



中国人民银行
THE PEOPLE'S BANK OF CHINA

IMF and PBC Joint Conference on
Capital Flows Management
Lessons from International Experience

EDITORS
Markus Rodlauer and Papa N'Diaye

S U M M A R I E S A N D P R E S E N T A T I O N S



IMF and PBC Joint Conference on
Capital Flows Management: Lessons from International Experience

March 20, 2013
Ritz Carlton Beijing, Financial Street
China

SUMMARIES AND PRESENTATIONS

EDITORS
Markus Rodlauer and Papa N'Diaye

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Foreword

Zhou Xiaochuan

Governor, People's Bank of China

Capital flow management is a very timely and important topic for all emerging market countries, including China. On behalf of the People's Bank of China, I sincerely welcome all of you to Beijing to participate in the "Capital Flow Management: International Experience" symposium jointly sponsored by the People's Bank of China and the International Monetary Fund.

In the wake of economic globalization and financial deregulation in recent years, international capital flows have further accelerated, resulting in the appearance of many new situations and problems, and correspondingly affecting and impacting the economic development of the countries concerned. In particular, during the current process of responding to the international financial crisis, the unconventional monetary policies commonly adopted by developed countries have created certain cross-border capital volatility pressures for other countries and presented various countries with great macroeconomic management challenges, making the discussion of this issue very necessary.

Over the last twenty years, China has worked hard in the area of renminbi capital account convertibility, and has achieved significant progress. In 1993, China established the long-term objective of renminbi convertibility; in 1996, we achieved current account convertibility and accepted the IMF's Article VIII obligations. Although progress in capital account convertibility was temporarily interrupted by the Asian financial crisis, it has accelerated since 2000. In the past dozen years or so, China has essentially lifted controls on foreign direct investment (FDI) and outward direct investment (ODI), and unveiled measures including those for Qualified Foreign Institutional Investors (QFII), Qualified Domestic Institutional Investors (QDII), and Renminbi Qualified Foreign Institutional Investors (RQFII). Going forward, China's new government will continue to advance capital account convertibility. The achievement of capital account convertibility is an inherent requirement of an open market economy, and China's willingness and determination to strive toward this objective are very clear. At the same time, we will also continue to adopt the necessary macroprudential control measures, and regulate and control money laundering, terrorist financing and abnormal capital flows.

In the last two years, the Fund has undertaken a series of studies regarding capital flow management, has summarized the experience and lessons learned by various countries in the deregulation of capital accounts, and, at the end of 2012, the institutional view regarding capital flow management took shape, which explicitly allows countries to adopt capital flow management measures under certain circumstances. We endorse this view.

Finally, I would like to thank the experts participating in the symposium, and the IMF for its efforts in organizing this conference. The discussions in this conference will help us understand the relevant experiences and lessons learned by various countries, and will help all of you to understand China's practices and the direction of its reforms.

Introduction

Markus Rodlauer

Deputy Director, International Monetary Fund

Five years after the Global Financial Crisis, the question of how countries should best manage cross-border capital flows remains front and center in the global economic policy debate. It is particularly relevant for emerging markets that are working to reform and open up further their financial markets, and where policy makers worry how those reforms might interact with often volatile capital flows. And the challenge is no doubt compounded by the exceptionally easy global liquidity conditions that have been adding a temporary ‘push factor’ to the fundamental attraction that emerging markets radiate in global capital markets.

In a nutshell, for a country like China—a country on a path of market-oriented reforms and opening up that has produced unprecedented growth—the question is not whether to liberalize further its capital account, but how best to do it. After all, the path of opening up in other countries—while unequivocally beneficial overall—has also been littered with dozens of accidents and crises, and policy makers are therefore well advised to look at the experience elsewhere and see what has worked well and what hasn’t.

Against this background, the IMF joined with the Peoples Bank of China earlier this year for an international conference that brought together senior Chinese government officials with representatives from eleven emerging market economies that had opened up their capital accounts. The conference, which also included academics, market participants, and IMF expert staff, discussed a range of topics centered on the particular experiences of those countries—how they often struggled to deal with unintended consequences and crises; how successful they were, and why, in securing the benefits capital flows while minimizing the risks; and what lessons can be drawn from their experience.

This *e-book* puts together the contributions made by the participants at the conference. They represent an invaluable testimony, from the senior policy makers involved, of the often dramatic stories of each country’s experience in opening up. The *e-book* also presents the various important analytical contributions made at the conference, as well as the observations and reactions of the senior Chinese government officials, academics, and members of policy think tanks who participated. Taking advantage of the somewhat more flexible format and technology of an electronic publication, the *e-book* includes the participants’ presentations (mostly power-point) as given at the conference, prefaced by brief written summaries. As such, and with the relatively brief time period elapsed since the conference, this compendium provides a unique perspective of the complex and challenging task faced by policy makers, and a crisp, vivid, and highly relevant set of experiences and policy lessons on managing the process of capital account liberalization.

As is often the case, the conference would not have taken place, and this *e-book* would not exist, without the contributions and support of so many that it is impossible to thank them all. Let me highlight just a few in representation of the many. First, our gratitude goes to the Peoples Bank of China who agreed to co-host the conference, and in particular to Governor Zhou for supporting the initiative and hosting the conference dinner, as well as to Kai Guo and his staff in the IMF division of the PBOC's international department for their unwavering, patient, and most effective support. Second, a special word of thanks is due to Papa N'Diaye and Imel Yu in the IMF's China division for providing everything on the Fund's side, from intellectual leadership on the agenda to background analytical work and the mountain of administrative tasks to stage the conference and produce this *e-book*. And last, but not least, a sincere thank you to all our participants who invariably prepared well, brought the issues alive at the conference, and were most gracious in their timely submissions of their *e-book* contributions.

We hope that you will enjoy this *e-book* and find it useful.

Agenda

CAPITAL FLOWS MANAGEMENT: LESSONS FROM INTERNATIONAL EXPERIENCE

IMF-PBC CONFERENCE

MARCH 20, 2013

Ritz Carlton Beijing Financial Street
1 Jin Cheng Fang Street East, Financial Street
Beijing, China

Tuesday, March 19

7:00 pm Dinner hosted by the IMF

Wednesday, March 20

7:15–8:00 Registration

8:00–8:15 Welcome and Opening Remarks

Governor ZHOU Xiaochuan, PBC

8:15–9:00

SESSION I: Background—China: Where Do We Stand?

This introductory presentation will provide a brief overview of China's capital account regulations and flows, including the history of key steps toward liberalization and the size and direction of cross border flows. The session will also provide an overview of where China stands relative to other countries.

Speakers:

Mr. GUAN Tao, SAFE
Mr. Steven Barnett, IMF

9:00–10:15

SESSION II: Other Economies' Experience with Liberalizing Capital Account, Part I.

This session will review the experience of select economies in reforming their capital flow management systems, with a focus on the implications of the reforms for short-term macroeconomic management.

Moderator: Mr. Markus Rodlauer, IMF

Speakers:

Mr. Ryszard Kokoszcyński, National Bank of Poland

Mr. Subir Gokarn, India

Mr. Woon Gyu Choi, Bank of Korea

Mr. Turalay Kenc, Central Bank of Turkey

10:15–10:30

Coffee Break

10:30–11:45

SESSION II: Other Economies' Experience with Liberalizing Capital Account, Part II.

This session will review the experience of select economies in reforming their capital flow management systems, including in related areas such as domestic financial reforms and the exchange rate system.

Moderator: Mr. JIN Zhongxia, PBC

Speakers:

Mrs. Karnit Flug, Bank of Israel

Mr. Ismail Momoniat, Treasury Department, South Africa

Mr. Pablo Garcia-Silva, Chile

Mr. Joaquim Levy, Brazil

12:00–13:30

Lunch

Speaker: *Mr. Andrew Sheng, Fung Global Institute*

“Back to Fundamentals: Financing Asia’s Growth in a Sea of Global Cross-Currents”

13:30–14:15

SESSION III: The IMF’s ‘Institutional View’ on Management of Capital Flows

The Fund has recently reached an ‘institutional view’ on capital flows and policies related to them. The session will present this view, and look at some possible implications for China.

Moderator: Mr. GUAN Tao, SAFE

Speakers:

Mr. Vivek Arora, IMF

Mr. JIN Zhongxia, PBC

14:15–15:30

SESSION IV: China—Options, Risks and Spillovers, Part I
Sequencing and Coordination with Financial Sector and Exchange Rate Policies

This session will look at the various options that China now faces as it continues to reform its management of capital flows. This session will review the experience of other countries with particular focus on the linkages with other financial and financial sector policies such as domestic interest rate liberalization, prudential regulation and oversight, and exchange rate policy.

Moderator: Mr. HE Jianxiong, PBC

Speakers:

Mr. Lars Nyberg, Riksbank, Sweden
 Ms. Ratna Sahay, IMF
 Mr. HE Fan, CASS

Discussants:

Mr. Peter Garber, Deutsche Bank
 Mr. Jonathan Anderson, Emerging Advisors Group
 Prof. BAI Chong-En, Tsinghua University
 Mr. QI Bin, CSRC

15:30–15:45

Coffee Break

15:45–17:00

SESSION IV: China—Options, Risks and Spillovers, Part II

This session will look at China's policy options going forward, taking into account the different benefit-risk tradeoffs involved, as well as the potential spillovers (inward and outward) that bear watching. Again, the lessons from other countries' experiences, particularly on how to ensure orderly flows, should provide useful insights for the discussion.

Moderator: Mr. Steven Barnett, IMF

Speakers:

Prof. Eswar Prasad, Cornell University and Brookings Institution
 Mr. LI Bo, PBC

Discussants:

Mr. Jun MA, Deutsche Bank
 Mr. Ray Jovanovich
 Prof. LU Feng, Peking University

17:00–18:00

SESSION V: Concluding Roundtable

A panel discussion that draws the main conclusions from the day's discussions. Panel members will summarize their main take-aways, with focus on lessons that may be particularly relevant for China's next steps.

Moderator: Mr. Dong HE, HKMA

Panelists:

Mr. HE Jianxiong, PBC

Mr. Nick Lardy, Peterson Institute for International Economics

Prof. Eswar Prasad, Cornell University and Brookings Institution

Mr. Joaquim Levy, Brazil

Mr. Markus Rodlauer, IMF

18:00–18:15

Closing Remarks

Mr. Markus Rodlauer, IMF

18:30–20:30

Dinner hosted by PBC

SESSION I



Opening up of China's Capital Account: Where Do We Stand?

Moving Towards Full RMB Capital Account Convertibility: Retrospect and Prospect

GUAN Tao

A. What has China Done?

Prior to 1978, under a highly-centralized exchange control system, there were no external borrowings and FDI inflows in China. Since 1978, the sequencing of RMB capital account convertibility has been following conventional principles. Progress so far can be broken down into three major stages.

Initial stage (1978-1997): Capital flow liberalization (CFL) was launched together with trade liberalization, as both were crucial to China's opening-up strategy. A framework of full current account convertibility and partial capital account convertibility was gradually formulated, with an aim to encourage capital inflows but not capital outflows, to stimulate long-term direct investment but not short-term debt-creating investment, and to facilitate institutional investment but not personal investment. China unified the dual exchange rate regime at the beginning of 1994, and achieved full RMB current account convertibility at the end of 1996.

Consolidating stage (1998-2000): A capital flow reversal was triggered by the contagion effect of the Asian financial crisis. Process of CFL was temporarily suspended with selectively strengthening of controls on capital outflows.

Accelerating stage (2001-present): In 2001, the world economy stepped out of the shadow of the Asian financial crisis, and China got full membership to the World Trade Organization. Since then, China has committed to speeding up the improvement of market-oriented economic system. In the past decade, China experienced persistent twin surpluses in BOP and rapid accumulation of foreign reserves. Against this background, CFL was expanded from direct investment to portfolio investment and from capital inflows to capital outflows as well. In 2006, the compulsory requirement on surrendering of foreign exchange by domestic entities was de facto removed. In 2009, the cross-border RMB settlement business was launched.

B. Where is China Standing?

De jure capital account convertibility has been improved dramatically. According to the IMF's classification of capital account, about 80% of all 40 items have already become convertible in different degree. The prohibited ones are mainly those involving capital and money market instruments, derivatives, and personal capital transactions.

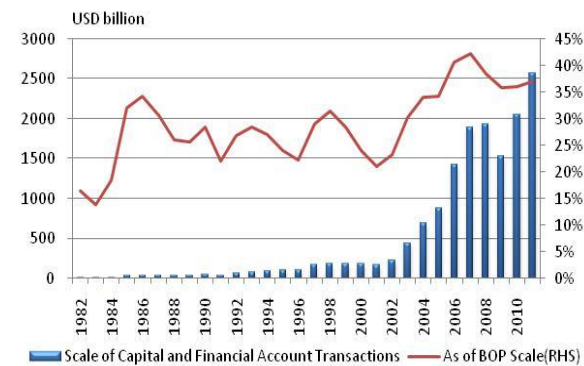
De facto capital account convertibility is much higher due to full current account convertibility, close economic and financial linkages with outside world especially with

Hong Kong SAR, and large numbers of overseas Chinese as well as foreign-funded enterprises.

The mobility of cross-border capital flows has been increasing rapidly. From 1982-2011, the share of capital flows in BOP transactions surged from 16.4% to 37.1%. Financial openness, measured by the sum of gross external assets and liabilities as share of GDP, reached 105% in 2011, an increase of more than 20 percentage points in seven years. Net capital inflows, especially net FDI inflows, played an important role in accumulating FX reserves. As the second largest net external creditor in the world, China becomes not only a major capital importer but also an important capital exporter. Major components of external liabilities and assets are in the form of FDI and FX reserves respectively, which leads to China's structural investment income deficit.

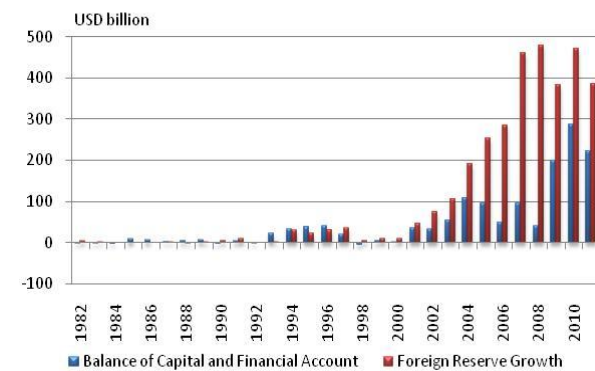
Furthermore, China has successfully avoided debt crisis and currency crisis in the course of CFL. Some emerging economies had very often suffered seriously from home rooted and externally induced crises after their implementation of CFL. Appropriate sequencing of CFL makes China more resilient rather than more vulnerable to external shocks.

Figure 1: Surging share of capital flows in BOP Transactions



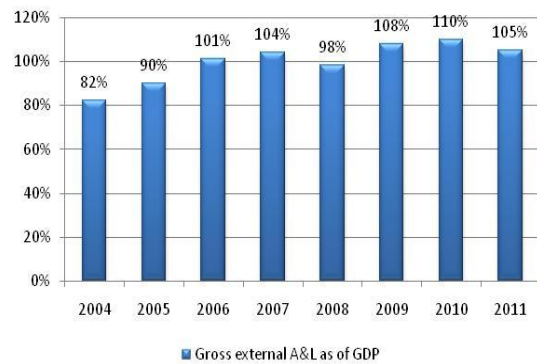
Source: SAFE of China.

Figure 3: Main driver for foreign reserve accumulation



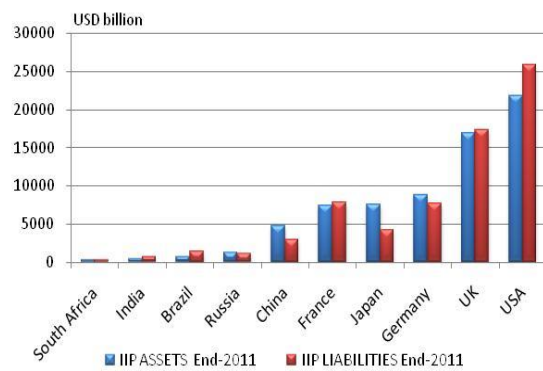
Source: SAFE of China.

Figure 2: Increasing Financial Openness



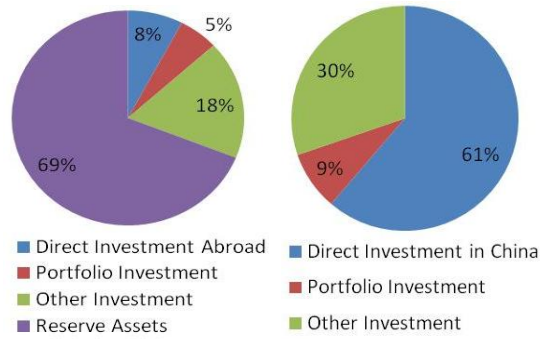
Sources: SAFE and NSB of China.

Figure 4: Major capital importers and exporters



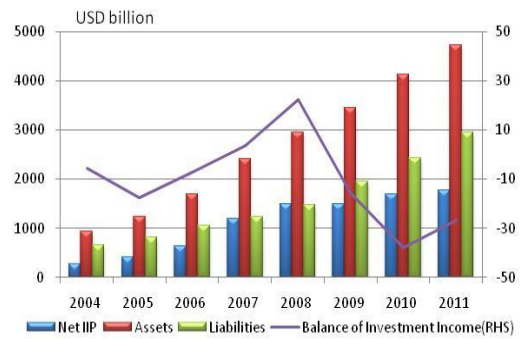
Source: SAFE of China.

Figure 5: Structure of external liabilities and assets (2011)



Source: SAFE of China.

Figure 6: Structural deficit under investment income



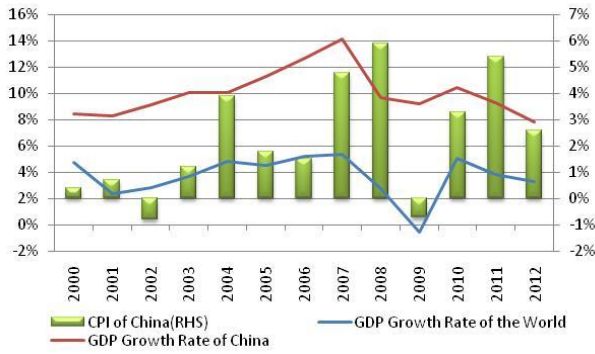
Source: SAFE of China.

C. Where is China Going To?

China has made a concrete political commitment to achieve RMB capital account convertibility. In 2003, China formally raised the issue of RMB capital account convertibility. Both the 11th and 12th five-year plans clearly state the achievement of RMB capital account convertibility as policy objectives. In 2012, the 18th National Congress of the CCP emphasized this objective again. Further CFL is an important part of China's efforts to build up a moderately prosperous society (Xiao-kang society) in all respects by the end of 2020, which is characterized as significant achievement in shifting economic development model and improving market-based economic system.

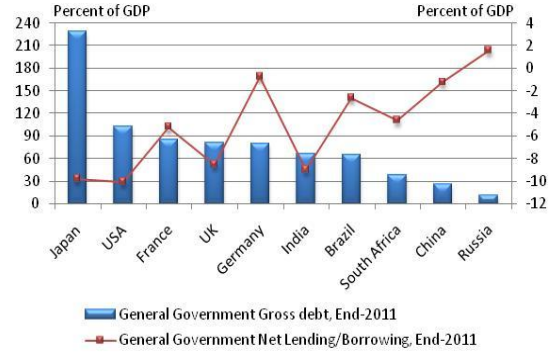
Nowadays, the preconditions are much more favorable in China compared to those in some other economies when they announced full CFL. China's economy maintains a rapid growth with a moderate inflation rate. China's fiscal status is solid by international standards. The employment situation is generally stable with a low unemployment rate in the past decade. Adequate international liquidity enhances China's counter-risk capacity. China's macro-economic management system has been improving and the economic development becomes more stable. China has taken steady steps to make interest rates more market-based and the scope for banks to adjust interest rates has been expanded. The reform of exchange rate regime has been progressing and the central bank intervened less in the FX market in 2012. Bank and enterprise reform has made remarkable achievements, which make them more efficient and resilient. The number of listed companies grows fast with four major state-owned commercial banks becoming publicly listed.

Figure 7: Rapid economic growth with moderate inflation



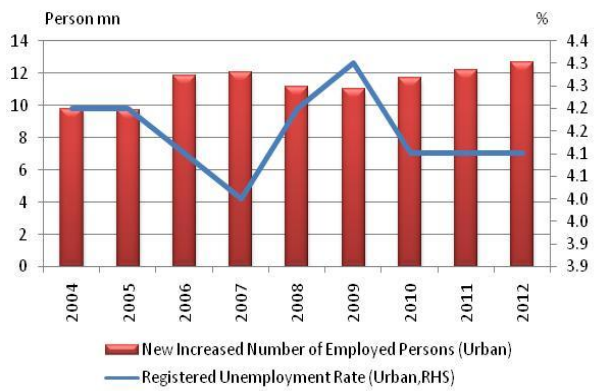
Source: NSB of China.

Figure 8: Healthy fiscal status



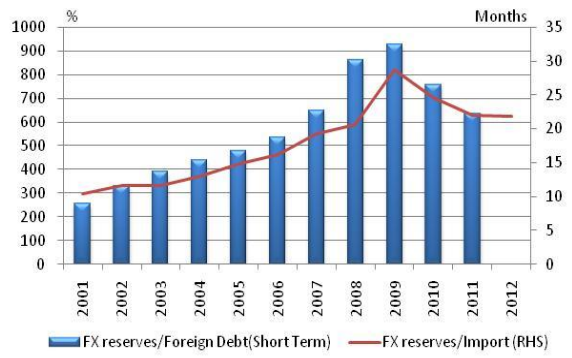
Source: IMF; NSB of China.

Figure 9: Continuous creation of employment opportunities



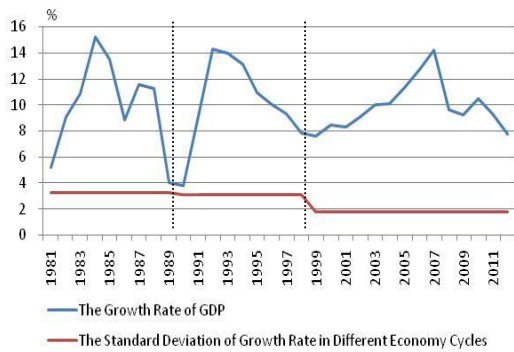
Source: NSB of China.

Figure 10: Adequate international liquidities



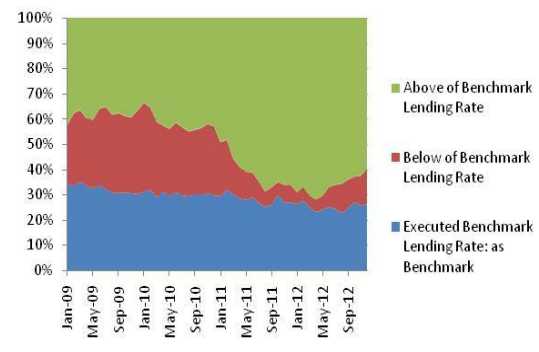
Sources: SAFE and GAC of China.

Figure 11: Decreasing economic fluctuation



Source: NSB of China.

Figure 12: More market-based interest rates



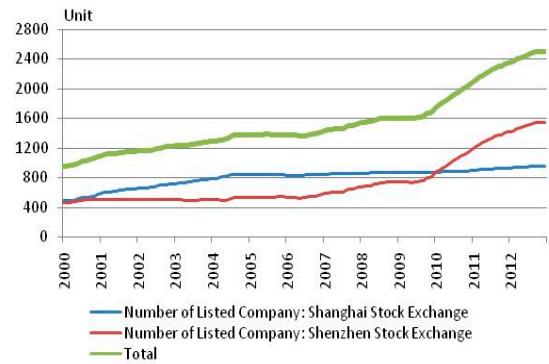
Source: PBC of China.

Figure 13: RMB exchange rate becoming more market oriented



Sources: PBC, SAFE and NSB of China.

Figure 14: Number of Public companies growing fast



Source: CSRC of China.

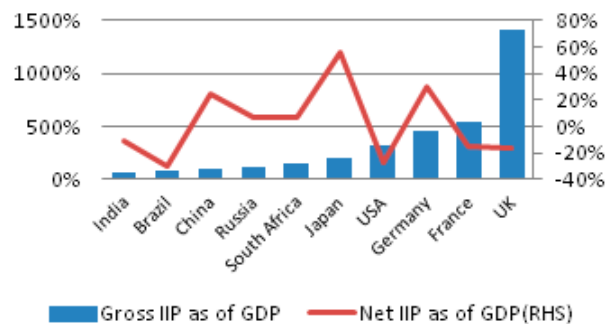
The external environment is also favorable to China's reform as international society becomes friendlier to cautious CFL, and to proper capital flow management measures (CFMs) as well as macro-prudential measures (MPMs). China could achieve convertibility with administrative measures replaced by market-based instruments. Temporary capital controls can be resumed in special cases.

In 1990s, China achieved RMB current account convertibility by two steps with partial convertibility at the beginning of 1994 and full convertibility at the end of 1996. Drawing lessons from this experience, in my personal view, a two-step approach towards RMB capital account convertibility might be an option for China.

First step: China could accomplish basic or partial RMB capital account convertibility in a few years. By removing restrictions on the remaining strictly controlled capital transactions, China could achieve a relatively high degree of capital account convertibility. At this stage, no capital transaction, other than few exceptions, is prohibited. The degree of openness and supervisory requirements may be different under different transactions. Some CFMs will be retained but relaxed dramatically.

Appropriate supervisory measures are needed, including national security protection, anti-monopoly, anti-money laundering, anti-terrorist financing, anti-tax evasion, macro-prudential measures (MPMs), price tools such as financial transaction tax (FTT), reporting requirements, BOP provisional safeguard measures, etc.

Figure 15: Large room for further liberalization in China (end-2011)



Sources: IMF; SAFE and NSB of China.

Second step: in another couple of years, China could announce full capital account convertibility of the RMB with remaining CFMs replaced by MPMs.

D. Conclusions

An appropriate sequencing is critical to a successful CFL story. The sequencing in the liberalization among different capital transactions, as well as between internal and external sectors, has to be put in right order. China was lucky as she made the right choice at the right time with clear Chinese characters.

Looking forward, reform is of the largest benefit to China. Further liberalization in capital flows will benefit both China and the rest of the world.

CFL does not mean no regulation. Appropriate supervisory measures and monitoring should be in place to help us reaping benefit while reducing cost of free capital flows.

It makes no sense to liberalize capital flows only for the purpose of CFL. Any further CFL should move together with other reforms in internal sector under a comprehensive package, which would make the CFL more credible, predictable and sustainable.

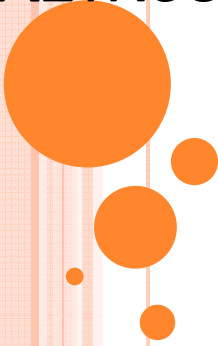
Chronicle of events on RMB capital account convertibility

1978	Introducing FDI
1979	Introducing ODI
1982	Allowing domestic entities to issue foreign currency bonds outside China
1991	Launching foreign currency settled stock market (or special RMB denominated share market, i.e. B-share market) for foreign investors
1993	Allowing domestic entities to issue stocks abroad
1994	Unifying the dual exchange rate regime by introducing a market-based, managed floating regime
1996	Phasing out exchange restrictions under current account
1998	Introducing electronic import-payment verification system for striking against fraud purchasing FX
1998-2000	Reiterating the requirement on capital account related payments of using own FX before purchasing FX
2001	Giving resident individuals access to B share market
2002	Introducing QFII schemes
2004	Allowing international development institutions to issue RMB denominated bonds in domestic market
2004	Deregulating external lending by domestic enterprises to their foreign related entities
2005	Allowing domestic entities to issue RMB denominated bonds in Hong Kong market

2006	Introducing QDII schemes
2006	Phasing out compulsory requirement on surrendering of foreign exchange by domestic entities
2006	Imposing restrictions on property purchase by foreign entities
2006	Removing quota limit for ODI on purchasing foreign currencies
2009	Allowing qualified enterprises to lend overseas their own foreign exchange or FX purchased using RMB
2009	Launching pilot project on cross-border RMB settlement business in trade
2010	Launching pilot project in allowing qualified domestic export enterprises to open deposit account offshore
2011	Introducing RQFII schemes
2012	Abolishing approval requirement for external lending by domestic enterprises on purchasing foreign currencies
2012	Removing many prior approval requirements for ODI and FDI transactions

Source: PBC and SAFE of China.

MOVING TOWARDS FULL RMB CAPITAL ACCOUNT CONVERTIBILITY: RETROSPECT AND PROSPECT



Tao GUAN, Director-general, BOP Department, SAFE
*Capital Flows Management: lessons from international
experience*, IMF-PBC Conference
Beijing, China
March 20, 2013

OUTLINE

- **What has China done?**
- **Where is China standing?**
- **What will China do?**

The views expressed in this presentation are those of the author and do not necessarily reflect the views of the PBC or SAFE.

WHAT HAS CHINA DONE?

- Before 1978, there were no external borrowings and FDI inflows.
- Sequencing of RMB capital account convertibility has been following conventional principles. Progress so far can be broken down into three major stages.

3

WHAT HAS CHINA DONE?

- **Initial stage (1978-1997):**
 - ◆ Capital account liberalization was launched together with trade liberalization, as both were crucial to the opening-up strategy.
 - ◆ A framework of full current account convertibility and partial capital account convertibility was gradually formulated, with an aim to encourage capital inflows but not capital outflows, to stimulate long-term direct investment but not short-term debt-creating investment, and to encourage investment by companies but not by individuals.

4

WHAT HAS CHINA DONE?

- Introducing FDI (1978)
- Introducing ODI (1979)
- Restricting debt inflows by quota control on external borrowings
- Restricting portfolio investment by segmenting domestic capital market from overseas market
 - Launching foreign currency settled stock market (or special RMB-denominated share market, i.e. B-share market) for foreign investors (1991)
 - Allowing domestic entities to issue foreign currency bonds (1982) and stocks (1993) outside China
- Phasing out exchange restrictions under current account (1996)

5

WHAT HAS CHINA DONE?

- **Consolidating stage (1998-2000):**
 - ◆ A capital flow reversal was triggered by the contagion effect of the Asian financial crisis.
 - ◆ Process of capital account liberalization was temporarily suspended with selectively strengthening of controls on capital outflows.

6

WHAT HAS CHINA DONE?

➤ **Accelerating stage (2001- present):**

- ◆ After entry into WTO in 2001, China was committed to improve market-oriented economic system.
- ◆ China had been experiencing persistent twin surpluses and rapid accumulation of foreign reserves in recent years.
- ◆ The framework for a two-way management of cross-border capital flows has been gradually established.
 - Standardizing cross-border M&A and round-trip FDI (2004)
 - Removing exchange restrictions on ODI (2007)
 - Introducing QFII (2003) & QDII schemes (2005); total quota approved by SAFE reached USD40bn and USD85.5bn respectively (by the end of Jan,2013)

7

WHAT HAS CHINA DONE?

