affecting capital inflows and foreign exchange positions in the post-global financial crisis era (Table 3).

Prudential and Other Regulatory Measures

In assessing the prospective usefulness of prudential and other regulatory measures limiting capital inflows or what the IMF (2011) calls capital flow management measures (CFMs), it is important to bear in mind the following considerations for EAEs:

⁴ But they show that it did not affect the real exchange rate or the composition of inflows.

Table 3. Capital Flow-Affecting Prudential and Other Regulatory Measures Announced or Adopted by Emerging Asian Economies, 2010–2011

Emerging Asian Economies	Measures
India	<ul style="list-style-type: none"> • June 2010: limited the amount of short-term bonds that could be sold to foreign investors (while raising the overall ceiling for FII investment in debt in September 2011)
Indonesia	<ul style="list-style-type: none"> • June 2010: imposed a one-month holding period for SBIs while announcing the introduction of longer-term (9–12 months) SBIs (from August/September); introduced new regulations on banks’ net foreign exchange open positions • January 2011: re-introduced a cap (in relation to capital) on overseas short-term borrowing by banks while requiring banks to set aside a higher percentage of their foreign exchange holdings as reserves • May 2011: lengthened the one-month SBI holding period to six months • July 2011: restricted investment by banks in foreign currency bonds issued in the domestic market in circumvention of measures to restrict foreign currency loans
Korea, Republic of	<ul style="list-style-type: none"> • June 2010: placed limits on foreign exchange derivatives positions, in relation to the capital base of financial institutions; further restricted the use of foreign currency loans by banks within Korea; and tightened regulations on the foreign currency liquidity ratio of domestic banks • December 2010: announced the introduction of a tax on banks’ foreign exchange borrowing and the re-instatement of withholding tax on interest income from government bonds (from January 2011)
Thailand	<ul style="list-style-type: none"> • October 2010: re-imposed withholding tax on interest income and capital gains from foreign bond holdings

Sources: Relevant central bank publications and press reports.

- ASEAN member states are committed to creating an ASEAN Economic Community (AEC) by 2015, which is defined to be a region characterized by free movement of investment and freer movement of capital. It is difficult for any of these countries to reverse the process of capital account liberalization by introducing new barriers to capital mobility except during an emergency on a temporary basis.
- Hong Kong and Singapore, as major international financial centers, cannot be seen to be taking any measure to restrict the freedom of international investors to move funds across borders. Given the depth of their financial markets and the robust regulatory regimes in place, use of CFMs is probably not necessary except during a crisis (they have recently introduced prudential measures to contain upward pressure on real estate prices).
- Cambodia and Lao PDR have virtually no domestic financial markets to speak of. This means that, in the foreseeable future, no large portfolio inflows are

expected, even though their capital account regime is fairly open. The same can also be said about Myanmar, whose capital account is all but fully closed.

- The PRC and India (and, to a lesser extent, Viet Nam) still maintain extensive restrictions on capital inflows (as well as on capital outflows). For these countries, use of capital controls only represents a reversal of the gradual capital account liberalization process.⁵ Just as well, they could decelerate the pace of capital account liberalization over the coming years.
- Except for Hong Kong and Singapore, the other EAEs maintain some restrictions on capital inflows, with tighter controls on outflows. Even Indonesia, arguably the most financially open economy in the rest of the region, is known to subject banking flows to tight control. In these economies, portfolio inflows take place mainly through purchases by nonresidents of domestic securities.
- Korea, as an OECD country, has little leeway in consistently deviating from the policy of free capital mobility.

These considerations suggest that:

- (i) use of outright capital controls (or what the IMF (2011) calls residency-based CFMs) is relevant only for a handful of EAEs (e.g., Indonesia, Malaysia, Philippines, and Thailand);
- (ii) purchases by nonresidents of domestic securities are the main (or the only) target of any potential CFMs; and
- (iii) use of outright capital controls (that explicitly discriminate against foreign investors) is increasingly ruled out as a feasible policy option, especially if it is pursued by individual countries.

This last point is clearly borne out by the types of measures that have been introduced by some of these countries recently to limit capital inflows or inflow volatility (see Table 3). Except for the Indian measure, the other measures (introduced by Indonesia, Korea, and Thailand) are carefully designed not to discriminate against foreign investors. The pressing question for emerging Asia's policymakers is not when or in what sequence to employ CFMs. It is rather what non-residency-based CFMs are effective in mitigating the risk of capital inflows

⁵ In these countries, it is not very useful to talk about the effectiveness of any new capital control measure, independently of the effectiveness of the overall control regime within which it is introduced. Given the extensive administrative apparatus, they can always take measures to make capital controls work.

(if not directly reducing the purchases by nonresidents of domestic securities) as they preserve their commitment to an open capital account regime.

Collective Action

At the regional level, collective action is an insufficiently explored tool. For example, if loss of international price competitiveness is the reason for not allowing currency appreciation, a country's authorities can cooperate with their competitor neighbors in similar circumstances to take the action simultaneously (Kawai 2008). This would lead to a concerted appreciation of currencies in the face of persistent capital inflows in the region. Another area of cooperation would be to coordinate the introduction of prudential and other regulatory measures, including outright capital controls, given the recognition that individual countries are finding it increasingly difficult to do so alone. Collective action is helpful in two ways. First, these measures are either introduced as part of regional efforts or sanctioned by a regional decision, there would be less punitive reaction from international investors (as was the case with Thailand in December 2006). Second, these measures, if effective in one country, would divert more capital inflows to its regional neighbors. Without a regional framework, use of prudential and other regulatory measures to limit capital inflows could turn into a tool of beggar-thy-neighbor policy.

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4. Capital Outflow Regulation: Economic Management, Development and Transformation

Gerald Epstein

INTRODUCTION

As economic and financial turmoil have rocked the foundations of the global economy, policy makers have widened their search for policy tools to help them manage the massive financial instability they face. As events have forced them to break out of their ideological silos in a desperate search for solutions, some are discovering that some policies they have written off in the past might be useful after all.

Foremost among these “new found” old tools are so-called “capital controls.” As well recounted by Gallagher, Grabel, and Ocampo (all articles published in 2011), even the International Monetary Fund (IMF), long a staunch opponent of such tools, has now admitted that they can be useful under some circumstances, especially to manage capital inflows and especially if they are used on a temporary basis. They have even adopted a name change to make their acceptance more palatable, appropriately dropping the term “controls” and referring to such tools as “capital flow management measures” (IMF 2011).¹ Still, the IMF and other “establishment” institutions have not completely abandoned their old ways. As described by Griffith-Jones and Gallagher (2011) and Ocampo (2011), the IMF has proposed gaining more influence over the conditions under which capital controls are used; and, as Gallagher and others have well documented, a web of bilateral and multi-lateral so-called “free-trade” agreements have structured a global “capital liberalization regime” that create barriers for countries to implement capital account regulations even as economists at the IMF say they are useful. (Gallagher 2011a.)

¹ Other more palatable names have been proposed as well: e.g., “capital management techniques” (Epstein, Grabel, Jomo 2003) and “capital account regulations”, (Ocampo 2011). For purposes of this paper, I will adopt Ocampo’s term: see below.

Equally telling, most of these economists and policy makers retain their opposition to “capital controls” on outflows.² Indicative is a highly influential paper by Nicolas Magud, Carmen Reinhart and Kenneth Rogoff that surveys 30 academic studies of capital controls on inflows and outflows. The paper concludes with respect to outflow controls that “As to controls on outflows, there is Malaysia and then there is everyone else... Absent the Malaysian experience, there is little systemic evidence of “success” in imposing controls, however defined.” (Magud, Reinhart, and Rogoff 2011, p. 2).

This conclusion is rather odd when one considers that many of the greatest development success stories of the late 20th century have had highly articulated regimes of capital account regulations on outflows: South Korea, Taiwan, China and India, among others (Amsden 2001; Chang and Grabel 2004; Nembhard 1996). Capital controls and exchange control regimes were also critical to the recovery and industrial development of a number of countries in Europe and also Japan following the Second World War (Zysman 1983; Epstein 2007; Eichengreen 2007). In virtually all of these cases, capital control regimes consisted not only of capital controls on outflows (and inflows), but also credit allocation systems managed by governmental institutions including Ministries of Finance, Central Banks and specialized planning ministries of various kinds. Yet Magud, et al. chose not to include these cases because, they argued, “one cannot lump together the experiences of countries that have not substantially liberalized (i.e., India and China) with countries that actually went down the path of financial and capital account liberalization and decided at some point to reintroduce controls, as the latter have developed institutions and practices that are integrated in varying degrees to international capital markets” (Magud et al. 2011, p. 5).³

This decision to exclude China and India, among other countries, seems questionable in light of the fact that both India and China have liberalized to some degree over a decade or more, and, in addition, that there have been a number of excellent studies of the impacts of these controls on these economies, especially by Robert McCauley and his colleagues at the Bank for International Settlements (BIS) (e.g., see for example, Ma and McCauley 2007).⁴

2 Even here, reality sometimes wins out. The IMF encouraged even outflow controls in some of the recent rescue packages, including in Iceland (see Grabel, 2011). But the public resistance to controls at the IMF remains.

3 Thus, they only included studies of Malaysia, Spain and Thailand in their sample on outflows.

4 See below for further discussion and references.

In addition, the distinction between *inflow* and *outflow* controls is not as clean as is often believed. For example, the regulations imposed by the Indian government on certain kinds of derivative positions and products involves constraints both on short positions and long positions that involve foreigners: hence they can place limits both on “inflows” and “outflows.” In addition, constraints on outflows themselves act as a disincentive to inflows. Indeed, one of the strongest policies that would serve to limit inflows involve reserve requirements, and other limitations on outflows (see Ocampo 2011).

Still, Magud et al. do have a point: it is important to draw distinctions among different kinds of capital controls, especially with respect to the policy regimes of which they are a part—including the goals set out for those regimes—and the domestic and international context that accompany them. Most of the recent discussion has focused on the use of capital account regulations to manage the cyclical, financial stability, and balance of payments aspects of macroeconomic policy: we can refer to this as the *macroeconomic management* function of capital account regulations. Less discussed recently are the longer term *developmental* aspects of capital account regulations, where capital account regulations are important complements to industrial policy, industrial re-development, and income and wealth distributional policies that were so important in post–World War II reconstruction regimes as mentioned above.

These developmental roles become increasingly important in times of great structural change as we are perhaps experiencing today. One can say that both the *macroeconomic management* and the *developmental* roles of capital account regulations relate to the *policy roles* of capital account regulations.

In addition, historically, capital controls have played a deeper, *transformative role* as well. Here, capital controls accompany more profound changes in the underlying political and economic structure of society, often by facilitating a major shift in economic and political power from one group in society to another, thereby making feasible a more dramatic change in the overall structure of the political economy which, in some cases, can (but do not necessarily) lead to a more egalitarian and sustainable order (Epstein 2010). Examples of these transformative roles include the case of South Korea following the Second World War when controls on outflows complemented their crucial

land reform policies that transformed the agrarian and political structure in the country.⁵

Of course, the *transformational*, the *macroeconomic*, and the *developmental* roles of capital outflow regulation need not and, indeed, are usually not mutually exclusive. Keynes' views, as described by James Crotty, are especially instructive here. In his 1983 *Journal of Economic Literature* article titled "On Keynes and Capital Flight," Crotty showed that in a period spanning the 1930s and into the 1940s—virtually up to the time of his death—Keynes was very skeptical that nations could achieve full employment and social transformation as long as they were integrated into a world of highly mobile capital. He therefore thought that controlling international capital mobility was a requirement for bringing about both better macroeconomic management and achieving social transformation.

Crotty quoted Keynes: "Indeed, the transformation of society, which I preferably envisage, may require a reduction in the rate of interest towards the vanishing point within the next thirty years. But under a system by which the rate of interest finds a uniform level, after allowing for risk and the like throughout the world under the operation of normal financial forces, this is most unlikely to occur" (Keynes 1933, p. 762). Earlier in the essay Keynes argued that: "Advisable domestic policies might be easier to compass if the phenomenon known as the 'flight of capital' could be ruled out" (Keynes 1933, p. 757).

Apart from the distinction among *macroeconomic*, *developmental* and *transformational* capital account regulations, it also makes a difference who is implementing these policies. Here we have two distinctions: 1) the first is whether they are being implemented on a *national* or an *international* (or *internationally coordinated*) basis; and the second, is whether these outflow regulations are being implemented by economically *small* countries or regions, or whether they are being implemented by countries or regions that are *large* with respect to the world economy.

5 Checci was perhaps the first economist to look at the relationship between capital controls and income distribution. He found that in countries that had capital controls, income distribution were more equal. (Checci 1996). The most thorough study of the relationship between capital controls and income distribution is that of Lee and Jayadev (2005). They find that capital account liberalization reduces the labor share of income in most parts of the world (and therefore, capital controls, all else equal, increase the labor share of income). Epstein and Schor (1992) showed the capital outflow (and inflow) controls in the OECD were associated with lower unemployment. Hence, there is good evidence that capital mobility represents the power of capital relative to labor.

Again, as with the transformational function of regulations, these issues of coordination and who is implementing the regulations are likely to be particularly important at a time of widespread crisis and structural change.

In what follows, I briefly discuss the macroeconomic policy roles of outflow regulations, turn to the developmental roles, and finish up with a brief discussion of possible outflow regulations by the United States to enhance the benefits and limit the costs of expansionary monetary policy in the current context.

MACROECONOMIC POLICY ROLE OF CAPITAL OUTFLOW REGULATIONS

While it is difficult to neatly separate out the macroeconomic policy role and the developmental role of capital outflow regulations, one can identify a number of key macroeconomic objectives of these regulations (see Table 1, and Epstein, Grabel and Jomo 2008).

These include:

- Preserving scarce foreign exchange to avoid foreign exchange or balance of payments crisis.
- Protecting monetary policy autonomy to facilitate lower interest rates than are prevailing internationally to promote higher investment and higher employment. For example, this would make it easier for a country to pursue an expansionary monetary and credit policy in a global slump without losing excessive amounts of foreign exchange.
- The threat of putting on outflow controls could limit excessive inflows.
- Reducing outflows of hot money that would leave the country saddled with foreign denominated liabilities and that could contribute to domestic insolvencies and debt problems more generally.
- To help protect financial stability by limiting the build-up of risky counterparty obligations with respect to complex derivative positions.⁶
- To help prevent corruption, tax evasion and other illegal activities that involve capital flight (see Boyce and Ndikumana, 2011, for the case of African countries).
- To help manage multinational corporation domestic obligations with respect to re-investment and profit allocations.

⁶ See Crotty and Epstein (2010) especially with respect to the case of India. Thanks due to Governor Reddy for sharing his expertise on these regulations.

Studies of the response of both China and India to the Asian financial crisis and the 2007–2008 global economic crisis indicate that their controls on outflows, as

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well as inflows, contributed to their ability to weather the slump more effectively than other countries. (e.g., Icard 2002; Ocampo in this volume). Of course, other factors played an important role, including large foreign exchange reserves, and the limitations

on foreign liabilities. These points suggest that sensible macroeconomic policies, as well as effective capital inflow regulations, can be important complements to the successful use of capital outflow tools.

An additional reason for capital outflow regulations is to reduce capital flight that is associated with corruption and tax evasion. For example, Ndikumana and Boyce document that sub-Saharan Africa experienced an exodus of more than \$700 billion in capital flight since 1970, a sum that far surpasses the region's external debt outstanding of roughly \$175 billion. Some of the money wound up in private accounts at the same banks that were making loans to African governments. (Ndikumana and Boyce 2011; Boyce and Ndikumana 2011.)

DEVELOPMENTAL ROLE OF CAPITAL OUTFLOW REGULATIONS

The development role of capital outflow regulation is arguably even more important than the macroeconomic policy role, important as this can be in certain circumstances. Nembhard's study of South Korea and Brazil, Zysman's work on Western Europe and Japan, and Hersh's work on China are particularly illuminating. The key lesson of this work is that capital outflow regulations are an essential part of a policy regime that involves industrial policy or industrial targeting and the use of credit allocation techniques to promote investment and productivity in particular areas. Without such capital outflow regulations, it is difficult to use subsidized credit to promote investment without risking the massive leakage of the credit abroad.

Nembhard documents how, in the case of South Korea, these capital controls worked because they were part of an entire policy regime of industrial policy, credit allocation, and seriously enforced capital outflow controls. Similar regimes held sway in China, Japan, India, and several European countries following the

Table 1: Summary: Assessment of the Capital Management Techniques Employed During the 1990s

Country	Achievements	Supporting Factors	Costs
Malaysia 1998	-facilitated macroeconomic reflation -helped to maintain domestic economic sovereignty	-public support for policies -strong state and administrative capacity -dynamic capital management	-possibly contributed to cronyism and corruption
India	-facilitated incremental liberalization -insulated from financial contagion -helped preserve domestic saving -helped maintain economic sovereignty	-strong state and administrative capacity -strong public support for policies -experience with state governance of the economy -success of broader economic policy regime -gradual economic liberalization	-possibly hindered development of financial sector -possibly facilitated corruption
China	-facilitated industrial policy -insulated economy from financial contagion -helped preserve savings -helped manage exchange rate and facilitate export-led growth -helped maintain expansionary macro-policy -helped maintain economic sovereignty	-strong state and administrative capacity -strong economic fundamentals -experience with state governance of the economy -gradual economic liberalization -dynamic capital management	-possibly constrained the development of the financial sector -possibly encouraged non-performing loans -possibly facilitated corruption

Source: Epstein, Grabel and Jomo, 2008.

Second World War. As Alice Amsden details, combined with development banks and key monitoring tools to reduce the leakages, corruption and inefficiency, such as export targets and associated sticks and carrots, these policies were often very effective in promoting developmental goals (Amsden 2001).

As Nembhard details, these are not always successful of course. She recounts the case of Brazil in the 1970s and '80s where poor design and lack of follow

through hindered these policies with results much less favorable than those of South Korea.

INTEREST EQUALIZATION TAX: CAPITAL OUTFLOW CONTROLS AND EXPANSIONARY POLICY BY THE RESERVE CURRENCY COUNTRY?

The Federal Reserve's expansionary monetary and credit policy—the only expansionary policy currently undertaken by the United States despite the high unemployment and stagnant economy—has raised controversy in developing countries, out of concern that a flood of U.S. capital is flowing abroad and generating over-valued exchange rates, financial instability, and inflation risks elsewhere. Gallagher (2011a) has proposed that the U.S. implement capital outflow regulations to limit the harmful outflow of credit and make the expansionary monetary policy more effective in the U.S. itself. Like in the case of other developmentally oriented outflow regulations discussed above, these could complement credit allocation policies designed to generate more employment and investment (see Pollin 2011, for example).

In the late 1960s the U.S. government imposed an interest equalization tax (IET) to reduce dollar outflows to complement more expansionary monetary and fiscal policy. Most economists who studied the capital outflow regulations concluded that they were ineffective. But careful archival work showed that part of the reason was that there were bank and MNC lobby-induced loopholes created that made the policy porous (Conybeare 1988).

With the United States' financial institutions awash in excess liquidity that spills over into speculative investments abroad, policies to channel domestic liquidity in employment creating, productive investments in the U.S. would be desirable, both from the point of view of the bulk of the U.S. population and of those countries outside of the U.S. who are receiving large amounts of "hot money" flows. As an element of such a policy toolkit, it is time for the United States government to consider an interest equalization tax to reduce the debilitating carry-trade emanating from relatively low interest rates in the United States.

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Section II: Implementing and Monitoring Effective Regulation

5. Dynamic Capital Regulations, IMF Irrelevance and the Crisis

Ilene Grabel

In this essay, I focus on the resurrection of capital controls during the on-going global financial crisis.¹ The new capital controls that are emerging across developing countries have three attributes:

- (1) They vary within and across countries.
- (2) They have been deployed in a dynamic fashion. By this I mean that the scope and modality of the controls have been adjusted in response to changes in the national and global economic environment, and identified channels of evasion.
- (3) Controls have often figured into multi-pronged efforts to address diverse and serious economic challenges.

In some cases (such as Iceland), policymakers have used controls on outflows to slow the implosion of the economy. In other cases (such as Latvia) controls have been used to address a narrow but acute vulnerability. And in others (such as Brazil and South Korea), policymakers have deployed and “fine-tuned” inflow controls to mitigate the appreciation of their currencies, cool asset bubbles, and reduce financial fragility and inflation.² These latter challenges have been aggravated by the large capital inflows to rapidly growing economies, which have resulted in part from low interest rates in the U.S. and the Eurozone and divergent growth prospects across the globe. And in still other cases (e.g., China), the fine-tuning of controls on both inflows and outflows during the crisis is consistent with long-standing commitments to manage financial flows in the service of broader development objectives.

1 The discussion here of capital controls, policy space and the IMF draws heavily on Grabel (2011a). See this paper as well for citations to the literature.

2 Indeed, capital controls have emerged as a key weapon of choice in the modern day “currency war.” See Grabel (2011b, 2011c, 2010).

Policymakers in a significant group of developing countries have availed themselves of the new policy space that they enjoy to regulate international capital flows. This change in the policy landscape has occurred against the backdrop

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of the rise of increasingly autonomous states in the developing world, geographically curtailed IMF influence, and recognition (albeit inconsistent at times) by Fund

staff that capital controls are a “legitimate part of the policy toolkit” (to invoke a now frequently used phrase in Fund reports).³ As each country deploys capital controls with no ill effects on investor sentiment and no finger wagging by the IMF, it becomes easier for policymakers elsewhere to deploy the controls they deem appropriate. And they are doing so. Indeed, capital controls have emerged during the crisis as the “new normal.”

One aspect of the autonomy that some states now enjoy is their resistance to the IMF’s new interest in developing a code or guidelines governing the appropriate use of capital controls. Indeed, the Fund’s position on capital controls has become increasingly irrelevant as developing countries now enjoy the policy space to introduce and adjust capital controls without waiting for the institution. It is, in my view, critical that efforts be made to maintain and expand the opportunity that has emerged in the crisis environment for national policymakers to experiment with capital controls and other measures.

DYNAMIC CAPITAL CONTROLS DURING THE CURRENT CRISIS: A BRIEF SURVEY

The current crisis has achieved in a hurry something that heterodox economists have been unable to do for a quarter-century. It has provoked policymakers in a large number of developing countries to experiment with a variety of types of capital controls, often framing them simply as prudential policy tools (akin to what Epstein, Grabel and Jomo (2004) termed “capital management techniques” and what the IMF (Ostry et al. 2011; IMF 2011a; Habermeir et al. 2011) now calls “capital flow management”).

³ See Grabel (2011a) on the productive incoherence that has emerged in the context of the current crisis. Also note that more broadly, this rupturing of the old financial order is consistent with broader changes that suggest that the global financial architecture is becoming multi-nodal and heterogeneous (see Grabel, 2012).

Controls in Countries in Distress

Iceland was the first country to sign a Stand-by-Arrangement (SBA) during the current crisis. What is most notable about the Icelandic SBA is that it includes provisions regarding the need for stringent capital controls, something that we do not find in earlier SBAs that the IMF signed in connection with East Asian countries or in other crises during the neo-liberal era. Even more surprising, the SBA provided for controls even on capital outflows. Iceland's controls were initially imposed prior to the signing of the SBA in October 2008, though the agreement with the Fund made a very strong case for their necessity and maintenance as means to restore financial stability and to protect the krona from collapsing.

The IMF's stance with respect to Iceland's capital controls initially appeared anomalous. But it soon became clear that it marked a dramatic precedent. For example, the SBA with Latvia of December 2008 allowed for the maintenance of pre-existing restrictions arising from a partial deposit freeze at Parex, the largest domestic bank in the country (IMF 2009a). Soon thereafter, a joint World Bank-IMF report (2009: Table 1.4) on the current crisis notes without evaluation that six countries (China, Colombia, Ecuador, Indonesia, the Russian Federation, and Ukraine) all imposed some type of capital control during the crisis. Another Fund report acknowledges that Iceland, Indonesia, the Russian Federation, Argentina, and Ukraine all put capital controls on outflows in place to "stop the bleeding" related to the crisis (IMF 2009b). These reports neither offer details on the nature of these controls nor commentary on their ultimate efficacy, something that further suggests that capital controls—even and most notably on outflows—are increasingly taken for granted by the Fund.

Controls in Countries Faced with Too Much of a Good Thing

Policymakers in a far larger set of developing countries have deployed and adjusted capital controls in response to the macroeconomic pressures and vulnerabilities aggravated by large capital inflows. These controls illustrate the policy space that is increasingly being appropriated in developing countries that remain independent of the Fund.

Brazil is a particularly interesting case since the country's government (particularly its Finance Minister, Guido Mantega) has been such a strong voice on the matter of policy space for capital controls. The IMF's changing stance regarding Brazil's capital controls also provides a window on both the evolution and continued equivocation in the views of Fund staff on the matter of capital controls.

In late October 2009, Brazil imposed capital controls via a tax on portfolio investment. The controls were self-described as modest, temporary, and market-friendly; they were intended to slow the appreciation of the currency in the face of significant international capital inflows to the country. Initially they involved a 2 percent tax on money entering the country to invest in equities and fixed-income investments, while leaving foreign direct investment untaxed. Once it became clear that foreign investors were using purchases of American Depository Receipts (ADRs) issued by Brazilian corporations to avoid the tax, the country's Finance Ministry imposed a 1.5 percent tax on certain trades involving ADRs.

The IMF's initial reaction to Brazil's controls on capital inflows was ever so mildly disapproving. A senior official said: "These kinds of taxes provide some room for maneuver, but it is not very much, so governments should not be tempted to postpone other more fundamental adjustments. Second, it is very complex to implement those kinds of taxes, because they have to be applied to every possible financial instrument," adding that such taxes have proven to be "porous" over time in a number of countries. In response, John Williamson and Arvind Subramanian indicted the IMF for its doctrinaire and wrong-headed position on the Brazilian capital controls, taking the institution to task for squandering the opportunity to think reasonably about the types of measures that governments can use to manage surges in international private capital inflows (Subramanian and Williamson 2009). A week later the IMF's Dominique Strauss-Kahn reframed the message on Brazil's capital controls. The new message was, in a word, stunning: "I have no ideology on this"; capital controls are "not something that come from hell" (cited in Guha 2009).

The Brazilian government has continued to strengthen and indeed layer new types of controls over existing ones in its ongoing effort to deal with a high volume of inflows and as officials seek to close new channels of evasion. For example, in October 2010, Brazil twice strengthened the capital controls it first put in place in October 2009. The new Brazilian controls triple (from 2 to 6 percent) the tax it charges foreign investors on investments in fixed-income bonds. The Brazilian controls tax foreign equity purchases at a lower rate (i.e., the same 2 percent rate that has been in place since 2009), and foreign direct investment is still not taxed at all. This is a particularly good example of fine-tuning controls so that they affect the composition, rather than the level of foreign investment. (Indeed, numerous recent IMF reports, as well as those by scholars such as Gallagher 2011a, make note of a composition effect in Brazil.) In March 2011 Brazil imposed new capital controls, this time on foreign purchases of domestic farmland, a measure that analysts

suggest was aimed at curbing China's growing land purchases in the country. In the same month, Brazil increased to 6 percent a tax on repatriated funds that are raised abroad through international bond sales and new, renewed, renegotiated, or transferred loans with a maturity of up to two years (the previous limit was up to 360 days). In August 2011, policymakers added to its existing array of controls a 1 percent tax on bets against the U.S. dollar in the futures market, after the real reached a 12-year high. Brazilian officials are also set to provide \$16 billion in tax breaks and to tighten trade barriers to protect manufacturers hurt by imports from China (which have been stimulated by the strength of the real). Notably, in an August 2011 review of Brazil, IMF economists called the government's use of capital controls "appropriate" (Ragir 2011).⁴

Brazil is one among many developing countries wherein policymakers are implementing and dynamically adjusting capital controls against a backdrop of large inflows. For example, in December 2008, Ecuador implemented a number of measures governing inflows and outflows. In terms of outflows, it doubled the tax on currency outflows, established a monthly tax on the funds and investments that firms kept overseas, and also sought to discourage firms from transferring U.S. dollar holdings abroad by granting tax reductions to firms that re-invest their profits domestically. In terms of inflow controls, the government established a reserve requirement tax (Tussie 2010).⁵ In December 2009, Taiwan imposed new restrictions on inflows in order to reduce speculative pressures from overseas investors. The controls preclude foreign investors from placing funds in time deposits. In the same month, China added to its existing controls on inflows and outflows. In June 2010, Indonesia announced what its officials awkwardly term a "quasi capital control" that governs short-term investment. Indonesia's inflow controls seek to dampen speculation in the country via a one-month holding period for central bank money market securities, the introduction of longer maturity instruments, and new limits on the sales of central bank paper by investors and on the interest rate on funds deposited at the central bank.

South Korean officials also began to introduce capital controls on inflows in June 2010. Regulators have since continued to widen them to reduce the risks associated with a possible sudden reversal of inflows, rising short-term foreign borrowing, and the use of derivative instruments. The controls limit the amount of currency

4 Curiously in the same month Canadian Prime Minister Harper used some of his time in the country inexplicably to lecture the government about the need to dismantle capital controls (Mayeda 2011).

5 As Tussie (2010) notes, what is particularly interesting about Ecuador's measures is that they demonstrate that even a dollarized country has more policy space than is usually understood.

forward and derivatives trading in which financial institutions can engage, and limit the foreign currency loans extended by banks to local companies. Since October of 2010, regulators have audited lenders working with foreign currency derivatives. Finally, in April 2011 South Korea levied a tax of up to 0.2 percent on holdings of short-term foreign debt by domestic banks (with a lower tax levied against longer term debts). In August 2011, South Korea's government announced that it is reviewing "all possibilities" on curbing capital inflows.

Thailand also began to deploy capital controls in October 2010: authorities introduced a 15 percent withholding tax on capital gains and interest payments on foreign holdings of government and state-owned company bonds. In the same month, Argentina and Venezuela implemented controls on outflows: in Argentina they involve stricter limits on U.S. dollar purchases, and in Venezuela they involve new restrictions on access to foreign currency. Peru has been deploying a variety of inflow controls since early 2008. The country's reserve requirement tax (which is a type of control on capital inflows) has been raised three times between June and August 2010. Finally, in August 2011, officials in the Philippines announced that they are prepared to impose new controls (in the form of prudential limits on certain kinds of transactions by banks) to reduce the volatility in the peso after it rose to a three-year high.

National Policy Divergence

It bears noting that not all policymakers are responding to the pressures of large capital inflows with capital controls. Turkish, Chilean, Mexican, and Colombian policymakers have publicly rejected capital controls as a means of dealing with the appreciation of their currencies.⁶ This is not to suggest that policymakers in these countries are sitting on the sidelines while their currencies appreciate and asset values balloon. Instead, they have stepped up their purchases of dollars and, in some cases, are using monetary policy to try to stem the appreciation of their currencies.

National divergences in response to similar pressures reflect many factors, not least of which are differing internal political economies, the continued sway of neo-liberal ideas in some countries, and perhaps also pride associated with dealing with the problem of an excessively strong currency in countries that have so long faced the opposite problem. There may also be skepticism about the efficacy of these measures, especially since—until quite recently—Brazil's real

⁶ Interestingly, in October 2010 the director of the IMF's Western Hemispheric department made a case (unsuccessfully) for the use of controls in Colombia owing to the rapid appreciation of its currency (Crowe 2010).

appeared almost unstoppable in its appreciation despite the many measures taken since 2009.

ARE NATIONAL MEASURES SUFFICIENT?

Will the range of strategies deployed by governments and central banks across the developing world solve the problem they aim to address? No, and indeed, in the absence of viable, representative, and coordinated mechanisms of global economic management, we may descend into a period of nationalist, beggar-thy-neighbor policies. But in the short-term at least the strategies help protect (even if only modestly) developing countries from the negative trade effects of currency appreciation and the other risks associated with large capital inflows. And evidence suggests that these measures have at least partly achieved their chief objectives (IMF, various reports, 2010, 2011; Gallagher 2011a). More importantly, the unilateral steps that policymakers are taking help to solidify the growing international sentiment against unregulated capital flows and light touch financial regulation.

The current crisis is exposing clearly the dangers associated with a unilateral policy free-for-all in financial matters, and the need for a new regime of coordinated monetary and exchange rate policy and the protection of national policy space. It may be that more common ground on policy space is emerging between some Northern and Southern policymakers, owing to the fact that policymakers in wealthy “safe haven countries” (namely, Canada, Switzerland,

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Australia, New Zealand, and Singapore), are confronting some of the challenges that have frustrated their Southern counterparts. As a consequence, coordinated cross-national responses to managing the surges in international capital flows may yet be coming, as new alliances form among the diverse countries now facing the hardships attending currency appreciation.

FOR ADVOCATES OF ENHANCED POLICY SPACE

In late 2010 and 2011 the IMF provided us with an interesting vantage point from which to observe the continuing tension within the institution on capital controls. In several reports, Fund staff note that the institution is seeking to

develop standards for the appropriateness of different types of controls (IMF 2010, 2011a, 2011b; Ostry et al. 2011; Habermeier et al. 2011). The current discussion of developing standards for controls was also given life by the French government, which seemed eager to use its new leadership of the G-20 and G-8 in early 2011 to give the Fund a role in coordinating capital controls via a code or mandate on the subject (Hollinger and Giles 2011). The issue has since fallen off the European agenda as the Eurozone lurches from one crisis to the next. But the fact that the IMF tested the waters on the matter of controlling capital controls is instructive. Far more instructive is the fact that Brazil and numerous developing countries in the G-24 unequivocally and quite publicly rejected any such role for the Fund (Wagstyl 2011; Reddy 2011; G-24 2011; Gallagher 2011b). Notably, the Fund has not issued a public response to this rebuke by developing countries.

Whether the IMF seizes this opportunity and how it comes to interpret this possible new charge is of critical importance to advocates of national policy space for capital controls (and other measures). It will be important for Fund watchers to stay on this issue and continue to advocate coordination that does not presume a norm of liberalization. We can also hope that those developing countries that have used capital controls so successfully will resist any effort to expand the IMF's authority around such a norm. Certainly there is much in the IMF's own actions and official statements by the institution's key figures during the current crisis to call upon should we find that momentum builds around rewriting the institution's new position on capital controls.

Any new regime that attempts to coordinate capital controls must preserve the policy autonomy to make continued fine-tuning possible. The two fundamental challenges for any new regime is to preserve and indeed maximize national policy space for experimentation and to find ways to extend this policy space to less autonomous states in the global South (see Rodrik 2001, 2007: ch. 8 on the WTO). Barring any substantial change in the global political economy, only some developing countries will be positioned to take advantage of the new policy autonomy that has emerged at present. The most difficult policy challenge will therefore be to address the most pressing needs of those states that lack the resources, geopolitical power and/or inclination to pursue an equitable, stable developmental path.

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6. How to Evade Capital Controls... and Why They Can Still Be Effective

Shari Spiegel

There is a growing consensus that capital account regulations can be used by developing countries to help promote economic stability. The IMF, which used to promote open capital markets, now supports the use of capital flows management, at least under certain circumstances (Ostry et al. 2010, 2011). Many countries, including the U.S., have used regulations to restrict cross border flows in the past. With the increase in global liquidity following the 2008 economic crisis, a number of developing and emerging market countries have implemented, or are considering implementing, such regulations.