- Allowing international development institutions to issue RMB denominated bonds in domestic market (2004)
- Allowing domestic entities to issue RMB denominated bonds in Hong Kong market (2005)
- Deregulating external lending by domestic enterprises to their foreign related entities (2004)
- Giving resident individuals access to B share market (2001)
- Relaxing compulsory requirement on repatriation and surrendering of foreign exchange by domestic entities (2006)

8

WHAT HAS CHINA DONE?

- Imposing restrictions on foreign investment in domestic property market (2006)
- Introducing electronic export-receipt verification system with integrated databases of the customs, banks and SAFE (2008)
- Removing quota limit for ODI on purchasing foreign currencies (2006)
- Removing approval requirement for FDI by the SAFE (2009)
- Allowing qualified enterprises to lend overseas their own foreign exchange or FX purchased using RMB (2009)
- Introducing RQFII schemes (2011); the quota approved by SAFE reached RMB70bn by the end of Jan, 2013.

9

WHERE IS CHINA STANDING?

- Significant progress has been made in RMB capital account convertibility.
 - De jure capital account convertibility has been improved dramatically. According to the IMF's classification of capital account, about 80% of all the items have already become convertible in different degree. The prohibited transactions are mainly focusing on capital and money market instruments, derivatives, and investment conducted by individuals.
 - De facto capital account convertibility is much higher due to full convertibility under current account, close economic and financial linkages with Hong Kong, and large numbers of overseas Chinese as well as domestic foreign-funded enterprises.

10

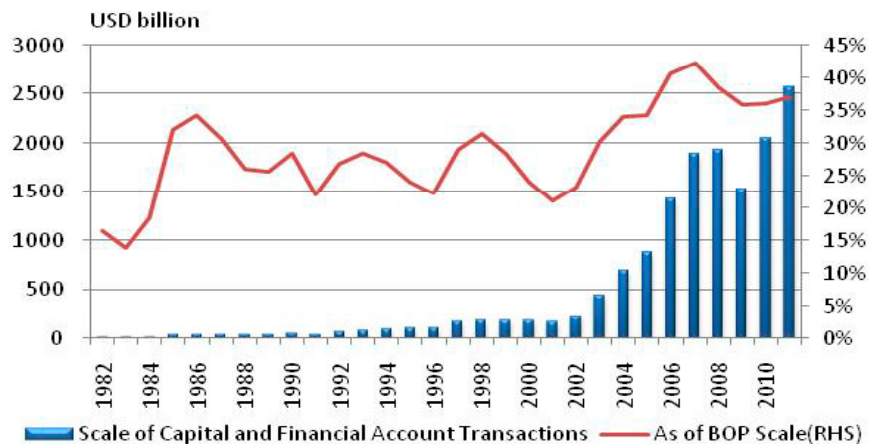
WHERE IS CHINA STANDING?

- The mobility of cross-border capital flows has been increasing dramatically.
- China has successfully avoided debt crisis and currency crisis in the course of capital account liberalization, while some other emerging economies suffered seriously from time to time.

11

WHERE IS CHINA STANDING?

Surging share of capital flows in BOP transactions

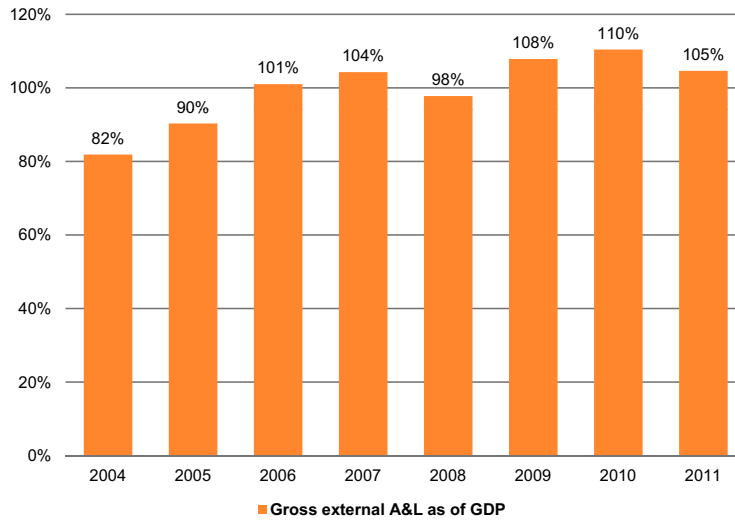


Sources: SAFE China.

12

WHERE IS CHINA STANDING?

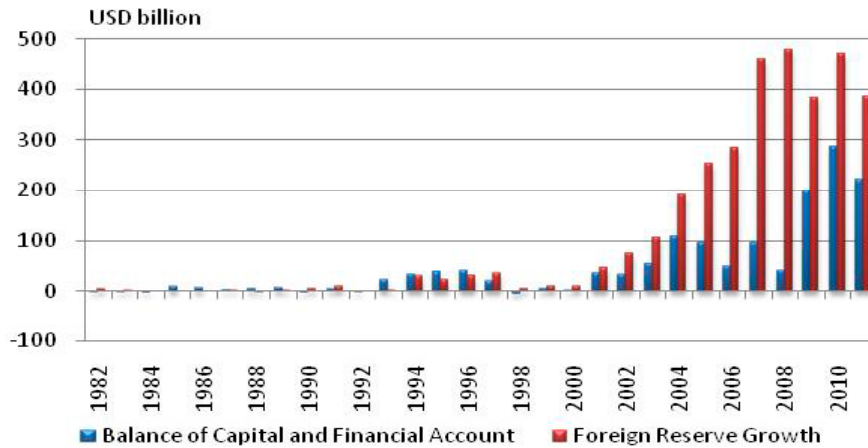
Increasing capital flows as of GDP



Sources: SAFE China.

WHERE IS CHINA STANDING?

Main driver for foreign reserve accumulation

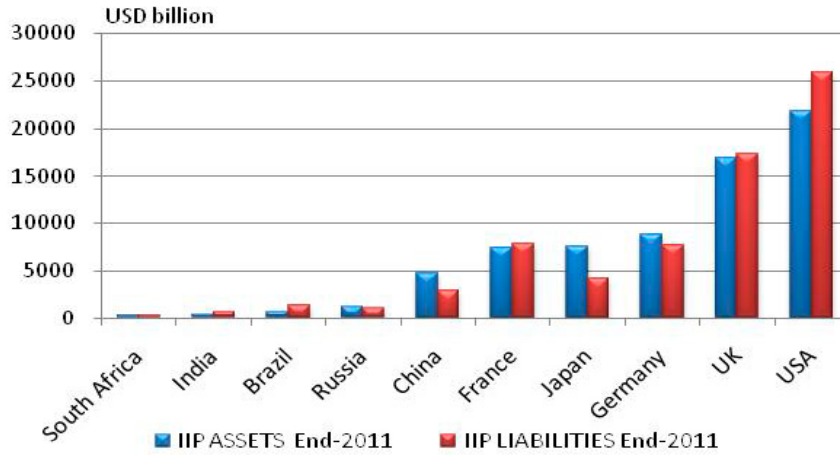


Note: The growth of foreign reserves in the graph is due to international transactions, not including valuation effects.

Sources: SAFE China.

WHERE IS CHINA STANDING?

Major capital importer and capital exporter

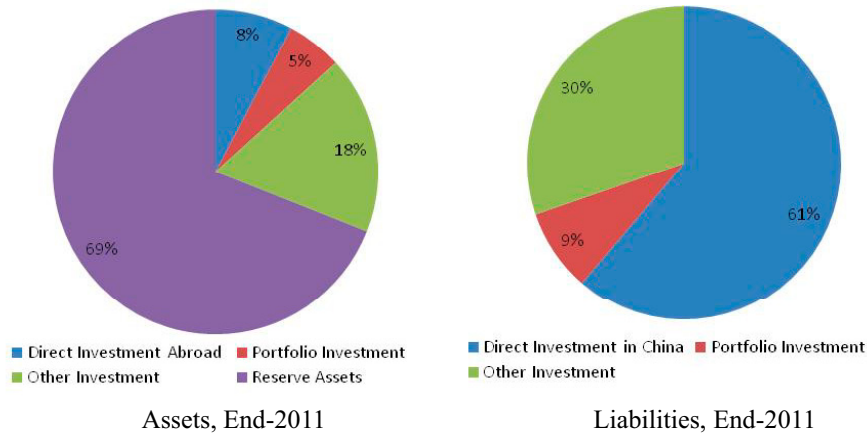


Sources: IMF IFS.

15

WHERE IS CHINA STANDING?

Different structure of external liabilities and assets

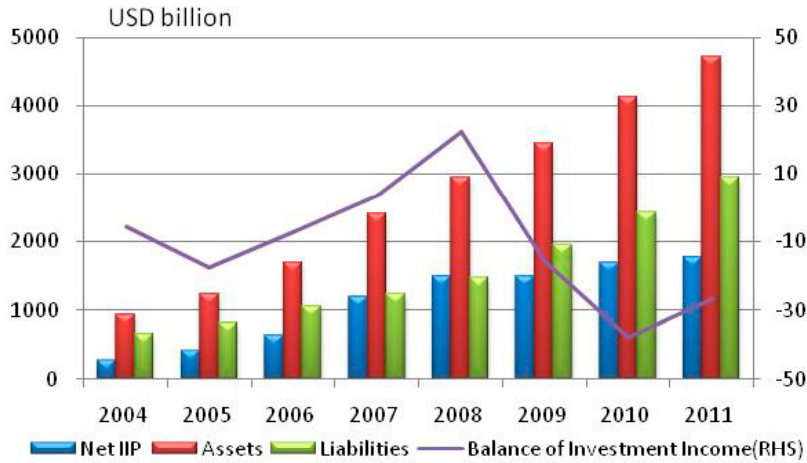


Sources: SAFE China.

16

WHERE IS CHINA STANDING?

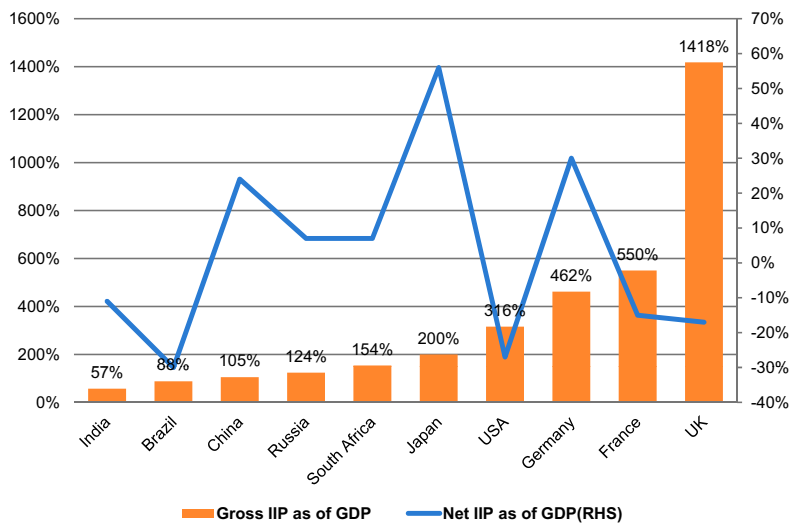
Structural deficit under investment income



Sources: SAFE China.

WHERE IS CHINA STANDING?

Large room for further liberalization in China (end-2011)



Sources: SAFE China.

WHAT WILL CHINA DO?

- Conditions for further RMB capital account convertibility are becoming mature.
- China has made a concrete political commitment to achieve RMB capital account convertibility.
 - In 2003, China formally raised the issue of RMB capital account convertibility.
 - Both the 11th and 12th five-year plans clearly state the achievement of RMB capital account convertibility as policy objectives.
 - In 2012, the 18th National Congress of the CCP emphasized this objective again.

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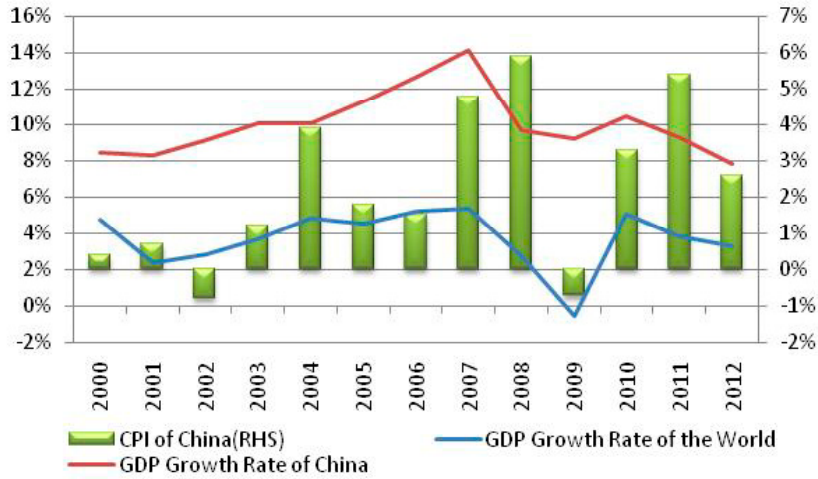
WHAT WILL CHINA DO?

- The preconditions are much more favorable in China compared to those in some other economies when they announced full capital account liberalization.
- No full capital account convertibility exists in real world. China can achieve convertibility with administrative measures replaced by market-based instruments, as well as resuming temporary capital controls in special cases.

20

SOLID MACRO-ECONOMIC PERFORMANCE

Rapid economic growth with moderate inflation record

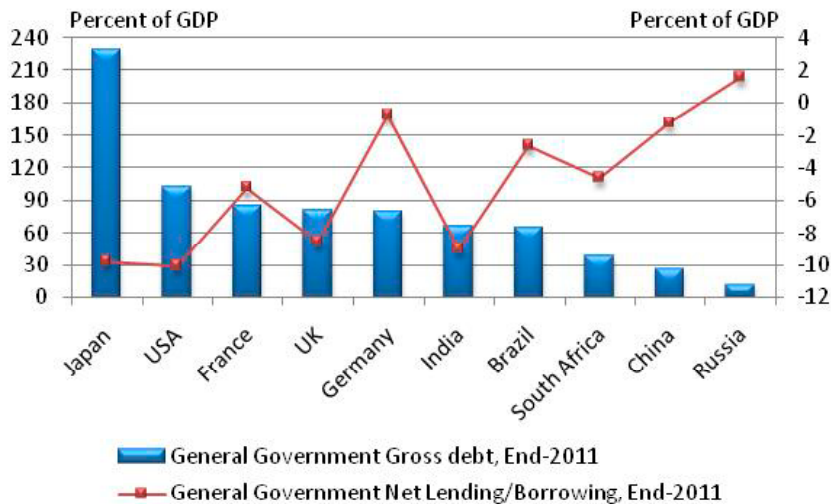


Sources: IMF WEO, CEIC.

21

SOLID MACRO-ECONOMIC PERFORMANCE

Healthy fiscal status

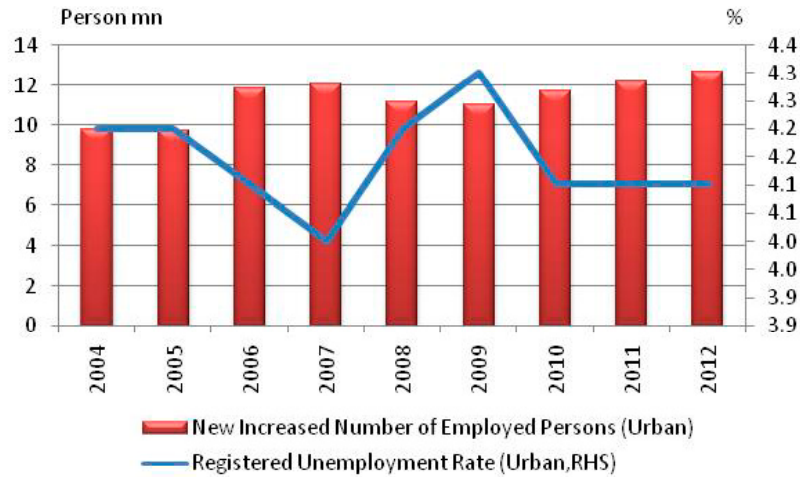


Sources: IMF WEO.

22

SOLID MACRO-ECONOMIC PERFORMANCE

Continuous creation of employment opportunities



Sources: CEIC.

23

ADEQUATE INTERNATIONAL LIQUIDITY

Adequate international liquidities

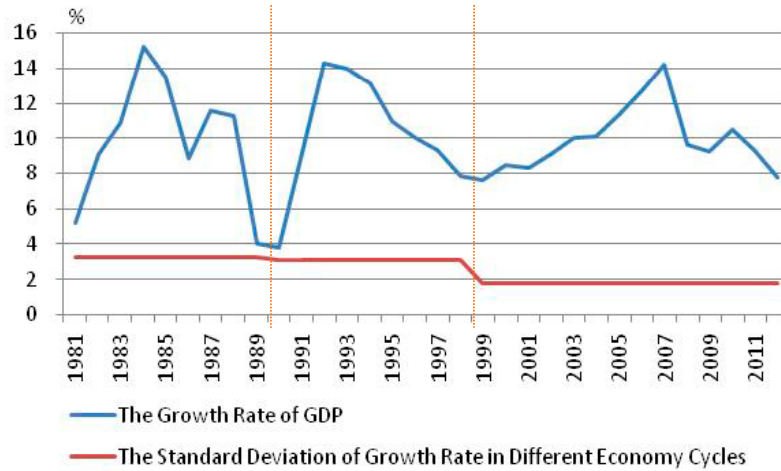


Sources: CEIC.

24

IMPROVING MACRO-ECONOMIC MANAGEMENT SYSTEM

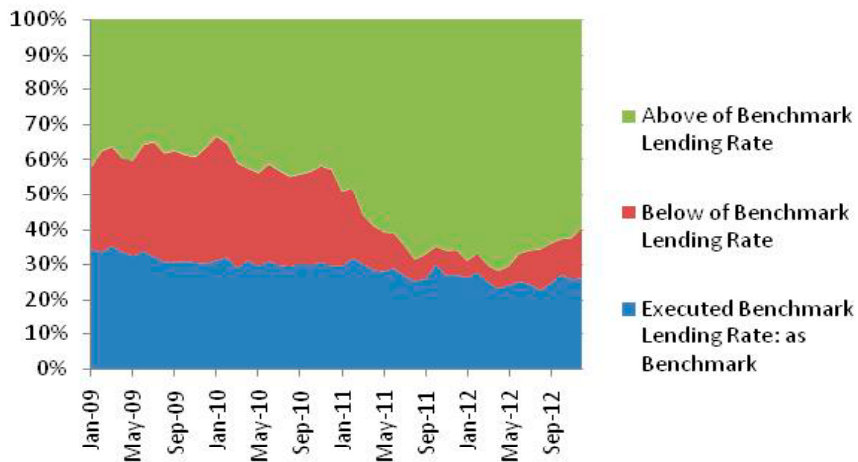
Decreasing economic fluctuation



Sources: CEIC.

IMPROVING MACRO-ECONOMIC MANAGEMENT SYSTEM

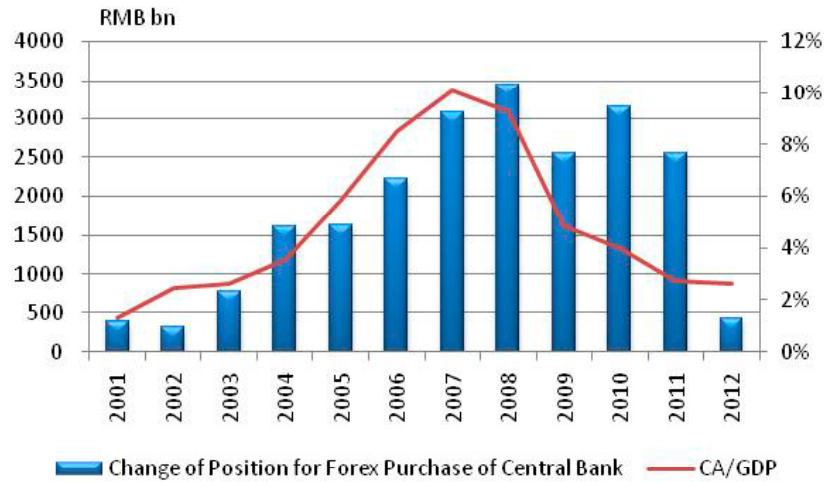
Much more market-based interest rates



Sources: CEIC.

IMPROVING MACRO-ECONOMIC MANAGEMENT SYSTEM

RMB exchange rate mechanism becoming more and more market oriented



Sources: CEIC.

27

GOOD CORPORATE GOVERNANCE

Public listed companies growing fast



Sources: CEIC.

28

WHAT WILL CHINA DO?

- A two-step approach towards RMB full convertibility under capital account is a feasible option for China.
- China achieved partial convertibility under current account at the beginning of 1994, and realized full convertibility at the end of 1996.
- There are only a few capital transactions remained under strict restrictions so far.

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WHAT WILL CHINA DO?

- **First step:** China could accomplish basic or partial RMB capital account convertibility in a few years.
 - Two or three years from now on, while consolidating and creating the conditions, removing restrictions on the remaining strictly controlled capital transactions to achieve a high degree of convertibility under capital account.

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WHAT WILL CHINA DO?

- No capital transaction, other than few exceptions, is prohibited. The degree of openness and supervisory requirements may be different under different transactions with some CFMs retained but relaxed dramatically.
- Appropriate supervisory measures are needed, such as:
 - National security protection
 - Anti-monopoly
 - Anti-money laundering
 - Anti-terrorist financing
 - Anti-tax evasion
 - Macro-prudential measures (MPMs)
 - Price tools such as financial transaction tax (FTT)
 - Reporting requirements
 - BOP provisional safeguard measures

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WHAT WILL CHINA DO?

- **Second step:** in another couple of years, China could announce full capital account convertibility of the RMB with the removal of remaining CFMs replaced by MPMs.
 - It's supposed that the goal of the completion of building a moderately prosperous society (xiaokang society) in all respects will be attained, and the socialist market economy will be improved by the end of 2020.

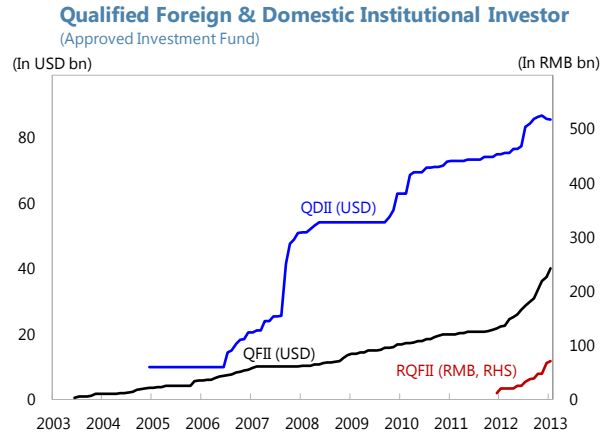
32

China's Capital Account: An Overview

Steve Barnett, Carol Liao, and Franziska Ohnsorge

China has gradually been opening the capital account, but capital flows are still subject to considerable restrictions (Table 1). Specifically:

- **FDI.** Outward FDI is liberalized but inward FDI and its liquidation remain subject to approval requirements.
- **Portfolio investment** is controlled by quotas. Inward investment is channeled through Qualified Foreign Institutional Investors (QFII), subject to a 3-month lock-in period for most shares, and an aggregate ceiling of US\$80 billion. In 2011, an R-QFII scheme was introduced that allows qualified firms to invest offshore renminbi back into China, subject to an overall ceiling that was raised to renminbi 200 billion by end-2012. Outward portfolio investment—for foreign securities purchased by residents—is channeled through Qualified Domestic Institutional Investors (QDII), subject to institution-specific ceilings that amounted to US\$86 billion by end-2012. Cross-border issuance of securities requires approval.
- **Other investment.** Foreign borrowing is subject to a ceiling (for short-term borrowing) or approval requirements (for long-term borrowing), but lending abroad is largely unrestricted. The holding of cross-border accounts requires SAFE approval.



Capital flows, average 2005-2010 (percent of GDP)

	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey
Financial account	3.0	8.0	0.0	2.9	4.2	5.4	-5.1	0.8	0.9	5.3
Overall non-FDI capital account	-0.2	6.5	1.3	1.6	3.2	3.5	-3.9	1.0	0.0	2.9
Net FDI	3.2	1.5	-1.4	1.3	1.0	1.9	-1.3	-0.2	0.9	2.4
Inflow	4.0	4.7	0.3	2.1	2.2	3.0	1.3	3.0	1.8	-0.3
Outflow	-0.8	3.2	-1.7	-0.8	-1.2	-1.1	2.6	3.2	-0.8	1.0
Net portfolio investment	-0.1	0.4	0.8	1.8	1.3	1.3	-4.2	0.3	1.3	0.0
Equity	0.5	2.3	-1.9	1.2	...	...	0.8	-0.1	...	0.0
Bonds	-0.5	-0.5	1.8	0.7	...	...	-5.0	0.4	...	0.4
Net other investment	-0.1	6.2	0.6	-0.3	1.9	2.2	0.3	0.7	-1.3	2.9
Liabilities	1.8	1.1	1.5	0.9	1.0	-0.1	-1.9	-3.6	...	2.9
Assets	-1.9	4.9	-0.9	-1.1	0.9	2.3	2.2	4.3	...	0.0
International investment position: Portfolio and other investment										
Assets	15	30	21	6	1	9	47	17	4	10
Liabilities	16	64	60	33	24	54	95	36	32	46

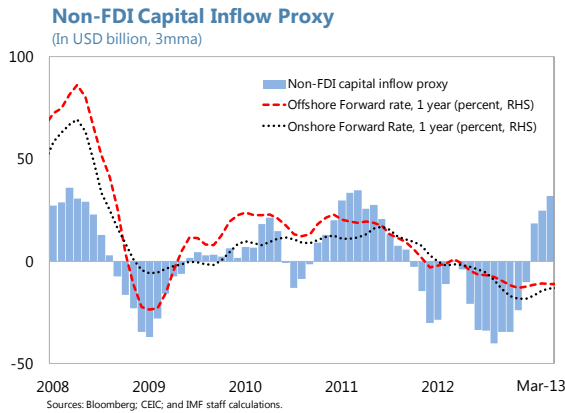
Source: Haver Analytics; IMF IFS; staff estimates.

Note: Colours reflect the quartile of absolute values in each row, with red the lowest quartile and yellow the highest quartile. Data for Australia, Russia, Malaysia based on BPM6. For all others based on BPM5.

Nevertheless, capital flows have been considerable. While portfolio flows remain well below those of other emerging markets, other investment flows—both assets and liabilities—are on par with economies that have more open capital accounts. The accumulation of non-FDI assets abroad by residents appears less restricted than the raising of funds abroad by residents. For example, Chinese residents hold portfolio and other investment *assets* abroad on par with Russian residents—although these transactions are classified as open in Russia and closed in China. In contrast, portfolio and other investment *liabilities* of Chinese residents to nonresidents are substantially below those in comparator countries. Moreover, under the existing system of capital controls, capital flows are not sensitive to China's

interest rates.

The non-FDI flows are mainly driven by the U.S. interest rate and expectation for RMB appreciation.

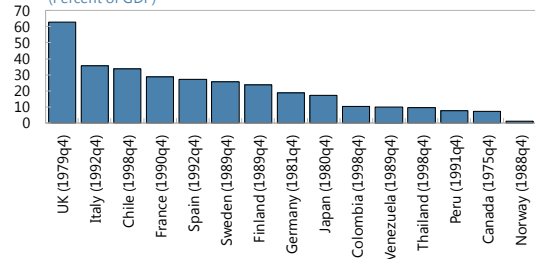


	Model Results		
	OLS	OLS 2006	GARCH
China 1-Year T-bill	-1.022	-1.447	-0.728
Std. error	1.253	1.644	1.287
P-value	0.416	0.381	0.572
US 1-year T-bill	-1.562	-2.146	-1.163
Std. error	0.593	0.745	0.394
P-value	0.010	0.005	0.003
NDF Premium (1-year)	-3.652	-4.522	-3.260
Std. error	0.713	0.867	0.592
P-value	0.000	0.000	0.000
Lagged Non-FDI flow	0.411	0.368	0.369
Std. error	0.105	0.109	0.079
P-value	0.000	0.001	0.000
R-squared	0.61	0.64	0.62

What happens to the size and direction of capital flows after capital account liberalization?

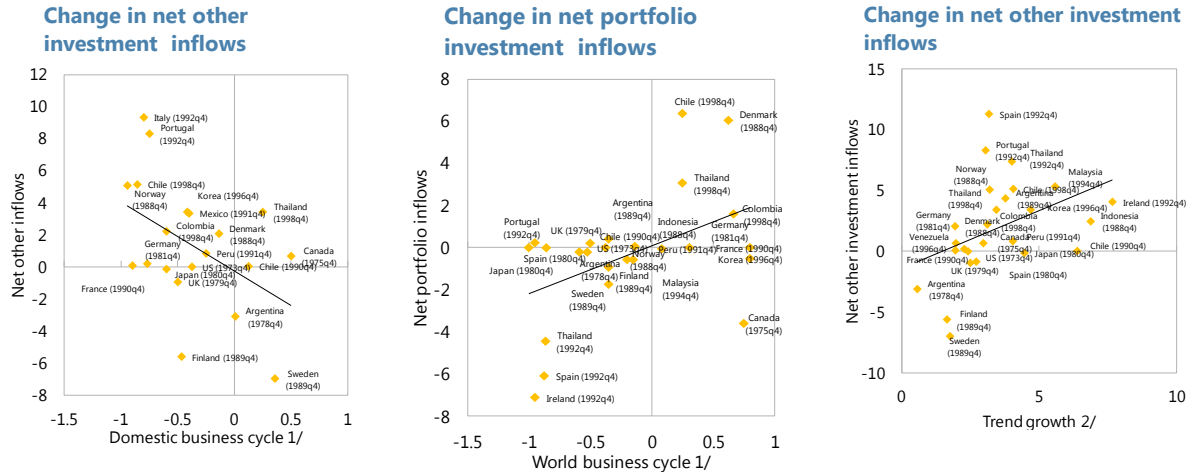
Following liberalization, *gross* capital flows generally increased substantially. For example, capital account liberalization was followed by a buildup of gross international assets over the subsequent five years of some 60 percent of GDP in the United Kingdom (1979) and about half that amount in Chile (1992) and Italy (1992). The impact on *net* capital flows, however, depended on many factors, including the domestic and global business cycle, growth prospects in the liberalizing country, and the sequencing of reforms. For example, capital account liberalization was followed by substantial net portfolio and other investment outflows in Sweden and Finland, but inflows in Denmark, Chile, and Colombia. Typically, the more advanced a *domestic* upswing, the greater the net outflows of other investment, possibly reflecting residents diversifying domestic financial assets in upswings and borrowing in downswings (Figure 1). A more advanced upswing in the *world* business cycle, in contrast, typically increased net portfolio inflows and better long-term *growth prospects* typically increased net other investment inflows in the immediate wake of liberalization. Finally, the more recent *financial sector liberalization*, the smaller especially net inflows in portfolio investment tended to be. In Japan and the United States, where capital account liberalization preceded financial sector liberalization by several years, net inflows were negligible after capital account liberalization.