In designing capital account regulations, policymakers generally try to target short-term capital flows, while leaving the current account, areas of the capital account, and sometimes the derivatives markets unregulated. However, leaving some external accounts open leaves room for circumvention of regulations through these areas. The goal of this paper is to present some of the mechanisms used for circumvention,

to better understand their impact on the effectiveness of regulations. Although more research is needed, our analysis indicates that countries with successful capital account management regimes

have been able to dynamically adapt regulations to correct loopholes, and that better monitoring of open areas of external accounts and derivatives markets can give policymakers the necessary tools.

There is an ongoing debate on the impact of this circumvention, with some economists claiming that it makes the regulations ineffective. There are, however, costs associated with circumvention, which are an implicit tax on the investor. Circumvention will likely occur whenever the incentives for evasion exceed

The question for policymakers should not be whether regulations can be circumvented, but what the cost of circumvention is, and whether or not the cost is large enough to serve as a disincentive to a significant portion of short-term investors.

these costs. The question for policymakers should not be whether regulations can be circumvented, but what the cost of circumvention is, and whether or not the cost is large enough to serve as a disincentive to a significant portion of short-term investors. More broadly, capital account regulations should be seen as tools to reduce surges in short-term cross-border flows rather than necessarily stopping these flows altogether.

Research on mechanisms to circumvent regulations is limited, in large part because market participants who engage in these practices do not want to publicize their activities. In one of the few studies in this area, Carvalho and Garcia (2008) interview investors in Brazil in the 1990s and document some of the measures used to evade capital controls during this period. In their analysis, the cost of circumvention is based on estimates of the administrative costs of setting up the vehicles used for evasion. We argue, however, that administrative costs are just one element of the actual cost to the investor. The cost of circumvention is ultimately dependent on supply and demand, with the gain from evading regulations often shared between the investor and a financial intermediary.

The rest of this paper is divided into three sections. The first section discusses the cost of evasion. The second presents three types of mechanisms used for circumvention:

- 1) traditional forms of evasion through the current account, including over- or under-invoicing of trade receivables;
- 2) evasion through open areas of the capital account, focused on disguising restricted flows as unrestricted flows;
- 3) evasion through derivatives markets, by which investors create synthetic instruments.

The final section concludes with policy recommendations, emphasizing the importance of simple, but flexible, regulations that allow policymakers to adapt interventions to changing circumstances. Regulations should be designed to cut the link between cross-border flows and the domestic market and disincentivize domestic agents from becoming financial intermediaries. Monitoring of flows throughout the financial system—something regulators should be doing anyway to maintain stability in other areas of the financial system—is key to designing an effective regulatory regime.

The Cost of Circumvention¹

Assume that country Z is attracting large inflows of short-term capital due to high growth coupled with high relative interest rates. Three-month interest rates in the investors² home country are 1 percent for the year (or .25 percent for a 3-month period), whereas the expected return on a three-month investment in country Z is 5 percent, reflecting higher interest rates and expected currency appreciation. To limit the surge in inflows the government of country Z imposes a 4.5 percent tax on short term fixed income capital inflows. After-tax returns on the three-month investment are now only slightly higher than the .25 percent return in the home country, but with greater risk since the expected currency appreciation might not materialize due to the foreign exchange tax, as well as counterparty, local settlement, legal, and other risks. The investors, who still want to capture high country Z domestic returns, look for ways to get around the tax, and find a local counterparty that is willing to facilitate circumvention at a cost of around 2 percent. The expected return on the new investment would now be just under 3 percent, which is still significantly above home country expected returns. However, the 3 percent return doesn't necessarily compensate investors for local market risks. It deters some, but not all, investors.

From the government's perspective, the tax is marginally successful. The government doesn't earn significant tax revenue, but it does succeed in slowing the pace of inflows. However, if the currency starts to strengthen, expected returns might increase and investors will be tempted to put the trade back on, weakening the regulations further. In order to understand how to respond to a new wave of capital flows, the government has to better understand how the 2 percent cost is derived.

The cost of evasion is a function of three factors: administrative costs, the number of intermediaries, and the size of any penalties. Administrative costs represent the costs of setting up the vehicles for evasion, such as shell companies, listings on stock exchanges, etc. This is often a fixed cost, and represents the minimum cost of evasion. Although there are exceptions, many foreign investors,³ especially large hedge funds, pension funds and mutual funds, lack the local knowledge and personnel to set up these vehicles on their own. They rely on local intermediaries

1 This section focuses on costs associated with taxes on inflows, but quantity restrictions and restrictions on outflows will have similar effects.

2 We use the term "investors" to cover the wide range of financial market players, including short-term speculators.

3 We generally refer to foreign investors, though the pool of investors also includes domestic investors.

for this role. In general, the intermediary charges the foreign investor a mark-up on the administrative costs. Though it varies by country, there is often a limited group of local intermediaries that are considered creditworthy enough for foreign investors to be willing to use them as their counterparties. Local intermediaries are therefore often able to maintain monopoly power and charge rents. In the example above, the 2 percent cost represents the administrative costs plus this rent. If the currency starts weakening and foreign inflows decline, the intermediary might lower his price from 2 to 1 percent. If, on the other hand, the currency continues to strengthen, attracting additional inflows, the 'monopoly price' might be raised to 3 percent, which is still lower than the official tax. This simple example represents how the 'gray' market works, with the government tax being split between the foreign investor and the intermediary.

One way to decrease circumvention is to reduce incentives for local institutions to act as intermediaries. Many forms of circumvention are illegal and have high penalties associated with them, often at multiple times the potential gain. Even when circumvention is completely legal, governments can put pressure on local agents, such as local financial institutions, to reduce their willingness to act as intermediaries. The question for policymakers is how to identify the loopholes, and design policies to increase the cost of circumvention. The answer to this question depends on the methods of evasion used.

How to Evade Controls

As discussed above, we divide mechanisms for circumvention into three categories: current account transactions; capital account transactions, such as disguising restricted flows to look like unrestricted flows; and derivatives. In the following section we discuss a range of mechanisms in each category. We note that for each mechanism discussed, authorities across countries were able to dynamically respond by strengthening regulations to address the loopholes. In particular, as the size of evasion grows so that circumvention becomes a more significant problem, regulators are able to track it more easily, and adapt regulations in response.

CIRCUMVENTION THROUGH THE CURRENT ACCOUNT: OVER- AND UNDER-INVOICING

Over- and under-invoicing is the most typical form of circumventing capital controls via the current account. This mechanism has generally been used as a way for domestic entities to evade restrictions on capital outflows. An importer who

wants access to foreign exchange can over-invoice his or her imports to obtain more foreign exchange than he or she needs, which would then be invested abroad. Over-invoicing

imports would imply higher tariff payments at customs, but would also imply lower reported net income, and therefore lower income tax payments. Similarly, exporters

could under-invoice, thus obtaining foreign exchange to invest abroad while reducing their income for tax purposes.

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This method can also be used to evade restrictions on inflows. Under-invoicing imports and over-invoicing exports allows firms to bring additional foreign exchange into the country, but it also raises profits and therefore subjects the firms to higher taxes. In many countries this tax loss can be significant. For example, with a corporate tax of 20–25 percent, an investor would need the investment to return 25–33 percent to just break even on the trade (assuming zero funding costs)⁴. Nonetheless, there is evidence that this mechanism became increasingly used, especially in countries with strong administrative controls, such as China (*The Economist* 2008), which have fewer alternative opportunities for circumvention.

However, as this form of evasion became increasingly significant, it also became easier for officials to identify and respond. In 2008, Chinese officials tightened restrictions on loopholes, even though China was in the process of liberalizing its capital account in other areas at the time. To prevent companies making false claims, Chinese regulators, the commerce ministry, and customs authorities linked their computer systems to check underlying transactions and eliminate discrepancies between proceeds from exports and reported receipts for foreign exchange, and forbid banks from buying the foreign exchange when large discrepancies are identified (Yu 2009).

CIRCUMVENTION THROUGH THE CAPITAL ACCOUNT: DISGUISED RESTRICTED INVESTMENTS

A major form of circumvention through the capital account has been to disguise restricted investments (i.e., the short-term flows) as unrestricted investments (such as FDI, trade finance, or sometimes tradable equity).

⁴ This also assumes that the investor doesn't engage in other forms of tax evasion, such as creating false expenses to reduce profits.

Foreign Direct Investment and Tradable Equity

Carvalho and Garcia (2008) documented how this mechanism was used in Brazil in the 1990s, through FDI and listed equities. Financial intermediaries created wholly-owned shell companies as public corporations listed on the Sao Paulo Stock Exchange (BOVESPA). International capital flows were invested in equity of the company, which was not subject to controls. The shell company then purchases short-term fixed income instruments, with the earnings sent back abroad as profit or dividends. The financial intermediary also declared the investment as FDI to take advantage of tax holidays. A similar scheme was to set up a wholly-owned company listed on the BOVESPA and to manipulate the price so that there would be a loss for tax purposes. Disguising short-term investments as FDI has also been used to circumvent restrictions in other countries, such as Chile and China. For example, in China foreign investors would bring in funds in excess of what was needed for investment purposes. These funds would then be invested in short-term Chinese interest rates.

As in the current account example, regulators should be able to detect this type of evasion, especially when it becomes significant enough to reduce the effectiveness of regulations. For example, the stock market in Brazil, the BOVESPA, is one of the largest stock exchanges in the world. Nonetheless, even on the BOVESPA, shell transactions might stand out. For example, since 2004, there was only one issue with less than 5 investors and brokers.⁵ Similarly, the central bank of Chile detected this type of activity in the Chilean market and subjected any investment that was a “potentially speculative direct investment” to the currency tax, which had the effect of reducing evasion (Carvalho and Garcia 2008; Stiglitz et al. 2006). In China, as part of the 2008 reforms, regulators tightened requirements on how foreign exchange entering via the FDI account can be used, and enacted strict sanctions and penalties for evasion (Yonding 2009). It is interesting to note that prior to the strengthening of regulations, analysts warned that stricter regulations on FDI would limit investment in China. Yet, despite the tightened controls in 2008, China experienced record amounts of FDI in 2010 (Bloomberg News 2011).

More broadly, there has been growing evidence of ‘financialization’ of FDI (including investments by the companies into fixed income instruments and loans between parents and subsidiaries), which appear to carry greater risks than greenfield FDI (Ostry et al. 2010). Rather than responding on a piecemeal

5 Calculations based on the BOVESPA website.

basis, appropriate policy response might be to expand regulations to incorporate these types of inflows, which are financial in nature, but are categorized as FDI. For example, companies could pay an up-front tax on all investment, but be able to recoup the payment after a period of time deemed to be 'long-term.' Although this could add to the cost of doing business in a country, the impact would be small in the context of the bigger investment. Alternatively, policymakers could tax dividends or profits sent abroad, which could be targeted to short-term gains or to gains from fixed income investments. More broadly, policymakers should better monitor FDI flows, to better distinguish between financial FDI and longer-term greenfield investment.

Trade Finance

Another example of disguising flows in Brazil in the 1990s was through trade finance (Carvalho and Garcia 2008). This case is particularly interesting since it illustrates how the gains from circumvention are often shared between the local intermediary and the foreign investor. Exporters in Brazil could set up accounts to borrow funds for up to one year before shipping merchandise, at low rates. Foreign investors who bought the rights to these accounts had access to the low interest loans, and could invest the proceeds in short-term securities without having to bring money on-shore. Demand for this mechanism led to a black market in trade finance rights for short-term investing, and a few banks actually set up trading companies specialized in trade financing to take advantage of this strategy (Carvalho and Garcia 2008). However, the rate earned on these accounts was below the government interest rate. Carvalho and Garcia point out that one reason for this was that "foreign investors seeking the high return in Brazil offered capital at interest rates below the country's base rate due to restrictions on other investment means." In other words, the exporters acted as the financial intermediaries, and shared the gains from circumvention with the foreign investor. However, this form of circumvention was less of an issue for regulators since the trades were financed by local currency loans and did not affect the exchange rate, or bring dollars into the domestic market. The trades did increase leverage in the system, but this should be dealt with through prudential regulations.

Similarly, in China, export firms often receive an advance from foreign buyers for up to a year, which could be invested on-shore in short-term interest rate products. To prevent this access from being sold for a profit, the 2008 regulations required firms to present contracts to show that the advance is necessary, and ceilings have been imposed on the maximum advance size.

Derivatives Markets

Derivatives are particularly potent instruments for circumvention because investors can create synthetic instruments to mimic domestic investments without actually moving funds across borders. While authorities can monitor and regulate domestic derivatives markets, offshore markets are harder to assess. Nonetheless, trades in offshore markets are generally offset in the domestic market, which means that local regulations can still effect these investments.

Non-deliverable Forwards (NDFs)

The simplest derivative product used to access local market interest rates offshore are NDFs. An NDF is a forward currency trade whereby the investor buys one currency (say the Brazilian real) and sells another currency (the base currency, which is often USD, EUR, or JPY) at an agreed-upon rate for settlement at some point in the future, say one, three or six months. However, instead of exchanging currencies at the settlement date, the counterparties calculate the gain or loss in the base currency, e.g., USDs, and settle the trade in that currency offshore. The NDF creates a synthetic short-term interest rate investment, funded by borrowing in the base currency. The difference between onshore interest rates and those implied in the NDF market is a good indicator of how well exchange controls are working. If the two rates are relatively close, this is a sign that foreigners are able to offset their risk with local counterparties fairly easily and gain access to local market interest rates. If the implied interest rate in the NDF market is significantly below the local market rate, as was the case, for example, in Indian rates during the 1990s, it is a sign that controls are effective at keeping foreign investors from accessing the domestic short-term fixed income market.

If an offshore derivatives market were to have significant interest from both buyers and sellers, it is possible that an offshore market could develop separately from the domestic market. However, in most cases, investors in these markets are speculating, with most investors on the same side of a trade—either putting on a carry trade, buying local currency during bubbles, or shorting a currency during a crisis. A 2005 Federal Reserve Bank of New York study (Lipscomb 2005) found that 60 to 80 percent of NDF volume is generated by speculative interests, with increasing participation from hedge funds. International financial institutions generally act as market-makers, which means they tend to offset their positions either through the brokers market, or directly with onshore institutions, often with their local branches. For example, a New York branch of a major international bank could enter an NDF with a hedge fund, by which the

fund buys 100 million dollars worth of Thai Bahts (THB). The bank would then be short THB, which it might buy from its local branch. However this trade can be done via internal accounting without actually bringing the dollars on-shore. In other words, an important loophole exists when transactions between foreign banks and their branches are not monitored and regulated.

The local branch is now short THB and long USD, so it would go into the local market and sell USD and buy THB Treasuries to cover its short position. In the end, the NDF position is transferred to the books of the local bank. The goal of the regulators is to break the link between the offshore and onshore markets.

During the Asian crisis Malaysia did just this. Malaysia initially experienced circumvention of its controls through the offshore NDF market. In response, authorities instituted regulations on domestic banks, which restricted them from transacting directly with foreign institutions. These regulations cut the link between the domestic and offshore market, and successfully limited the transfer of risk from local balance sheets to offshore players. More recently Korea took a first step at limiting open FX derivative positions of local banks with the goal of limiting the transmission from the offshore market, though the measures were somewhat narrow in scope as they allowed corporates to hedge their risk offshore, and didn't completely sever the link between the onshore and offshore markets.

An alternative structure that's similar to an NDF is a structured note. These are usually issued at an off-shore banking center and can be designed to give the foreign investor offshore access to domestic interest rates. Further, these measures can be designed to include embedded additional leverage that is not necessarily obvious to regulators.

American Depository Receipts (ADRs) and Equity Swaps

Back-to-back operations can also be done in the equities market through ADRs.⁶ In this case, the foreign investor buys an ADR financed with a repurchase agreement—known as a “repo”—in New York. At the same time, the local intermediary sells the same stock with a reverse repo in the local market.⁷ The difference in financing rates between the repo and the reverse repo captures the difference between U.S. and foreign rates.

6 ADRs represent equity in a foreign stock, but are traded on a U.S. exchange.

7 A repurchase agreement, or repo is, is the sale of securities with an agreement for the seller to buy back the securities at a later date. In essence the seller is borrowing short-term funds at an agreed upon interest rate. A reverse repo is the same transaction from the buyer's perspective. The buyer is lending short-term funds at an agreed upon interest rate. In this example, the repo is financed in USD while the reverse repo is invested in local currency.

A similar structure exists in the equity swap market. In this market, a foreign investor can buy an offshore equity swap from a domestic resident who can hedge without the tax. Such offshore equity swap markets exist for Malaysia, Korea, and Thailand.

In all of these examples, investments are made offshore, but ultimately hedged locally. Authorities monitoring the domestic market should be able to respond to these types of circumvention by regulating the onshore activities. For example, in response to widespread use of the ADR arbitrage, the Brazilian central bank instituted high penalties on this trade. However, it is not necessary for authorities to target a particular trade. In Colombia, regulators used prudential regulations to restrict foreign currency exposure and gross positions in foreign currency derivatives of the domestic financial intermediaries (Ostry et al. 2011), thus limiting the ability of domestic financial institutions to engage in these types of trades. Monitoring transactions between banks and their subsidiaries, and subjecting these to regulations, would help reduce the ability of agents to circumvent restrictions. Insisting that all such off-balance-sheet transactions with foreign investors are reported on the balance sheet of financial market players could help to monitor these types of transactions.

Onshore Derivatives Markets

Local derivatives markets provide more direct opportunities for circumvention, especially when these markets are open to foreign investors. A foreign investor who wants exposure to domestic interest rates can purchase a derivative instrument without bringing funds onshore.⁸ An example of derivatives that could be used to circumvent restrictions on short-term investments would be deliverable forward currency contracts and options strategies. Similar to forwards, option strategies can be used to create a synthetic investment in local market instruments.⁹ Another example of a structure to get around restrictions on short-term debt would be a long-term bond with embedded options that can be exercised in the short-term.