Increase in gross international assets during five years following capital account liberalization
(Percent of GDP)



Sources: IMF IFS.
Note: Data for UK only available for year after capital account liberalization.

Figure 1. Change in net financial flows and business cycle at time of capital account liberalization (Change in net financial inflows in percent of GDP between one year before and after full liberalization)



1/ Business cycle defined as share of real GDP growth upturn completed from trough to peak (+) or share of downturn completed from peak to trough (-). Peak and trough dated using Harding-Pagan (2002) algorithm.

2/ Trend growth defined as average real GDP growth over the 10 years following liberalization.

Table 1. Capital account restrictions

	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey
SCHINDLER financial account restrictions (2010)																				
Overall restrictions index 1/																				
Overall inflow restrictions index																				
Overall outflow restrictions index																				
Overall non-FDI financial account restrictions index																				
Portfolio investment																				
Average equity restrictions																				
Equity inflow restrictions																				
Purchase locally by nonresidents (equity)																				
Sale or issue abroad by residents (equity)																				
Equity outflow restrictions																				
Sale or issue locally by nonresidents (equity)																				
Purchase abroad by residents (equity)																				
Average bond restrictions																				
Bond inflow restrictions																				
Purchase locally by nonresidents (bond)																				
Sale or issue abroad by residents (bond)																				
Bond outflow restrictions																				
Sale or issue locally by nonresidents (bond)																				
Purchase abroad by residents (bond)																				
Average money market restrictions																				
Money market inflow restrictions																				
Purchase locally by nonresidents (money market)																				
Sale or issue abroad by residents (money market)																				
Money market outflow restrictions																				
Sale or issue locally by nonresidents (money market)																				
Purchase abroad by residents (money market)																				
FDI																				
Abroad																				
In reporting economy																				
Other investment																				
Average collective investment restrictions																				
Collective investment inflow restrictions																				
Purchase locally by nonresidents (collective investment)																				
Sale or issue abroad by residents (collective investment)																				
Collective investment outflow restrictions																				
Sale or issue locally by nonresidents (collective investment)																				
Purchase abroad by residents (collective investment)																				
Average financial credit restrictions																				
Financial credit inflow restrictions																				
Financial credit outflow restrictions																				

Source: Schindler (2009), extended to 2010.

Note: Red denotes either a restriction beyond reporting requirements. Green denotes no restrictions. Yellow in an aggregate position denotes one out of four categories are restricted; orange in an aggregate position denotes two out of four categories are restricted; red in an aggregate position denotes three or four out of four categories are restricted.

China's Capital Account: An Overview

March 20, 2013

Presenter: Steven Barnett

Prepared by:

Franziska Ohnsorge and Steven Barnett

Conclusions

- I. Capital account in China:
 1. Subject to considerable restrictions
 2. ...but capital flows are large
 3. ...though restrictions appear binding

- II. International experience: Stylized facts

1. Capital account subject to considerable restrictions. Restrictions ≠ closed

Table 1. Capital account restrictions

	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey
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Portfolio investment																				
Average equity restrictions																				
Equity inflow restrictions																				
Purchase locally by nonresidents (equity)																				
Sale or issue abroad by residents (equity)																				
Equity outflow restrictions																				
Sale or issue locally by nonresidents (equity)																				
Purchase abroad by residents (equity)																				
Average bond restrictions																				
Bond inflow restrictions																				
Purchase locally by nonresidents (bond)																				
Sale or issue abroad by residents (bond)																				
Bond outflow restrictions																				
Sale or issue locally by nonresidents (bond)																				
Purchase abroad by residents (bond)																				
Average money market restrictions																				
Money market inflow restrictions																				
Purchase locally by nonresidents (money market)																				
Sale or issue abroad by residents (money market)																				
Money market outflow restrictions																				
Sale or issue locally by nonresidents (money market)																				
Purchase abroad by residents (money market)																				
FDI																				
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Average financial credit restrictions																				
Financial credit inflow restrictions																				
Financial credit outflow restrictions																				

Source: Schindler (2009), extended to 2010.
 Note: Red denotes either a restriction beyond reporting requirements. Green denotes no restrictions. Yellow in an aggregate position denotes one out of four categories are restricted; orange in an aggregate position denotes two out of four categories are restricted; red in an aggregate position denotes three or four out of four categories are restricted.

Capital account restrictions tell a similar story...

Capital account restrictions

	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey
SCHINDLER financial account restrictions (2010) 1/										
Overall inflow restrictions index										
Overall outflow restrictions index										
Overall non-FDI financial account restrictions index										
QUINN capital and financial account openness (2011) 2/										
Capital outflows/residents										
Capital inflows/nonresidents										
CHINN-ITO openness (2010) 3/										

Source: Schindler (2009); Quinn (1997); Chinn and Ito (2007).
 1/ Includes ratings for FDI which are not shown here. 1 indicates a restriction that goes beyond registration and notification requirements.
 2/ Quinn (1997) index takes into account intensity of restrictions on a scale of 0, 0.5, 1, 1.5, and 2. Capital restrictions include FDI and nonFDI.
 3/ Chinn-Ito (2007) index is principal component of four 0-1 subindices on average over 5 years. Index refers to current account and financial account restrictions.

Examples of restrictions

FDI	
Inflow restrictions	Approval by MOC, local branches of the PBoC (for R-FDI), or local commerce agencies
Outflow restrictions	In start-up phase, SAFE approval.
Portfolio investment	
Equity inflow restrictions	
Purchase locally by nonresidents (equity)	QFII quota and SAFE approval for repatriation.
Sale or issue abroad by residents (equity)	CSRC approval
Sale or issue locally by nonresidents (equity)	Sale under QFII scheme subject to lock-up period
Purchase abroad by residents (equity)	QDII quotas
Bond inflow restrictions	
Purchase locally by nonresidents (bond)	QFII quota
Sale or issue abroad by residents (bond)	NDRC and State Council approval
Sale or issue locally by nonresidents (bond)	Sale under QFII scheme subject to lock-up period; MOF, PBC, NDRC approval for issue
Purchase abroad by residents (bond)	QDII quotas
Money market restrictions	
Purchase locally by nonresidents (money market)	QFII quota
Sale or issue abroad by residents (money market)	SAFE approval, restricted to less than 1 year
Sale or issue locally by nonresidents (money market)	Sale under QFII scheme subject to lock-up period; issuance prohibited
Purchase abroad by residents (money market)	QDII quotas
Other investment	
Collective investment inflow restrictions	
Purchase locally by nonresidents (collective investment)	QFII quota and SAFE approval for repatriation
Sale or issue abroad by residents (collective investment)	SAFE approval
Sale or issue locally by nonresidents (collective investment)	Prohibited
Purchase abroad by residents (collective investment)	QDII quotas
Average financial credit restrictions	SAFE or NDRC approval
Financial credit inflow restrictions	SAFE approval
Financial credit outflow restrictions	SAFE approval

2. Capital flows are large Comparable to more open capital accounts

Capital flows, average 2005-2010 (percent of GDP)

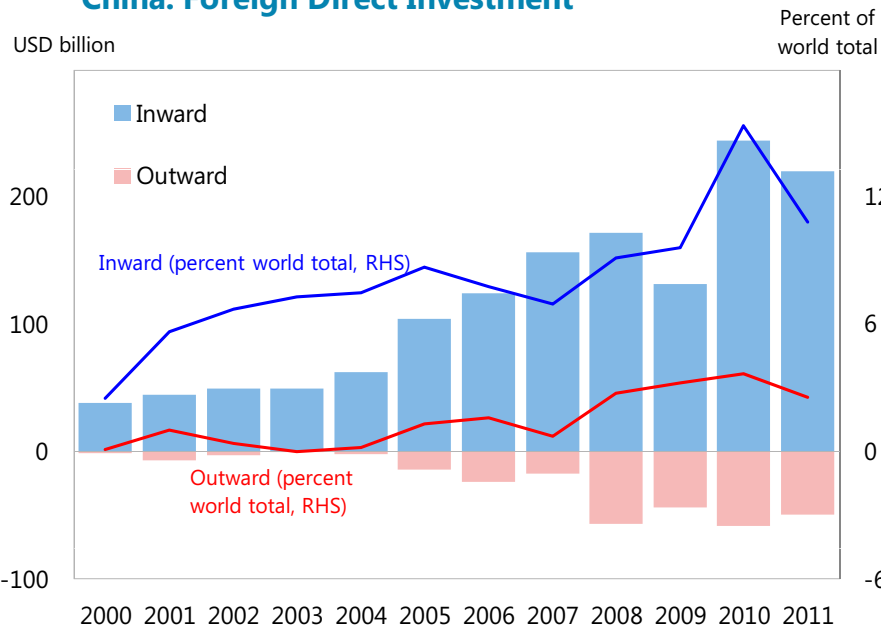
	China	Malaysia	Korea	Brazil	India	Poland	Australia	Russia	Indonesia	Turkey
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Overall non-FDI capital account	-0.2	6.5	1.3	1.6	3.2	3.5	-3.9	1.0	0.0	2.9
FDI	3.2	1.5	-1.4	1.3	1.0	1.9	-1.3	-0.2	0.9	2.4
Inflow	4.0	4.7	0.3	2.1	2.2	3.0	1.3	3.0	1.8	-0.3
Outflow	-0.8	3.2	-1.7	-0.8	-1.2	-1.1	2.6	3.2	-0.8	1.0
Portfolio investment	-0.1	0.4	0.8	1.8	1.3	1.3	-4.2	0.3	1.3	0.0
Average equity	0.5	2.3	-1.9	1.2	...	...	0.8	-0.1	...	0.0
Average bond	-0.5	-0.5	1.8	0.7	...	...	-5.0	0.4	...	0.4
Other investment	-0.1	6.2	0.6	-0.3	1.9	2.2	0.3	0.7	-1.3	2.9
Average financial credit	-0.1	6.2	0.6	-0.3	1.9	2.2	0.3	0.7	-1.3	2.9
Liabilities	1.8	1.1	1.5	0.9	1.0	-0.1	-1.9	-3.6	...	2.9
Assets	-1.9	4.9	-0.9	-1.1	0.9	2.3	2.2	4.3	...	0.0

Source: Haver Analytics; IMF IFS; staff estimates.

1/ Data for Australia, Russia, Malaysia based on BPM6. For all others based on BPM5.

FDI flows are substantial...

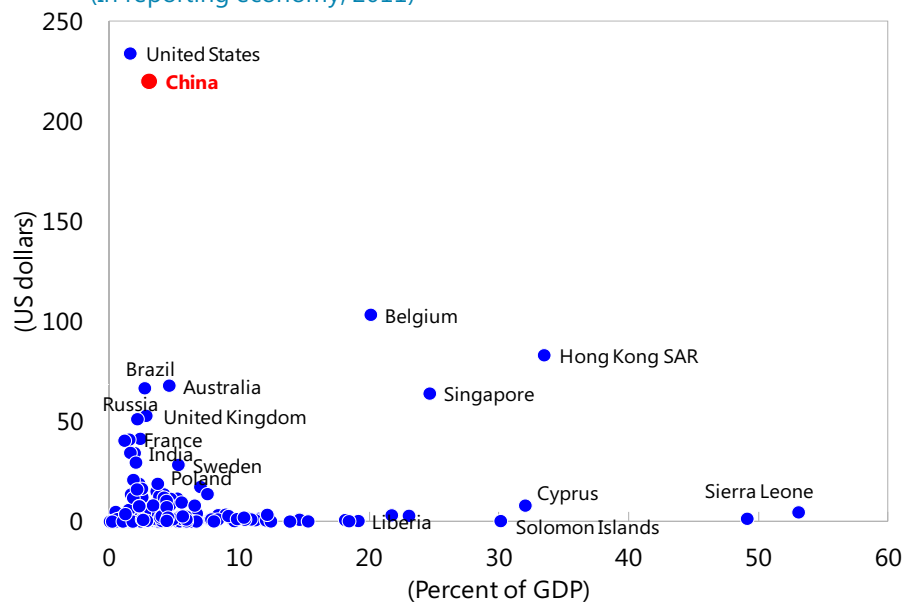
China: Foreign Direct Investment



...and large by international standards.

Foreign Direct Investment

(In reporting economy, 2011)



Gross flows (US\$) are sizeable

	2011		
	Net	Inflows	Outflows
Securities investment	19.6	51.9	32.3
Residents (assets)	6.2	25.5	19.2
Nonresidents (liabilities)	13.4	26.5	13.1
Other investment	25.5	1,069.0	1,043.5
Residents (assets)	-166.8	108.8	275.6
Trade	-71.0	0.0	71.0
Loans	-45.3	6.1	51.3
Currency and deposits	-98.7	50.1	148.9
Other	48.2	52.6	4.4
Nonresidents (liabilities)	192.3	960.2	767.9
Trade	38.0	45.4	7.4
Loans	105.1	734.3	629.2
Currency and deposits	48.3	171.9	123.7
Other	1.0	8.6	7.6

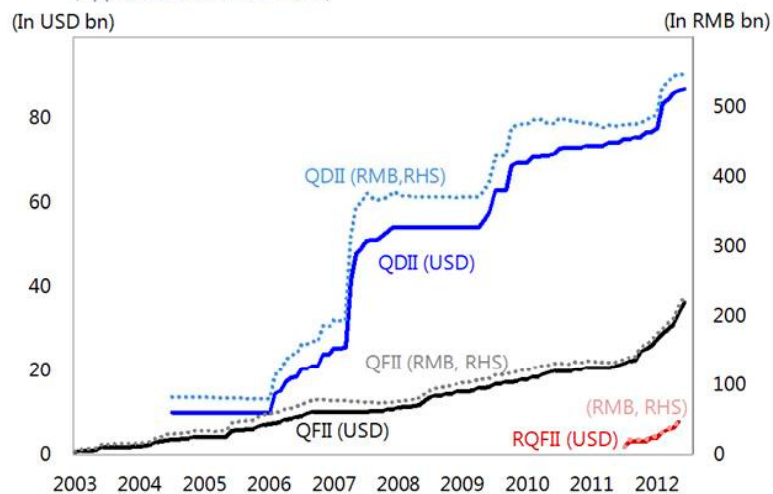
Source: CEIC

Net flow was
deceptively small

But residents FX currency
and deposits up some
US\$100 billion

Quotas on flows steadily raised

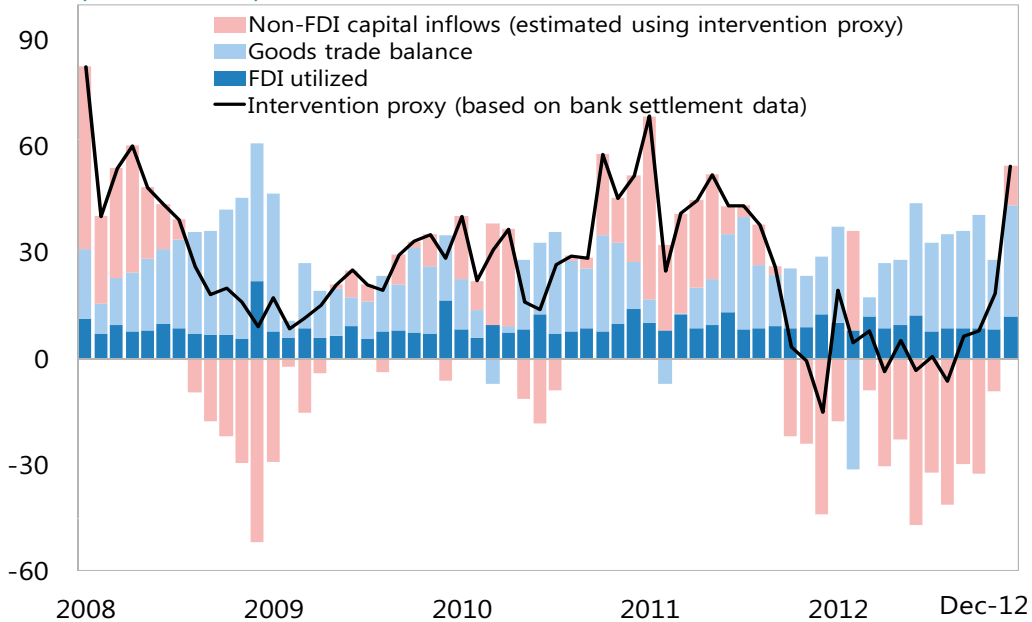
Qualified Foreign & Domestic Institutional Investor (Approved Investment Fund)



Net Non-FDI capital flows both in and out

Trade, FDI, and Foreign Exchange Intervention

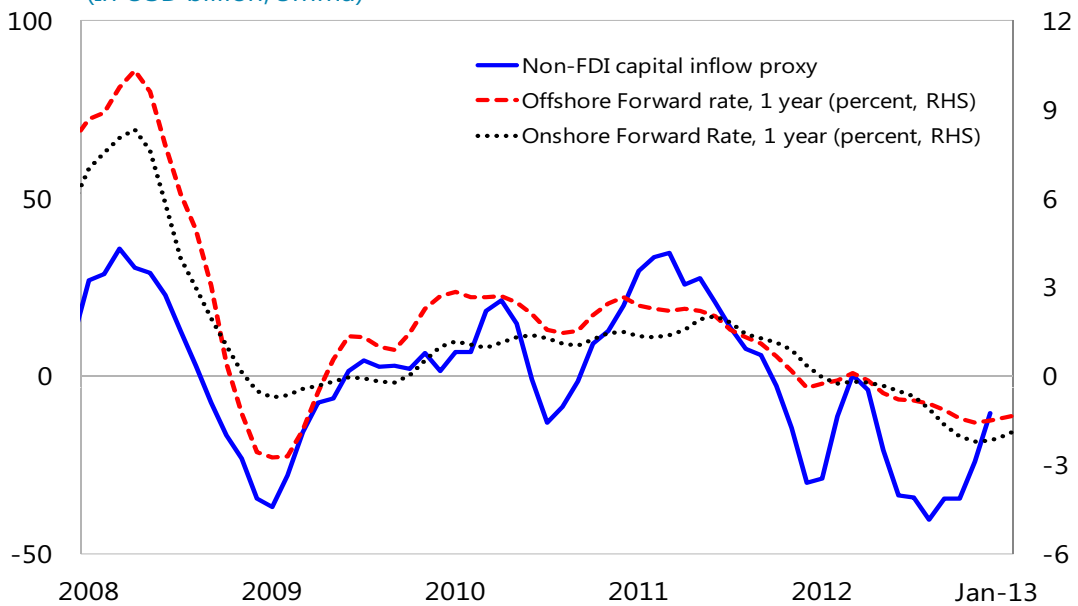
(In USD billion)



Do non-FDI flows follow RMB expectations?

Non-FDI Capital Inflow Proxy

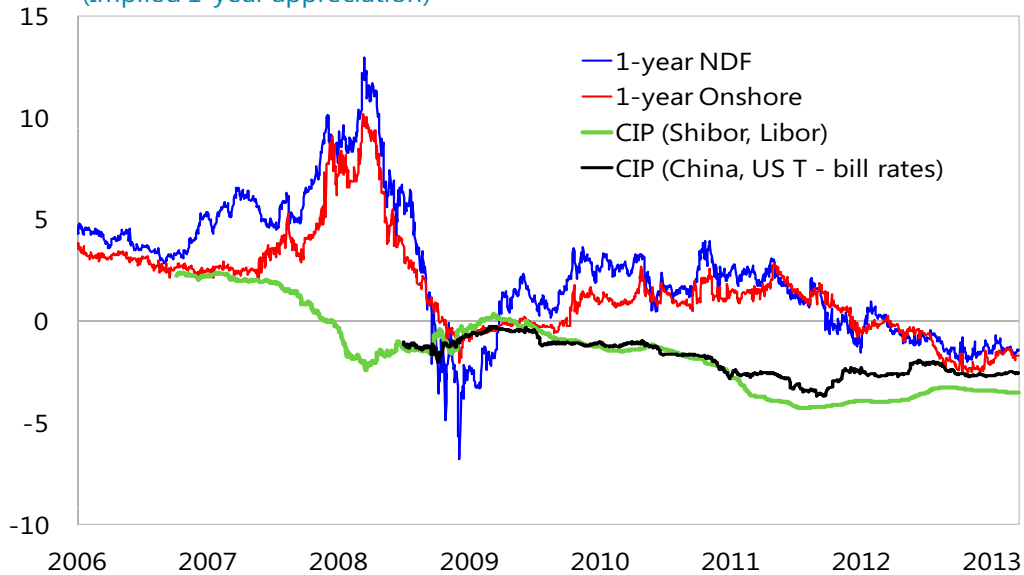
(In USD billion, 3mma)



3. Restrictions appear binding

Exchange Rate

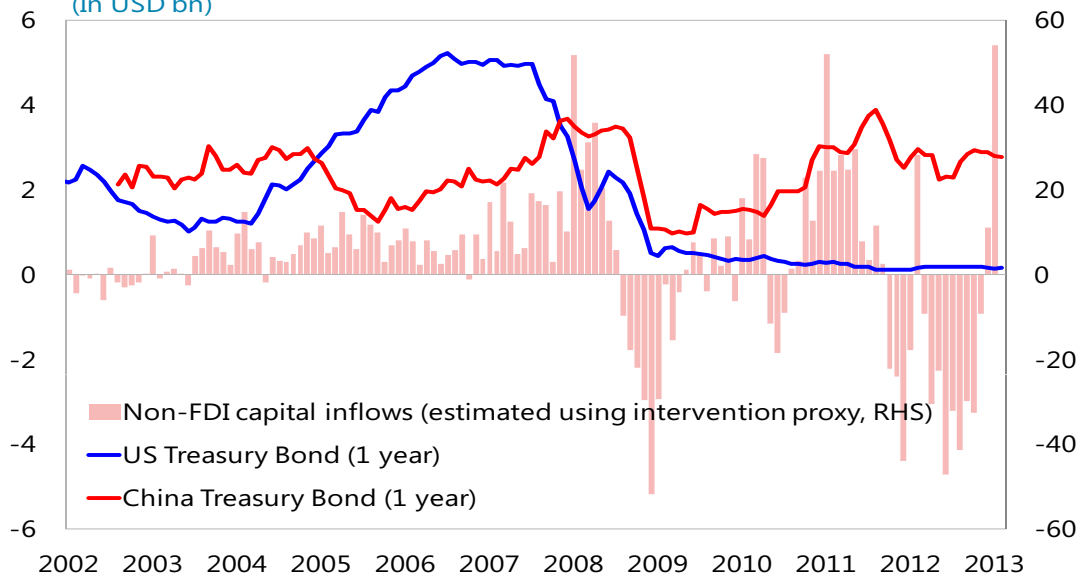
(Implied 1-year appreciation)



Interest rates and capital flows

Non-FDI Capital Inflows and Treasury Interest Rates

(In USD bn)



Non-FDI flows are *not* sensitive to domestic interest rate

Model Results			
	OLS	OLS 2006	GARCH
China 1-Year T-bill	-1.022	-1.447	-0.728
Std. error	1.253	1.644	1.287
P-value	0.416	0.381	0.572
US 1-year T-bill	-1.562	-2.146	-1.163
Std. error	0.593	0.745	0.394
P-value	0.010	0.005	0.003
NDF Premium (1-year)	-3.652	-4.522	-3.260
Std. error	0.713	0.867	0.592
P-value	0.000	0.000	0.000
Lagged Non-FDI flow	0.411	0.368	0.369
Std. error	0.105	0.109	0.079
P-value	0.000	0.001	0.000
R-squared	0.61	0.64	0.62

China interest rate

- Not significant
- Wrong sign

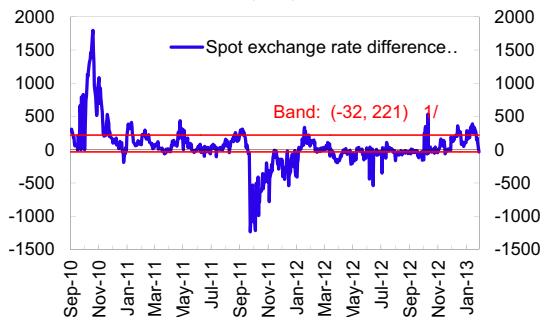
Other terms

- Highly significant
- Right sign

Dependent variable is Non-FDI capital flows.

CNH versus CNY? Evidence of arbitrage opportunities

CNY and CNH Spot Exchange Rate Differentials (pips)



1/ Band is estimated with the TAR model on the sample of 1 September 2010 - 31 January 2013. Around 56 percent of observations are within the band. Sources: Bloomberg L.P.; and IMF staff estimations.

Table 1: TAR Model Estimation Results Summary

CNY stronger than CNH (pos. basis)	15% of time
Autoregressive coefficient	0.97***
Implied "half life"	25 days
CNY-CNH basis trades within band	56% of time
CNY weaker than CNH (neg. basis)	29% of time
Autoregressive coefficient	0.88***
Implied "half life"	6 days

Note: *** indicates significance at the 1% level

From forthcoming IMF Working Paper: *Chinese Capital Account Liberalization and the Internationalization of the Renminbi*, by R. S. Craig, C. Hua, Philip Ng, and Raymond Yuen.

International Experience

Some stylized facts

What happened following capital account liberalization?

20+ episodes of capital account liberalization (Kaminsky and Schmukler, 2003) in AM and EM since 1979.

The increase in **net capital inflows** from the year before to the year after liberalization depended on:

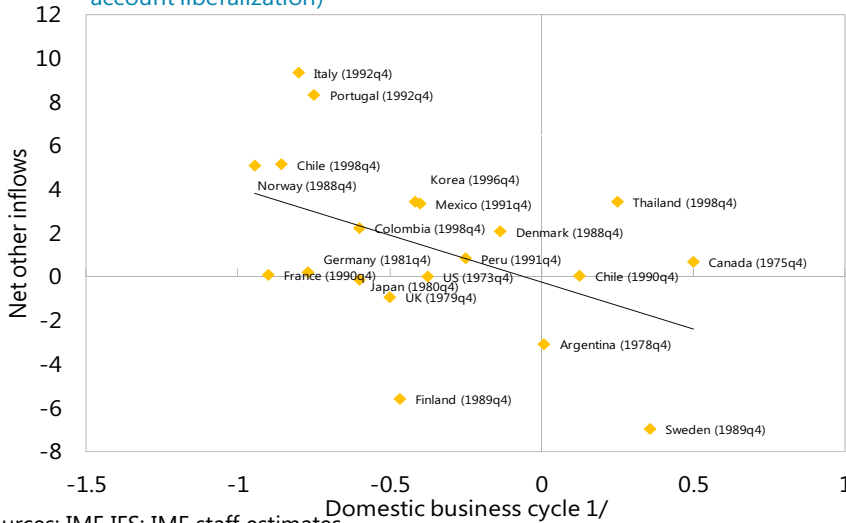
- State of domestic versus world business cycle
- Time since financial sector liberalization

Gross international assets and liabilities increased on average by 19-20 percentage points of GDP over the following five years.

The more advanced the domestic business cycle, the less capital flows...

Change in net other investment inflows

(percent of GDP, between one year before and after full capital account liberalization)



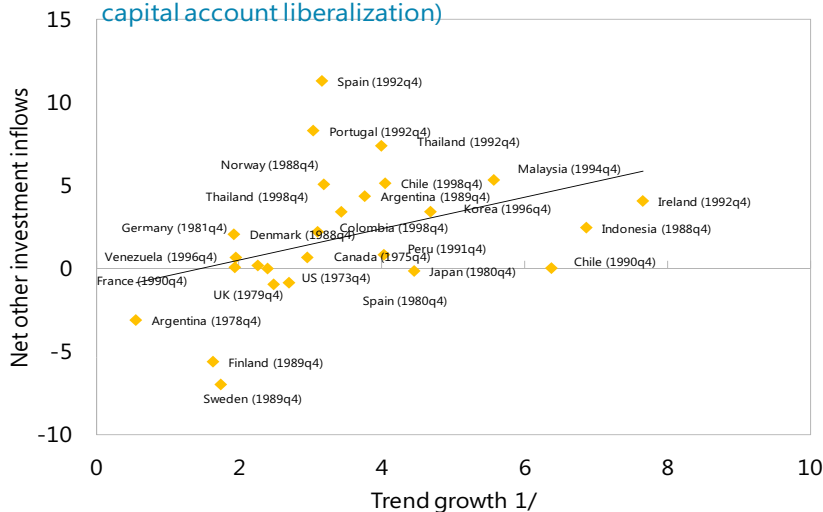
Sources: IMF IFS; IMF staff estimates.

1/ Business cycle defined as share of real GDP growth upturn completed from trough to peak (+) or share of downturn completed from peak to trough (-). Peak and trough dated using Harding-Pagan (2002) algorithm.

...but better long-term growth prospects → greater net capital flows

Change in net other investment inflows

(percent of GDP, between one year before and one year after full capital account liberalization)



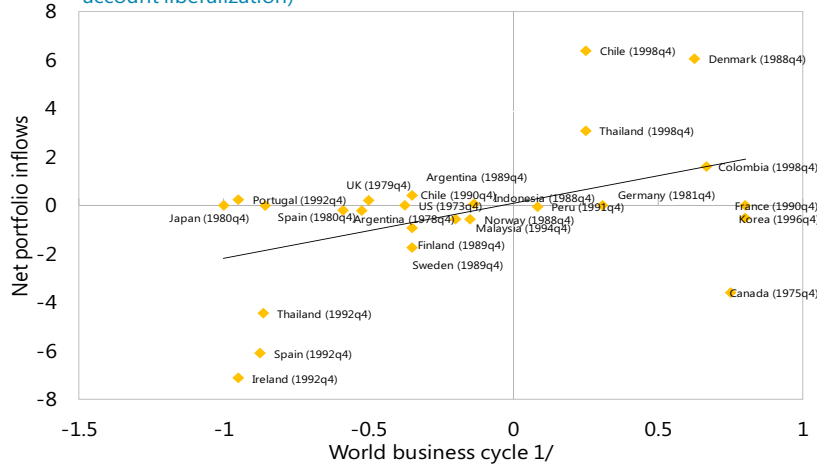
Sources: IMF IFS; IMF staff estimates.

1/ Trend growth defined as average real GDP growth in the ten years following full liberalization.

More advanced world business cycle → net inflows

Change in net portfolio investment inflows

(percent of GDP, between one year before and after full capital account liberalization)



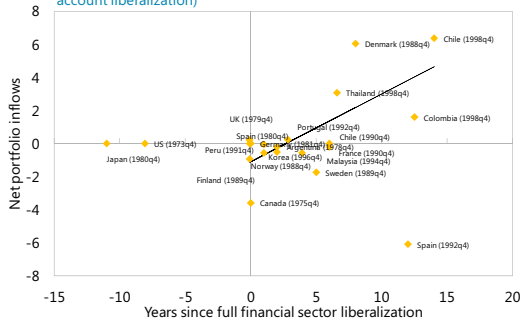
Sources: IMF IFS; IMF staff estimates.

1/ Business cycle defined as share of world real GDP growth upturn completed from trough to peak (+) or share of downturn completed from peak to trough (-). Peak and trough dated using Harding-Pagan (2002) algorithm. World real GDP growth defined as trade-weighted average of trading partner real GDP growth for each country.

Years since financial sector liberalization → more net inflows

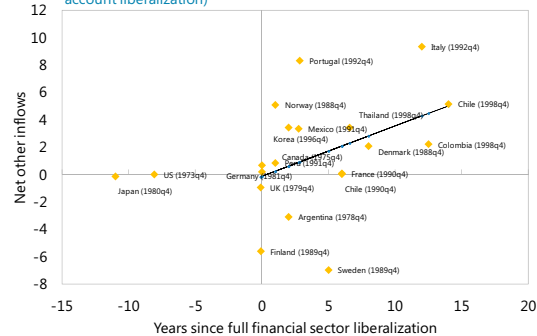
Change in net portfolio investment inflows

(percent of GDP, between one year before and after full capital account liberalization)



Change in net other investment inflows

(percent of GDP, between one year before and after full capital account liberalization)

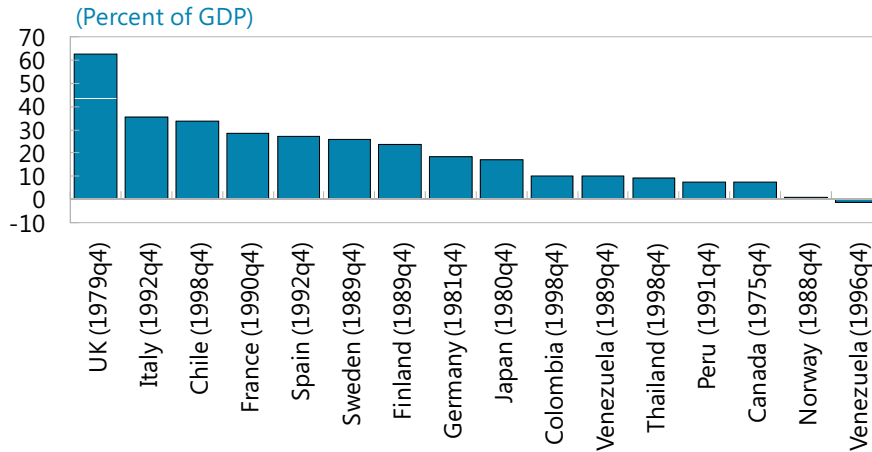


Sources: IMF IFS; IMF staff estimates.

Note: Trendline excludes the outlier Spain (for portfolio investment) and cases of financial sector liberalization following capital account liberalization.

Capital account liberalization was almost always followed by increases in gross foreign assets...

Increase in gross international assets during five years following capital account liberalization

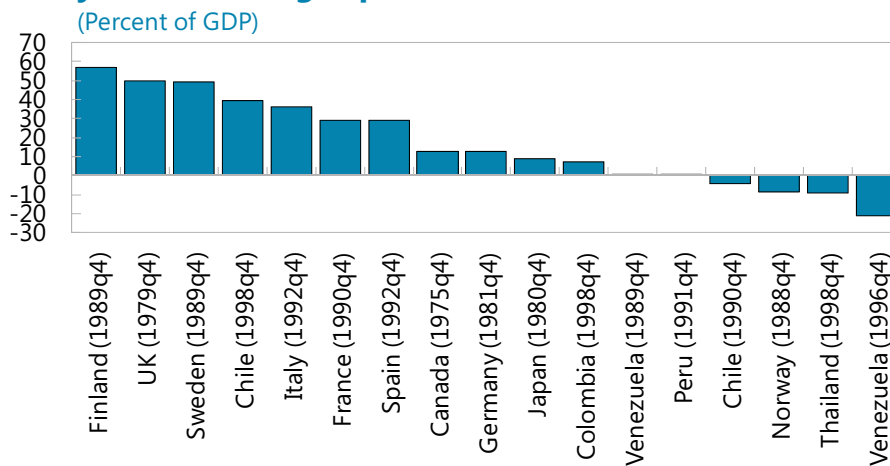


Sources: IMF IFS.

Note: Data for UK only available for year after capital account liberalization.

... and often also increases in gross foreign liabilities.

Increase in gross international liabilities during five years following capital account liberalization



Sources: IMF IFS.

Note: Data for UK only available for year after capital account liberalization.

Annex

More on gross capital flows

Small net flows hide substantial gross flows

Financial account flows
(percent of annual GDP)

	Q1-Q3 2007	Q1-Q3 2008	Q1-Q3 2009	Q1-Q3 2010	Q1-Q3 2011	Q1-Q3 2012
Net portfolio investment	0	1	0	0	0	0
Net other investment	1	-1	1	0	1	-2

Small net flows hide substantial gross flows

Financial account flows (percent of annual GDP)

	Q1-Q3 2007	Q1-Q3 2008	Q1-Q3 2009	Q1-Q3 2010	Q1-Q3 2011	Q1-Q3 2012
Net portfolio investment	0	1	0	0	0	0
Inflows	1	2	2	1	1	1
Outflows	1	1	1	1	0	0
Net other investment	1	-1	1	0	1	-2
Inflows	16	12	8	10	12	9
Outflows	16	13	7	10	10	11

Small net flows hide substantial gross flows

Financial account flows (percent of annual GDP)

	Q1-Q3 2007	Q1-Q3 2008	Q1-Q3 2009	Q1-Q3 2010	Q1-Q3 2011	Q1-Q3 2012
Net portfolio investment	0	1	0	0	0	0
Inflows	1	2	2	1	1	1
Outflows	1	1	1	1	0	0
Net other investment	1	-1	1	0	1	-2
Inflows	16	12	8	10	12	9
Assets	1	2	2	1	1	1
Liabilities	15	11	6	9	11	8
Outflows	16	13	7	10	10	11
Assets	2	4	2	3	3	3
Liabilities	13	9	5	7	7	8

SESSION II

Other Economies' Experience with Liberalizing Capital Account

Poland's Experience with Capital Account Management

Ryszard Kokoszcyński¹

Capital flows liberalization in Poland began as a part of the comprehensive transformation of the political and economic system in the country. The starting point was a planned economy with a practical monopoly of the state where foreign currency transactions were concerned.² The initial goal of the government was thus to introduce at least an “internal convertibility” of the Polish currency that would open basic economic transactions with abroad to the private sector. That was a concept close to the current account convertibility or convertibility as defined by the Article VIII of the IMF Articles of Agreement. High foreign debt and low official foreign exchange reserves explained a strong asymmetry in capital flows liberalization introduced in the very beginning of transformation: inward foreign investment, both portfolio and direct, was liberalized very early; outflows were practically prohibited, i.e. every transaction required a license issued by the central bank.

That suggests an orthodox approach to liberalization where macroeconomic considerations define the scope and sequence of the process. However, Poland liberalized early a substantial part of short-term capital inflows which could not be described by a similar orthodox thinking.

Major reasons for that were requirements of the initial period of transformation when some basic institutions, instruments and markets needed to be created. So, with domestic savings being very low creation of a stock exchange and other institutions of capital market required foreign investors to be developed. The same reasons, i.e. the need of market development and the lack of domestic savings, pushed the Polish government into opening a market of Treasury securities, including the short-term bills, for foreign investors as early as in 1992 and 1993.

This first period of capital flows liberalization showed clearly that this process had been defined by several interacting factors: initial macroeconomic and structural situation, long-run plans for institutional development, and short-run macroeconomic pressures were among the most important phenomena that influenced both the sequence of liberalization and its scope. All this long-run and short-run, macroeconomic and institutional phenomena were not always pushing in the same direction. The best example of their “negative” interaction –

¹ University of Warsaw and National Bank of Poland. Usual disclaimer applies.

² Since 1970s there were some possibilities for the public to use foreign currency in a separate network of retail shops offering both domestic and imported goods; there was also a possibility of maintaining a foreign currency account with a domestic bank for persons with legal source of that kind of income.

presented in some detail below - was the central bank's presence in the foreign exchange interbank market that was rather an obstacle in its fast development.

Capital flows in a country like Poland, with the banking sector being the most important and the biggest part of the financial system, were expected to go mostly through banks. Other countries' experience suggested then quite strongly that banks' foreign exposure should be limited as their experience in managing the foreign exchange risk was practically non-existent at that time. The usual prudential tool to be applied was to introduce limits for banks' open fx positions on the daily basis. Banks argued, and banking supervision supported them in this, that they had to be ready to buy and sell currency from and to their customers at any time. Customers' orders could in effect push bank beyond the prudential limits if bank were not able to find a counterparty in the fx market for a transaction that would compensate the position opened in the effect of customer order. The only other party to a compensating transaction in such a case could be the central bank. So from 1993 to 1999 central bank had been offering a possibility of buying or selling currency at the daily fixing rate; that weakened banks' incentives to engage in developing an active interbank fx market with all consequences of that.

On the other hand, allowing for short-term inflows was a major factor in developing market for derivative instruments. With the Polish zloty going into more flexible regime in 1995 there was a demand growing both for typical hedging instruments and for more speculative transactions. This demand helped the Polish fx market to grow and played later a very important role in a relatively easy adjustment of the Polish private agents to the floating exchange rate regime. Hence, one may say that capital flows liberalization not always promoted institution building, but even steps undertaken not in line with textbook recommendations brought some positive developments with them.

Capital flows liberalization in the first half of the 1990s had been mostly driven by interaction of factors described earlier in this text. Mid-1990s brought some new goals for this process. Firstly, Poland's aspiration to join the European Union got the stable foundation when the Association Agreement between Poland and the European Union had been finally ratified in 1994. Secondly, the perspective of the Polish membership in the OECD became much closer. Both these objectives required a substantial progress in the degree of capital flows liberalization, so a new currency law was proposed by the government in 1994. The new law enabled Poland to formally adopt currency convertibility as defined by the article VIII of the IMF Articles of Agreement. However, the number of restrictions maintained within this legal framework remained still high. That was the reason for the government to prepare another version of the currency law in 1996, though it went into force only in January 1999. This law liberalized most capital flows, and together with changes introduced in 2002, the process of capital flows liberalization was completed.

To summarize, capital flows liberalization in Poland was a lengthy process with a great number of separate steps. The most important changes were usually introduced by new versions of the currency law, that had to go through the full parliamentary procedure. The law, however, gave some competences to the Finance Minister to relax some constraints in the law by ministerial regulation. The latter was much easier to prepare and implement. The last part of the legal framework was the possibility of applying for a special license issued by the central bank for transactions not allowed by the general rules – here was another possibility of policy adjustment, as criteria for license issuance were defined by the law in a very general manner.

This three-layer approach to the legal framework made it possible to fine-tune process of liberalization and to maintain a great degree of caution when discussing liberalization of some sensitive transactions. It had probably made the whole process more cumbersome and lengthy, but on the other hand Poland was never put into a position of reversing the liberalization process.

Poland`s Experience with Capital Account Management

Capital Account Management: Lessons from International Experience
IMF – PBC Conference

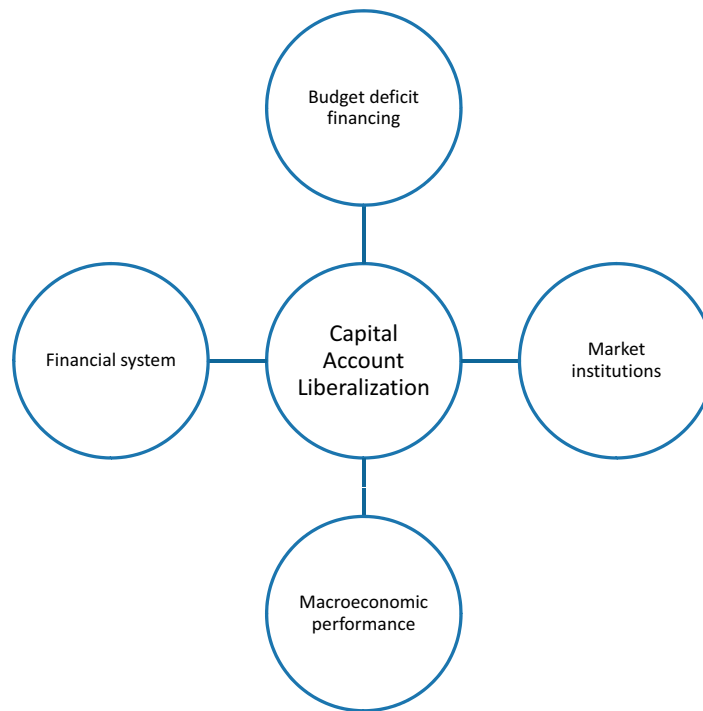
Beijing, China; March 20, 2013

Ryszard Kokoszcyński
National Bank of Poland and
University of Warsaw

Starting Point

- Planned economy: inconvertible currency, state monopoly in foreign trade, very limited capital flows
- Poland: high foreign debt, very low fx reserves, well-developed black fx market
- General context: political and economic transformation, European integration, OECD membership

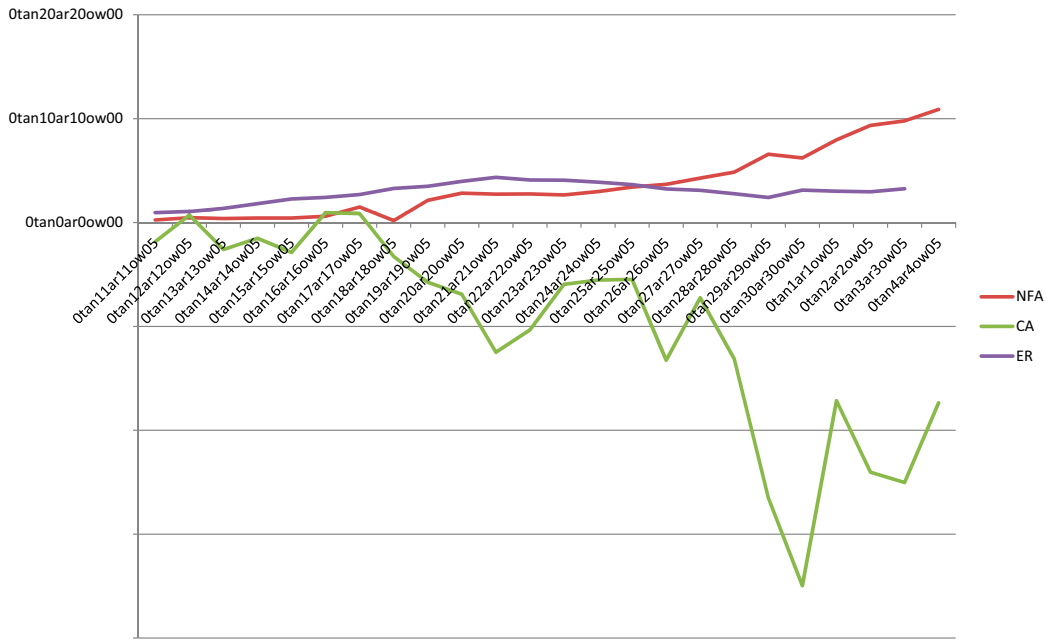
Major Interactions



Timeline

- 1989: new fx law – internal convertibility
- 1990: fixed exchange rate vs USD
- 1991: crawling peg vs. a basket of five currencies
- 1991: publicly traded securities available for non-residents
- 1992/1993: T-bills and T-bonds available for non-residents
- 1993: limits for banks' open fx positions – central bank's presence in the fx market
- 1995: convertibility according to Art. VIII
- 1995: crawling band
- 1996: further liberalization of capital transactions (real estate, loans etc.)
- 1999: external convertibility
- 1999: end of fixing transactions between central bank and commercial banks
- 2000: full floating
- 2002: full convertibility with some restrictions
- 2007: all restrictions abolished

Poland 1989-2012: Major External Variables



Capital Account Management in India

Subir Gokarn

Synopsis of presentation made at the IMF-PBC Conference on Capital Account Management: Lessons from International Experience, Beijing, China, March 20, 2013

A. Introduction

India's capital account management regime has evolved over the past two decades. Before the economic liberalization programme that was initiated in 1991, private inflows were tightly constrained, with only a few channels open for foreign direct investment (FDI). During the 1990s, as the economy was increasingly opened up, FDI and portfolio flows into the equity market were liberalized. Persistent pressure on the balance of payments led to two quasi-sovereign debt issues in the late 1990s, which were pre-cursors to the opening up of commercial debt channels during the 2000s. During this decade, capital inflows surged and the balance of payments shifted into a relatively high surplus situation. The regime for outward flows, both corporate and individual was liberalized as a result. In recent years, as equity flows became significantly more volatile, investments into government and corporate debt were encouraged by raising ceilings and easing conditions on residual maturity and lock-in periods. However, aggregate limits remain.

B. The Emergence of a Pecking Order

Over these two decades, a clear pecking order has emerged in the treatment of capital inflows. Most preferred is FDI, based on its contribution to capital formation and its role in technology flows and, to an extent, making exports more competitive. Then came equity inflows, in which both market and currency risk are borne by foreign investors. Debt was always the least preferred channel, but within this category, long-term debt, particularly when it went into financing infrastructure, was preferred. Short-term debt was at the bottom of the pecking order, based on the risks that it posed for financial stability.

C. Trends in Capital Inflows

From the mid-1990s onwards, private capital inflows began a steady increase, making it easier for the economy to finance its structural current account deficit. As restrictions on FDI and portfolio flows were steadily removed, inflows responded. Despite this, however, balance of payments pressures induced two quasi-sovereign bond issues in the last 1990s. It was really in the 2000s that the positive global and domestic environment combined to induce rapid increases in inflows, which were also accompanied for a brief period by current account surpluses. In the years just before the financial crisis of 2008, equity inflows surged, responding to high growth and a very favourable macroeconomic situation, which was also reflected in sovereign ratings upgrades, which moved India to investment grade.

D. Exchange Rate Dynamics

As part of the overall liberalization programme, the currency regime became increasingly market-oriented. Convertibility on the current account was implemented during the 1990s. As described above, restrictions on capital movements, both inward and outward, were steadily removed during the second half of the 1990s and into the 2000s. During the 1990s, even as the capital inflow regime was being liberalized, the current account dominated exchange rate dynamics and the rupee steadily depreciated. Beginning in the early 2000s, however, the trend reversed. Over the past decade, the rupee has seen three distinct phases.

From the early 2000s until 2006, the volume of inflows increase substantially, for reasons suggested above. At the same time, the rapid growth in service exports, primarily those of IT-enabled services, helped shrink the current account deficit dramatically, a trend reinforced by benign commodity prices. As the balance of payments moved towards surplus (at its peak, this was about one per cent of GDP), the rupee reversed from its previous trend and began to appreciate steadily. Unfettered appreciation, in turn, raised concerns about export competitiveness and the policy response was to resist the appreciation by accumulating reserves. The volume of reserves increased enormously during these five years, which then had consequences for monetary management, but that is another story. As regards the capital flows-exchange rate dynamic, this was a period characterized by large reserve accumulation and some appreciation.

In early 2007, as the round of sovereign ratings upgrades was completed, equity inflows surged. The upward pressure on the currency came at a time when the monetary stance had moved towards contraction. Further reserve accumulation with incomplete sterilization was counter to the monetary stance and this resulted in the exchange rate being left completely to market forces. As high inflows persisted, the rupee appreciated sharply. This pattern persisted broadly till the crisis of 2008 precipitated, at which point, the rupee depreciated sharply, in line with virtually all comparable currencies. However, the impact of the crisis proved to be relatively short-lived, As capital inflows resumed in 2009, the rupee appreciated again and, though the pressure was less than in the pre-crisis phase, the tendency was similar.

In mid-2011, following the sovereign rating downgrade of the USA, capital flows reversed and the rupee depreciated. This pattern was reinforced over the following months with domestic developments, which discouraged inflows. The shifting combination of global and domestic forces contributed to a period of relatively high volatility, a striking contrast with the previous phases, in which the rupee tended to move strongly in one direction.

This phase of high amplitude posed challenges to policy. Imposing any kind of controls on outflows did not receive any consideration at all. A three-pronged approach was followed - occasional market intervention during periods of sharp downward movements; raising of

ceilings on debt inflows, including relaxation of limits on tenure and lock-in; and, a series of administrative limitations on the flexibility of market participants to engage in speculation. All three combined to contribute to some stabilization, but cannot be seen as long-term solutions. The dilemma facing policymakers today is that, having moved so far down the road towards a floating currency regime, even temporary reversals in policy are perceived as a potential regression. However, a floating regime clearly comes with significant risks to the real sector in times of high volatility and there have to be some tools available for these risks to be mitigated.

E. Reflections

Based on these patterns and interpretations, the presentation concludes with the following four sets of reflections.

First, the float has worked well for the economy within conditions of bounded volatility. Moving from a managed exchange rate regime to a virtually market-determined rate has effectively shifted the onus of risk assessment and management from the public sector to the private sector. Increasing recognition and appreciation of these risks have encouraged better hedging practices by private agents, using in the process market-based instruments available both over-the-counter and through exchanges. These are still early days on the road to substantial hedging. It must be admitted that hedging is not cheap and many agents prefer to live with the risk rather than to pay a relatively high price for its mitigation. But, the process is under way and the trend appears to be irreversible.

Second, as encouraging as these developments are, the experience of high volatility over the past several months indicates that it poses serious problems. As much as policymakers can exhort private agents to protect themselves, the fact is that hedges for such a wide range of movements are simply not available. As indicated above, even hedges for smaller amplitude are relatively expensive; even if they were available for high amplitudes, they would be prohibitively costly. In the absence of market-based instruments of risk management in these situations, it is legitimate to ask whether it is incumbent on the policymakers to provide a public solution, either by acting to limit volatility or by subsidizing the costs of risk mitigation. A systematic cost-benefit analysis of this is necessary.

Third, if managing extreme volatility is a legitimate policy objective, it cannot be done very effectively in an ad hoc way. A plan needs to be developed, which would outline the resources available, the instruments that might be used to greatest effect and, very importantly, the basis of the timing of use of various instruments and the extent that they can be used without undermining other policy objectives.

Finally, the presence of a pecking order for capital inflows established during normal times provides some space and flexibility for managing a stress situation. In the Indian context, the existence of limits on debt inflows created that space. When the other flows showed signs of

flagging, the expansion of these limits allowed a different class of investors to bring capital into the economy, helping contain the impact of capital flow volatility on macroeconomic stability. Obviously, this approach has medium-term implications for external vulnerability, but it is available as a tactical instrument in stress situations.

Capital Account Management In India

Subir Gokarn

Director of Research, Brookings India Centre (Designate)

Former Deputy Governor, Reserve Bank of India

IMF-PBC Conference on
**Capital Account Management:
Lessons from International Experience**
Beijing, March 20, 2013

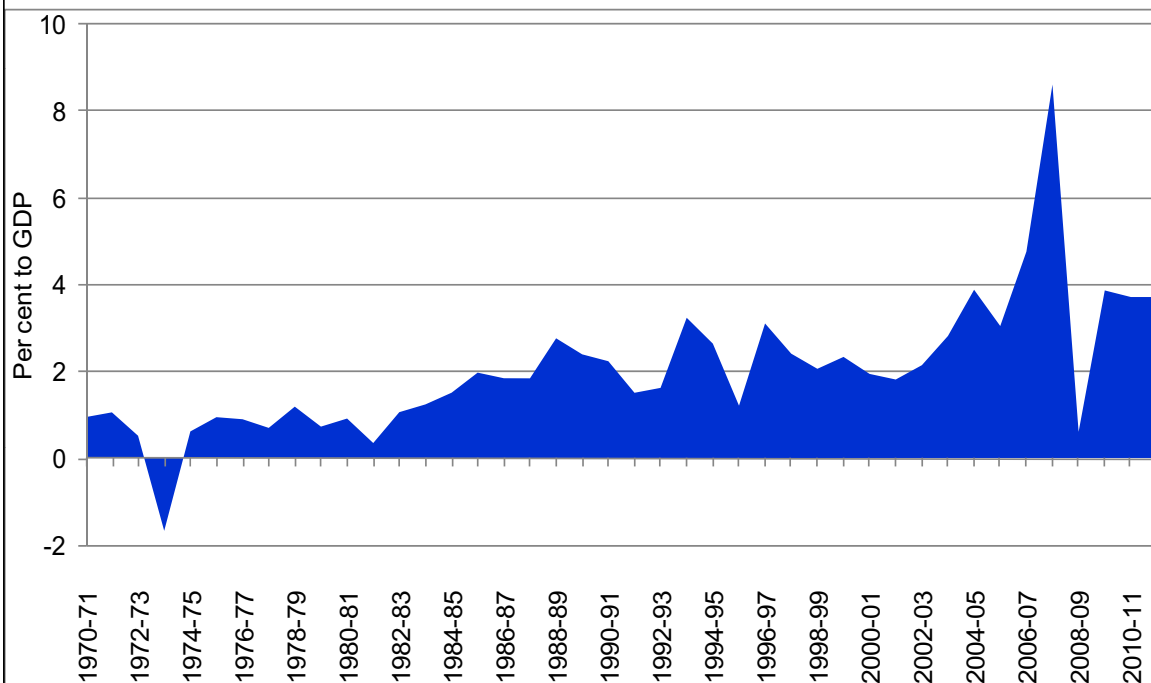
A Timeline

- **Pre 1990s:** Select sectoral FDI flows consistent with industrial policy
- **1990s:** Steady liberalization of FDI flows and opening of equity portfolio flows
 - *Late 1990s: quasi-sovereign debt issues*
- **2000s:** Private sector commercial borrowing expanded; Outward FDI liberalized
- **2010s:** Portfolio investment into government and corporate securities:
 - *Limits on amount, duration, lock-ins; emphasis on long-term, infrastructure investments*

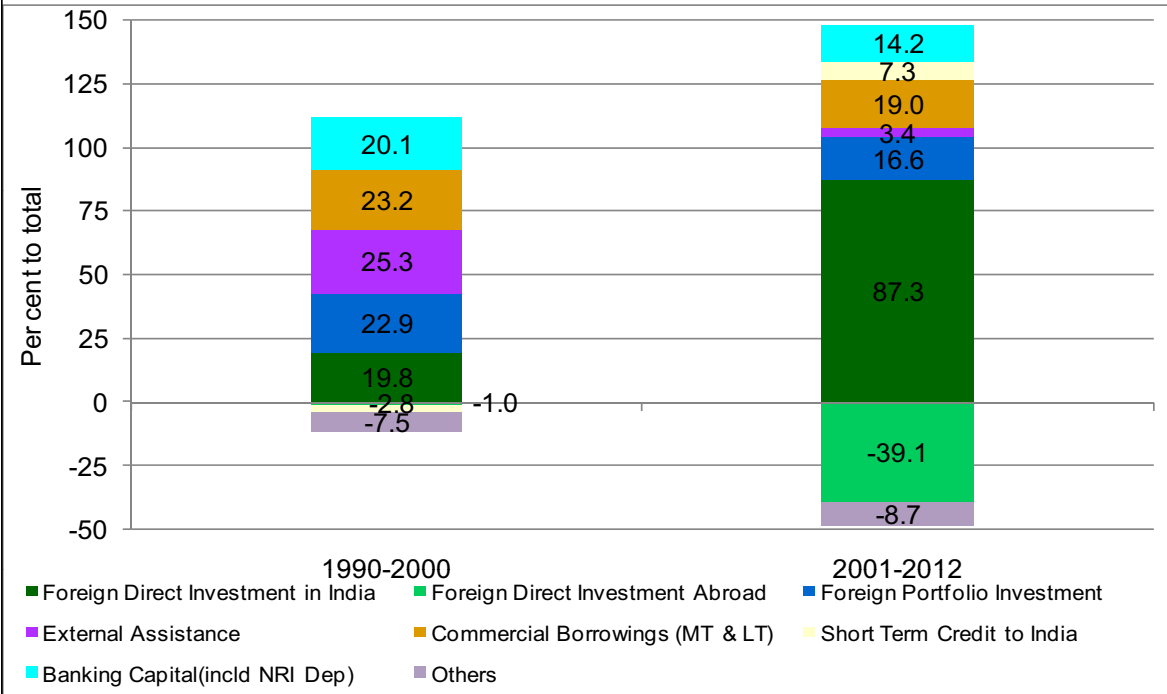
Emergence of a Pecking Order

- FDI
 - Asset creation, technological channels, exports
- Equity
 - Market and forex risks borne by investors
- Long-term Debt
 - Infrastructure finance, lower volatility
- Short-term Debt
 - Financial stability risks

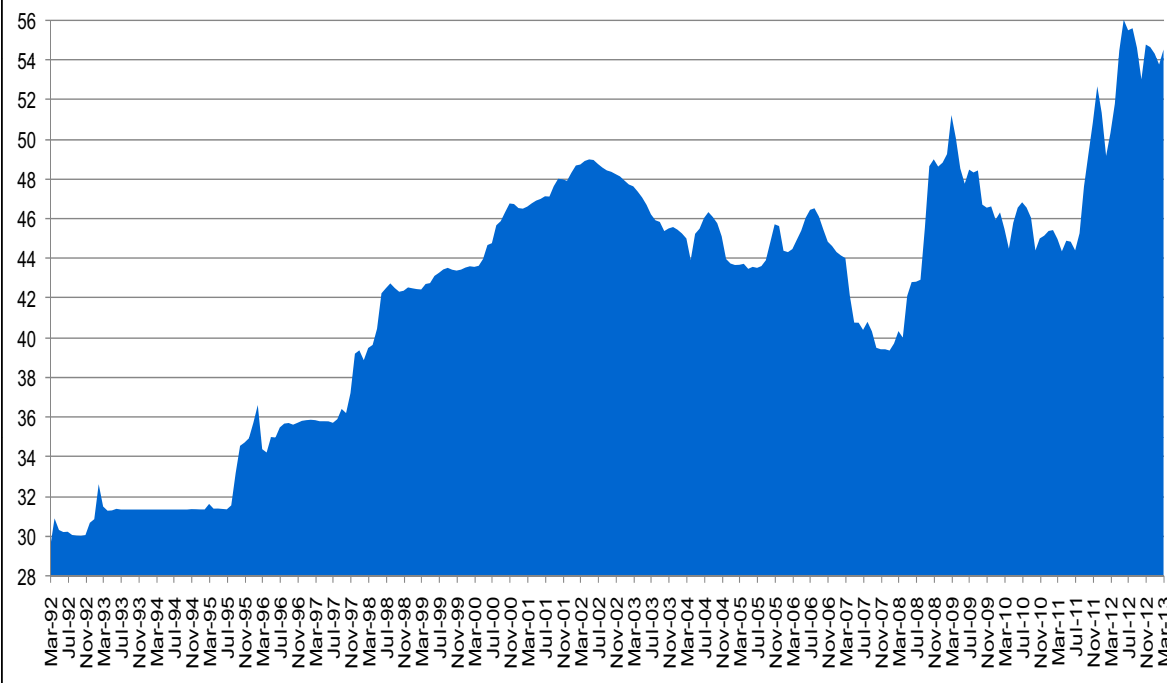
Aggregate Capital Inflows



Composition of Capital Inflows



Exchange Rate Dynamics: Rs/\$



Exchange Rate Patterns 2003-13

- Strong appreciation of Rupee as capital inflows expand and current a/c deficit shrinks
 - *Policy to resist appreciation*
- Intensification after 2007 as flows increase on ratings upgrade
 - *Effective transition to float, with pecking order in place*
- High amplitude post-crisis
 - *Float remains in place; limited intervention, but debt ceilings increased to encourage inflows*

Reflections

- **The float has worked well in conditions of bounded volatility**
 - *Increasing recognition and hedging of risks by private sector, drawing on market development*
- **But, high amplitudes pose severe problems**
 - *Market hedges are just not available*
- **Extreme volatility management remains in policy realm**
 - *Resources, instruments, timing and extent*
- **'Tactical' capital account management**
 - *Flexible use of the bottom of the pecking order*

Managing Capital Flows and Policy Challenges in Korea

Woon Gyu Choi

Capital account liberalization in Korea has followed gradual, asymmetric, and sequential approaches. The high degree of openness of Korean trade and capital markets—against the backdrop of financial globalization—has rendered Korea susceptible to external shocks before the global financial crisis. The preemptive and proactive implementation of capital-flow-related macro-prudential measures in recent years has helped reduce the duration of external liabilities and macro-financial vulnerability to external shocks.