Many developing and emerging markets still have relatively undeveloped derivatives markets. Countries that have more developed derivatives markets, such as Brazil, have taken measures to incorporate this market in the broader regulatory environment. In response to a growth in some of these strategies in the 1990s,

⁸ Or bringing only small portion of the notional value of the trade onshore for margin requirements.

⁹ For example, 'box options', which are two puts and two calls, with the price on the strike date fixed create a synthetic local market investment.

the Brazilian central bank initially subjected synthetic fixed income trades to the same regulations as direct fixed income investments (Carvalho and Garcia 2008). In 2011, Brazil attempted to regulate the derivatives market more broadly by subjecting all derivatives trades to a 2 percent tax. Although this tax is low relative to expected returns, it represents an initial step in regulating derivatives and has the added benefit of helping regulators collect better information about positions and be able to better monitor the market.

CONCLUSION

There is still an open debate on whether capital account regulations should be temporary mechanisms (Ostry et al. 2011) or part of a permanent regime to be strengthened or weakened depending on the economic environment. Those who support temporary measures argue that capital account regulations become ineffective over the long run and are, at best, short-term tools to deal with temporary surges in inflows (Ostry et al. 2011). We argue that a permanent but flexible regime, based on simple rules, may be the best choice for many countries.

The effectiveness of capital account regulatory regimes has varied, with some experiences more successful than others. Regulations have been most effective in countries with stricter controls across different types of capital flows and in countries with existing controls so that the administrative apparatus is already in place (Ostry et al. 2010). The cost of building necessary administrative support is not negligible, and it's often difficult to design and implement effective programs during crises or bubbles, when vested interests are apt to oppose them.

Although more research is needed, our preliminary analysis of different forms of circumvention seems to indicate that countries are able to dynamically strengthen regulations over time in ways that enhance stability. In general, countries that are thought of as having the most successful regimes have all maintained flexible regulations, which they adapted to changes in the economic environments, as well as to opening of loopholes. In both Chile and Colombia in the 1990s, policymakers reacted strongly to new loopholes in existing regulations by modifying the details of the framework (Stiglitz et al. 2006). In China and Brazil, policymakers strengthened regulations when various forms of evasion become more significant. In Malaysia, policymakers responded to evasion through the offshore market by strengthening regulations on domestic banks.

Dynamic management of regulations does not mean that policymakers should be expected to always respond to changes in markets in a timely manner; markets

move quickly and it usually takes regulators time to adjust to the changes, even in developed markets. Nonetheless, markets give signals when evasion is increasing. Monitoring is crucial to this process; when circumventions grow, an

By monitoring financial markets—something regulators should already be doing to maintain the stability of the financial system in other areas—they should be better able to dynamically adjust regulations in response to market developments over time.

alert regulatory body should be able to detect them and adjust regulations accordingly. By monitoring financial markets—something regulators should already be doing to maintain the stability of the financial system in other

areas—they should be better able to dynamically adjust regulations in response to market developments over time. It is often argued that circumvention is particularly a problem in better-developed markets, such as those with active derivative markets. While this is true, these markets should give regulators more tools (such as clearing houses) to monitor flows and thus dynamically design interventions.

More broadly, cross-border flows represent only one set of risk factors in the financial system, and should not be treated as any less of an issue for surveillance than other financial market transactions. Monitoring open areas of the current account, capital account, and derivatives markets where circumvention can occur, is crucial to being able to identify circumvention as it becomes significant. Many cross-border flows go through the banking system, but other non-bank institutions, such as the big trading companies, which often have their own capital financing groups are also part of the market. Regulators need to include all institutions that act as financial intermediaries under their regulatory umbrella. Better monitoring of capital account flows can have the added benefit of reducing tax evasion more broadly, as well as providing information to policymakers on other risks in the economy.

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7. China's Capital Controls: Stylized Facts and Referential Lessons

Ming Zhang

After the full liberalization of its current account in 1996, China began to liberalize its capital account in a gradual and cautious way. From the capital flow category perspective, the control on direct investment has already been removed, but portfolio investment and short-term debt are still regulated tightly. From the capital flow direction perspective, the intention of the Chinese government on capital control is determined by the real direction of capital flow at current stage. For example, during the 1990s when China had a limited foreign exchange reserve and faced capital outflow pressure, the government adopted an “easy in, difficult out” strategy. However, during the 2000s when China had already accumulated a huge foreign exchange reserve and had been facing dramatic capital inflow, the government turned to an alternative “easy out, difficult in” strategy. The counter-cyclical style of China’s capital control strategy demonstrates the government’s effort to avoid vast capital outflow or inflows.

China’s capital account has already been partially opened (Table 1). According to People’s Bank of China (PBC), by the end of 2010, inside the 40 specific items under capital account transactions classified by IMF, 12 percent had been fully opened, 20 percent had been basically opened, 43 percent had been partially opened, and the remaining 25 percent had not been opened yet (Ge 2011).

The Chinese government has already removed the major obstacles on inward and outward direct investment, thinking that direct investment is very stable and productive. FDI can flow in freely as long as the foreign enterprises get permission from the Ministry of Commerce, and the FDI companies can remit their legal profits to their home country as they want. By the end of 2010, the Chinese government had approved the establishment of over 680 thousand FDI companies and had utilized over \$1.1 trillion USD foreign capitals (Sun 2011). The Chinese government began to allow domestic enterprise to make overseas direct investment in 2001, whereas China’s outbound direct investment has been accelerated since 2008. By the end of 2010, Chinese enterprises had established

Table 1: China's Capital Account Controls (As of September 2011)

Market		Inflow	Outflow
Money Market	Residents	Prior approval by PBC and SAFE	No permission except for authorized entities
	Non-Residents	No permission	No permission
Stock Market	Residents	List H/N/S shares abroad, repatriate of QDII	QDII
	Non-residents	B shares, QFII, RMB QFII	Sell B shares, repatriate of QFII and RMB QFII
Bond and Other Debts	Residents	Prior approval by PBC and SAFE	No permission except for authorized entities
	Non-residents	QFII, RMB QFII	Repatriate of QFII and RMB QFII
Derivatives and Other Instruments	Residents	Operations by financial institutions are subject to review of qualifications and to limit on foreign exchange position	Operations by financial institutions are subject to review of qualifications and to limit on foreign exchange position
	Non-residents	No permission	No permission

Sources: Yu 2007 and we made some revisions.

Note: H/N/S refers to Hong Kong/New York/Singapore stock markets. RMB is the Chinese currency. See page v for full list of abbreviations.

over 160 thousand firms overseas, and the accumulated investment amount reached \$259 billion USD (Sun 2011).

The Chinese government has been very cautious to loosen the control of portfolio investment, let alone financial derivatives, because portfolio capital flow tends to be more volatile and speculative. The experience of Southeast Asia's financial crisis had strengthened the above belief. The typical approach has been to set quotas for inward and outward portfolio investment. On the one hand, a Qualified Foreign Institutional Investor mechanism (QFII) was established in late 2002 to introduce overseas portfolio investment. By the end of 2010, the Chinese State Administration of Foreign Exchange (SAFE) had approved 97 foreign investors to enter domestic capital markets and the cumulative investment reached \$19.7 billion USD (Sun 2011). On the other hand, a Qualified Domestic Institutional Investor mechanism (QDII) was founded in early 2006 to allow domestic financial institutions to invest in global financial markets. By the end of 2010,

SAFE had approved 88 domestic investors to invest overseas and the accumulative scale reached \$68.4 billion USD.

The Chinese government has been employing different treatments to foreign and domestic enterprises in cross-border debt financing. As for debt inflows, foreign enterprises are allowed to borrow freely for many years as long as total foreign liability does not exceed the gap between the registered capital and the investment amount, but qualified domestic enterprises did not get the permission to borrow short-term foreign debt under quotas until early 2010. As for debt outflows, Chinese commercial banks have been authorized to lend overseas since 2008, and qualified domestic enterprises have been approved to lend money to their overseas subsidiaries since 2009.

After the global financial crisis, the Chinese government has been promoting RMB internationalization aggressively. Therefore, the further liberalization of the Chinese capital account from then on has been overlapping with the measures to develop an offshore RMB financial center. The existing and potential progress includes: First, Chinese financial institutions were allowed to issue RMB bonds in Hong Kong in 2007, and the issuers have gradually expanded to domestic enterprises, Chinese Ministry of Finance, Hong Kong's financial institutions and enterprises, and even transnational companies. Second, certain RMB-holding foreign financial investors (including foreign central banks, Hong Kong's RMB settlement banks and participation banks) were allowed to invest on China's domestic bond market. Third, a RMB QFII mechanism will be established to facilitate foreign institutional investors to invest on China's domestic financial markets with RMB. Fourth, Chinese households will be authorized to invest exchange-traded funds based on Hong Kong's stock market.

Why has China taken a gradual and cautious approach to liberalize its capital account? First, the Chinese government prefers a more independent monetary policy because China is a large economy and has a different business cycle compared with United States. Considering the RMB exchange rate is still inflexible against U.S. dollar, if China's capital account is fully opened, PBC could do nothing but import the Fed's monetary policy. Second, Chinese financial markets are still underdeveloped and domestic investors are significantly inexperienced. They could not afford the drastic boom and bust of asset prices resulting from huge capital inflow and outflow. If there is a similar financial crisis in China, the consequence will be much more serious than in the United States. Third, capital control has been a key element in Chinese characteristic financial repression,

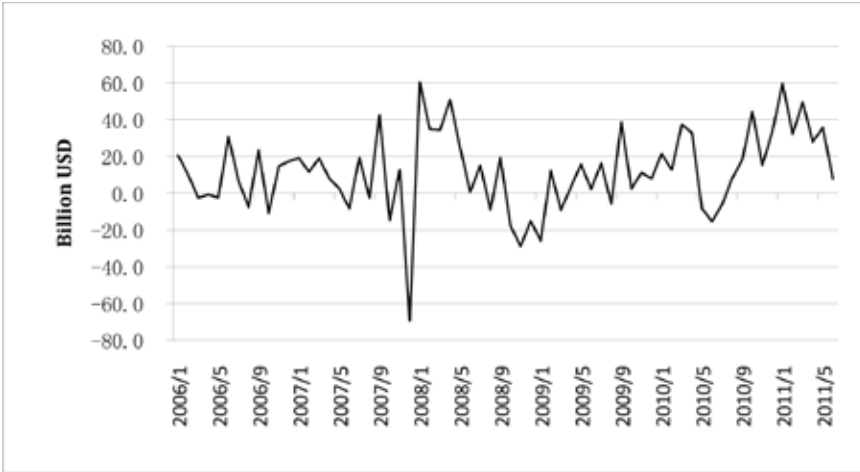
which underpins the dominating investment-driven growth strategy. By limiting Chinese households and corporations to invest on overseas portfolios, the Chinese government could maintain very low deposit and loan interest rates, which boosts the heavy investment of state-owned enterprises and local government on manufactures and infrastructures. Fourth, China's economic reform has not been completed and the property rights still need to be defined more clearly. Lots of Chinese wealthy people (some of them are corrupted officials or entrepreneurs with 'original sin,' a situation where nations are not able to borrow abroad in their domestic currency) fear that their properties may be nationalized some day. Once the capital account is fully opened, there might be a massive capital outflow, even accompanied by money laundering and asset stripping (Yu 2007).

Is China's capital control still effective? The majority voice from the recent literatures shows that, although there are some leakages, China's capital account control is still effective to a large extent. For example, Ma and McCauley (2008) found the sustained and significant gaps between onshore and offshore RMB interest rates and persistent USD/RMB interest rate differentials, which reflected the efficacy of China's capital account control. In another example, Otani et al. (2011) discovered that the empirically quantified strength of capital control (by increasing the transaction costs of cross-border financial transactions) was consistent with the Chinese government's intention to influence capital movements.

There is other evidence about the efficacy of China's capital control. In the first half of 2008, China faced a dramatic short-term capital inflow (Figure 1). To mitigate the capital inflow, the Chinese government has adopted three measures: first, a data exchange program was established between the Customs, the Ministry of Commerce, and SAFE to screen the capital inflow through transfer pricing in foreign trade, namely high export-invoicing and low import-invoicing; second, another data exchange program was founded between the Ministry of Commerce, SAFE, and commercial banks to check whether the registered capitals or loans of foreign enterprises flow into domestic asset markets; third, the government began to investigate and punish cross-border underground banking businesses extensively and severely. These measures achieved an instant and significant effect. From June of 2008, the short-term capital inflow declined dramatically.

After the bankruptcy of Lehman Brothers, China began to face short-term capital outflows, and therefore the government loosened them. However, under the global excess liquidity exacerbated by collective quantitative easing, China has been fac-

Figure 1: China's Short-term International Capital Flow



Notes: The monthly short-term international capital flow is calculated by the monthly foreign exchange purchase by PBC minus the sum of monthly trade surplus and FDI utilized, which is a very rough estimation of high frequency short-term capital inflow.

Sources: CEIC and the author's calculation.

ing a new wave of short-term capital inflow since late 2009. Therefore the focus of Chinese capital control turned to dealing with massive capital inflow again.

Are there any referential lessons that could be drawn from China's experience of capital control for other developing countries? First, in comparison with other emerging market economies such as Chile or Brazil that prefer price measures in capital control, China prefers quantitative measures instead, especially on quotas and administrative approvals. On the one hand, this demonstrated that China's liberalization of capital accounts still lags behind the above economies significantly. On the other hand, because the quantitative measures tend to make more distortions than price measures, China is suffering a much higher welfare cost than Chile or Brazil in executing capital controls. Therefore, in the future China may turn to more price-oriented capital control tools such as unremunerated reserve requirements and withholding taxes.

Second, it seems that the Chinese government does not follow the prescriptions made by the IMF about how to deal with capital inflow. The IMF suggested that the countries should take a three-tool approach to handle capital inflow: the macroeconomic policies, the macroprudential regulations, and the capital controls. Capital control should not be a replacement but a complement to proper macroeconomic and macroprudential policies (IMF 2011). However, China does

not satisfy the criteria of using capital control tools directly. On the one hand, the Chinese government hasn't utilized all the necessary macroeconomic tools to manage capital inflow, especially the exchange rate appreciation. According to the IMF, the systematic macroeconomic policy responses toward capital inflow include: tight fiscal policy, interest rate cut, exchange rate appreciation and sterilized intervention. As for China, in order to mitigate the negative impacts of the global financial crisis and promote domestic structural adjustment, the fiscal policy should be properly expansionary. To fight inflation pressure, PBC has to raise interest rates. PBC has been doing sterilized intervention heavily in the past several years.

The only available tool for PBC to adopt now is a faster appreciation of the RMB exchange rate. However, the concerns that a fast RMB appreciation might hurt export and employment, and a fast RMB appreciation may result in an even higher appreciation expectation thus leading to exchange rate overshooting, dominated the debate among policymakers. The probability for a significantly faster appreciation of RMB remains low. On the other hand, China has a long way to go in operating appropriate macroprudential regulations. Although the Chinese major commercial banks got a good overhaul in the early 2000s, after the burst of global financial crises, the banks lent heavily to local government to make infrastructure investments, which might bury the seed of a new wave of non-performing loans after several years. Besides that, there are still lots of financial fragilities in domestic financial sectors, and this may be why the Chinese government could not afford faster capital account liberalization.

Third, China still faces the challenge of sequencing capital account openness and the liberalization of the interest rates and exchange rates. Some economists argue that, due to the resistance of interest groups, it is very difficult to complete the liberalization of interest rates and exchange rates in the short-term, therefore the Chinese government should speed up the opening of its capital account first. Ideally and theoretically, the fast liberalization of the capital account will exert external pressure on the government to further liberalize interest rates and exchange rates. However, if the capital account is fully opened before the liberalization of interest rates and exchange rates, there will be a significant interest rate spread between domestic and overseas markets and a strong RMB appreciation expectation, which will no doubt arouse more dramatic short-term capital inflow. The volatile and speculative capital inflow will exacerbate the domestic excess liquidity, thus leading to asset price bubbles and inflation pressure first. If the capital inflow suddenly stops or even reverses in the future, there will prob-

ably be a devastating financial crisis. Therefore, the liberalization of interest rates and exchange rates should be a prerequisite for fully opening the Chinese capital account. Moreover, the liberalization of interest rates and exchange rates could improve resource allocation and promote the transition of growth model. The Chinese government should try to overcome the resistance of interest groups, and liberalize interest rates and exchange rates as soon as possible.

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Section III: The Global Cooperation of Capital Account Regulations?

8. The IMF, Capital Account Regulation, and Emerging Market Economies

Paulo Nogueira Batista, Jr.¹

The international financial crisis has led to a major revision of economic policy recommendations since 2008. This revision, albeit unfinished, has affected a large number of policy issues, including of course regulation and supervision. The previous preference for light touch regulation and the faith in the self-correcting virtues of free markets have been replaced by a renewed emphasis on the role of governments and central banks in preventing speculative excesses and the build-up of risks.

An important part of this debate is, or should be, the regulation of international capital flows. Prior to the crisis, capital account liberalization was almost an article of faith in some circles. The benefits of free capital flows were accepted with no major reservations by many policymakers and international organizations. Capital controls were stigmatized.

This has changed to some extent. However, as José Antonio Ocampo pointed out, there is a curious dichotomy in what is now mainstream thinking. The need for strong regulation and supervision is generally recognized—and how could it not be after what happened in the financial systems of the United States and Europe? But, curiously, this recognition does not extend in the same degree to the regulation of international financial flows. As Ocampo observed, cross-border finance has received much less attention, as if it did not require regulation—or indeed as if it was not part of finance. I will come back to this point when I

¹ Executive Director at the International Monetary Fund for Brazil, Colombia, Dominican Republic, Ecuador, Guyana, Haiti, Panama, Suriname and Trinidad and Tobago. The views expressed in this paper should not be attributed to the IMF or to the governments the author represents at the IMF's Executive Board.

address the hesitant nature of the International Monetary Fund's recent shift toward the acceptance of capital account regulations.