Evolution of Capital Account (CA) Liberalization. CA liberalization in Korea until 1997—preceded by interest rate deregulation and the market-based determination of exchange rates—had been pursued gradually (in the range of entities and limits), asymmetrically (between banks and corporates), and sequentially (allowing investment outflows and then inflows) against the backdrop of current account surplus for 1985-88 and current account deterioration for 1989-96. Liberalizing first short- rather than long-term external borrowings, however, resulted in maturity mismatches. After the 1997 Asian crisis, Korea started with lifting regulations on capital inflows, developed the local FX market, and then eased limits on overseas investment, expanding net open positions and relaxing capital account transactions.

Capital Flows and Macro-Financial Stability. There have been widespread concerns about the down-side risks of capital flows that large capital flows can exert appreciation or inflation pressures; fuel asset price bubbles; cause mismatches; and are prone to reversals upon bad shocks. Specifically in Korea, capital inflows by non-residents are generally more volatile than outflows by residents, and capital inflows are more volatile during crises. Exchange rate volatility spikes during crises, while stock market volatility (at quarterly frequency) is not much affected by the global climate.

Structural Problems before the Global Financial Crisis (GFC). Korea's high degree of openness in trade and capital markets has been associated with firms' over-hedging of FX risk and banks' excessive short-term borrowings. This, in turn, resulted in sharp swings of capital inflows and stoked financial fragility upon external shocks. Short-term external debt (as percent of GDP) increased sharply before the GFC. This steep rise in short-term debt is mainly driven by banks, especially by foreign bank branches. Such short-term debt exposure caused high volatility in capital outflows, exchange rates, and CDS premium during the GFC.

Post-GFC Capital Flows. Capital inflows to Korea resumed from the second quarter of 2009, driven mainly by portfolio investment. Korea has shown resilience during the various phases of the euro zone crisis. Euro banks' deleveraging commenced in the third quarter of 2011, most severely to emerging market (EM) European countries, and deleveraging from

Asian EM countries and Korea—led by equity outflows—largely ended in 2012. Earlier quantitative easing (QE) measures seem to have a larger impact on capital flows into Korea. Capital inflows to Korea have decreased in recent years and have been stabilized since 2012, primarily attributable to the implementation of macro-prudential measures.

Capital-Flow-Related Macro-prudential Measures. To increase financial stability by correcting market failures and mitigating associated systemic risks, Korea recently introduced three capital flow-related macro-prudential measures.

- Ceilings on banks' FX derivatives positions (October 2010) were imposed to reduce banks' short-term debt by curbing their FX derivatives positions.
- A bank levy on non-core foreign-currency liabilities (August 2011) was introduced to reduce foreign bank branches' arbitrage incentive and lengthen the maturity structure of banks' external borrowing.
- A withholding tax on foreign investors' interest income from bond investment (January 2011) was reposed to check non-residents' soaring investment in Korea treasuries (after QE2). Foreign investors had been exempted from withholding tax since May 2009, and this measure restored level playing-field between residents and nonresidents.

These measures have helped lengthen the maturity structure of banks' external borrowings. Since the GFC, in terms of foreign bank assets in Korea, European banks have receded, attributable to European banks' deleveraging and a stricter ceiling on banks' FX derivative positions, whereas Asian banks have expanded.

Managing Capital Flows and Encompassing Policy Coordination. The preemptive and proactive implementation of macro-prudential measures since 2010 has helped reduce the duration of external liabilities and macro-financial vulnerability. The successful conduct and monitoring of macro-prudential measures require a clear framework for domestic policy coordination among macro-prudential authorities. EM economies in liberalizing capital account have opportunities, such as technology transfer, external liquidity, and development of local financial markets, but are prone to face threats, such as excessive external borrowings, increased asset price volatility, and loss of the efficacy of macro-financial policies. To remain resilient to external shocks and to prevent/manage a crisis, countries should strengthen regional and global policy coordination. Regional financial cooperation, such as currency swap programs and regional bond market development, will help cope with country-specific shocks, temper cross-border spillover effects, and reduce imbalances in the region. Global policy coordination—encompassing global, regional, and national financial safety nets in a multi-tier system—will help mitigate the side effects of global banking/liquidity expansions and be conducive to financial stability and robust growth.

IMF-PBC Conference (March 20, 2013; Beijing, China)
Capital Account Management: Lessons from International Experience

Managing Capital Flows and Policy Challenges in Korea

March 20, 2013

Woon Gyu Choi
Deputy Governor
Director General, Economic Research Institute
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Outline

- I. Introduction
- II. Evolution of Capital Account Liberalization
- III. Capital Flows and Policy Challenges
- IV. Macro-prudential Measures to Manage Capital Flows
- V. Concluding Remarks

I. Introduction: Key Issues

- **Capital Account Liberalization and External Vulnerability**
 - Evolution of capital account liberalization
 - Capital-flow and asset-price volatility

- **Managing Capital Flows: Macro-prudential Motivation**
 - Challenges: Procyclicality, externality, macro-financial linkages, interconnectedness
 - Proactive Policy Reactions: Macro-prudential policies help reduce bubbles and enhance the economy's resilience

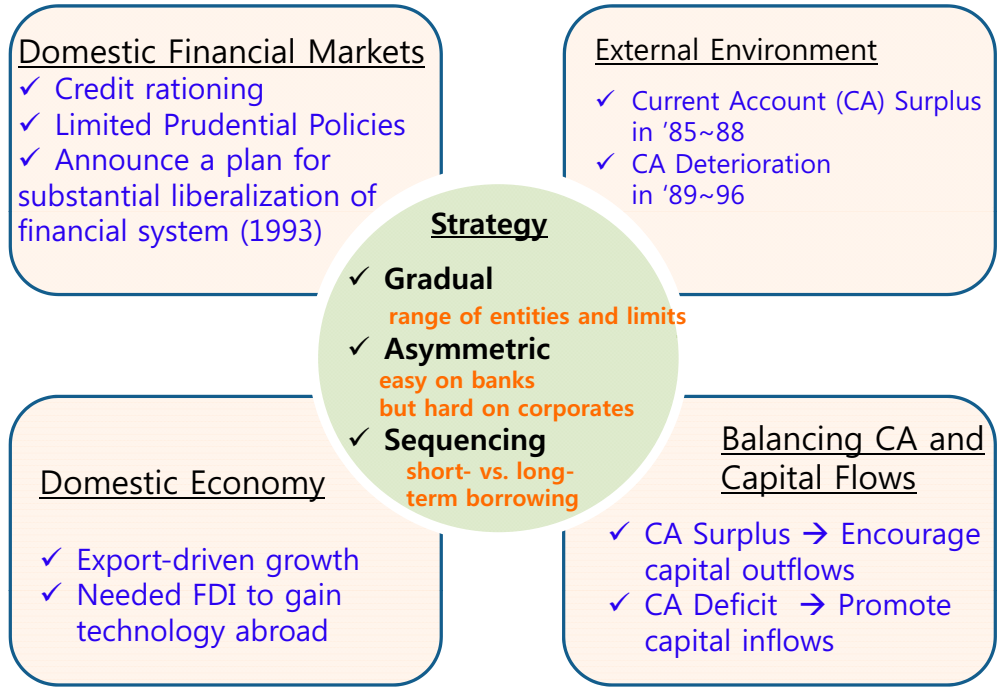
- **Capital Flow-related Macro-Prudential Measures (MPM)**
 1. Ceiling on banks' FX derivative positions;
 2. Bank levy;
 3. Restoring tax on foreigner's bond investment;
 4. Modified Tobin tax or financial transactions tax

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II. Evolution of Capital Account Liberalization

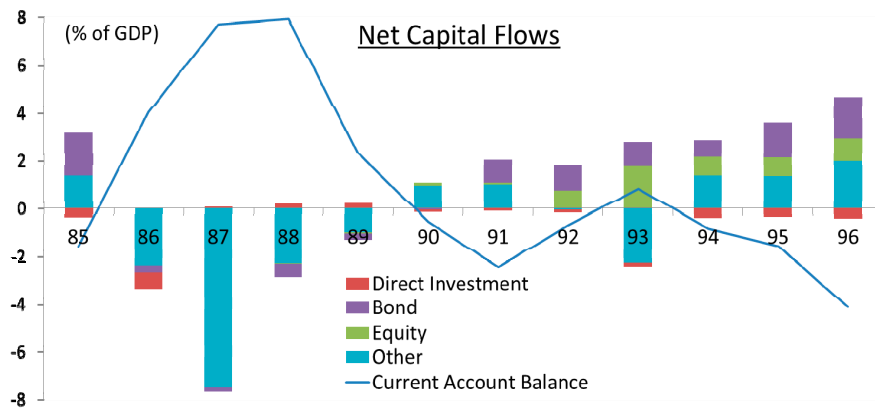
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Driving Forces of Korea's Capital Accounts Liberalization until 1997



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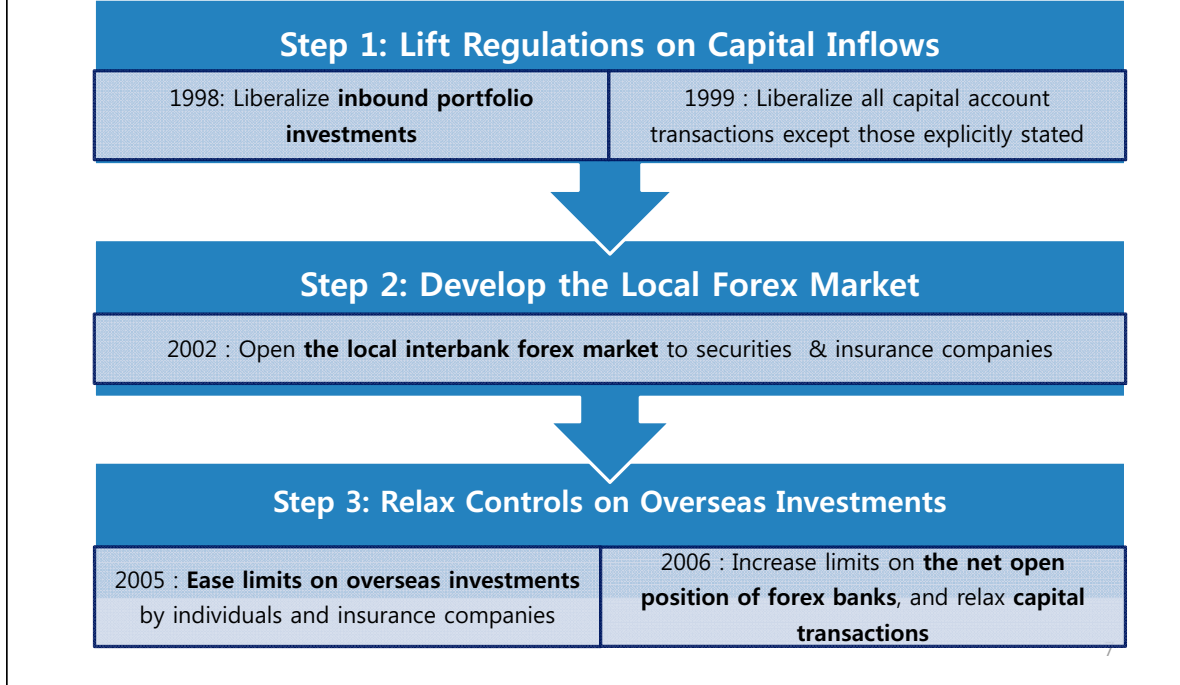
The Timeline of Korea's CA Liberalization



Portfolio Outflows <small>(institutional investors)</small>	Allow overseas investment ('88); Raise ceilings ('92, '93); Abolish ceilings ('94)
FDI outflows	Allow forex loans for overseas investment ('89); Tighten Ceilings ('91); Raise Ceilings ('92)
Banking inflows	Allow issuing bonds issue ('89); Remove ceilings on banks' short-term borrowing ('94)
Portfolio inflows	Open the stock market ('91); Raise ceilings on foreigner's stock holding ('94, '95)

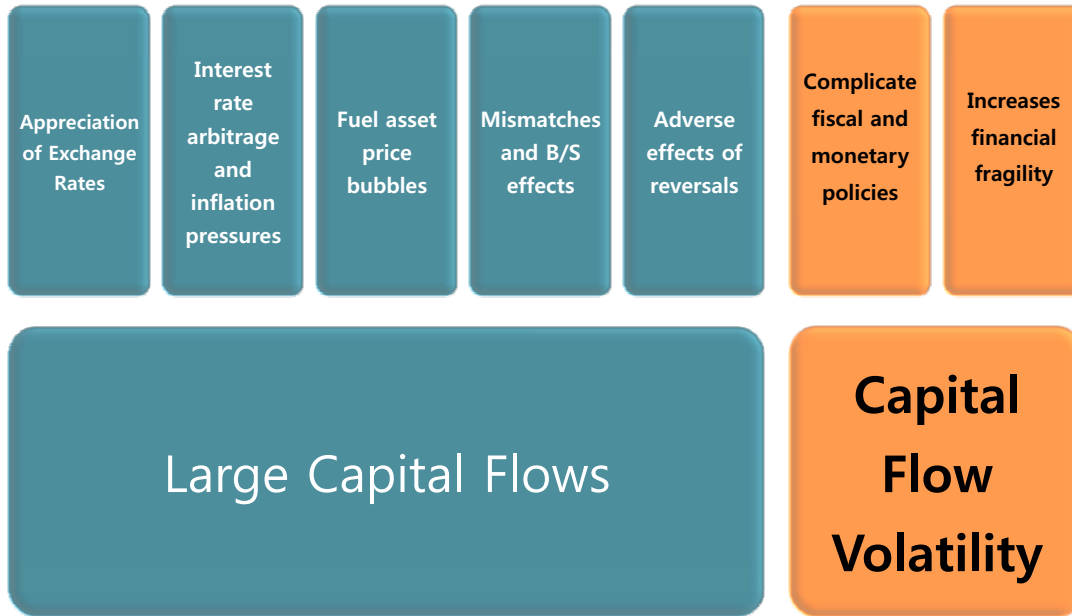
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Capital Account Liberalization After the Asian Crisis



III. Capital Flows and Policy Challenges

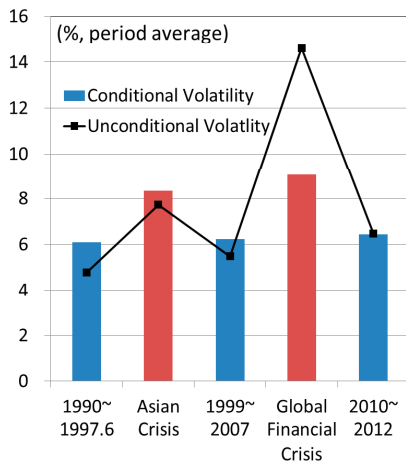
Capital Flows and Macro-Financial Stability



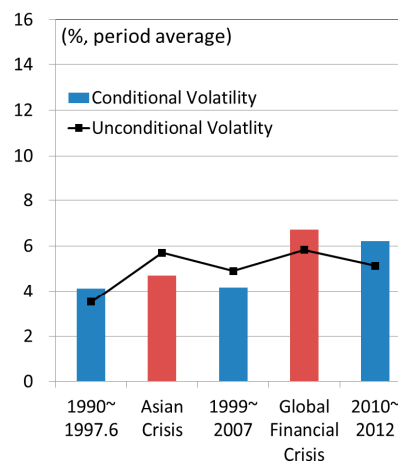
Volatilities of Capital Flows

- Capital inflows are generally more volatile than outflows and have a stable level of volatility during non-crisis periods

Volatility of Capital Inflow
(% of GDP)



Volatility of Capital Outflow
(% of GDP)

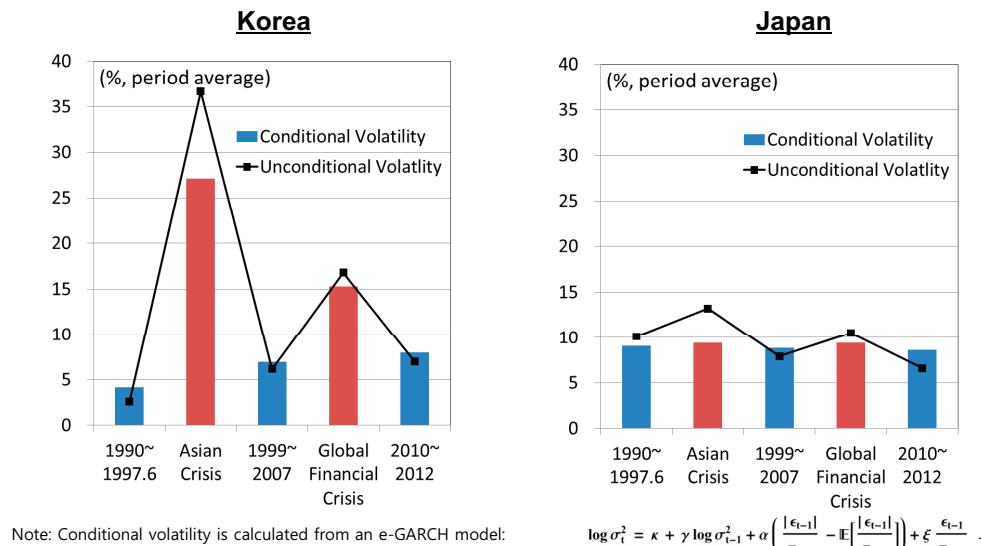


Note: Conditional volatility is calculated from an e-GARCH model:

$$\log \sigma_t^2 = \kappa + \gamma \log \sigma_{t-1}^2 + \alpha \left(\frac{|\epsilon_{t-1}|}{\sigma_{t-1}} - \mathbb{E} \left[\frac{|\epsilon_{t-1}|}{\sigma_{t-1}} \right] \right) + \xi \frac{\epsilon_{t-1}}{\sigma_{t-1}}$$

Volatilities of Exchange Rates

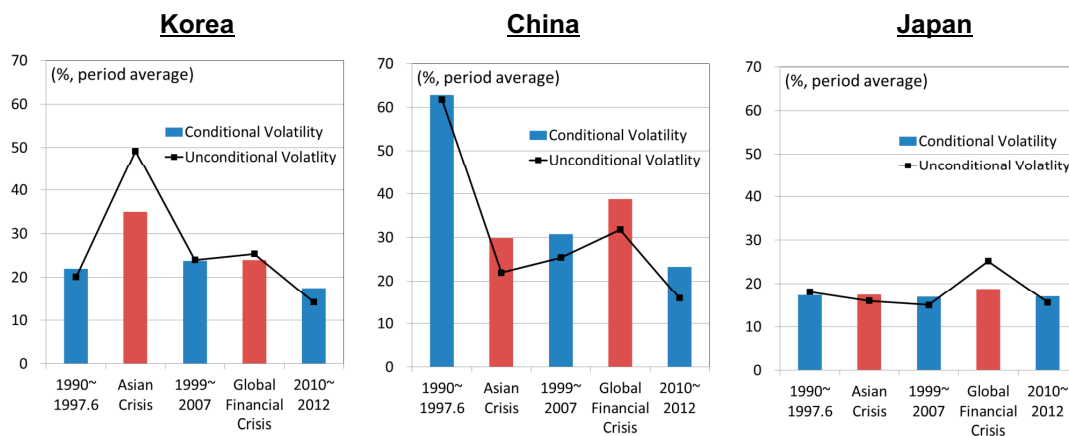
- Volatility of the KRW explodes during financial crises, while the JPY has a steady pattern of volatility



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Volatilities of Stock Prices

- Stock market volatilities are mainly dependent on country characteristics, and the global financial climate has a limited impact



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Structural Problem Before the GFC

- Before the GFC, sharp increases in external debt, especially ST borrowing by banks increased financial vulnerability



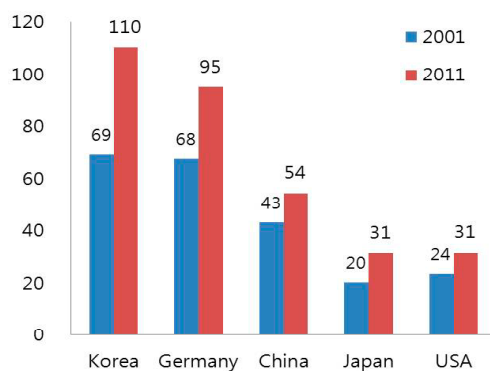
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Trade and Financial Openness

- Trade and financial market openness is high
→ High openness could be a source of vulnerability during financial turmoil

Trade openness

(Trade/GDP ratio %, IMF IFS)



Financial openness

(Capital Access Index for 2009, Milken Institution)

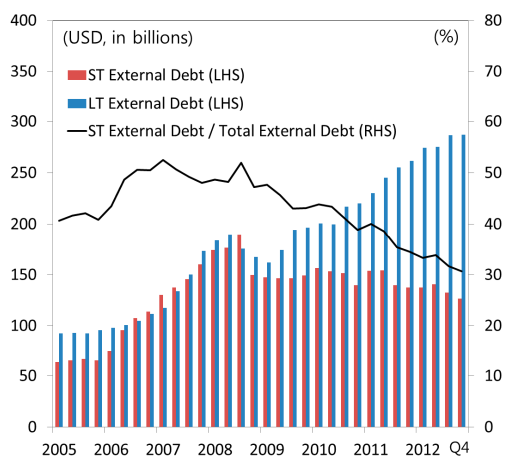
Rank	Country	Score (out of 10)
1	Canada	8.25
2	HK	7.99
3	UK	7.95
4	Singapore	7.92
5	US	7.88
12	Korea	7.39
16	France	6.99
20	Germany	6.84
23	Japan	6.72
26	Taiwan	6.54

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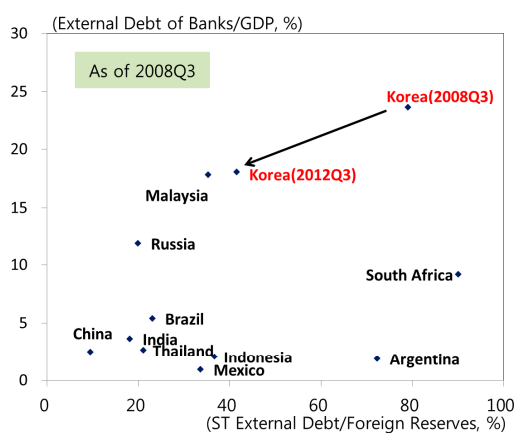
Korea's External Debt

- External debt increased sharply before the GFC
 - The ST debt to foreign reserve ratio and banks' external debt to GDP ratio were higher than other EMEs on the eve of GFC
 - The two ratios have been brought down mainly due to macro-prudential measures and deleveraging

External debt



Debt exposure & reserve coverage

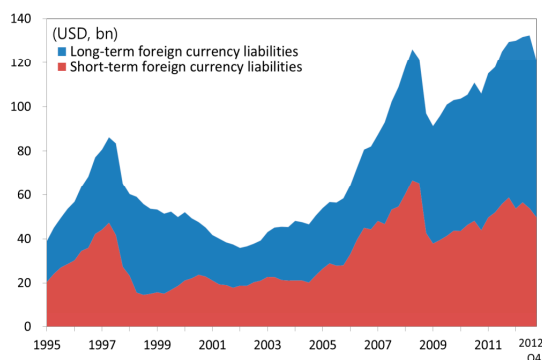


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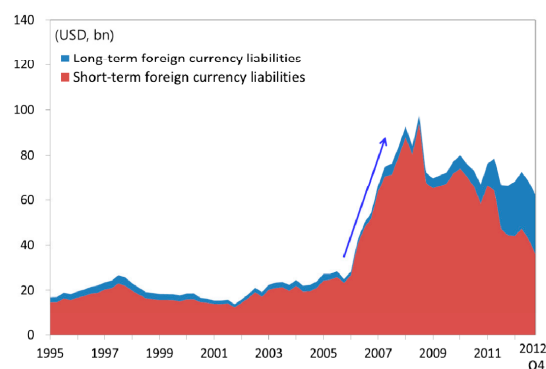
External Debt of Banks

- A steep rise in ST debt is mainly driven by banks, especially by foreign bank branches
 - During 1Q 2006 - 3Q 2008, ST debt by domestic banks doubled, and ST debt by foreign bank branches quadrupled

Korean domestic banks



Foreign bank branches

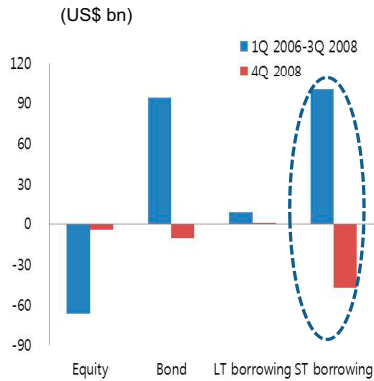


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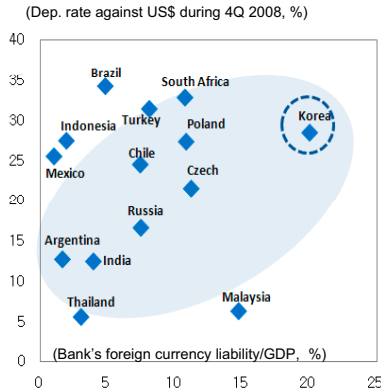
ST Debt and Volatility

- High volatility in the financial market during the GFC tends to be associated with ST debt exposure

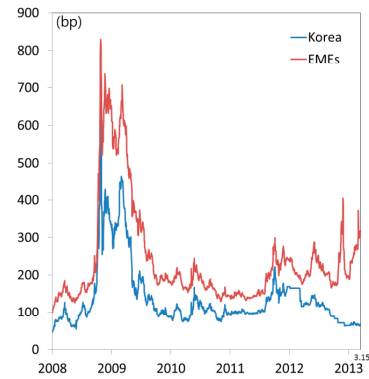
Capital flow by type



Exchange rate volatility



CDS (5-Yr) premium

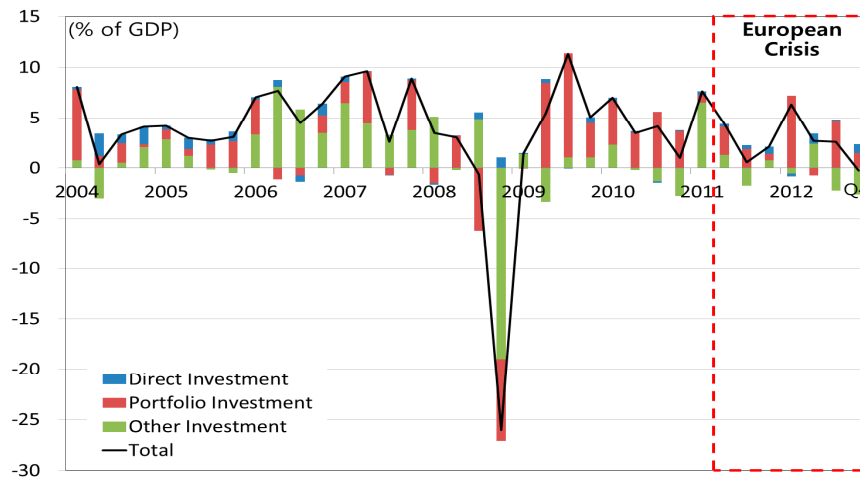


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Post-Crisis Capital Flows

- Inflow resumed from 2009Q2, driven mainly by portfolio investment
- Korea showed resilience during the euro zone debt crises, especially with robust portfolio inflows

Net Capital Flows to Korea: 2000Q1-2012Q4

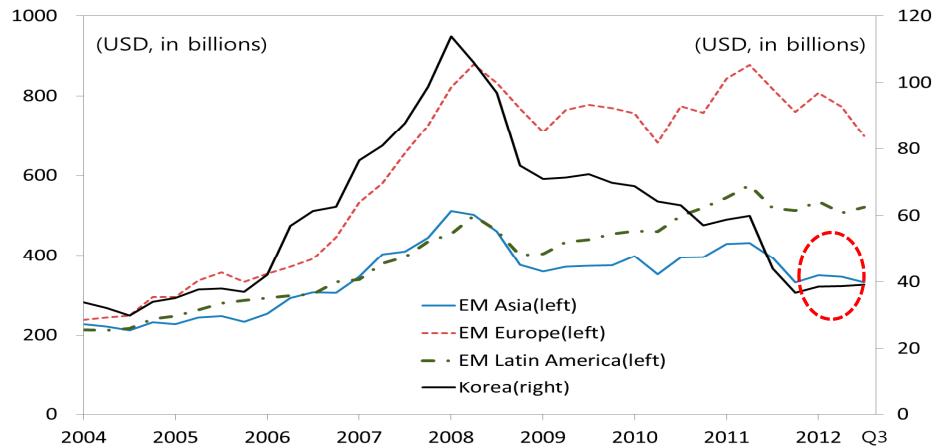


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Euro Banks' Deleveraging

- Deleveraging in EM happened in the 2nd half of 2011
- Euro banks' deleveraging was severe to EM European countries
- Deleveraging from Asian EM countries and Korea stopped in 2012