THE STANDARD APPROACH

Before the crisis broke out in 2007–2008, the standard approach recommended to countries facing large-scale capital inflows involved basically two aspects: fiscal adjustment and exchange rate appreciation. In addition, it was suggested that restrictions on outflows of capital be relaxed. That was the message that countries received from the IMF, for example, but little else. Even international reserve accumulation was frowned upon.

For example, Brazil had begun to accumulate reserves in earnest in 2006. This would serve us well during the crisis. However, staff of the Fund in annual Article IV consultations warned Brazil against excessive reserve growth.

Even at that time, the insufficiency of the standard approach—let the currency rise and adjust fiscal policy—was relatively clear. Emerging market countries had ample experience of the dangers of exchange rate overvaluation. A persistently strong currency undermined the economy's international competitiveness and could lead to dangerously high current account deficits. A sudden reversal of capital flows—as often happened—forced economies to undergo painful adjustment. In Latin America, perhaps more than in most other regions, boom-bust cycles driven by international capital movements were an often-recurring phenomenon.

Fiscal policy was not well placed to respond to large and volatile capital movements. In theory, fiscal adjustment could allow looser monetary policy, lowering the attractiveness of domestic financial assets for foreign investors. In practice, fiscal policy is a slow, heavy, and clumsy instrument to deploy against fast-moving and fickle capital flows. It is always subject to political constraints and largely dependent on legislative approval. Also, one must bear in mind that fiscal policy has other objectives; it seems to make little sense to tie it to the fluctuating moods of international investors.

Moreover, as has been noted by several analysts, there is what we could call “the paradox of good fundamentals.” Fiscal adjustment, leading to an improvement in public accounts and fiscal fundamentals, may strengthen confidence and attract further flows of capital from abroad.

Removing restrictions on outflows can help to somewhat alleviate upward pressure on the exchange rate, if residents do take the opportunity to invest outside the country. But this can also increase external vulnerability at a later stage, facilitating capital flight in times of uncertainty and crisis.

OUTBREAK OF THE CRISIS

The weakness of the standard approach became glaring with the outbreak of the crisis. The wall of liquidity produced by the expansionary monetary policies of the reserve currency issuing central banks—the Federal Reserve first and foremost, but also the European Central Bank, the Bank of Japan and the Bank of England—contributed to create formidable problems for emerging market countries. Emerging markets suffered less and recovered faster from the crisis—a factor that reinforced their attractiveness for international investors. Growth and interest rate differentials between emerging markets and advanced economies combined to generate large flows of capital from the latter to the former.

Beyond these cyclical factors, there seems to be occurring a fundamental reassessment of international risks in favor of emerging markets, i.e., a reallocation of portfolios that may be leading to a longer-lasting increase in the supply of capital to emerging markets. This has its positive sides of course, but many emerging market countries will be dealing with an “embarras de richesses.”

One has spoken of the “curse of natural resources.” One could equally speak of the “curse of the overabundance of capital flows.” One of the worst things that can happen to a country is to fall into the good graces of international capital markets.

Since mid-2011, the worsening of the economic and financial situation in the advanced economies, notably in the euro area, highlights yet again that capital inflows can be a very mixed blessing. Changes in the availability of external loans and investments can happen quickly and unexpectedly. If the country receiving inflows is unprepared, these sudden reversals can

One of the worst things that can happen to a country is to fall into the good graces of international capital markets.

cause great damage to the economy and the financial system. The euro area crisis has not hit emerging markets with full force so far, but it led to an increase in risk aversion and to a flight to so-called safe havens, generating some turbulence and exchange rate depreciation.

Now, there is still a widespread view that capital flows are of benefit to recipient countries. This view is not entirely wrong; one may well be able to construct a plausible case in its favor. But the least one can say is that it often flies in the face of experience. Quite a number of economies have been severely hurt, sometimes literally destroyed, by imprudent capital account liberalization and surges in capital flows. One has only to look to emerging countries in Eastern Europe for recent examples. Iceland is another shocking case.

I would like to mention, in passing, that an often-unnoticed aspect of the euro area crisis is the role played by the boom-bust cycle associated to free capital movements. Abundant capital inflows allowed pro-cyclical fiscal policies, rapid credit growth, and high current account deficits in the periphery of the euro zone, as well as in Iceland and several emerging market countries in Eastern Europe. The sharp reversal of flows after the 2008 crisis forced these economies to undergo a wrenching adjustment process. As time goes by, we will probably come to realize that capital account management policies may be necessary not only in emerging markets but also in advanced economies.

THE NEED FOR CAPITAL ACCOUNT MANAGEMENT

Policymakers in emerging markets seem to be aware of the risks associated to capital movements. Painful experiences have made them acutely conscious of the dangers of external indebtedness and foreign capital. On the other hand, the temptation remains to enjoy the good times, in the hope that “this time it will be different.” In any case, many countries have been adopting measures to curb inflows or to safeguard against risks brought by them. The task, as we know, is far from easy.

Reserve accumulation is an alternative. For many emerging market economies, it has been extremely important as a mechanism of self-insurance against external shocks. It has drawbacks, however. First, costs may be substantial, especially when interest rate differentials are persistently high. With low interest rates in the reserve currency issuing countries, the remuneration of reserves has fallen substantially. Interest rates in developing countries tend to be higher. When sterilized interventions fail to avoid appreciation of the national currency, losses for the central banks tend to be high. This is particularly the case for Brazil, where interest rates have been chronically very high.

Moreover, reserve accumulation is yet another example of the paradox of strong fundamentals: high reserves increase the perception that the country is safe and this attracts further inflows.

The conclusion seems inescapable: macroeconomic policies—fiscal, monetary, exchange rate, reserve accumulation—alone do not suffice. There is increasing recognition that countries blessed or cursed with an overly abundant supply of international capital will be well advised to resort to macroprudential measures and capital controls. To avoid the stigma attached to capital controls, the IMF staff has recently used the expression “capital flow measures” (CFMs) that encompass both macroprudential measures and capital controls.

IMF AND G-20 DISCUSSIONS OF CAPITAL ACCOUNT REGULATION

In 2010, the IMF belatedly recognized that capital controls and macroprudential measures are “part of the toolkit” available to policymakers. This was a welcome step. The Brazilian chair in the IMF had repeatedly called for a reconsideration of the institution’s reluctance to accept that fiscal adjustment plus exchange rate flexibility would not take care of the problems faced by countries overwhelmed by surges in capital inflows.

That said, the IMF’s recognition is still somewhat hesitant. In March 2011, the Executive Board of the Fund discussed a “possible framework” for capital flow management that was broadly endorsed by a majority of the Board, as a first round articulation of the institution’s views. This tentative framework leaves much to be desired. For instance, capital account regulations are seen as a last resort to be used after everything else has been tried. They are presented as a possible complement and not a substitute for “sound macroeconomic policies.” They are recommended as temporary instruments, given that they can be evaded as times go by. At the same time, and in contradiction to the previous point, a big deal is made of possible externalities or spillovers of capital controls.

None of these qualifications seem persuasive. For instance, macroprudential measures and capital account regulations, adopted at a relatively early stage, preferably in combination with other measures such as reserve accumulation, may avoid the build-up of problems that become increasingly difficult to deal with. Tools that can be used quickly, such as prudential measures and controls, are instrumental in avoiding the development of such situations.

Even amongst Fund staff, there is no consensus on these points. As the Fund's chief economist, Olivier Blanchard, observed in May, when he summarized a Rio de Janeiro conference on capital flows, "we should move away from strict policy orderings toward a more fluid approach of using 'many or most of the tools most of the time' instead of 'this now, that later.'" This observation contradicts flatly one of the features of the "possible framework" endorsed by the Executive Board in March. Blanchard also observed that evidence presented at the Rio conference suggested that spillovers across recipient countries were not very large. "Theoretical and further empirical work is badly needed here," he added.

In so far as effectiveness is concerned, the experiences of Brazil and other countries seem to show that prudential measures and capital account regulations can at the very least moderate appreciation, lengthen the profile of external liabilities, and improve the composition of capital inflows. IMF staff has tended to support this sort of preliminary conclusion in its studies of country experiences.

Despite the lack of firm knowledge in the staff of the IMF about many issues and the lack of consensus in the Executive Board, Fund Management, supported by most advanced countries, jumped the gun in March and had the Board endorse the "possible framework" that I have alluded to. Does this help the membership in any way? Not much I would say. It may even be counterproductive in the end. Under the pretext of allowing capital account regulations in some limited circumstances, the Fund may be seeking to extend its jurisdiction to the capital account.

Under the Articles of Agreement of the IMF, member countries have no obligation whatsoever to liberalize capital account transactions. Legally speaking, they enjoy full freedom to regulate capital movements. This does not apply to countries that have given up this freedom, in part or in total, by their membership of the OECD, of the euro area, or that have signed bilateral investment agreements or free trade agreements with the United States. Those cases apart, member countries are entirely free, under Article VI of the Articles of Agreement, to adopt capital controls. This Article states that "members may exercise such controls as are necessary to regulate international capital movements." Under some circumstances, the Fund may even require them to adopt controls to avoid the use of the institution's resources to finance capital flight. This is exactly what happened in the case of Iceland, a country hard hit by the severe impact of the international crisis on its overblown financial sector. Iceland requested financial

assistance from the Fund and controls on outflows of capital became an important part of the IMF's program for Iceland.

Some advanced countries have been calling on the Fund to establish codes of conduct or guidelines for the management of capital flows. President Nicolas Sarkozy of France was particularly blunt about this when he launched the agenda for the French presidency of the G-20 and the G-8 in January 2011. He called for the establishment by the G-20 of a code of conduct and criticized the "recent multiplication of unilateral measures" affecting capital movements. President Sarkozy came back to the subject in even more forceful terms at the opening of a G-20 Seminar in China, last March:

A code of good conduct, strong guidelines and a common framework governing the possibility of implementing capital controls where necessary must define the conditions under which restrictions on capital movements are legitimate, effective and appropriate to a given situation. If we agree on these rules, ladies and gentlemen, it will be a major evolution in the doctrine of the IMF, to the benefit of the emerging countries, which suffer from excessive volatility of capital movements. Is it reasonable, today, given the increasing impact of capital movements, that the IMF can issue recommendations to a country only as concerns its current account balance of payments and not concerning its capital account? I would like someone to explain to me why a recommendation about one is legitimate and a recommendation concerning the other is illegitimate. Expanding the supervision of the IMF to include these aspects strikes me as crucial. In the longer term, France—and I'm saying this now—is favorable to a modification of the IMF's Articles of Agreement to broaden its supervision mandate. Yet if we decide on more coordination, more rules and more supervision, we then need to decide which organization is in charge of enforcing such rules and conducting such supervision. For France, it's clear. It's the IMF.

The Brazilian chair at the Fund and in the G-20 has been very critical of these attempts to establish a framework or a "code of conduct" for capital account management. The debate is still ongoing, but has lost some of its steam since the beginning of the year. Time has shown that the focus of the IMF and some advanced countries on guidelines or even a "code of conduct" for capital flow measures was ill-timed and unnecessary. In that discussion, among many other problems, insufficient consideration was given to "push" factors or to the policies in major advanced economies that produced large and often disruptive

financial flows. As the IMF and the G-20 wasted precious time on this, the crisis reemerged in the advanced countries, especially in the euro area, due to unsustainable debt levels, fragile banking systems and, ironically, the after-effects of the collapse of a credit boom driven by free capital flows.

The Brazilian chair in the IMF has argued that it would be highly inappropriate and politically unsustainable to attempt to use the Fund's skewed voting power, which gives undue weight to advanced countries, to impose their agenda on developing countries that are not willing to face any restrictions on the liberty to manage the capital account.

There is a further irony here. Some of the countries that are at the epicentre of the worst crisis since the Depression of the 1930s, and are still far from having solved their own problems, seem very eager to promote the establishment of

It is too early to forget that the previous round of preaching by developed countries—deregulate, liberalize, trust markets, etc.—ended in tears for them and for those developing countries that followed that preaching all too eagerly.

codes of conduct for the rest of the world, including for emerging market countries that are currently dealing with overabundant liquidity generated by the monetary policies of these very same countries. One is tempted to

say: put your own house in order before you start preaching to others again. It is too early to forget that the previous round of preaching by developed countries—deregulate, liberalize, trust markets, etc.—ended in tears for them and for those developing countries that followed that preaching all too eagerly.

KEYNES AND WHITE

Free capital movements were not part of the IMF's original mandate. Article VI of the Articles of Agreement was there from the very beginning. Misguided attempts to amend or suppress this Article in the late 1990s came to nothing. At the time, the Brazilian chair at the IMF was among those who opposed the attempt to impose capital account liberalization as an obligation.

Those who know the history of the IMF are aware that the founding fathers of the institution, John Maynard Keynes and Harry Dexter White, had learned from the acute instability caused by laissez-faire with respect to international capital movements in the period between the World Wars. Keynes explained at the time of the creation of the Fund that members would have "full liberty to control such

movements." Each country was given the choice to leave all transactions free or to enforce controls. If it chose the latter, Keynes was of the view that it should be left "to discover its own technique."

Keynes and White were right, I believe. Since the global crisis, the pendulum has swung again away from laissez-faire and towards recognition that strong regulation and supervision of financial activities are indispensable to the smooth and efficient functioning of a market economy. Capital movements are no exception.

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9. The Need for North-South Coordination

Stephany Griffith-Jones and Kevin P. Gallagher

Developing countries have in recent years become again the destination for speculative capital flows, with inflows reaching pre-crisis levels. Many of these nations are deploying prudential capital regulations to stem these flows. Such measures could be coupled with action by developed countries in order to discourage capital outflows and risk taking from their economies, so as to encourage capital to productive use within their own economies; such measures would simultaneously avoid excessive exchange rate strengthening in developing economies, both supporting their own growth and helping avoid possible future crises within these developing economies.

Indeed, one important aim of regulating cross-border capital flows in both recipient and source countries is the reduction of systemic risk build up in both of them, thus reducing risk of future crises.

We will argue therefore that such measures of managing excessive capital outflows from developed countries, and especially from the U.S., could be a rare “win-win” opportunity, as they would benefit both the U.S. and the developing economies. The only ones to lose would possibly be financial institutions, making short-term profits; however, we have seen the disastrous results of defining economic policies only to maximize profits for the financial industry, while neglecting their impact on systemic financial and macroeconomic stability and on the real economy.

CAPITAL FLOWS IN THE WAKE OF THE CRISIS

As nations across Asia and Latin America still have a long way to go in terms of income growth, foreign investment is quite welcome. The problem is, the sheer volume and composition of these flows implies that a large part of them are short-term, volatile, and do not go into productive investment. Indeed, mass inflows of short-term capital have been causing asset bubbles and currency appreciation in developing countries, making macroeconomic policy difficult and increasing the risk of future crises.

Short inflows have been flocking to the developing world largely through the mechanism of the carry trade and other mechanisms, usually using derivatives.

Since the crisis began, interest rates have been very low in the U.S. and other industrialized nations. As Mohan in this volume shows, there is clear evidence over the last 30 years that there is broad correspondence between periods of accommodative monetary policy in advanced economies and capital flows to emerging market economies, as well as the reverse; each monetary tightening produces capital flows reversals and often crises in emerging countries.

In the recent period, increased U.S. liquidity and low interest rates have triggered U.S. financial institutions to decrease their risk-taking in the U.S., thus leading to little or no credit creation, which is the main transmission channel of monetary expansion to domestic economic activity; it has, however, increased risk taking abroad, channelling it to nations with higher interest rates for rapid return, as well as better growth prospects in the medium term. Speculative short-term flows push up the value of emerging market currencies and create asset bubbles. For this reason, the U.S. was criticized at the G-20 meeting in Seoul in late 2010. For example, Brazil, with high interest rates, had seen an appreciation of over 40 percent due in part to the carry trade, and was most vocal in Seoul. But this is a problem in many emerging and even low-income developing countries, like Uganda, with excessive short-term inflows.

PRUDENTIAL REGULATIONS IN DEVELOPING COUNTRIES

Emerging and developing economies have a “new” set of options to stem the tide. One of them, which several are now pursuing, is to engage in prudential capital account management, by taxing, putting unremunerated reserve requirements or discouraging by other means, excessive capital inflows. This is not a panacea on its own, but does help provide greater monetary policy autonomy to those countries; this is essential, as their growth rates are at present high, and it is essential for them not only to avoid inflation in goods and services, but also asset price bubbles and overvalued exchange rates.

Many nations such as Brazil, China, Argentina, Taiwan, Thailand, South Korea, Peru, and Indonesia have put in place various forms of capital account regulations to limit excessive inflows. Such controls have been recently sanctioned by the IMF—a very significant shift. However, the support by the IMF for capital account regulations has some limitations (as discussed by Nogueira Batista and Ocampo in this volume).

Indeed, capital account management measures follow a mountain of economic evidence in academia and by the international financial institutions—most notably the National Bureau of Economic Research in the U.S., the International Monetary Fund, the United Nations, and the Asian Development Bank—that

capital account management by developing countries is a useful tool of policy, if accompanied by broadly prudent macro-economic policies. In February 2010, IMF economists published a staff position note titled, “Capital Inflows: The Role of Controls,” empirically showing that capital controls not only work but “were associated with

Capital account management measures follow a mountain of economic evidence in academia and by the international financial institutions—most notably the National Bureau of Economic Research in the U.S., the International Monetary Fund, the United Nations, and the Asian Development Bank—that capital account management by developing countries is a useful tool of policy, if accompanied by broadly prudent macro-economic policies.

avoiding some of the worst growth outcomes” of the current economic crisis. The paper concludes that the “use of capital controls—in addition to both prudential and macroeconomic policy—is justified as part of the policy toolkit.”