Euro zone Banks' Claims against Emerging markets

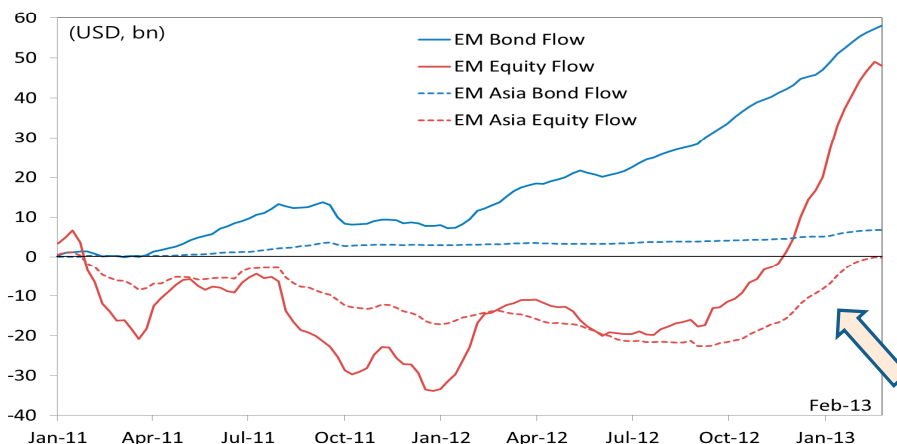


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Deleveraging in EM

- Deleveraging in Asian EMs was led by **equity outflows** between July 2011 and Sept 2012
- Equity inflows into Ems started to resume in Oct 2012

Net Flows into EM Funds



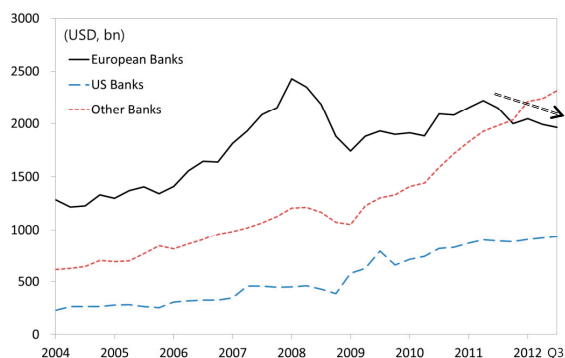
Source: EPFR (Emerging Portfolio Fund Research)

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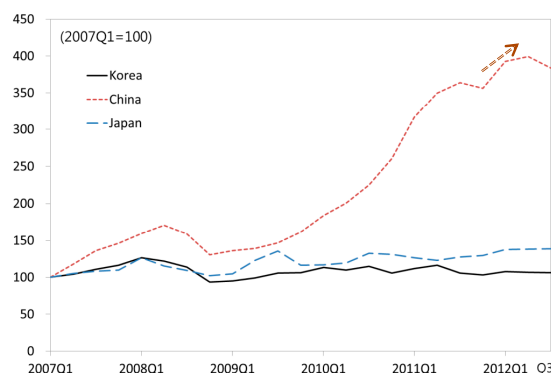
Deleveraging in Asia

- The recent deleveraging in Asia has been led by European banks
- China, however, attracted rapid inflows after Q4 2011

BIS reporting Banks' Positions against Asia



BIS banks' Claims on Three countries



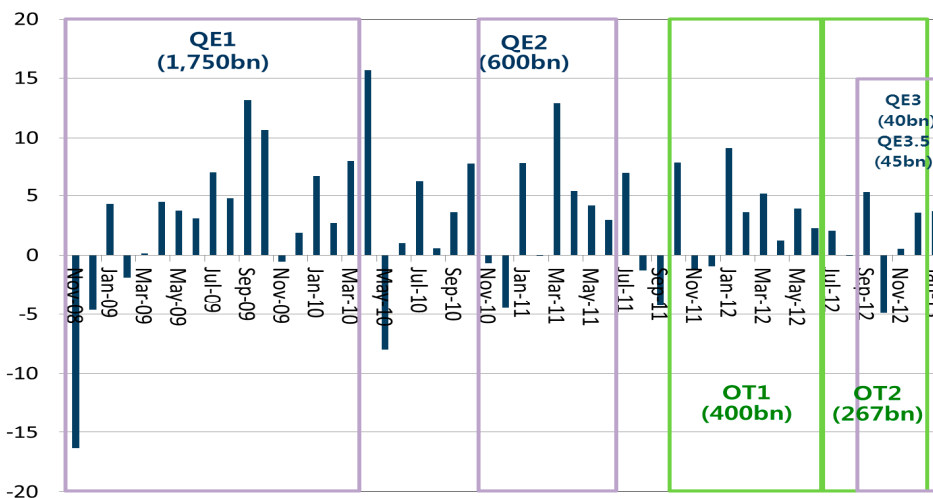
Note: includes Australia and New Zealand

Source: BIS

Fed's QE and Inflows into Korea

- Earlier QE measures had a larger impact on capital inflows into Korea
- Capital inflows have decreased and been stabilized since 2012

Capital Inflows into Korea



IV. Macro-Prudential Measures to Manage Capital Flows

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Macro-Prudential Measures

- Macro-prudential motivation
 - Aim to increase financial stability by correcting market failures
 - Distinct from capital control as it applies to residents and non-residents alike

- To mitigate associated systemic risks, Korea recently introduced three capital flow-related macro-prudential measures
 - Ceiling on banks' FX derivatives positions (Oct. 2010)
 - Bank levy (Aug. 2011)
 - Levy applies to 56 FIs, including 13 com. banks and 38 foreign bank branches, according to debt maturity considering potential contribution to systemic risks
 - Withholding tax on foreign investors' interest income from bond investment (Jan. 2011)

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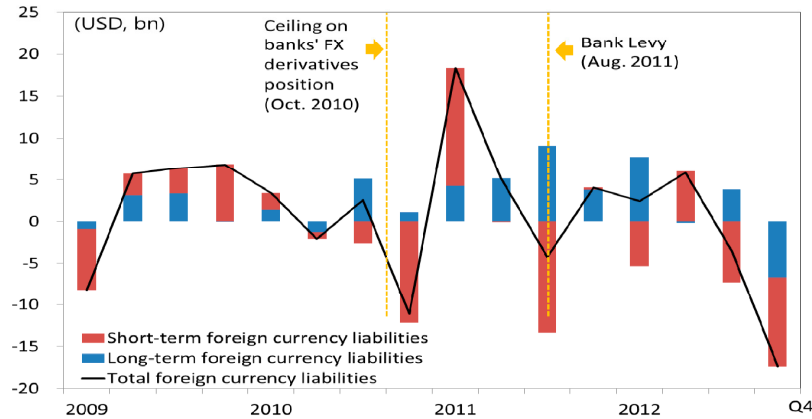
Ceiling on Banks' FX Derivatives Positions

- Aim: Reduce banks' ST debt by curbing their FX exposure
- Measure: Leverage cap on banks' FX derivative positions

	<u>Oct. 2010</u>	<u>Jul. 2011</u>	<u>Dec. 2012</u>
Domestic banks	50% of capital	40%	30%
Foreign bank branches	250% of capital	200%	150%

- Effect: Lengthen the maturity structure of banks' external borrowing

Changes in external debt

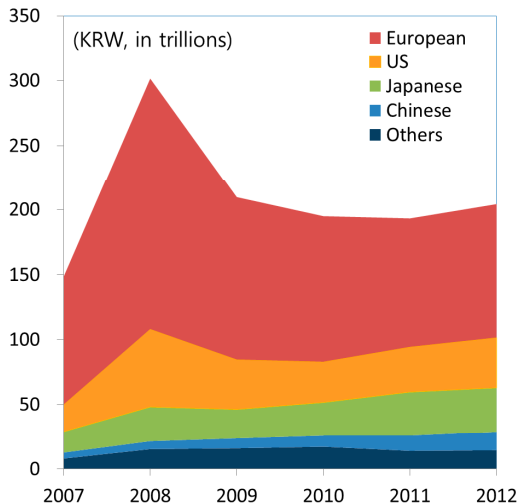


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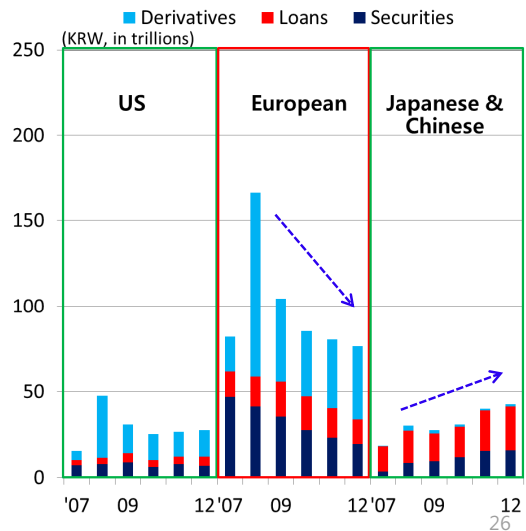
Evolving Foreign Bank Assets in Korea

- After the GFC, European banks have receded while Asian banks have expanded
- This is attributable to European banks' deleveraging and a stricter ceiling on banks' FX derivative positions

Total Asset Volume



Asset Management



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Bank Levy

- Aim: Reduce banks' dependence on non-core foreign borrowing and encourage long-term foreign borrowing
- Measure: Levy on non-core foreign-currency liabilities (Aug. 2011)
 - 0.2% for maturity less 1yr; and lower rates for longer maturities
- One measure of net return associated with ST foreign borrowing by foreign bank branches:

Arbitrage incentives = 3M CD rate – 3M LIBOR rate – 3M swap rate

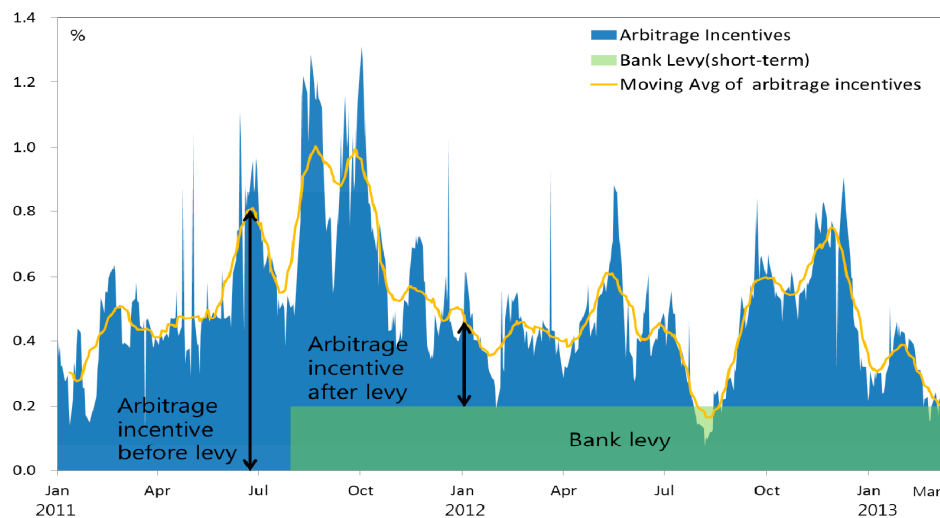
- Riskless net return earned by foreign bank branches when they borrow US dollars in the 3-month LIBOR market, then swap US dollar into Korean won in the swap market, then invest the proceeds in CD in Korea

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Bank Levy

- Effect: Reduce foreign bank branches' arbitrage incentive and lengthen the maturity structure of banks' external borrowing

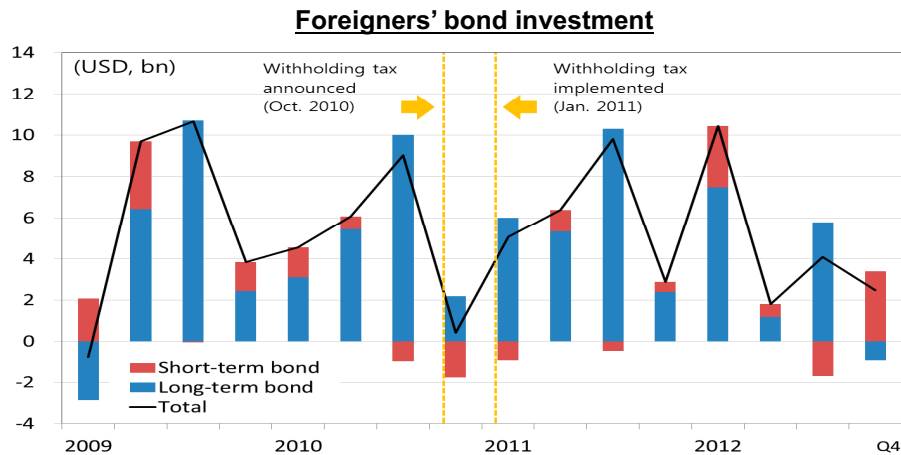
Foreign bank branches' arbitrage incentive



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Restoring Tax on Foreigners' Bond Investment

- Aim: Check soaring foreigners' investment in Korea treasuries (after QE2)
- Measure: Withholding tax of 15.4% on foreign investors' **interest income from bond investment** (Jan. 2011)
 - Foreign investors had been exempted from withholding tax since May 2009
 - Recover equal treatment between residents and nonresidents
- Effect: Reduce foreigners' bond investment



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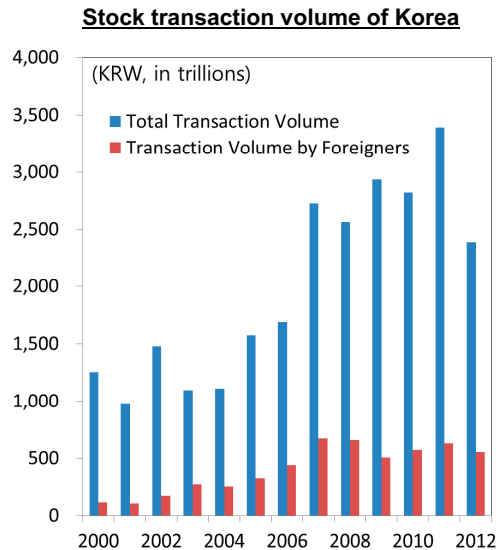
Measuring Effects of MPMs in Korea

- Counterfactual model analysis (Changho Choi, 2012)
 - Based upon a (Bayesian VAR) model of banks' foreign borrowings
 - The lion's share of adjustment takes place in the first quarter after the introduction of the policy
- The leverage cap on foreign borrowings of banks
 - Reduce total foreign borrowings;
 - More effective on short-term foreign borrowings
- Bank levy on foreign borrowings of domestic banks
 - Reduce banks' borrowings;
 - More effective on short-term foreign borrowings

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Financial Transaction Tax (FTT)

- FTT in Korea
 - 0.3% applied to stock transactions
 - No transaction taxes on currency, bond and derivatives trading
- FTT in other countries
 - 11 EU countries: 0.1 % on equity and bond transactions and 0.01% on derivatives transactions (effective from January 2014)
 - Brazil: 6% on international bond sales and loans
 - UK: 0.5% transactions tax on stock(Stamp Duty Reserve Tax)



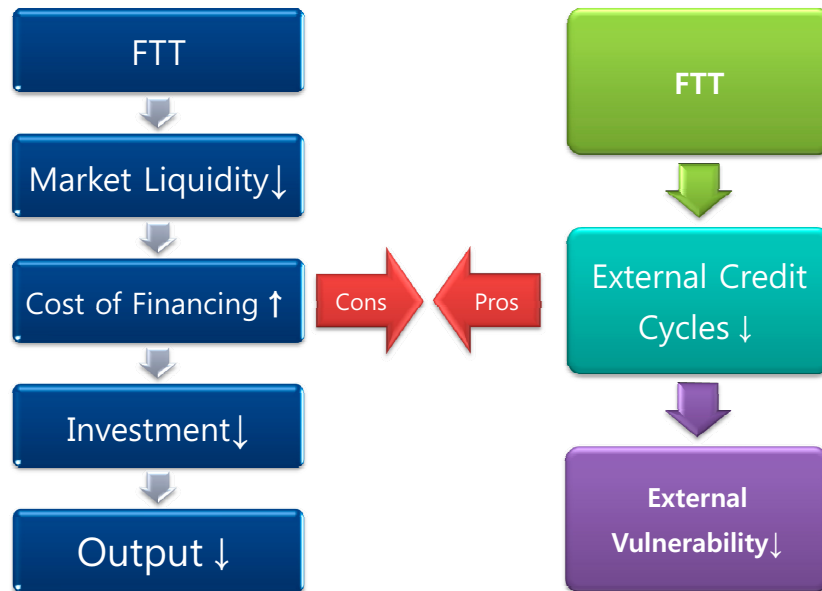
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Financial Transaction Tax (FTT) Discussion in Korea

- Discussions on FTT
 - Aim at stabilizing the financial market rather than tax revenue
 - Taxes on bond and currency transactions are considered
- FTT on bond transactions is more likely than FTT on currency trading
 - FTT on currency trading may deem to be a breach of the OECD Code of Liberalization of Capital Movements
 - Foreigners' holding of local bonds has recently increased
 - 5.83% (Mar 2010) → 7.1% (Feb 2012)

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Costs and Benefits of Financial Transaction Tax



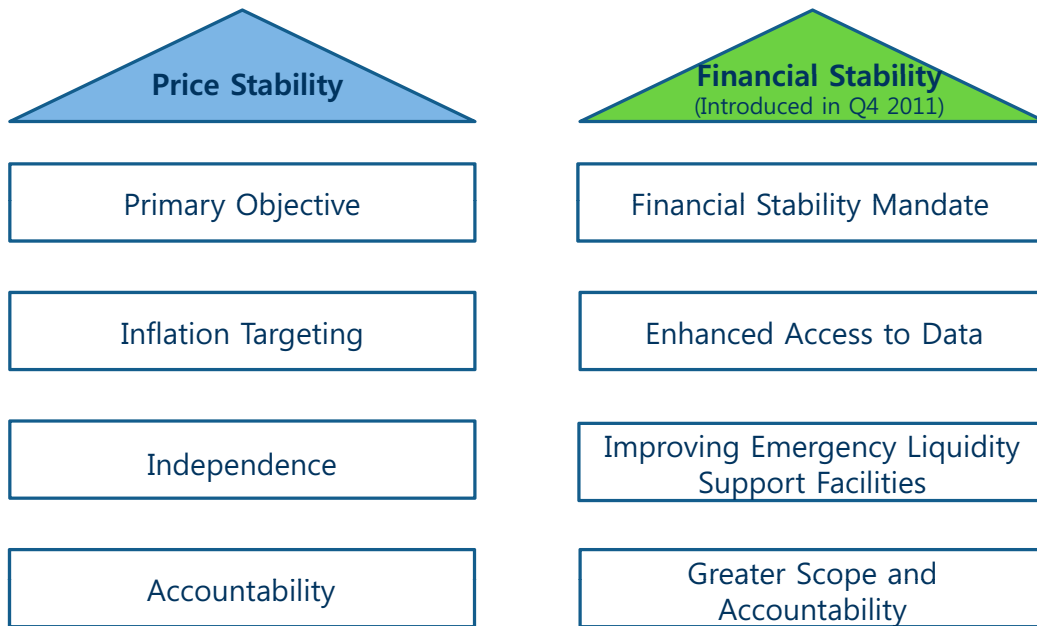
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V. Concluding Remarks

- Institutional Reform
- Domestic Policy Coordination
- International Policy Coordination

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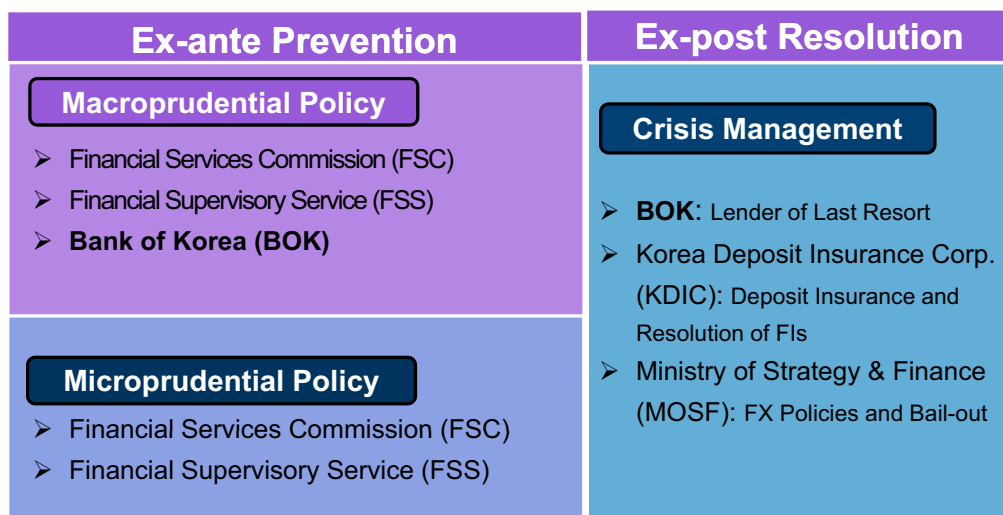
Institutional Reform: Amendment of the BOK Act (2011)



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Domestic Policy Coordination

- Need the clear formal mechanism of policy coordination among macro-prudential authorities



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Strengths, Weaknesses, Opportunities and Threats For EMEs in Liberalizing Capital Accounts

<p>✓ High productivity growth</p> <p>✓ Strong trade account</p> <p>✓ Attractive investment opportunities</p>	<p>✓ Low competency in the financial industry</p> <p>✓ Low liquidity</p> <p>✓ Highly regulated financial industry</p>
<p>✓ Technology transfer along with FDIs</p> <p>✓ Higher investment & consumption through external liquidity</p> <p>✓ Development of local financial markets</p>	<p>✓ Over-borrowing → risk of crises</p> <p>✓ Increased volatility of asset prices and exchange rates</p> <p>✓ Affect policy effectiveness</p>

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International Policy Coordination

- Strengthening regional/global policy coordination will help prevent and manage a crisis
 - Regional financial cooperation
 - For ASEAN+3 countries,
 - Chiang Mai Initiative Multilateralization (CMIM)
 - Asia Bond Markets Initiative (ABMI)
 - Global policy coordination
 - To mitigate side effects of global banking/liquidity expansions
 - To prevent regulatory arbitrage

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Regional Financial Cooperation

- Provides Regional Financial Safety Net
 - Currency swap program
 - Supplement the existing financial safety net without stigma effects
- Conducive to reducing imbalances in the region :
 - high dependence on exports vs. weak domestic demand
 - developed real sector vs. less developed financial sector
 - High intra-regional trade but lower financial integration

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Global Policy Coordination

- Orderly exit from liquidity expansions
 - Coordinate liquidity-providers and recipients
 - As global liquidity recedes, recipients may have to:
 - Supplement it with local liquidity
 - Develop measures to stabilize local financial markets
- Global Financial Safety Net
 - RFSN and National FSN may not be effective upon regional and global shocks
 - Multi-layer system: GFSN-RFSN-National FSN

Thank you!

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Liberalizing Capital Account: The Case of Turkey

Turalay Kenç

There are three main phases of globalization (Slide 2). Between 1870 and 1913, capital and labor mobility were high, free trade was limited and there were no global institution that is responsible for providing policy advice and financial safety net during the turbulent times. In the second phase of the globalization (1945-1973) capital and labor mobility were low and free trade was again limited. In this period global institutions were created. Now we are in the third phase of the globalization process which is characterized by high capital flows with limited labor mobility. Contrary to the previous two episodes, with the support of the global institutions, free trade is a widespread phenomenon this time.

A. Pre-Capital Account Liberalization Period:

There is a vast literature on the ideal timing of capital account liberalization. The general consensus is that current account liberalization should come first. If the following requirements are met then the capital account could be liberalized:

- Fiscal discipline
- Macroeconomic stability
- Regulated and supervised domestic financial sector
- Labour market reform

Turkey has started with current account liberalization in the first half of 1980s while pursuing export-led growth strategy (Slide 6). In the second half of 1980s, a financial sector reform program was initiated and finally, in August 1989 capital account was liberalized (Slides 7-8).

B. Macroeconomic Developments after the Capital Account Liberalization:

When we compare the pre-capital account liberalization period with post capital account liberalization period it is seen that budget deficit has increased significantly and inflation raised to a higher plateau. In the meantime average growth rate of the economy has declined and average current account deficit has widened (Slide 10). In the next decade of the capital account liberalization capital flows were very short sighted and volatile (Slide 11).

After the capital account liberalization, financial sector started to grow faster than the any other sectors in the Turkish economy (Slide 12). However, banking system always held open FX positions in its balance sheet without hedging and capital structure of the banking system was very weak (Slides 12-13).

In such an environment, Turkish economy faced with two major financial crises (Slide 14). In 1994 crisis, GDP declined by 6.1 percent, inflation jumped to 125.5 percent, USD/TL exchange rate increased from 0.011 to 0.03 and three private banks bankrupted. But, destructive effects of the 2001 crisis on the financial markets were much higher than the 1994 crisis. Due to massive losses in the balance sheets of

banks some banks have been liquidated or unified. As a result, the number of banks in the system has declined from 79 to 61.

In sum, Turkish economy is a good example of opening up the capital account under fiscal dominance and weak financial system. Turkish experience clearly shows that capital account liberalization further increased the government budget deficit. Because government deficits were mainly financed by the banking system through external borrowing. Implicit exchange rate guarantee of the government further encouraged banks to borrow from abroad. In such an environment, when capital flows reversed, adjustment of domestic agents' balance sheets is very painful.

C. Restructuring after the 2001 Crisis

Turkey signed a stand-by agreement with the IMF to restructure its economy. In the restructuring period, fiscal discipline enhanced, monetary policy shifted from monetary targeting to inflation targeting, financial system restructured, new regulations enacted to strengthen corporate framework.

A significant transformation has taken place during 2000s in the Turkish economy. Public debt stock declined from 74 percent to 40 percent, financial system's balance sheet has become one of the strongest among emerging market economies with healthy household and corporate sector balance sheets. These strong economic fundamentals made Turkey resilient to the recent global financial crisis. In the post-crisis period Turkey has been able to sustain high economic growth rate with high job creation rate (Slides 21-22).

D. Policy Lessons for Capital Account Liberalization

Turkish experience shows that following policy measures are crucial for a successful capital account liberalization process:

- A strong and well capitalized banking system should be enhanced.
- There should be no fiscal dominance.
- Monetary policy should be independent and ready to actively use its tools to cope with capital flows.
- Well regulated capital markets (i.e. local currency bond markets and stock market) could help to reduce the volatility created by capital flows.

E. Introducing rules and regulations that encourage long term investments and FDI

Capital Flow Management Policy after the Global Financial Crisis

Central Bank of Turkey (CBRT) has adopted a new strategy to cope with the excessive capital inflows, which is one of the consequences of quantitative easing policies of advanced economies' central banks. By using credit policy, interest rate policy and liquidity policy CBRT aims to achieve price stability (primary objective) as well as financial stability (Slides 25-26).

In addition to other macroprudential policies, Turkey has started to implement a new policy instrument, which is called Reserve Option Mechanism (ROM). In this mechanism, banks are able to hold foreign exchange or gold instead of Turkish lira for Turkish lira reserve requirements. In addition, CBRT could change the cost of holding foreign exchange or gold by changing the reserve option coefficients (Slide 28). In the aftermath of the implementation of ROM policy international reserves of the CBRT has increased significantly (Slide 30). In addition, macroprudential policies are reduced the relative volatility of the Turkish lira against the US dollar (Slides 31-32).



**TÜRKİYE CUMHURİYET
MERKEZ BANKASI**

CAPITAL FLOW MANAGEMENT IN EMERGING MARKETS

**Other Economies' Experience with Liberalizing Capital Account
Turkish Experience**

Prof. Dr. TURALAY KENC

DEPUTY GOVERNOR
CENTRAL BANK OF THE REPUBLIC OF TURKEY
March 2013

Phases of Globalization

	<u>1870-1913</u>	<u>1945-1973</u>	<u>From 1974</u>
Capital mobility	<i>High</i>	<i>Low</i>	<i>High</i>
Labour mobility	<i>High</i>	<i>Low</i>	<i>Low</i>
Free trade	<i>Limited</i>	<i>Limited</i>	<i>Extensive</i>
Global institutions	<i>Non-existent</i>	<i>Created</i>	<i>Lagging</i>
National institutions	<i>Heterogeneity</i>	<i>Heterogeneity</i>	<i>Standardization</i>

Outline

- I. Pre-capital account liberalization (CAL) period**
- II. Macroeconomic developments after CAL**
- III. Restructuring after the 2001 Crisis**
- IV. Capital flow management policy after the global financial crisis**

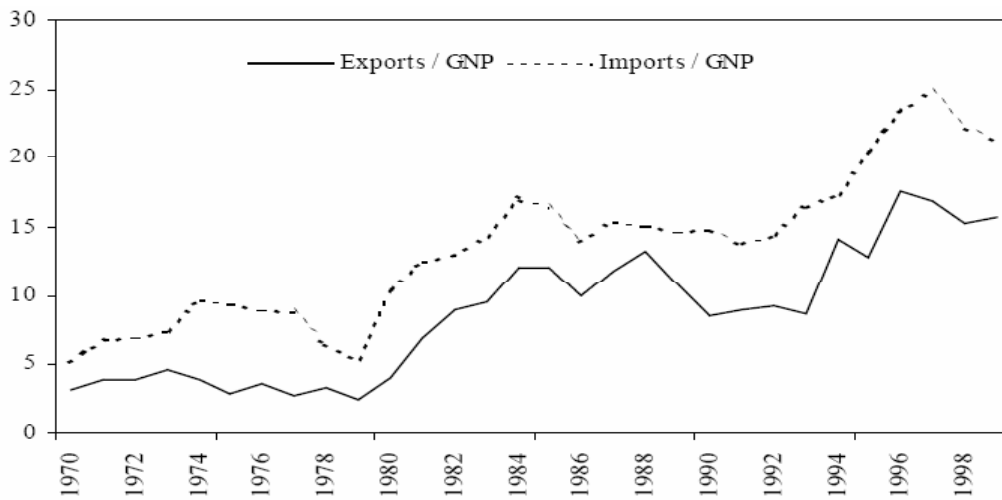
PRE CAPITAL ACCOUNT LIBERALIZATION PERIOD OF TURKEY

Prerequisites of capital account liberalization

- The timing of capital account liberalization
 - ✓ Current account versus capital account
- Prerequisites of capital account liberalization:
 - ✓ Fiscal discipline
 - ✓ Macroeconomic stability
 - ✓ Regulated and resilient domestic financial sector
 - ✓ Labour market reform

Trade liberalization began at the beginning of 1980s

Opennes Indicators of the Turkish Economy



Source: CBRT

Financial market reform before CAL

- Money market reform
 - ✓ Central bank open market operations
 - ✓ Organised repo market
 - ✓ Interbank money market
- Deregulation of interest rates
- Capital market reform
 - ✓ New Law
 - ✓ Capital Markets Board
 - ✓ Istanbul Stock Exchange
- Government securities auctions

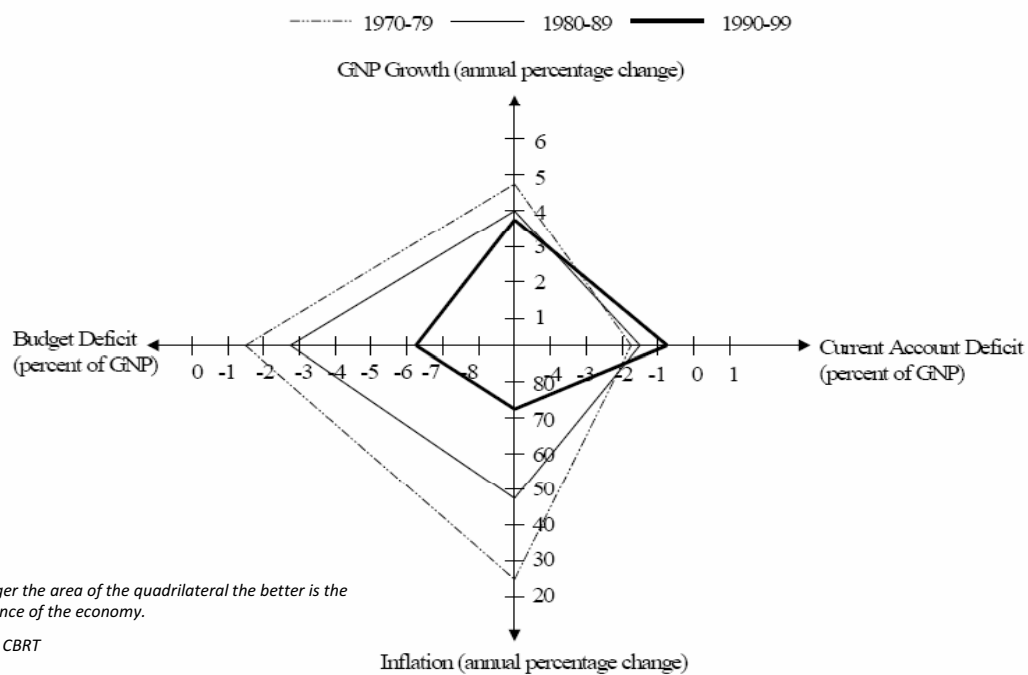
Full capital account liberalization was accomplished in 1989

The main points in Decree 32 were as follows:

- Residents can buy foreign currencies without any limitation
- Non-residents can buy and sell Turkish lira and foreign currencies
- Non-residents can buy and sell all the listed and newly issued securities
- Residents can buy and sell FX denominated instruments
- Obtaining foreign credits is liberalized.
- Non-residents are allowed to open Turkish lira accounts and to transfer principal and interests in either Turkish lira or foreign currency.