That IMF report singles out measures such as taxes on short-term debt (like Brazil’s) or requirements whereby inflows of short-term debt need to be accompanied by an unremunerated deposit to be placed in the central bank for a certain period of time (as practiced in the past by nations such as Chile, Colombia, and Thailand). The goal of these measures—which are often turned on when capital flows start to overheat and turned off when such flows cool—is to prevent massive inflows of hot money that can appreciate the exchange rate and threaten the macroeconomic stability of a nation.

The IMF’s findings came at an appropriate time. In the wake of the U.S. Federal Reserve’s quantitative easing and other measures to loosen monetary policy, the carry trade again started bringing speculative capital to developing countries that could disrupt their recovery from the crisis (even though there have been episodes in autumn 2011 of brief reversals of such flows).

To make the proper deployment of capital account management effective however, at least four obstacles need to be overcome:

First, after a while investors creatively evade prudential capital management through derivatives and other instruments. Second, U.S. trade and investment agreements make capital controls difficult to implement. Third, speculative capital can still wreak havoc because hot money bypasses countries that successfully deploy controls and goes instead to nations that do not. Fourth, the massive scale of capital flowing from source countries may overwhelm even those countries using capital account management of their inflows, given their relatively small size.

Brazil started imposing a tax on hot money inflows in 2009, and has been fine-tuning it ever since, in part because of the volume of flows but also because the regulation was being evaded. Some investors have bypassed controls by disguising short-term capital as foreign direct investment, through currency swaps and other derivatives, and by purchasing American Depositary Receipts (ADRs).

ADRs are issued by U.S. banks and allow investors to buy shares of firms outside the U.S.—enabling investors to purchase Brazilian shares but in New York and thereby skirt controls in Brazil. In a step in the right direction, Brazil moved to put a 1.5 percent tax on ADRs to stem speculating around the controls. Thus, a Brazilian bank or investor that deposits shares with foreign banks will be charged the tax. Most recently (mid-2011), Brazil has started taxing net foreign exchange derivative positions above a certain level, which is an interesting measure as it may help curb excessive pressure on the national currency to become too strong, and help avoid evasion of other capital account management measures. It would be helpful for emerging economies to exchange experiences on regulating capital flows to see to it that controls are not evaded.

Since 2003, U.S. trade and investment treaties have made prudential management of the capital account by developing-country trading partners difficult if not impossible by mandating the free flow of capital to and from a country, regardless of its level of development—for instance, in trade deals with Chile, Peru, and Singapore. (In Singapore's and Chile's cases, the countries resisted these measures, but ultimately agreed to the treaties.) Recently ratified deals with Colombia and South Korea would also ban prudential capital controls. Other higher-income countries and trade partners—such as Canada and Japan—grant countries the right to use the macroeconomic tool, or at least grant exemptions to prevent or mitigate crises.

The third and perhaps most difficult problem is that capital will simply flow by those nations that successfully deploy controls to nations that do not, (imply-

ing negative externalities for the latter). Some economists, such as former IMF economist Arvind Subramanian propose full-fledged coordinated capital controls among all emerging market economies to circumvent the problem. This idea has merit, but of course not all emerging markets will agree to coordinate. We propose attacking the problem at its source.

The fourth, and also serious, problem is that if interest differentials are important, the incentive for investors to come into emerging economies is very large, and thus the scale of capital account management effort by the emerging country would have to be very large; this is particularly the case because global capital markets are so large and so mobile, and can thus overwhelm relatively small emerging and developing economies and financial markets. Again complementary measures in the source countries would help tackle the issue. Though we propose below measures to be taken in the U.S. currently the main source of carry trade, such measures would be more effective if they were coordinated with other countries that are sources of short-term capital outflows or risk taking.

REGULATE THE CARRY TRADE IN THE UNITED STATES

As pointed out, actions taken by developing countries on their capital accounts may not be enough, as the wall of money at times coming towards them is so large. Therefore, it may be desirable to complement these measures with action by the countries where the capital is coming from, especially the U.S. Given that the majority of the carry trade effect will in the near future come from the U.S., the United States could start regulating the outflow of capital due to the carry trade. As pointed out, though the scale may be greater now, there have been several previous episodes where very loose U.S. monetary policy contributed to surges in capital flows to developing economies, episodes that have mostly ended in tears. Already in 1998, one of the authors of this essay, writing with Jane D'Arista (D'Arista and Griffith-Jones 2008) argued for measures to discourage excessively large portfolio outflows from source countries, such as unremunerated reserve requirements on such outflows.

At present, the U.S. could introduce measures to discourage the carry trade flows going from that country to the rest of the world, and especially developing countries, when these are excessive; this could be done for example by taxing such flows (on the spot market) and excessive risk taking abroad. Thus, foreign exchange derivatives that mimic spot transactions could have higher margin requirements, to discourage them. Alternatively, such foreign exchange derivatives could also be taxed at a level equivalent to the tax on foreign exchange spot

transactions, on the notional value of that derivative, such as non-deliverable forwards. Interesting lessons could be drawn, for example, from the recent experience of Brazil in taxing foreign exchange derivatives, which also seems to show the feasibility of such taxes. There are two routes through which U.S. monetary easing is transmitted abroad:

(a) the money and credit supply channel, which implies higher capital outflows and less credit creation in the U.S., and

(b) the derivatives channel, whereby the fixed risk budget of U.S. banks or hedge funds is allocated more towards emerging economies risk and therefore less to risk taking in the U.S.

The above sketched proposal would attempt to curb both routes, when and if desirable, that is if excessive capital and risk taking was going abroad.

Such a measure would benefit the U.S. economy, as the purpose of monetary easing is precisely to encourage increased lending and risk-taking in the U.S., and not for funds to be channeled abroad; it would benefit emerging countries, whose economies are being harmed by excessive short-term inflows that could cause future crises. It would thus be a big win-win for the world economy.

The results of the most recent U.S. Congressional elections unfortunately make it difficult in the near future for the U.S. to pursue the best policy to keep its economy recovering: further fiscal expansion. As Keynes taught us—and as we have seen during numerous crises—private investment and consumption will not recover on their own (due both to over-leveraging and lack of confidence), without the stimulus of aggregate demand, which only governments can give in these particular circumstances. Once the recovery is on track, fiscal policy needs to contract, to avoid both overheating and excessive public debt.

On its own, loose U.S. monetary policy seems, indeed, not to be enough to restore the U.S. economy to growth; supportive fiscal policy would be highly desirable, as would other measures to stimulate aggregate demand. Furthermore, easy monetary policy may contribute to further overheating of asset prices and exchange rates in the emerging economies, which could not just complicate macroeconomic management for them now, but also increase the risk of future crises.

To ensure loose monetary policy helps the U.S. economy to grow, institutional mechanisms and a broader framework need to be found to channel the additional liquidity created by the Fed as credit to the real economy. The key is to

expand credit to small and medium-sized enterprises, starved of funds at present, and to finance large investments in infrastructure, including that required to generate clean energy and energy conservation. Institutional innovations may be necessary to achieve this, such as the creation of an Infrastructure Fund, as well as possibly special institutions dedicated to lending to small and medium enterprises. Indeed, in the U.S., the Federal Reserve could, for example, possibly use some of the liquidity it creates to purchase bonds of a U.S. Infrastructure Fund or Bank; this would both provide credit to a sector key for future development, as well as lead to an increase in aggregate investment and demand.

Internationally, if the U.S. dug into the emergency toolbox again, it could place prudent capital regulations or taxation on the outflow of speculative capital from the U.S. via mechanisms such as the carry trade; this might help avoid future crises in those countries, which would harm not only them, but also the U.S. and the world economy. Taxation may have some important advantages. First, taxes are more difficult to avoid or evade, as they involve not just authorities like the Federal Reserve, but also the Internal Revenue Service, with the latter having possibly stronger enforcement mechanisms. Second, such taxation could generate some additional revenue for a U.S. government with a large budget deficit, surely an attractive feature. However, the tax would need some ex-ante flexibility on rates, so it could be modified according to the level of outflows and derivatives positions. Complementary to introducing measures like new taxes to discourage outflows of capital or increased risk taking abroad, it seems clearly desirable—in the U.S. and elsewhere—to reduce existing tax biases in favor of such flows, like tax loopholes; indeed, this could be a first step to discourage excessive short-term outflows.

Measures to discourage short-term outflows would facilitate the liquidity created by the Fed to stay in the U.S. and have a better chance of going toward productive investment.

THE ROAD AHEAD

Re-orienting capital flows for productive development, leading to growth, should be a key priority. Prudential capital account regulations, deployed in both the industrialized and developing world, should be examined as one instrument to achieve this aim. Coordination between developed and developing countries on this issue would be desirable; this should be eased by the fact that often the aims of both developed and developing countries may coincide. However, it does not seem desirable for such coordination to be imposed multilaterally, as

no institution at present seems to have the appropriate, well-trusted governance ability to represent the collective interests of all countries. Nevertheless, the IMF could continue to be a useful forum to exchange experiences on capital account management (by both developed and developing countries) and possibly provide a useful voluntary forum for informal coordination, in cases where all countries involved desire such a role to be played.

To rectify some of the problems related to capital flows, industrialized nations (especially the U.S.) should consider regulating the carry trade and providing safeguards in their trade treaties to allow developing nations to deploy prudential regulation. Developing countries should also put in place prudential regulations. The Financial Stability Board, or another relevant body, as well as national regulatory authorities, should watchdog those who evade these regulations.

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10. International Regulation of the Capital Account

Arvind Subramanian

This short essay, which is based on Jeanne, Subramanian, and Williamson (forthcoming), argues that there is a growing need for an international regime to regulate capital account transactions. Such a regime should allow nations to deploy capital controls that are deemed ‘corrective’ but should also provide mechanisms for disciplining capital controls where they have spillover effects via facilitating undervalued exchange rates and hence beggar-thy-neighbor trade effects on partner countries. Cooperation between the International Monetary Fund (IMF) and the World Trade Organization (WTO) might be necessary to implement such a regime.

CORRECTIVE VERSUS STRUCTURAL CAPITAL CONTROLS

A new wave of theoretical research shows that capital controls, in certain situations, can be seen as correcting for market failure, rather than being seen as distortionary in the market (Korinek 2009; Jeanne and Korinek 2010; Bianchi 2010; etc.). This new work provides a rigorous, welfare-based basis for public intervention. The rationale is essentially the same as for “macroprudential” regulation to deal with booms and busts in credit and asset prices in a domestic context (Brunnermeier 2009; Adrian and Shin 2009). In a new book I have authored with Olivier Jeanne and John Williamson, we argue that there should be a global regime that allows for corrective capital controls. A current example of a corrective capital control might be Brazil’s tax on foreign currency purchases of equities that was put in place in 2010.

However, capital controls can also be used to sustain undervalued exchange rates as an instrument of mercantilism, with beggar-thy-neighbor effects on trading. The obvious present-day example of a nation that deploys structural controls is that of China, where capital controls play a part in an elaborate regime to keep the nation’s currency undervalued in order to support an export-led growth strategy. Our view is that there is a need to regulate these structural controls, not least because the freedoms of smaller countries are affected by spillovers from these

distortive controls. We must also consider multilateral rules on capital flows even within the IMF.

AN ALTERNATIVE APPROACH FOR AN INTERNATIONAL REGULATORY REGIME

Although some nations may currently benefit from the status quo, a global regulatory regime for the use of capital controls would make more nations better off than under current circumstances. Why so, if non-regulation is appealing for some states because the status quo provides policy space and freedom? But the current debate seems to suggest that non-regulation might mean less policy space for some. This is especially evident in the pre-2008, intellectual zeitgeist which created stigma from national and uncoordinated action. For example, Brazil in 2009 suffered from the worst of both possible worlds: out of fear of the stigma, it imposed weak controls, which ended up being ineffective in restricting inflows but that incurred the stigma anyway.

In addition, non-regulation has led to abuse of structural controls, and these, in turn, create negative global externalities. We need to regulate capital inflows

A starting point for a new regime would be the recognition of the need for corrective controls while at the same time seeing that capital controls/undervalued exchange rates are potentially as big a problem as capital inflows and overly ambitious capital flows.

nationally, especially from a cyclical/prudential perspective (Ostry et al. 2010), but there is no consensus regarding multilateral rules on permissible curbs on flows. A starting point for a new regime would be the recogni-

tion of the need for corrective controls while at the same time seeing that capital controls/undervalued exchange rates are potentially as big a problem as capital inflows and overly ambitious capital flows.

Thus, the case for an international regime is:

- Because there can be circumstances in which unconstrained national actions are collectively damaging;
- Because a lack of rules stigmatizes countries for not abiding by whatever happens to be the conventional wisdom, which in recent years has favored free capital mobility, and countries that impose capital controls therefore often do so apologetically and with less-than-optimal vigor;

- Because the lack of a rule fails to give countries a pointer of what they should be aiming for; and
- To try in a different way to persuade China to revalue its exchange rate.

PROPOSAL: SYMMETRY WITH TRADE

Of course the full details would need attention, but for the sake of argument a regime for capital account regulations could be set up that is analogous to the global trade regime. In trade, as in the WTO, nations are permitted to have contingent protections for a variety of reasons, with a long-run commitment to phase those out and replace them with safeguards for extraordinary events. When a nation's measures adversely affect another nation however, the affected nation can dispute the measure and convene a tribunal whereby the party found to be in violation with stated codes of conduct has to change that measure or face economic retaliation.

In our book we find no evidence that capital account liberalization is good for growth: hence rules on structural capital regulations should in principle be more permissive than those, say, on goods. But, as was the case in the WTO, we suggest that all quantitative restrictions on capital flows be converted to price-based measures and that there be a "binding" of the amount of controls that can be deployed.

The main features of course would be "optimal" or corrective controls that tax on inflows independent of duration of investment. This tax ought to be:

- differentiated according to the type of flow (debt versus equity, versus foreign exchange, etc.).
- the tax rate ought to be set at a level which is countercyclical: from 0 to 15 percent in a calibrated model.

To summarize, corrective controls should be price-based, countercyclical, with a maximum effective tax rate of 15 percent, and, crucially, with a "structural exemption" that would be negotiated down or disciplined. Such a new regime would be housed at the IMF and should institute cooperation between IMF and WTO (Mattoo and Subramanian 2008).

The IMF has been able to influence member countries that have borrowed from it, but it has not been successful in affecting economic policy in countries that do not need IMF money. Moreover, the IMF lacks an effective enforcement mecha-

nism. Compounding these problems is the IMF's eroding legitimacy. It lost its status as a trusted interlocutor in emerging markets, particularly in Asia, after the Asian financial crisis of 1997–1998. There, the IMF was seen as having failed to provide enough money to countries in need and as having attached unnecessarily tough conditions to its loans, which many believe aggravated the effects of the crisis. The IMF's governance structure is also outdated; it reflects the receding realities of the Atlantic-centered world of 1945 rather than the rise of Asia in the 21st century.

One possibility going forward would be for the IMF and the WTO to cooperate on exchange-rate issues. The IMF would continue to provide technical expertise to assess the valuation of currencies. But because undervalued currencies have serious consequences for global trade, it would make sense to take advantage of the WTO's enforcement mechanism, which is credible and effective. The WTO would not displace the IMF; rather, this arrangement would harness the comparative advantages of each institution.

OBJECTIONS

A few objections to controls are commonly raised. I will address each of these objections, in turn, and argue why they are not good arguments against the type of global governance system that we are proposing.

The first argument against controls is that controls are always distortive. Here, we must draw a distinction between controls which might create a distortion, and ones that correct for a current distortion. Another common objection is that controls are easily evaded. Evidence for this is mixed, and evasion depends largely on the types of controls enacted. Nonetheless, destigmatizing the use of capital controls, and therefore giving their use legitimacy, may go a long way towards cutting down some forms of evasion. Another objection is that controls have costly unintended consequences. Here too the evidence is mixed. On balance, capital controls can be a legitimate tool and not just the last option as was previously suggested by the IMF.

One of the few good arguments for allowing blunt instruments, such as quantitative controls, is related to implementation capacity. Where regulatory regimes are weak, blunt instruments might often have to take precedence over more finely tuned ones.

One current problem with introducing a regulatory regime that phases out structural capital controls would be inducing cooperation from China. We have already some analogues from the WTO for how to approach this issue. These analogues involve invoking carrots and sticks, both in trade in goods and in capital.

Carrots in the trade arena could take the form of eventually granting China the status of a market economy, which would make it less vulnerable to arbitrary unilateral action—especially antidumping duties—by its trading partners (Messerslin 2004). At the moment, the disciplines on such actions are less stringent when the target is a non-market economy.

In trade in assets, carrots could take the form of securing investment opportunities for its sovereign wealth funds (SWF) in an environment where Chinese investments could increasingly be subject to national regulations with a protectionist slant. Clear rules on SWF-related investments could thus be one of the inducements for China to cooperate (see Mattoo and Subramanian 2008). It is worth noting here that China's huge stockpile of reserves (which is not likely to be eliminated any time soon) will mean that the Chinese state will be a foreign investor for some considerable time, so guaranteeing an outlet for these investments could be important for China (and also for the oil-exporting countries). The nature of the carrots in this area is spelled out in Mattoo and Subramanian (2008).

Sticks in trade in goods could of course take the form of imposing tariffs on countries that do not agree to bring their capital account restrictions in line with new rules. Sticks in trade in assets could take the form of a broad reciprocity requirement whereby capital importing countries declare that they will limit sales of their public debt henceforth to only include official institutions from countries in which they themselves are allowed to buy and hold public debt.

CONCLUSION

Intellectually, the ground has shifted in favor of cyclical, prudentially based measures to restrict surges in capital inflows. But that is now a given. The issues going forward are first, whether this shift to allow corrective controls should be codified in an international regime for capital account regulation; and second, whether there should also be regulation of structural controls which facilitate beggar-thy-neighbor practices.

Some American economists and lawmakers have called for imposing a duty on imports from countries with undervalued exchange rates. But any such unilateral action would be, by definition, partial and hence ineffective. Undervalued currencies affect more than just one country: China's cheap yuan, for example, has an impact not only on the United States and the European Union but also on emerging economies and African countries, whose products compete with China's on the world market.