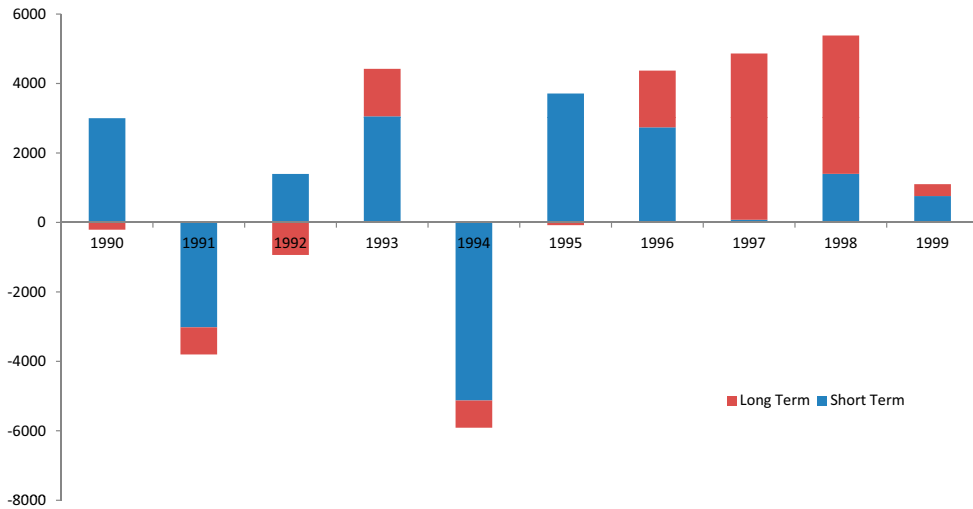
MACROECONOMIC DEVELOPMENTS AFTER THE CAPITAL ACCOUNT LIBERALIZATION

Main Macroeconomic indicators after CAL



Capital flows were short-sighted and very volatile

Decomposition of Capital Flows
(USD million)

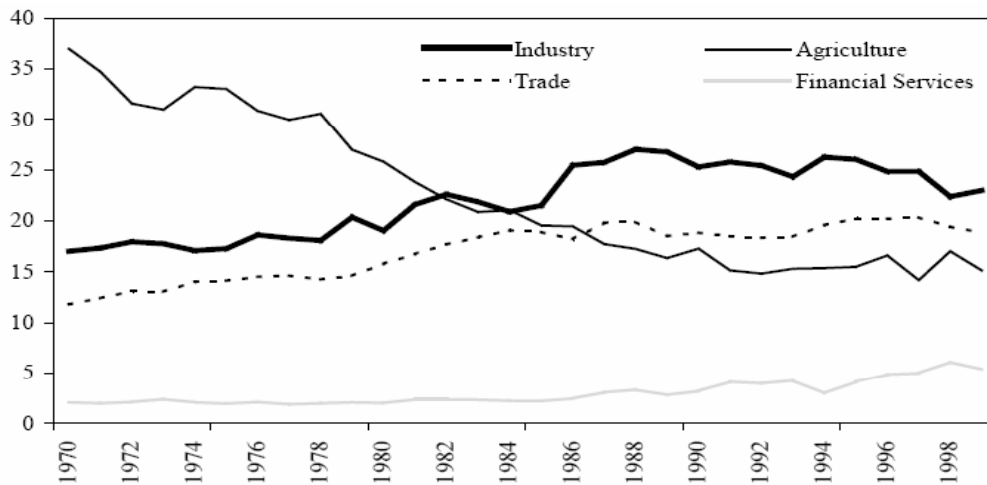


Source: CBRT



Share of the financial sector in the economy has increased

Sectoral Growth Rates
(Annual Percentage Change)

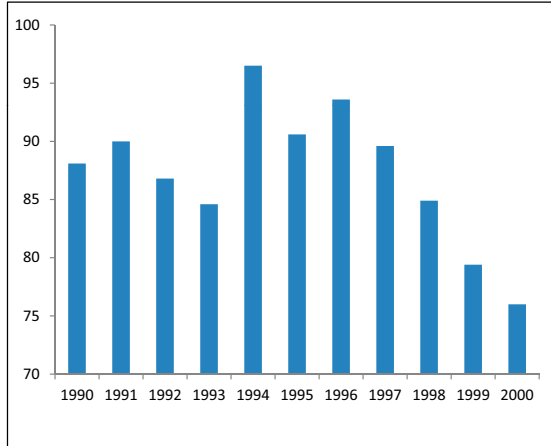


Source: Ministry of Development

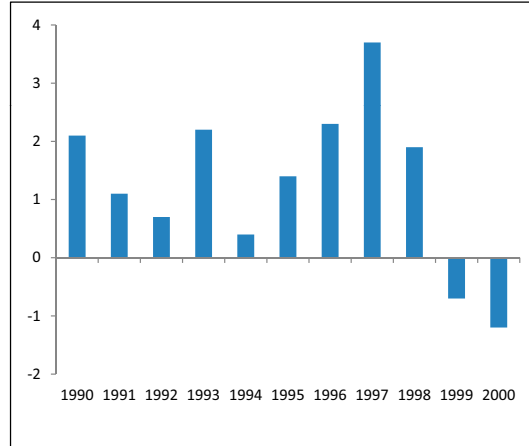


Financial sector was very fragile against shocks

FX Assets/FX Liabilities



Net Capital/Total Assets



Source: BRSA

Financial crises: 1994 and 2001

	1994 Crisis			2001 Crisis		
	1993	1994	1995	2000	2001	2002
GNP Growth	8.1	-6.1	8	6.8	-5.7	6.2
CPI	71	125.5	76	39	68.5	29.7
Unemployment	8.9	8.6	7.6	6.5	8.4	10.3
Current Account Deficit/GNP	-3.5	2	-1.4	-3.7	1.7	-0.6
PSBR/GNP	10.2	6.2	5	8.9	12.1	10
USD/TL (average)	0.011	0.03	0.046	0.62	1.22	1.5
Number of Banks	70	70	67	79	79	61

Source: Ministry of Development

Summary: Capital account liberalization under fiscal dominance

- Government budget deficit further increased in the presence of cheaper foreign borrowing.
- Monetary policy was not effective due to fiscal dominance.
- Due to weak fundamentals the financial system was unable to absorb shocks.
- Local currency bond market was shallow.
- Real exchange rate misalignments due to crawling peg system in a high inflation environment.
- Major part of the flows were in short term.

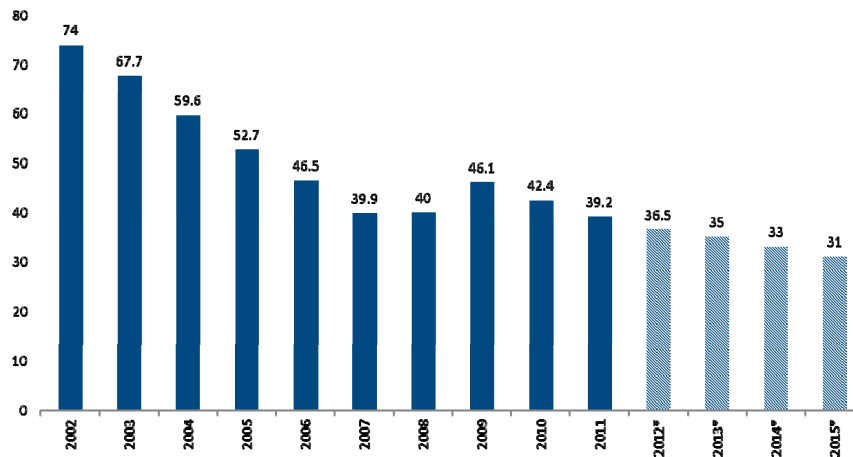
RESTRUCTURING AFTER THE 2001 CRISIS

Restructuring after the 2001 crisis

- Fiscal discipline enhanced
- Monetary policy shifted from monetary targeting to inflation targeting
 - Central bank independence enhanced
 - Moved from crawling peg to free floating exchange rate regime
- Financial system restructured
- New regulations enacted to strengthen corporate framework

Public debt stock has been declining

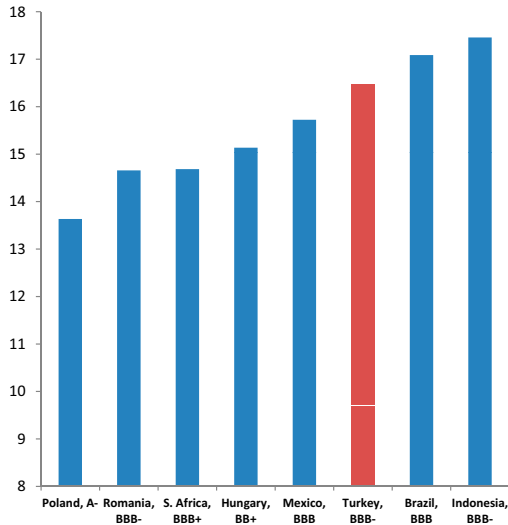
Public Debt/GDP
(as of 2012, %)



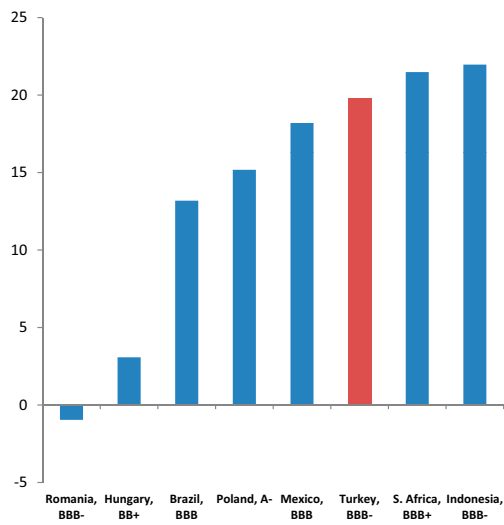
Source: Ministry of Development.
*Projections: MTP 2013-15

Strong banking sector

Capital Adequacy Ratio
(as of 2012 Q2, %)



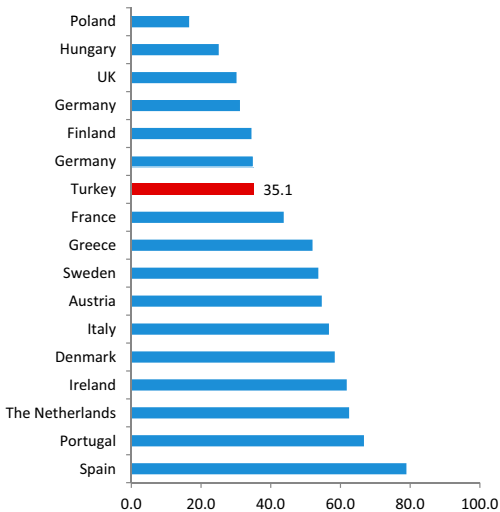
Return on Equity
(as of 2012, Q2)



Source: FSI - IMF, CBRT.

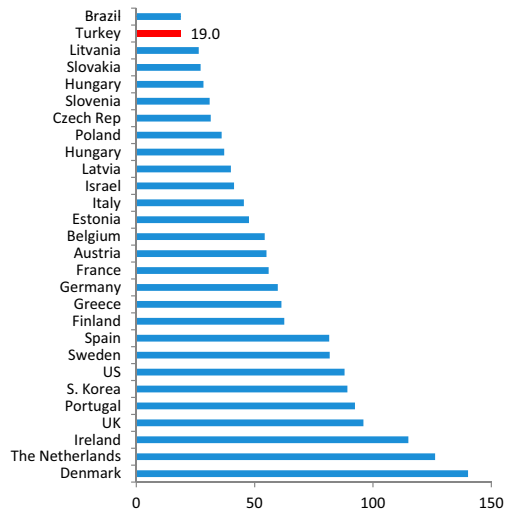
Indebtedness Levels of households and firms are relatively low

Corporate Liabilities
(% of GDP, 2011)



Source: ECB, CBRT.

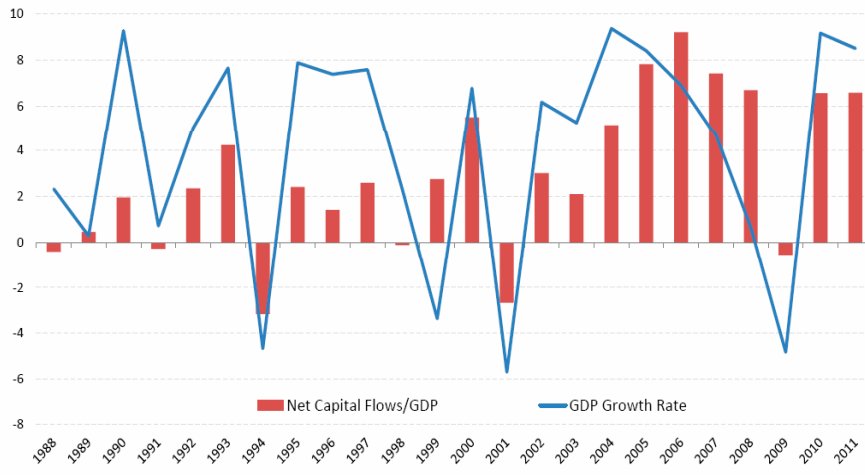
Household Liabilities
(% of GDP, 2011)



Source: ECB, CBRT.

Turkey sustained high growth rates after the 2001 crisis

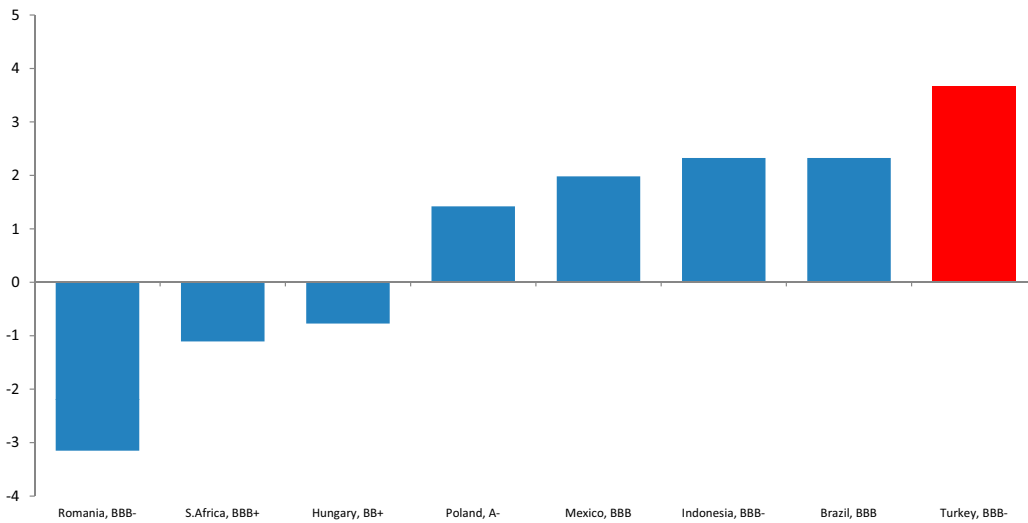
Capital Flows and GDP Growth in Turkey
(Percent, Annual)



Source: CBRT

Job creation has been strong in the post Global Crisis period

Annual Average Employment Growth in Investment Grade EMES
(2008-2011)



Source: WEO, Turkstat, CBRT.

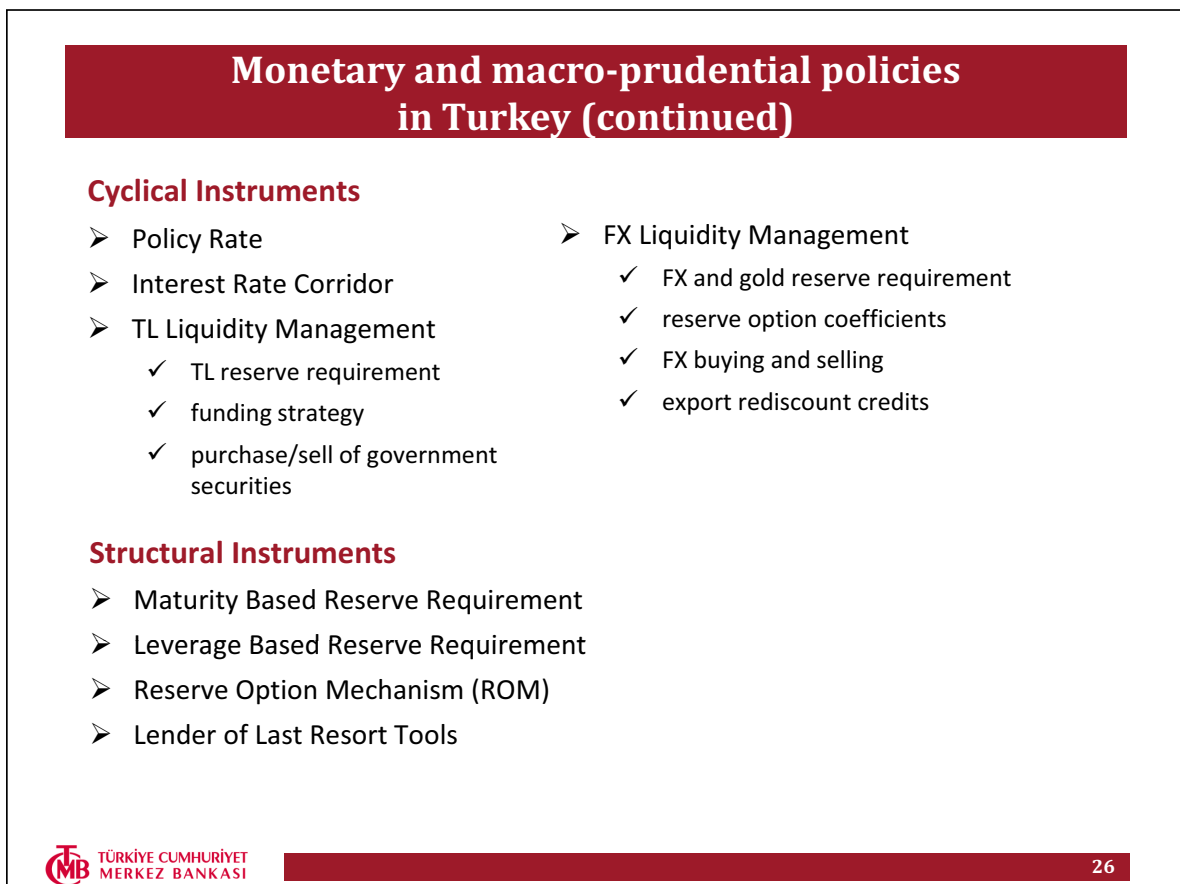
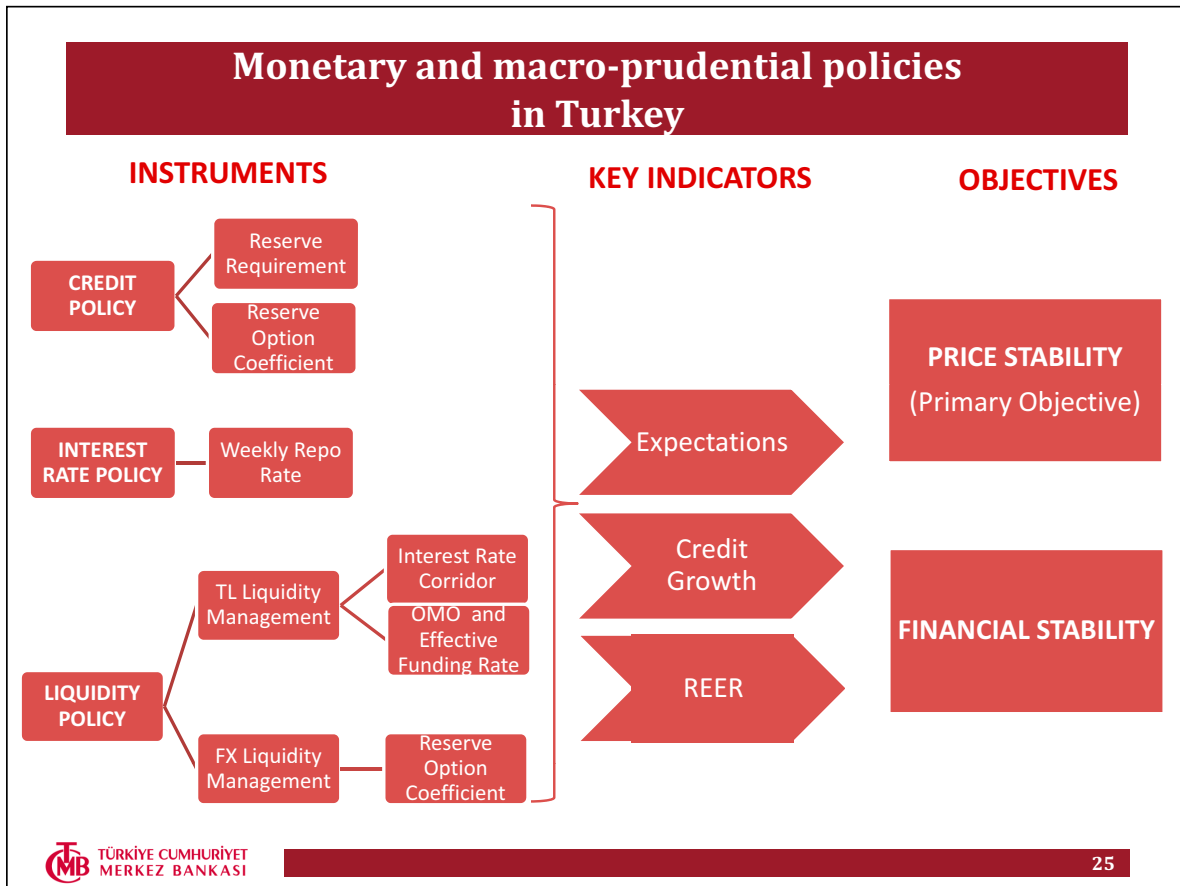
*Difference of natural logarithms.

Policy lessons: Turkish experience...

Turkish experience indicates that following policy measures are crucial for a successful capital account liberalization:

- ✓ A strong and well capitalized banking system should be enhanced
- ✓ There should be no fiscal dominance
- ✓ Monetary policy should be independent and ready to actively use its tools to cope with capital flows
- ✓ Well regulated capital markets (i.e. local currency bond markets and stock market) could help to reduce the volatility created by capital flows
- ✓ Introducing rules and regulations that encourage long term investments and FDI

CAPITAL FLOW MANAGEMENT POLICY AFTER THE GLOBAL FINANCIAL CRISIS

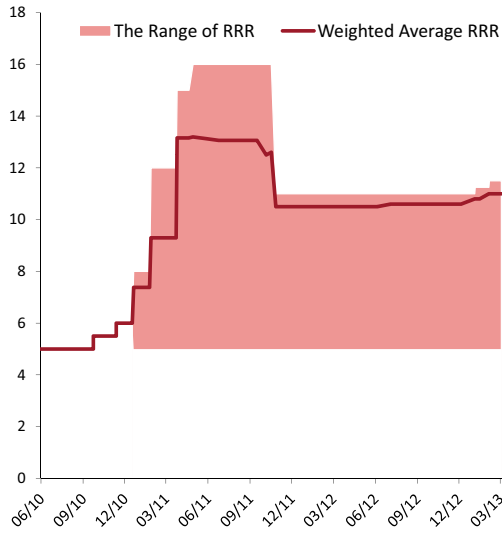


Macro-prudential policies in Turkey

- Capital adequacy
 - ✓ dividend restriction policy
 - ✓ risk weighting policy – higher weights for consumer loans
 - ✓ capital charges on larger maturity mismatches
- Provisions – higher rate on consumer loans
- Lending policy
 - ✓ guidance on annual loan growth rate
 - ✓ limits to credit card payments
 - ✓ ban on consumer FX lending
- Reserve requirements
 - maturity related measures
 - leverage related measure
- LTV caps for residential and commercial property loans

Reserve requirement policy

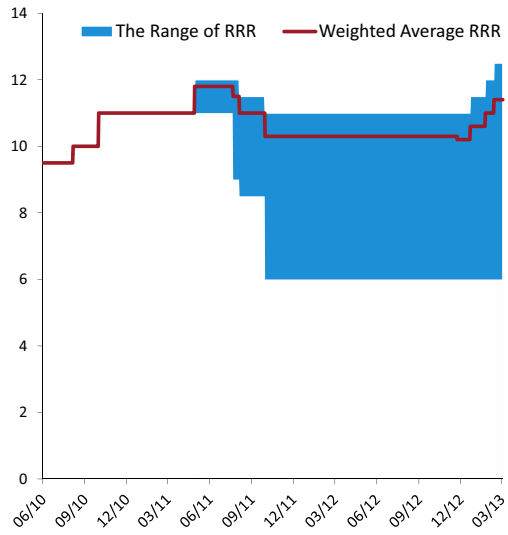
TL Reserve Requirements



Source: CBRT.

Last Observation: March 2013

FX Reserve Requirements



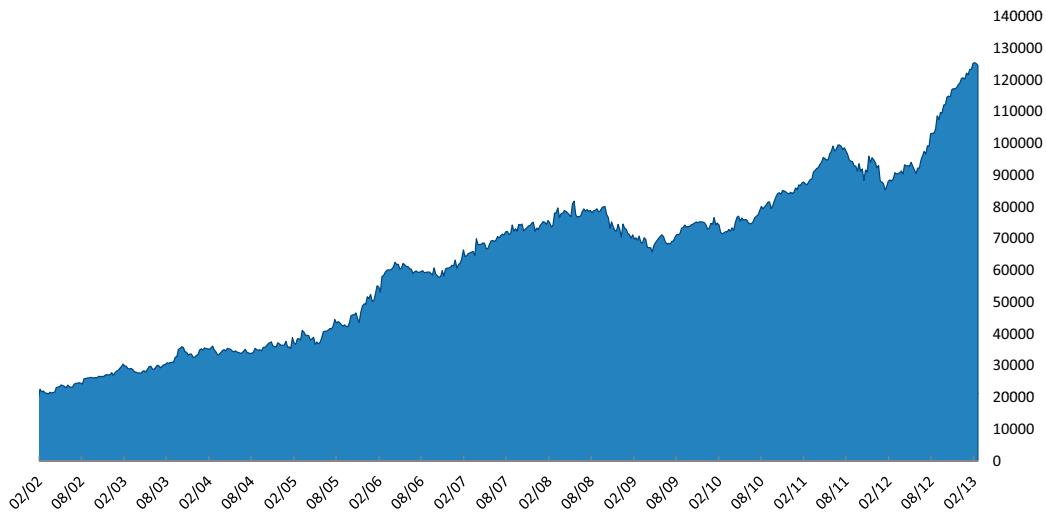
Source: CBRT.

Last Observation: March 2013



ROM boosted international reserves

**FX and Gold Reserves
(Million USD)**



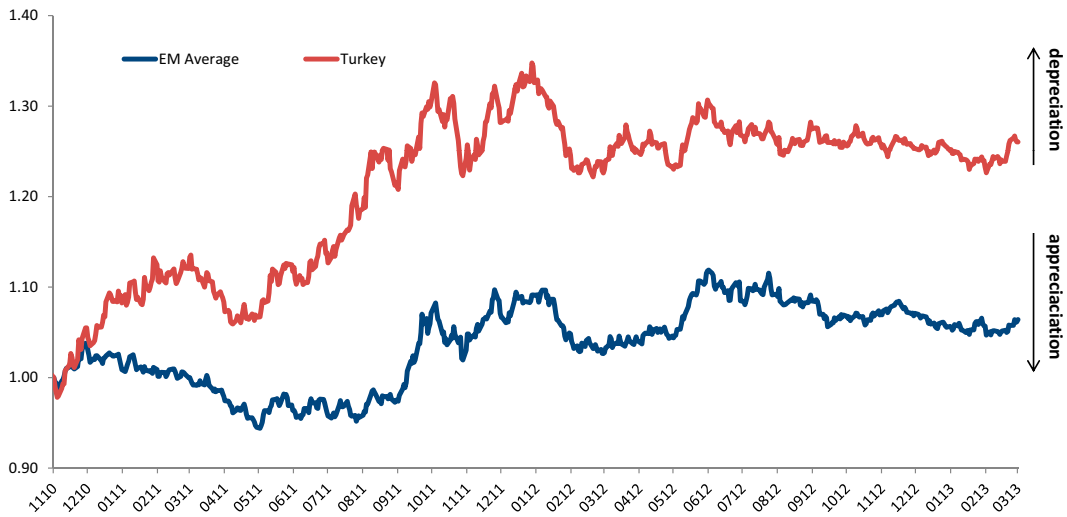
Source: CBRT

Last Observation: February 22, 2013



TL relative to other EMEs currencies

Turkish Lira and EM Currencies Against the U.S. Dollar
(01.11.2010=1)



Source: Bloomberg, CBRT.