A multilateral approach to such distortions may prove more fruitful. Under the historical division of labor between the International Monetary Fund and the WTO, the IMF has jurisdiction over questions relating to exchange rates. But its oversight has been weak at best. Surely a better approach would be to implement a comprehensive regulatory regime that addresses the problem of excess capital flows in addition to distortive controls, such as structural exchange rate regimes which lead to broad spillovers in the global economy. An analogue to the WTO, but administered by the IMF, would be one possible mechanism for such regulation.

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11. Capital Account Regulations and the Trading System

Kevin P. Gallagher

The global community has not made a conscious effort to coordinate measures to regulate global capital flows. In the absence of such an effort, a patchwork de-facto regime has arisen—including global, regional, and bilateral trade and investment treaties—that may complicate efforts to coordinate capital account regulations in the 21st century. This short essay discusses how capital flows are treated in the trading system and outlines practical measures that nations may take to create the policy space for CARs in new and existing treaties.

Table 1 summarizes the extent to which capital account regulations are permitted under various trade and investment arrangements.

Under the World Trade Organization, if a nation has committed to granting market access in cross-border trade in financial services or committed to allowing foreign investment in financial services, it must liberalize its capital account in order to honor those specific commitments. The WTO does have a prudential exception and a balance of payments exception, but it is not clear that such

Table 1: Policy Space for Capital Controls: A Comparison

	WTO	US BITS/FTAs	Other BITS/FTAs
Permissible Capital Controls			
<i>Current Capital</i>	no	no	no
inflows	no*	no	sometimes
outflows	no*	no	sometimes
Safeguard Provisions			
<i>Current Capital</i>	yes**	no	yes**
inflows	no	no	yes
outflows	yes	no	yes
Number of Countries Covered	69	58	
Dispute Resolution format	State-to-State	Investor-State	Investor-State
Enforcement instrument	Retaliation	Investor compensation	Investor compensation

*Capital controls fully permissible for nations that have not committed to liberalize cross-border trade in financial services

**Permitted only under IMF approval

Source: Gallagher 2011

safeguards will apply to all types of capital controls. In any event, at this writing most developing countries have not yet agreed to grant market access in the financial services sectors that would require open capital accounts. However, developed countries see the liberalization of financial services in developing countries as the cornerstone of a new WTO agreement under the Doha Round.

Some, but not all, Free Trade Agreements (FTAs) and Bilateral Investment Treaties (BITs) also restrict the ability of developing nations to deploy capital controls. Virtually all U.S. agreements require the free flow of capital to and from the U.S. and its trading partner, without exception. In contrast to the WTO where when a dispute arises, such a dispute has to be brought by a state (and can thus be diplomatically “screened”), FTAs allow the foreign firm to directly file a claim against a host state for such measures. If a claim is lost the host state has to change its policy and pay damages to the private firm. Such a claim was rendered under the U.S.-Argentina BIT when, in the aftermath of Argentina’s financial crisis Argentina sought to impose a tax on outflows that was deemed to be tantamount to an “expropriation” (Salacuse 2010).

However, while U.S. FTAs and BITs strictly forbid the use of capital account regulations, the agreements of other major capital exporting nations allow for more flexibility. Most BITs and FTAs conducted by Japan, the European Union, and Canada either have a safeguard measure whereby a nation is able to pursue its domestic regulations related to capital account regulations, or a safeguard measure to prevent and mitigate financial crises. For instance, the EU-Chile and Canada-Chile agreements have annexes that allow Chile to deploy its infamous unremunerated reserve requirements (URRs), whereas the U.S.-Chile agreement does not.

These examples of flexibility among many of the world’s larger capital exports can provide the basis and example for global reform.

THE WORLD TRADE ORGANIZATION

The General Agreement on Trade in Services (GATS) is currently the only binding multilateral pact that disciplines capital account regulations, though specific countries may have certain freedoms if the governments in place in the 1990s did not make widespread commitments in the financial services sector. More specifically:

- A member is most protected from a WTO challenge over capital account regulations if it committed no financial services sectors to GATS coverage in any mode.
- However, even nations that have made widespread commitments in financial services may have—if challenged—recourse to various exceptions, although these have not been tested and the record of WTO exceptions in other contexts is not reassuring.
- The policy space for controls on current account transactions defers to the IMF.

The GATS is part of the Marrakesh Treaty that serves as an umbrella for the various agreements reached at the end of the Uruguay Round of GATT negotiations that established the WTO. The GATS provides a general framework disciplining policies “affecting trade in services” and establishes a commitment for periodic future negotiations. The GATS is divided on the one hand into a part on “General Obligations,” which binds all members. These include the obligation to provide most favored nation treatment to all WTO members (Article II), and some disciplines on non-discriminatory domestic regulations that are still being fully developed (Article VI).

On the other hand, the GATS also includes a part dealing with “Specific Commitments,” which apply only to the extent that countries choose to adopt them by listing them in their country-specific schedules. These cover primarily the disciplines of Market Access (Article XVI) and National Treatment (Article XVII) (Raghavan 2009).

Numerous annexes cover rules for specific sectors: the Annexes on Financial Services are of particular relevance for capital account regulations. Trade in services occurs across the four services ‘modes’ discussed in the GATS in general: Mode 1 (Cross-border supply), Mode 2 (Consumption abroad), Mode 3 (Commercial Presence) and Mode 4 (Presence of natural persons). With respect to capital account regulations, Modes 1 and 3 are most important:

Box 1: Relevant Definitions in GATS

Mode 1: Cross-border supply is defined to cover services flows from the territory of one Member into the territory of another Member (e.g., banking or architectural services transmitted via telecommunications or mail).

Mode 3: Commercial presence occurs when the user of a financial service is immobile and the provider is mobile, implying that the financial service supplier of one WTO Member establishes a territorial presence, possibly through ownership or lease, in another Member's territory to provide a financial service (e.g., subsidiaries of foreign banks in a domestic territory).

IMF analysts have found that about 16 countries have significant Mode 1 commitments in financial services, while around 50 each have significant Mode 2 and 3 commitments for the sector—this includes most OECD countries. (Valckx 2002, Kireyev 2002.)

The IMF has articulated how commitments in Modes 1 and 3 can impact the capital account and related regulations:

Box 2: Capital Account Liberalization and GATS Commitments

WTO members must allow cross-border (inward and outward) movements of capital if these are an essential part of a service for which they have made liberalization commitments regarding its cross-border supply (without establishment). For example, international capital transactions are an integral part of accepting deposits from or making loans to nonresidents (mode 1). International capital transactions are also usually associated with financial services such as securities trading on behalf of a customer residing in another country. The establishment of a commercial presence (mode 3) in a host country by a foreign services supplier involves both trade in services and international capital transactions. In permitting the establishment of a commercial presence, WTO members must allow inward (but not outward) capital transfers related to the supply of the service committed.

Source: IMF 2010

Of course, if a nation has not made commitments then it is free to pursue any and all capital account regulations that it sees fit. If a nation has made commitments, a distinction needs to be made with respect to financial services and capital flows. Under the GATS nations liberalize specific types of financial services, such as banking, securities, insurance, and so forth. That said, if a nation has made a commitment in a particular sector and capital account regulations restrict the ability of WTO members to make capital movements linked to

the particular financial service, then those nations may be brought to the WTO under its dispute resolution mechanism (WTO 2010).

WTO members have recourse to binding dispute settlement procedures, where perceived violations of GATS commitments can be challenged and retaliatory sanctions or payments authorized as compensation. The process for disputes is “state-to-state” dispute resolution where a party has to demonstrate damage from a particular policy to that party’s government and the government decides whether or not to enter into a dispute on behalf of the affected party. Such a dispute is carried out at the WTO with the “defending” government representing the party from which the dispute originated.

If a nation’s capital account regulations were found in violation of its GATS commitments, it could invoke one or more exceptions in the GATS text. A first option would be to claim that the measure was taken for prudential reasons under Article 2(a) of the Annex on Financial Services. This exception reads:

Box 3: Prudential Exception in GATS

Notwithstanding any other provisions of the Agreement, a Member shall not be prevented from taking measures for prudential reasons, including for the protection of investors, depositors, policy holders or persons to whom a fiduciary duty is owed by a financial service supplier, or to ensure the integrity and stability of the financial system. Where such measures do not conform with the provisions of the Agreement, they shall not be used as a means of avoiding the Member’s commitments or obligations under the Agreement.

Inflows controls such as unremunerated reserve requirements or inflows taxes could be argued to be of a prudential nature, especially given the new IMF report discussed earlier. However, the sentence stating that prudential measures “shall not be used as a means of avoiding the Member’s commitments or obligations under the Agreement” is regarded by some as self-cancelling and thus of limited utility (Tucker and Wallach 2009; Raghavan 2009). Others however do not see the measure to be second-guessing but rather “as a means of catching hidden opportunistic and protectionist measures masquerading as prudential” (Van Aaken and Kurtz 2009). Still others point out that, in contrast with other parts of the GATS that require a host nation to defend the “necessity” of the measure, there is no necessity test for the prudential exception in the GATS. This arguably gives nations more room to deploy controls. Indeed, Argentina lost cases related

to controls under BITs because they failed such a “necessity test.” Nations have requested that the WTO elaborate on what is and is not covered in the prudential exception, but such requests have fallen on deaf ears (Cornford 2004). And as of this writing, the prudential exception has not been tested.

If a country’s capital account regulations were found in violation of its GATS commitments in financial services, it could also invoke Article XII “Restrictions to Safeguard the Balance of Payments.” Paragraph 1 of Article XII states:

Box 4: Balance of Payments Exception in GATS

In the event of serious balance-of-payments and external financial difficulties or threat thereof, a Member may adopt or maintain restrictions on trade in services on which it has undertaken specific commitments, including on payments or transfers for transactions related to such commitments. It is recognized that particular pressures on the balance of payments of a Member in the process of economic development or economic transition may necessitate the use of restrictions to ensure, inter alia, the maintenance of a level of financial reserves adequate for the implementation of its programme of economic development or economic transition.

The next paragraph specifies that such measures can be deployed as long as they do not discriminate among other WTO members, are consistent with the IMF Articles (thus pertain only to capital account controls), “avoid unnecessary damage” to other members, do “not exceed those necessary” to deal with the balance of payments problem, and are temporary and phased out progressively.

It may be extremely difficult for a capital control to meet all of these conditions, especially the hurdles dealing with the notion of “necessity,” a slippery concept in trade law that countries have had difficulty proving. Moreover, concern has been expressed about the extent to which the Balance of Payments exception provides nations with the policy place for restrictions on capital inflows that are more preventative in nature and may occur before “serious” balance of payments difficulties exist (Hagan 2000). If a nation does choose to use this derogation, the nation is required to notify the WTO’s Balance of Payments Committee.

FTAs AND BITs

U.S. BITs and FTAs do not permit restrictions on inflows or outflows. If a nation does restrict either type of capital flow they can be subject to investor-state arbitration whereby the government of the host state would pay for the “dam-

ages" accrued to the foreign investor. The BITs and FTAs of other major capital exporters such as those negotiated by the EU, Japan, China, and Canada, either completely "carve out" host country legislation on capital account regulations (therefore permitting them) or allow for a temporary safeguard on inflows and outflows to prevent or mitigate a financial crisis. The U.S. does not have either measure. However, a handful of FTAs have recently allowed for a grace period whereby foreign investors are not allowed to file claims against a host state until after the crisis period has subsided.

Capital Controls and U.S. Treaties

In contrast with the treaties of many other industrialized nations, the template for United States trade and investment treaties does not leave adequate flexibility for nations to use capital account regulations to prevent and mitigate financial crises (Gallagher 2011). At their core, U.S. treaties see restrictions on the movement of speculative capital as a violation of their terms. The safeguards in U.S. treaties were not intended to cover capital account regulations.

U.S. trade and investment treaties explicitly deem capital account regulations as actionable measures that can trigger investor-state claims. The Transfers provisions in the investment chapters of trade treaties, or in stand alone BITs, require that capital be allowed to flow between trading partners "freely and without delay." This is reinforced in trade treaties' chapters on financial services that often state that nations are not permitted to pose "limitations on the total value of transactions or assets in the form of numerical quotas" across borders.

In the financial services chapters of U.S. trade treaties, and in U.S. BITs, there is usually a section on "exceptions." One exception, informally referred to as the "prudential exception," usually has language similar to the following from the U.S.-Peru trade treaty:

Box 5: Prudential Exception for U.S.

Financial Services chapter: Article 12.10: Exceptions

1. Notwithstanding any other provision of this Chapter or Chapter Ten (Investment), Fourteen (Telecommunications), or Fifteen (Electronic Commerce), including specifically Articles 14.16 (Relationship to Other Chapters) and 11.1 (Scope and Coverage) with respect to the supply of financial services in the territory of a Party by a covered investment, a Party shall not be prevented from adopting or maintaining measures for prudential reasons, including for the protection of investors, depositors, policy holders, or persons to whom a fiduciary duty is owed by a financial institution or cross-border financial service supplier, or to ensure the integrity and stability of the financial system. Where such measures do not conform with the provisions of this Agreement referred to in this paragraph, they shall not be used as a means of avoiding the Party's commitments or obligations under such provisions.

Capital account regulations are not seen as permissible under this exception. This has been communicated by the United States Trade Representative and in 2003 testimony by the Under Secretary of Treasury for International Affairs to the U.S. Congress and reiterated in a recent letter by U.S. Treasury Secretary Timothy Geithner in response to a letter signed by more than 250 economists requesting that the U.S. reform its treaties (see Taylor 2003; Geithner, 2011). In general this is because the term "prudential reasons" is usually interpreted in a much narrower fashion, pertaining to individual financial institutions. Concern has also been expressed that the last sentence is "self-canceling," making many measures not permissible.

The prudential exception in services chapters or BITs is usually followed by an exception for monetary policy that often reads like (again to use the U.S.-Peru Trade treaty):

Box 6: More Exceptions in U.S. FTAs?

Nothing in this Chapter or Chapter Ten (Investment), Fourteen (Telecommunications), or Fifteen (Electronic-Commerce), including specifically Articles 14.16 (Relationship to Other Chapters) and 11.1 (Scope and Coverage) with respect to the supply of financial services in the territory of a Party by a covered investment, applies to non-discriminatory measures of general application taken by any public entity in pursuit of monetary and related credit or exchange rate policies. This paragraph shall not affect a Party's obligations under Article 10.9 (Performance Requirements) with respect to measures covered by Chapter Ten (Investment) or under Article 10.8 (Transfers) or 11.10 (Transfers and Payments).

This second exception could be seen as granting nations the flexibility to pursue necessary monetary and exchange rate policy (of which capital account regulations are part). Yet the last sentence in that paragraph specifically excludes transfers.

These provisions were very controversial with the U.S.-Chile and U.S.-Singapore trade treaties in the early 2000s. U.S. trading partners repeatedly asked for a safeguard that would include capital account regulations but the United States has denied that request (Vandevelde 2008). In a few instances, U.S. negotiators granted special annexes that allowed U.S. trading partners to receive an extended grace period before investor-state claims can be filed with respect to capital account regulations, as well as limits on damages related to certain types of controls.

These annexes are still inadequate in the wake of the financial crisis for at least four reasons. First, the annexes still allow for investor-state claims related to capital account regulations—they just require investors to delay the claims for compensation. An investor has to wait one year to file a claim related to capital account regulations to prevent and mitigate crises, but that claim can be for a measure taken during the cooling-off year. The prospect of such investor-state cases could discourage the use of controls that may be beneficial to financial stability.

Second, many other nations' treaties allow for capital account regulations. Indeed, the Canada-Chile FTA, the EU-Korea FTA, the Japan-Peru BIT, and the Japan-Korea BIT (just to name a few) all grant greater flexibility for capital account regulations. This gives incentives for nations to apply controls in a discriminatory manner (applying controls on EU investors but not on U.S. investors).

Third, the IMF has expressed concerns that restrictions on capital controls in U.S. agreements, even those with the special annexes, may conflict with the IMF's authority to recommend capital controls in certain country programs, as they have done in Iceland and several other countries. Finally, the special dispute settlement procedure included in the U.S.-Chile and Singapore FTAs did not become a standard feature of U.S. agreements. It is not in CAFTA, any U.S. BIT, or the recently ratified U.S.-Korea FTA.

Capital Account Regulations and BITs and FTAs for Major Capital Exporters

The EU, Japan, Canada, and increasingly China are major capital exporters. Each of these capital exporters has numerous BITs and FTAs with nations across the world. And loosely, the BITs of these nations have the same general characteristics found in U.S. BITs. However, in the case of the use of capital account regulations to prevent and mitigate financial crises, the BITs and investment provisions of all BITs and FTAs by these exporters either contain a broad “balance of payments” temporary safeguard exception or a “controlled entry” exception that allows a nation to deploy its domestic laws pertaining to capital account regulations.

Examples of the balance-of-payments approach can be found in the EU-South Africa and Mexico FTAs (remember Mexico negotiated such a provision in NAFTA), the Japan-South Korea BIT, and the ASEAN agreements. The Korea-Japan BIT has language that clearly allows for restrictions on both inflows and outflows, presumably inspired by the 1997 crisis. The BIT states:

Box 7: Exception in Korea-Japan BIT

- a. in the event of serious balance-of-payments and external financial difficulties or threat thereof; or
- b. in cases where, in exceptional circumstances, movements of capital cause or threaten to cause serious difficulties for macroeconomic management, in particular, monetary or exchange rate policies

Source: Salacuse 2010, 268.

Another way capital account regulations are treated by capital exporters in FTAs and BITs is referred to as ‘controlled entry’ whereby a nation’s domestic laws regarding capital account regulations are deferred to. Canada and the EU’s FTAs with Chile and Colombia each have a balance-of-payments safeguard and a controlled entry deferment. As an example of controlled entry, the investment chapter of the FTA between Canada and Colombia has an Annex, which states “Colombia reserves the right to maintain or adopt measures to maintain or preserve the stability of its currency, in accordance with Colombian domestic legislation,” and lists specific laws and resolutions in Colombia that pertain to capital account regulations.

Controlled entry provisions are to be found in BITs as well. The EU does not sign many BITs as a union, but individual countries do. The China-Germany BIT

states that transfers must comply with China's laws on exchange controls (Anderson 2009). In the case of China, that nation has to approve all foreign inflows and outflows of short-term capital (see Zhang in this group of essays).

Interestingly, EU member BITs vary a great deal. Some, like the China-Germany BIT and the UK-Bangladesh BIT, allow for a nation to defer to its own laws governing capital account regulations. On the other hand, Sweden and Austria had U.S.-style BITs with no exceptions whatsoever. However, the European Court of Justice ruled in 2009 that Sweden's and Austria's BITs with several developing countries were in violation to their obligations under the EU treaty. While the EU treaty requires EU members to allow for free transfers, it also allows members to have exceptions. The court found that Sweden's and Austria's treaties were incompatible with the EU treaty and that such treaties would need to be renegotiated to include exceptions to the transfer provisions (Salacuse 2010). In 2011, the EU ordered its members to re-negotiate their bilateral investment treaties with developing countries. The predominant reason for their wish to re-negotiate was due to a recent decision of the European Court of Justice (ECJ) regarding the free transfer of capital clauses included in many EU member state BITs. Indeed, the ECJ concluded that these clauses are in contradiction with EU law and need to be re-negotiated. The decision is based on the fact that the EU treaty, while demanding the free transfer of capital, also provides for the possibility to regulate and restrict the free transfer of capital if the economic situation so requires.

OPTIONS FOR REFORM

Reforming treaties in order to grant individual nations and the global community the policy space to deploy capital account regulations to prevent and mitigate financial crises is fairly simple

at the technical level but quite difficult at the political level.

Box 8 outlines the technical measures that could be made to future or existing treaties in order for such treaties to allow nations and the global com-

munity to deploy and coordinate capital account regulations to manage global capital flows in such a manner that enhances financial stability and economic development.

Reforming treaties in order to grant individual nations and the global community the policy space to deploy capital account regulations to prevent and mitigate financial crises is fairly simple at the technical level but quite difficult at the political level.

Box 8: Reforming Trade and Investment Treaties for Capital Account Regulation

National-level

- Draft and pass a law or resolution that allows the nation's financial authorities to put capital account regulations in place during periods of anticipated or actual financial instability.

WTO

- Critically assess the benefits of “listing” cross border trade in financial services (Mode 1) or commercial presence of foreign services (Mode 3) under GATS commitments.
- If a nation chooses to make Mode 1 and Mode 3 commitments, opt for “limiting” such liberalization with exception to national laws regarding capital account regulations.
- If a nation has existing commitments to liberalize their financial sector through Mode 1 or Mode 3, seek clarifying language under the exceptions in the GATS.

FTAs/BITs

- Remove short-term debt obligations and portfolio investments from the list of investments covered in treaties.
- Create ‘controlled entry’ Annexes in BITs and FTAs that provide full exception for when a nation deploys a national law pertaining to capital account regulations.
- Design a balance-of-payments exception that covers both inflows and outflows such as the provisions found in the Japan-South Korea BIT.
- Clarify that the Essential Security exceptions cover financial crises, and that measures taken by host nations are self-judging.
- Resort to a State-to-State dispute resolution process for claims related to financial crises, analogous to the WTO and the other chapters in most FTAs.
- If a nation has an existing FTA or BIT that does not permit capital account regulations, seek to negotiate interpretive notes that clarify existing exceptions in the treaties.

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Task Force Members

Amar Bhattacharya

Director, The Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development (G-24)

Amar Bhattacharya is Director of the Group of 24. The Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development (G-24) was established in 1971 with the objective of helping to articulate and support the position of developing countries in the discussions of the International Monetary Fund, the World Bank, and other relevant fora. Prior to his current position, Mr. Bhattacharya had a long-standing career at the World Bank. His last position was as Senior Advisor and Head of the International Policy and Partnership Group in the Poverty Reduction and Economic Management Network of the World Bank. In this capacity, he was the focal point for the Bank's engagement with key international groupings and institutions such as the G-7/G-8, G-20, International Monetary Fund, Organisation for Economic Co-operation and Development, and the Commonwealth Secretariat. Mr. Bhattacharya has had a long-standing engagement on issues of global governance and reform of the international financial system as well as aid architecture.

Mark Blyth

Professor of International Political Economy, Brown University

Mark Blyth researches how uncertainty and randomness impact economic systems, and how the ideas we have about how such systems work are themselves causally important within them. He was a member of the Anglo-German Warwick Commission on International Financial Reform that made a case for post-crisis macroprudential regulation. He is the author of several books including *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century* (Cambridge University Press, 2002), and most recently, *Austerity: The History of a Dangerous Idea* (Oxford University Press, 2012) that interrogates the return to prominence of financial orthodoxy following the global financial crisis.

Leonardo Burlamaqui

**Program Officer, Ford Foundation and Associate Professor of Economics,
State University of Rio de Janeiro**

Leonardo Burlamaqui has written and published widely on innovation and competition, knowledge governance, development economics, intellectual property rights, globalization and institutional change, and the political economy of global trade and finance. Recent publications include “Intellectual Property, Innovation and Development” published in the *Brazilian Journal of Political Economy* (Fall 2010), and the essay “Governing Finance and Knowledge,” published in the special issue of the *Journal Homo Oeconomicus*, “Schumpeter for Our Time” (Spring 2010). His forthcoming publications include the chapter “From Intellectual Property to Knowledge Governance” (with Mario Cimoli) in J. Stiglitz et al. (eds): *Intellectual Property Rights: Legal and Economic Challenges for Development* (Oxford University Press, 2011), and “Knowledge Governance: An Analytical Perspective and Its Policy Implications,” to be published in Burlamaqui, L., Castro, A.C. and Kattel, R. (eds): *Knowledge Governance: Reasserting the Public Interest* (Anthem Press, 2012).

Gerald Epstein

**Professor of Economics and Founding Co-Director of the Political Economy
Research Institute (PERI) at the University of Massachusetts, Amherst**

Gerald Epstein has written articles on numerous topics including financial regulation, alternative approaches to central banking for employment generation and poverty reduction, and capital account management and capital flows. He also has worked with several UN organizations. Some of his recent work includes “Avoiding Group Think and Conflicts of Interest: Widening the Circle of Central Bank Advice” with Jessica Carrick-Hagenbarth, in *Central Banking*, May 2011 and *Beyond Inflation Targeting: Assessing the Impacts and Policy Alternatives* (Elgar Press, 2009), co-edited with Erinc Yeldan. Professor Epstein is also co-coordinator of SAFER, a group of economists and other analysts working for financial restructuring and reform.

Kevin P. Gallagher

Associate Professor of International Relations, and Faculty Fellow, Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University

Kevin Gallagher is the author of *The Dragon in the Room: China and the Future of Latin American Industrialization* (with Roberto Porzecanski), *The Enclave Economy: Foreign Investment and Sustainable Development in Mexico's Silicon Valley* (with Lyuba Zarsky), and *Free Trade and the Environment: Mexico, NAFTA, and Beyond*. He has been the editor or co-editor for a number of books, including *Putting Development First: the Importance of Policy Space in the WTO and IFIs*, and *Rethinking Foreign Investment for Development: Lessons from Latin America*. Professor Gallagher is also a research associate at the Global Development and Environment Institute at Tufts University. In 2009 he served on the U.S. Department of State Advisory Committee on International Economic Policy.

Ilene Grabel

Professor, Josef Korbel School of International Studies, University of Denver

Ilene Grabel has been a research scholar at the Political Economy Research Institute of the University of Massachusetts since 2007, and was a lecturer at the Cambridge University Advanced Programme on Rethinking Development Economics since its founding. She has worked as a consultant to United Nations Development Programme/International Poverty Centre, United Nations Conference on Trade and Development/G-24, United Nations University—World Institute for Development Economics Research (UNU WIDER), and with Action-Aid and the NGO coalition, “New Rules for Global Finance.” She has published widely on financial policy and crises, the political economy of international capital flows to the developing world, the relationship between financial liberalization and macroeconomic performance in developing countries, central banking, exchange rate regimes, the political economy of remittances and, most recently on the normalization of capital controls and the effect of the global financial crisis on policy space for development. Professor Grabel is co-author (with Ha-Joon Chang) of *Reclaiming Development: An Alternative Policy Manual* (Zed Books, 2004). Grabel also blogs for the TripleCrisis (www.triplecrisis.com).

Stephany Griffith-Jones

**Financial Markets Program Director at the Initiative for Policy Dialogue,
Columbia University**

Stephany Griffith-Jones is a member of the Warwick Commission on Financial Regulation and was a Professorial Fellow, Institute of Development Studies. She has published widely on the international financial system and its reform. Her research interests include global capital flows, with special reference to flows to emerging markets; macro-economic management of capital flows in Latin America, Eastern Europe and sub-Saharan Africa; proposals for international measures to diminish volatility of capital flows and reduce likelihood of currency crises; analysis of national and international capital markets; and proposals for international financial reform.

Rakesh Mohan

**Professor of the Practice of International Economics and Finance at the
School of Management and Senior Fellow, Jackson Institute for Global
Affairs, Yale University**

Rakesh Mohan serves as chairman of the National Transport Development Policy Committee of the Government of India, with rank of Minister of State, (non executive) Vice Chairman of the Indian Institute of Human Settlements; and Senior Adviser, McKinsey Global Institute, McKinsey and Company. He is also a non resident Senior Research Fellow of Stanford University. He has researched extensively in the areas of economic reforms and liberalisation, industrial economics, urban economics, infrastructure studies, economic regulation, monetary policy and the financial sector. He was secretary of the Indian Ministry of Finance, and also Deputy Governor of the Reserve Bank of India between 2002 and 2009. In this capacity he co-chaired the G-20 Working Group “Enhancing Sound Regulation and Strengthening Transparency” (2009), and the Committee on the Global Financial System (CGFS) Working Group on Capital Flows (2008–2009). He is the author of *Monetary Policy in a Globalized Economy: A Practitioner’s View* (Oxford University Press, 2009), which focuses on the issues relating to the evolution of banking and finance, the conduct of monetary policy, the management of the financial sector, and the role of central banking. His latest book is *Growth with Financial Stability: Central Banking in an Emerging Market* (Oxford University Press, 2011).

José Antonio Ocampo

Professor, Director of the Economic and Political Development Program in the School of International and Public Affairs, and Fellow of the Committee on Global Thought, Columbia University

José Antonio Ocampo has held numerous positions at the United Nations and in his native Colombia, including UN Under-Secretary-General for Economic and Social Affairs, Executive Secretary of the UN Economic Commission for Latin America and the Caribbean (ECLAC), and Minister of Finance of Colombia. He has received many distinguished awards, including the 2008 Leontief Prize for Advancing the Frontiers of Economic Thought and the 1988 Alejandro Angel Escobar National Science Award of Colombia. He has published extensively, and his latest books include *Growth and Policy in Developing Countries: A Structuralist Approach*, with Lance Taylor and Codrina Rada (2009), and *Time for a Visible Hand: Lessons from the 2008 World Financial Crisis*, edited with Stephany Griffith-Jones and Joseph E. Stiglitz (2010).

Dani Rodrik

Rafiq Hariri Professor of International Political Economy, John F. Kennedy School of Government, Harvard University

Dani Rodrik has published widely in the areas of international economics, economic development, and political economy. He is the recipient of the inaugural Albert O. Hirschman Prize of the Social Science Research Council in 2007. He has also received the Leontief Award for Advancing the Frontiers of Economic Thought, and honorary doctorates from the University of Antwerp and the Catholic University of Peru. He is affiliated with the National Bureau of Economic Research (Cambridge, Mass.), Centre for Economic Policy Research (London), Center for Global Development, and Council on Foreign Relations, among others.

Shari Spiegel

Senior Economic Affairs Officer, World Economic and Social Survey (WESS) team at the United Nations Department of Social and Economic Affairs, Development Policy and Analysis Division

Shari Spiegel is co-author and co-editor of several of books and articles on capital and financial markets, debt, and macroeconomics. She served as Executive Director of the Initiative for Policy Dialogue (IPD), a think-tank presided over by Joseph Stiglitz at Columbia University. She has extensive experience in the private sector, most recently as a principal at New Holland Capital and as head of fixed-income emerging markets at Lazard Asset Management. She also served as an advisor to the Hungarian Central Bank in the early 1990s.

Arvind Subramanian

Senior Fellow jointly at the Peterson Institute for International Economics and the Center for Global Development

Arvind Subramanian previously served as Assistant Director in the Research Department of the International Monetary Fund. During his career at the Fund, he worked on trade, development, Africa, India, and the Middle East. He served at the GATT (1988–1992) during the Uruguay Round of trade negotiations, and taught at Harvard University's Kennedy School of Government (1999–2000) and at Johns Hopkins' School for Advanced International Studies (2008–2010).

He has written on growth, trade, development, institutions, aid, oil, India, Africa, the WTO, and intellectual property. He has published widely in academic and other journals and has also published or been cited in leading magazines and newspapers. He is currently a columnist for India's leading financial daily, *Business Standard*. He advises the Indian government in different capacities, including as a member of the Finance Minister's Expert Group on the G-20. He is the author of *India's Turn: Understanding the Economic Transformation* (Oxford University Press, 2008) and the forthcoming book *Eclipse: Living in the Shadow of China's Economic Dominance*. He is co-editor of *Efficiency, Equity, and Legitimacy: The Multilateral Trading System at the Millennium* with Roger Porter and Pierre Sauvé (Brookings/Harvard University Press, 2002).

Shinji Takagi**Professor of Economics, Osaka University**

Shinji Takagi has taught at Osaka University since 1990. He has held numerous professional appointments, including: Economist at the International Monetary Fund (1983–1990); Senior Economist, Japanese Ministry of Finance (1992–1994); Visiting Professor of Economics, Yale University (2000–2001); advisor in the IMF Independent Evaluation Office (IEO, 2002–2006); Macro-Financial Expert at the Asian Development Bank (2007–2008; 2009–2010); Visiting Fellow at the ADB Institute (2007–2009); and consultant for ASEAN central banks (2010–2011). He is a specialist in international monetary economics and has authored or co-authored more than 100 publications, including books, articles in international journals, and book chapters. While at the IEO, he managed a project to evaluate the IMF's approach to capital account liberalization; while at the ABD Institute, he collaborated with Mario Lamberte and Masahiro Kawai on a project on managing capital flows in Asia.

Ming Zhang**Senior Research Fellow and Deputy Director of Department of International Finance, Institute of World Economics and Politics (IWEP), Chinese Academy of Social Science (CASS)**

Ming Zhang is also the Deputy Director of the Research Center for International Finance (RCIF) of CASS. His research covers international finance and Chinese macro-economy. In the past several years his fields of interest have included the global financial crisis, management of China's foreign exchange reserves, cross-border capital flow, and RMB internationalization. He is the author of six books and more than 60 papers in academic journals. He also writes columns for newspapers and magazines. Before joining in IWEP, he worked as an auditor in KPMG, and a PE fund manager in Asset Managers Group, a Japanese listed company.

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The Frederick S. Pardee Center for the Study of the Longer-Range Future at Boston University serves as a catalyst for studying the improvement of the human condition through an increased understanding of complex trends, including uncertainty, in global interactions of politics, economics, technological innovation, and human ecology. The Pardee Center's perspectives include the social sciences, natural science, and the humanities' vision of the natural world. The Center's focus is defined by its longer-range vision. Our work seeks to identify, anticipate, and enhance the long-term potential for human progress—with recognition of its complexity and uncertainties.

Occasionally, the Pardee Center convenes groups of experts on specific policy questions to identify viable policy options for the longer-range future. The Pardee Center Task Force Reports present the findings of these deliberations as a contribution of expert knowledge to discussions about important issues for which decisions made today will influence longer-range human development.

Pardee Center Task Force on Regulating Global Capital Flows for Long-Run Development

The Pardee Center Task Force on Regulating Global Capital Flows for Long-Run Development was convened on behalf of the Pardee Center's Global Economic Governance Initiative by Kevin P. Gallagher, Associate Professor of International Relations at Boston University, along with Stephany Griffith-Jones and José Antonio Ocampo of the Initiative for Policy Dialogue (IPD) at Columbia University. The Task Force is co-sponsored by IPD and the Global Development and Environment Institute at Tufts University. The Task Force, which includes leading scholars and practitioners from across the globe, first met at Boston University in September 2011. The goal of the Task Force and this report is to contribute expert knowledge to the debate among national and global policymakers and other economists concerning whether and how nations can use what have been traditionally referred to as capital controls (which we classify as 'capital account regulations' or CARs) to prevent and mitigate financial crises caused by short-term speculative capital flows in developing countries.

Based on discussions among members, this report posits that there is a clear rationale for capital account regulations in the wake of the financial crisis, that the design and monitoring of such regulations is essential for their effectiveness, and that a limited amount of global and regional cooperation would be useful to ensure that CARs can form an effective part of the macroeconomic policy toolkit. The protocol for deploying capital account regulations in developing countries that is put forth in this report stands in stark contrast to a set of guidelines for the use of capital controls endorsed by the board of the International Monetary Fund (IMF) in March 2011. However, the Task Force's recommendations are more in sync with the set of "coherent conclusions" on capital account regulations endorsed by the G-20 in November 2011. Our hope is that this Pardee Center Task Force Report will help inform the discussions and decisions of policymakers and the IMF as they move forward on this issue under the rubric of the G-20 recommendations.

Pardee House
67 Bay State Road
Boston, Massachusetts 02215
www.bu.edu/pardee

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