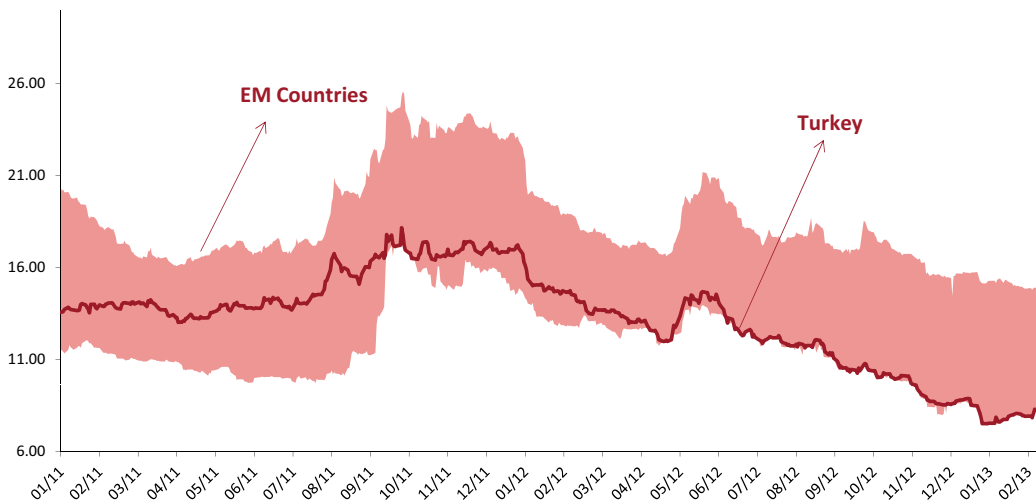
Emerging economies include Brazil, Chile, Colombia, Czech Republic, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Philippines, Poland, Romania, South Africa, South Korea and Thailand.

Last observation: March 01, 2013



Implied FX volatility

Volatility in Emerging Market Economies with CAD
(Percent, Implied for the next 12 months)



Source: Bloomberg, CBRT.

Emerging economies that are running current account deficit are: Brazil, Chile, Colombia, Mexico, Poland, Czech Rep., S. Africa, Indonesia, Romania and Turkey.
Last Observation: February 28, 2013



A Tale of Two Capital Account Liberalizations: The Case of Israel

Karnit Flug

Israel has twice undertaken a decision to liberalize its capital account. The first liberalization, undertaken in 1977, was a “Big Bang”—sudden and rapid—and ended with its complete reversal by early 1979. The second was implemented gradually, over almost two decades starting in 1987, and led to the free capital movements the country has today.

The first liberalization was undertaken against the background of fragile and deteriorating macroeconomic conditions: high inflation (at 31% and rising), a high public deficit and high public debt (16% and 110% of GDP, respectively,) and a large current account deficit (9% of GDP). At the time, financial markets were controlled and no developed capital or money markets were in place. A new government, with a liberal orientation, decided to implement a full scale capital account liberalization all at once: An administrative devaluation of 50 percent was implemented and the exchange rate regime was then changed from crawling peg to floating exchange rate, and multiple exchange rates that were in place for different transactions (e.g., exports, imports, etc.) were abolished. All restrictions and controls on foreign currency transactions were removed at once.

The implementation of the capital account liberalization, against the background of macroeconomic imbalances and lack of credibility of the economic management, led to a sharp surge in inflation (up to 111% by 1979). This, in turn, led to real appreciation reflected in a loss of competitiveness that threatened to cause a sharp increase in the current account deficit. As a result of the rapid deterioration in macroeconomic conditions, controls on foreign currency transactions were reinstated by early 1979 and the liberalization was essentially cancelled.

The second liberalization began in 1987. It was gradual and was implemented slowly, against the background of relatively stable and improving macroeconomic conditions: It was implemented concurrent with macroeconomic reforms, disinflation (from around 16% to price stability), gradually enhanced flexibility in the foreign exchange market—from a peg to a crawling band which was gradually expanded—and with deregulation in capital markets. In addition, it was implemented alongside fiscal consolidation—the debt to GDP ratio declined from 143.2% in 1987 to 93.9% by 2005.

The liberalization process that started in 1987 progressed in a sequence of steps, by direction and type of capital flow. First, restrictions on capital inflows were removed—beginning with medium and long term capital inflows restrictions, such as reducing the minimum term for borrowing from abroad from 30 to 18 months in 1989, then to

12 months and, finally, to 6 months. Later, restrictions on short term capital inflows were removed—gradually—so as to avoid the potential destabilizing effects on the exchange rate.

Second, the restrictions on capital outflows were removed. For instance, in 1989, restrictions on long term investments abroad by provident funds in “approved” foreign securities were removed. As an additional example, in 1995, the investment channel was opened to Israeli companies (except insurance companies), though with several limitations on the investment amount, relative to equity or to sales, and investment type—financial or non-financial. The removal of restrictions on short-term capital outflows was left to the last stages, due to concerns of undermining financial stability, and depleting foreign exchange reserves. Even after the restrictions on investment abroad were removed, a certain element of tax discrimination remained in comparison with investment in local assets. This tax discrimination was cancelled in 2003 and 2005.³

In arranging the sequencing of steps toward liberalization, preference was given to removing restrictions on the business sector and on nonresidents, considered sectors that would spur integration into the world economy and contribute to growth. An important feature of the capital account liberalization that was implemented beginning in 1987 was the gathering of comprehensive information on transactions in foreign currency. The slow pace of liberalization allowed the development of an infrastructure of information on Israeli residents’ activity abroad and in foreign currency. The shift from supervising transactions to reporting them was implemented without encountering opposition from the private sector. The information system in Israel was mainly built around a network of reports to the Central Bank on a current basis. A database was constructed from data reported from different sources. The data reflect activity in the financial account and local activity in foreign exchange. The principle use of the information system is to monitor capital flows and developments in the shekel/foreign exchange markets. This information is used in analysis for monetary policy and assessment of financial stability.

The capital liberalization process that began in 1987 had a profound effect on the Israeli economy, the country’s openness, as well as on the financial account. It led to an increase in all types of capital inflows and outflows. In addition to boosting long term flows and FDI (Foreign Direct Investment), it has also substantially increased short term capital inflows of nonresidents, including in derivatives.

The capital flow liberalization, combined with the floating exchange regime, increased the private sector’s awareness of foreign exchange risk. The business sector decreased its exposure to exchange rate changes partly by the increased use of hedging instruments. A

³ For the complete list of steps see Michaeli (2007).

main concern beforehand was of local savings transferred abroad, but this has occurred only gradually, due to high local returns on investment and home bias.

The recent global crisis presented a test period to the free capital flows regime. The Israeli economy experienced large and volatile short term capital inflows and appreciation of the NIS. The Bank of Israel intervened in the foreign exchange market to build up reserves, and to mitigate fluctuations that are inconsistent with market fundamentals.

A few minor CFMs (capital flow management measures)/MPMs (macro prudential measures) were introduced—a reporting requirement was imposed on activities in foreign exchange derivatives, central bank bills and short-term government bonds, and a reserve requirement was imposed on foreign exchange derivative transactions by nonresidents. In addition, a tax exemption for nonresidents on capital gains and interest income was cancelled. However, notwithstanding these actions, financial account transactions remained free, and the free floating exchange rate regime was maintained.

Concluding remarks

The Israeli economy's experience with two very different liberalization processes points to a clear advantage to liberalization that is gradual, well sequenced, and implemented against the background of stable macroeconomic conditions.

The capital flows liberalization was part of a strategy to integrate the Israeli economy into the global economy, in order to fully exploit the economy's growth potential. It triggered a surge in capital inflows and outflows, and it did facilitate a process of integration. However, during periods of global turmoil, free capital flows also exposed the economy to global shocks, and thus may sometimes require the use of some CFMs or MPMs. Overall, the free capital flows, floating exchange rate and integration into the global economy have served the Israeli economy well.

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Balfour, Ozer, Reiss, S., and Soffer, Y. "Israel's Financial Account Liberalization", Bank of Israel, (August 2005).

Blejer, Mario and Gottlieb, D., "Liberalization in the Capital Account of the Balance of Payments", in *The Israeli Economy, 1985-1998: From Government Intervention to Market Economics*, ed. by Avi Ben-Bassat, (Cambridge: MIT Press, 2002), pp. 243–273.

Michaeli, Michael, "The Liberalization of Israel's Foreign Exchange Market", in *The Bank of Israel: Selected Topics in Israel's Monetary Policy*, ed. by N. Livitan and H. Barkai, (Oxford: Oxford University Press, 2007), Vol.2, pp. 77–97.

A Tale of Two Foreign Exchange Liberalizations

IMF-PBC Conference
Beijing, China

Dr. Karnit Flug
Deputy Governor, Bank of Israel
March 20, 2013

The Israeli Experience

A Tale of Two Foreign Exchange Liberalizations

The first liberalization, 1977—a “Big Bang”:

- Sudden and rapid.
- Fragile and deteriorating macroeconomic conditions.
- Financial markets were controlled; no developed capital and money markets.
- Caused a surge in inflation, capital flight and a sharp devaluation.
- Failed and was canceled in early 1979.

The second liberalization, began in 1987:

- Gradual, implemented slowly.
- Relatively stable and improving macroeconomic conditions.
- Implemented concurrent with macroeconomic reforms, disinflation, gradually enhanced flexibility in the FX market and deregulation in capital markets.
- Completed in 2005.

The “Big Bang” Liberalization of 1977

- Macroeconomic background prior to the liberalization:
 - Large imbalance: high inflation, high public deficit and debt, large current account deficit.
- Liberalization process:
 - Liberalization carried out as a “Big Bang”.
 - Exchange rate regime was changed from crawling peg to floating exchange rate.
 - Administrative devaluation of 50 percent, and abolition of multiple exchange rates.
 - Removal of all restrictions and controls on foreign currency transactions.
- Main macroeconomic consequences:
 - Rapid increase in inflation, reaching 111 percent by 1979.
 - Surge in capital inflows leading to a sharp real appreciation.
 - Loss of competitiveness -> threat of sharp increase in the current account deficit.

3

The Second Liberalization 1987 - 2005

***From:* Pegged Exchange Rate,
Foreign Currency Supervision and 20% Inflation**

***To:* Free Floating Exchange Rate, Full Liberalization
and Price Stability**

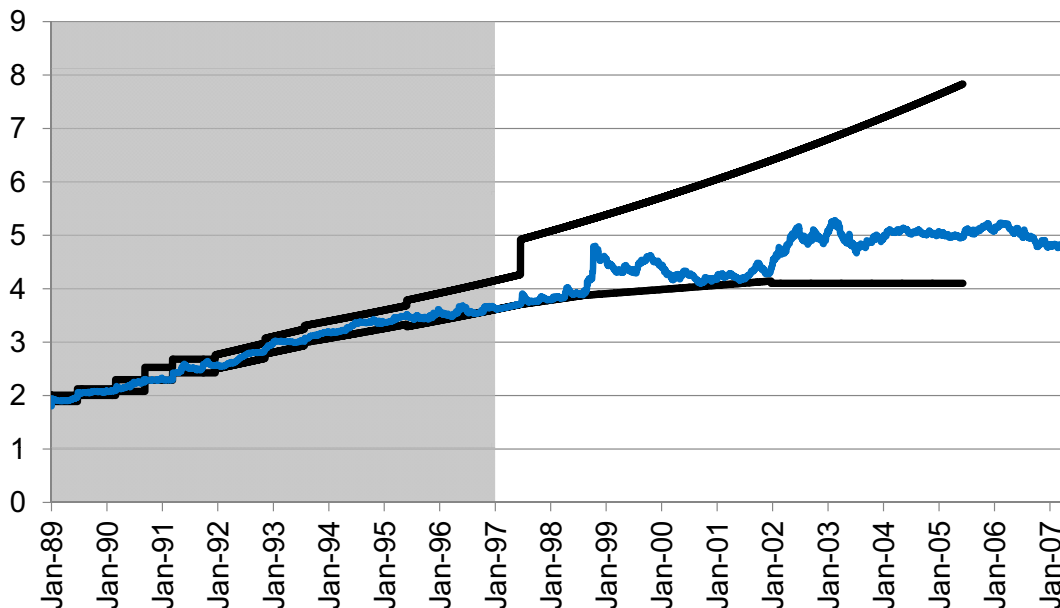
20 Years of Liberalization

	1985	1989	1991	1992	1997	1998	2003	2005
Monetary Policy Regime	Stabilization Program with Exchange Rate Nominal Anchor			Annual Inflation Target			Multi-Year Inflation Target	
Exchange Rate Regime	Pegged Exchange Rate	Horizontal Exchange Rate Band	Diagonal Crawling Band		Expanding the Crawling Band – no Intervention			Removing the Exchange Rate Band
Capital Flow Restrictions	FX Supervision	Lifting Restrictions on Capital inflows		Lifting Restrictions on Capital Outflows		Abolishing most of the Supervision Procedures on FX	Removing External Sector Tax Discrimination	

5

The Exchange Rate Regime (1989-2007)

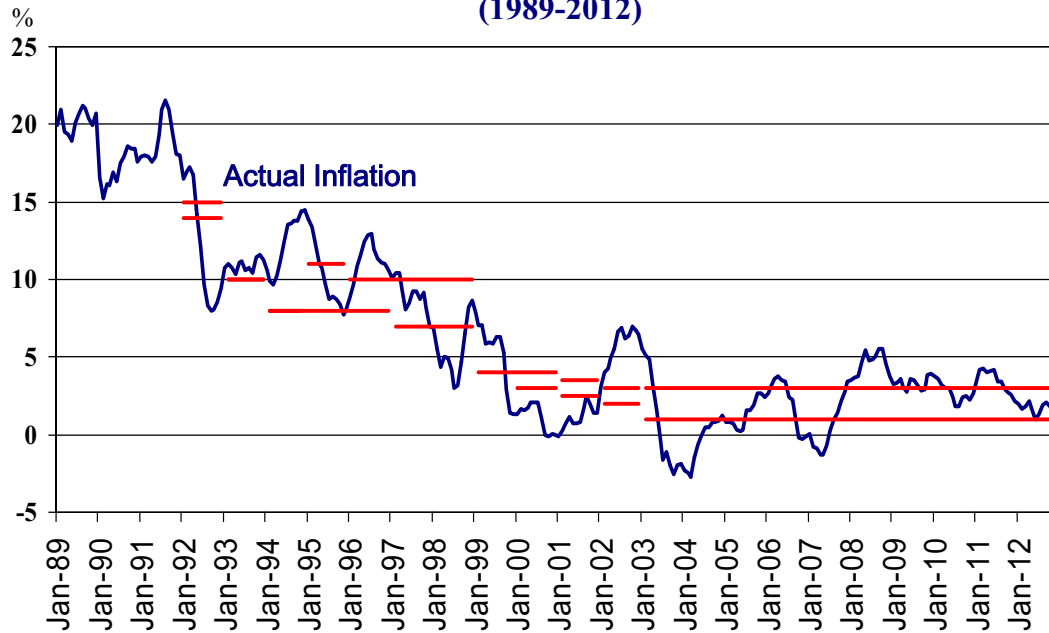
Shekel/Currency basket



SOURCE: Bank of Israel.

6

Actual Inflation* and Inflation Targets (1989-2012)



* Inflation Over Past 12 Months.

Source: Bank of Israel.

7

The Sequence of Israel's Liberalization

The Liberalization Sequence, by Instrument and Maturity

Medium and Long-Term Capital Inflows	1989, 1990
Short-Term Capital Inflows	1991
Capital Outflows	1992, 1994, 1995, 1996, 1997, 1998
Derivatives (Future, Options, etc.)	1998
External Sector Tax Discrimination	2003, 2004, 2005

The Liberalization Sequence, by Sector

Foreign Residents	A basic preferential treatment existed before liberalization started. Every year from 1987 to 1998.
"Exempted citizens" (new immigrants)	By and large exempted from foreign exchange control throughout the 1980s and 1990s
Mutual funds, provident funds, and pension funds	1989, 1992, 1994, 1995, 1997, 1998
Business sector	1987, 1989, 1990, 1991, 1992, 1995, 1997, 1998
Households	1987, 1988, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998

8

The Rationale behind the Sequence

Sequence of steps toward liberalization, by direction and type of capital flow:

- Restrictions on short-term capital **inflows** were removed gradually, due to the potentially destabilizing effects.
- Removal of restrictions on short-term capital **outflows** was left to the last stages, due to concerns of undermining financial stability, and depleting foreign exchange reserves.

Sequence of steps toward liberalization, by sector:

- Preference given to removing restrictions on the business sector and nonresidents, considered sectors that spur integration into the world economy and contribute to growth.
- Institutional investors sector, representing mainly households' savings—left to the end due to this sector's potential for transferring large part of their investments abroad.

9

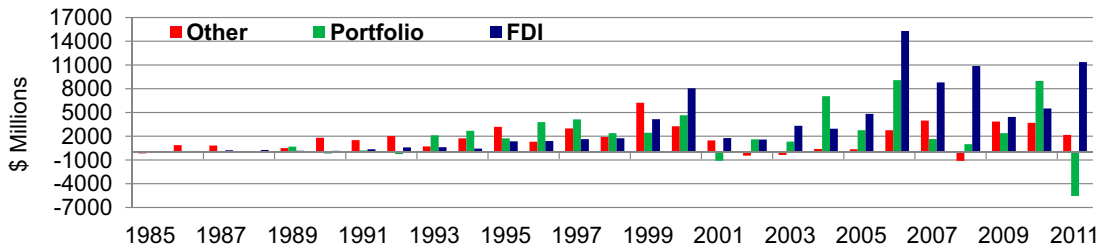
Expansion of the Information Base Concurrent with the Liberalization Process

Gathering comprehensive information on transactions was a main feature of the liberalization

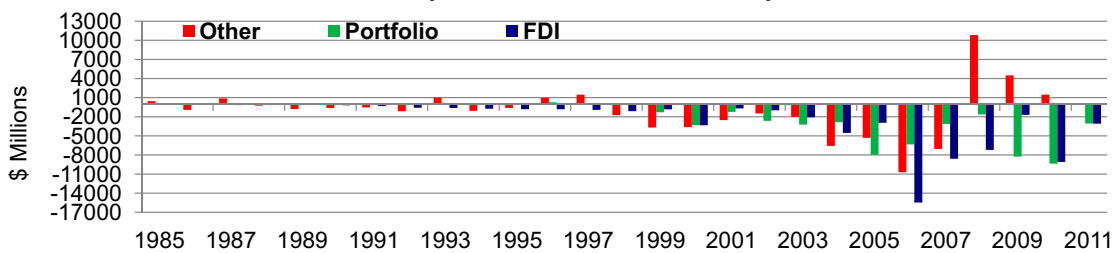
- Slow pace of liberalization allowed development of an infrastructure of information on Israeli residents' activity abroad and in foreign currency.
- Shift from transactions' supervision to transactions' reporting—without significant opposition from private sector.
- Information system in Israel was mainly built around a network of reports to the CB.
- Database constructed from data reported from different sources. The data reflect activity in the financial account and local activity in foreign exchange.
- Principle use: Monitor capital flows, developments in shekel/foreign currency markets. Information used in analysis for monetary policy and assessment of financial stability.

10

Nonresidents Investment in Israel (\$ Millions , 1985-2011)



Investment of Israeli Residents Abroad (\$ Millions , 1985-2011)



Source: Bank of Israel

11

Macroeconomic Effects of the Liberalization in Israel

- Significant impact on the Israeli economy, the country's openness and on the financial account—it increased all types of capital inflows and outflows.
- Substantially increased short term capital inflows of nonresidents, including in derivatives.
- Liberalization and floating exchange regime:
 - Private sector: increased awareness of foreign exchange risk
 - Business sector: decreased its exposure to exchange rate changes, increased use of hedging instruments.
- A main concern beforehand was of local savings transferred abroad. This has occurred only gradually, due to high local returns on investment and home bias.

SOURCE: Bank of Israel.

12

Developments Since the Global Crisis 2008 - 2012

- Large and volatile short term capital inflows and appreciation of the NIS.
- Foreign exchange intervention to build up reserves, and to mitigate fluctuations that are inconsistent with fundamentals.
- A few minor CFMs introduced:
 - Reporting requirement of activities in FX derivatives, CB bills and ST government bonds.
 - Imposition of a reserve requirement on FX derivative transactions by nonresidents.
 - Cancellation of a tax exemption for nonresidents on capital gains and interest income.
- Overall financial account transactions remained free, and the free floating exchange rate regime maintained.

SOURCE: Bank of Israel.

13

Concluding Remarks

- Comparison of the two liberalization processes points to a distinct advantage to the one implemented against a background of stable macroeconomic conditions.
- A clear advantage to gradual liberalization with well designed sequencing processes.
- The process was part of a strategy to integrate Israel's economy into the global economy, to fully exploit the economy's growth potential. It triggered a surge in capital inflows and outflows.
- Free capital flows expose the economy to global shocks in particular via surges in ST flows, and thus require in some circumstances the use of some CFMs.

14

Concluding Remarks

- A stable and credible macroeconomic environment, a strong banking system and protection against exchange rate risks enhance the resilience to shocks of an economy with fully liberalized capital flows.
- Overall, the free capital flows, floating exchange rate and integration into the global economy serve the Israeli economy well.

15



Thank You

Background Capital Control Liberalization in South Africa

Ismail Momoniat

A. The South African Context

Over the past decade, the South African economy has grown moderately and close to global average GDP. South Africa has not enjoyed the high growth rates which have been achieved by larger emerging economies, particularly in Asia (See figure1). The South African economy is also significantly smaller in nominal GDP terms when compared to its Brazil, Russia, India and China (BRICS) partners.

South Africa is a low-saving developing economy, with high domestic investment requirements; South Africa requires foreign direct investment in order to support domestic investment financing requirements.

Figure 1: Annual GDP Growth



Source: World Bank/IMF. 2 IMF April WEO (2013/14 forecast).

Although lagging in nominal GDP and GDP growth rates, relative to other emerging economies, the South Africa financial sector is relatively well-developed with South African currency (Rand), being traded widely (high turnover) and also in the off shore markets. This is not in itself unique to South Africa, as China, Indonesia and Mexico are in a similar position. The only exception is that South Africa is a relative outlier in terms of offshore currency trading as a percentage of global trades. These factors indicate that real trade is not the principal driver for Rand trading activity turnover, but rather it is the size and depth of SA financial markets.

Figure 2: Ratio of foreign exchange turnover to trade

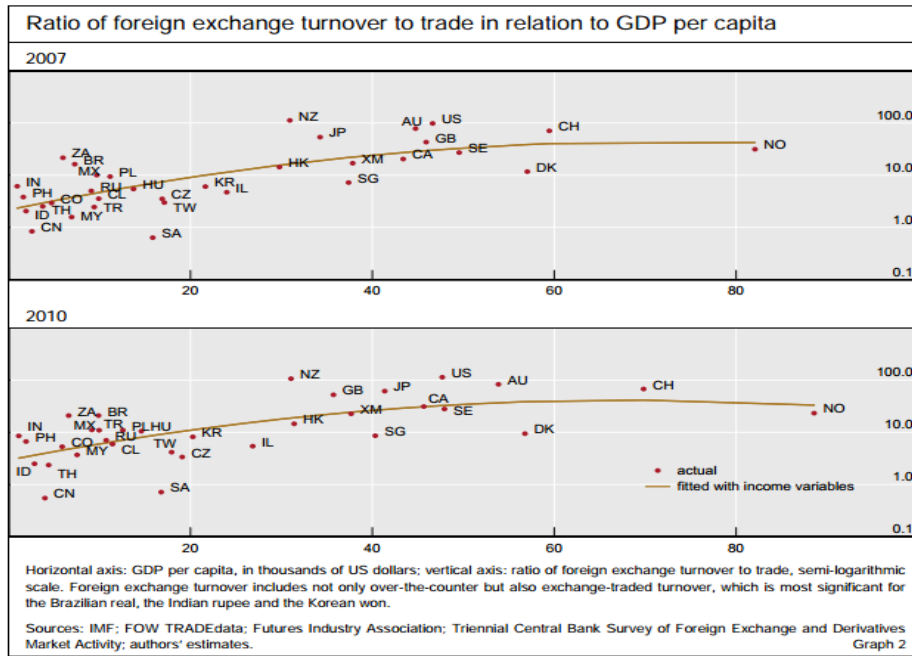
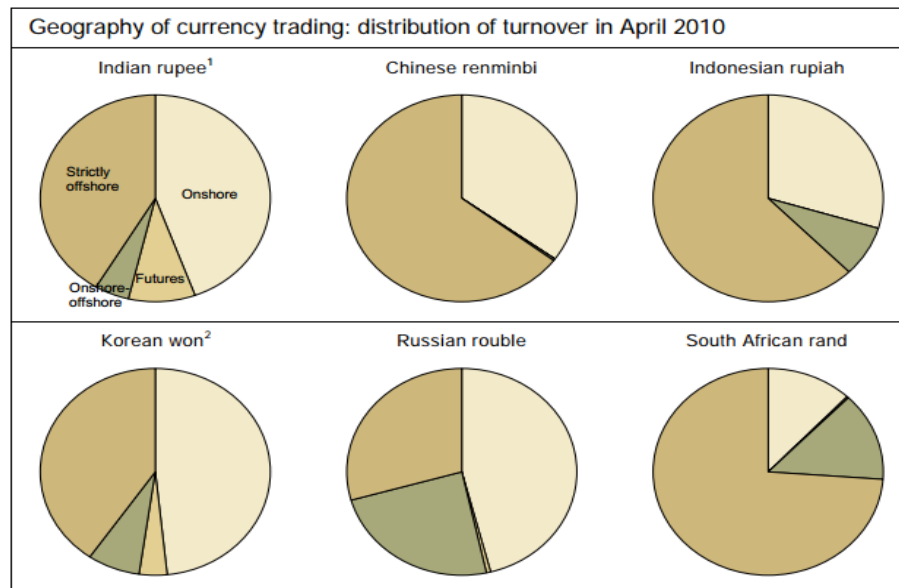


Figure 3: Comparative currency trading geography



As with many developing countries, South Africa has had a persistent current account deficit for a number of years. South Africans do not save enough to finance South Africa's investment needs. As a result, the country needs to attract foreign savings, in the form of foreign direct investment, foreign portfolio investment and other forms of foreign finance. The persistence of the current account deficit can be explained by various factors including South Africa's high propensity to import, the dramatic increase in imported prices, a less competitive manufacturing sector and the high levels of external investments by South

African companies. The relative make up and indeed significance of these factors are contested in academic and policy circles, however. Financing of the current account shortfall is increasingly dependent of foreign ownership of domestic assets.

Figure 4: Ownership of South African securities

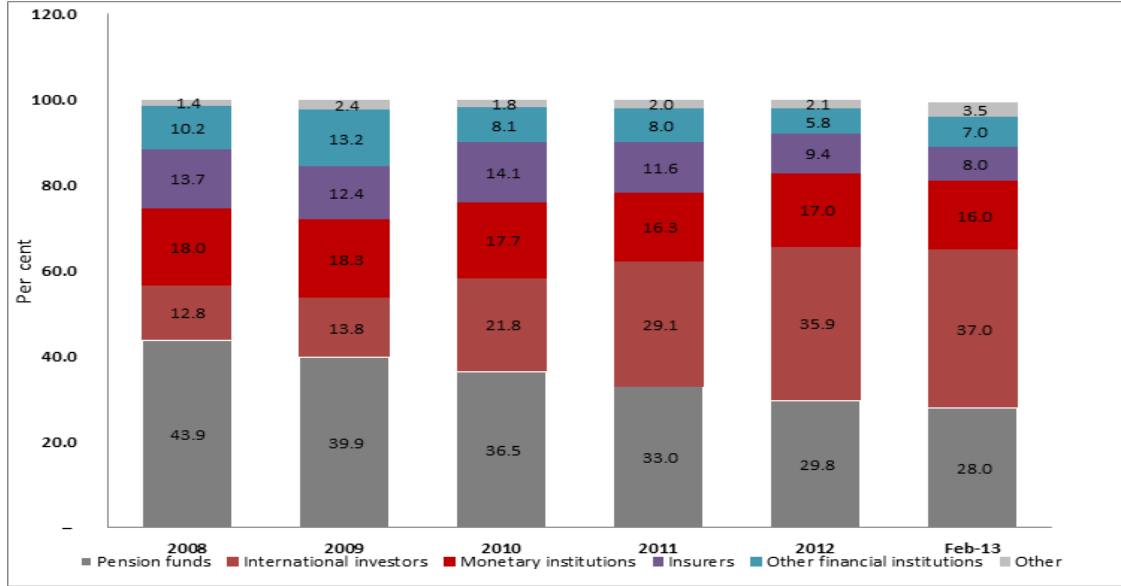
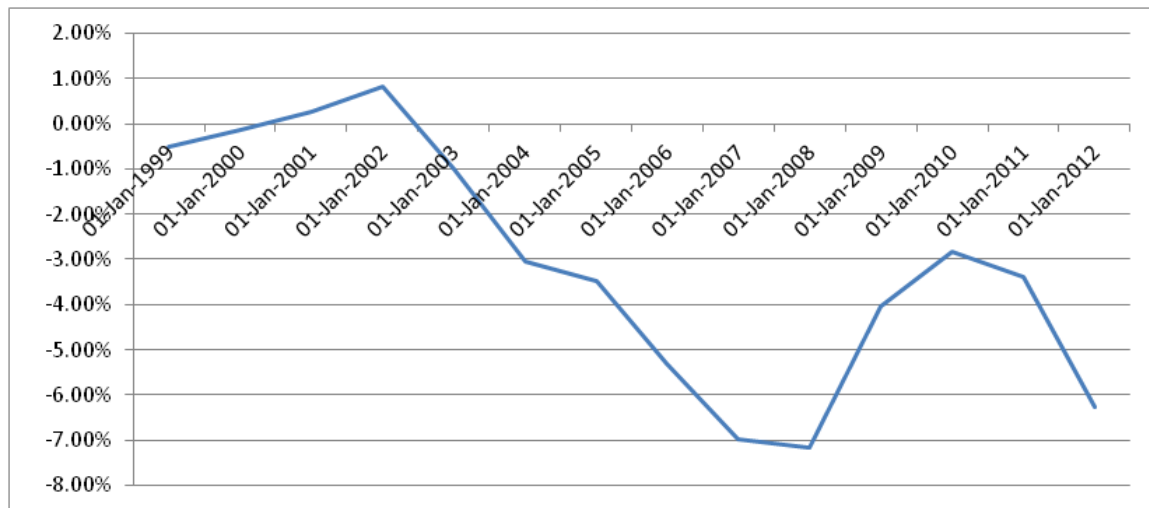


Figure 5: South African Current account as a percentage of GDP



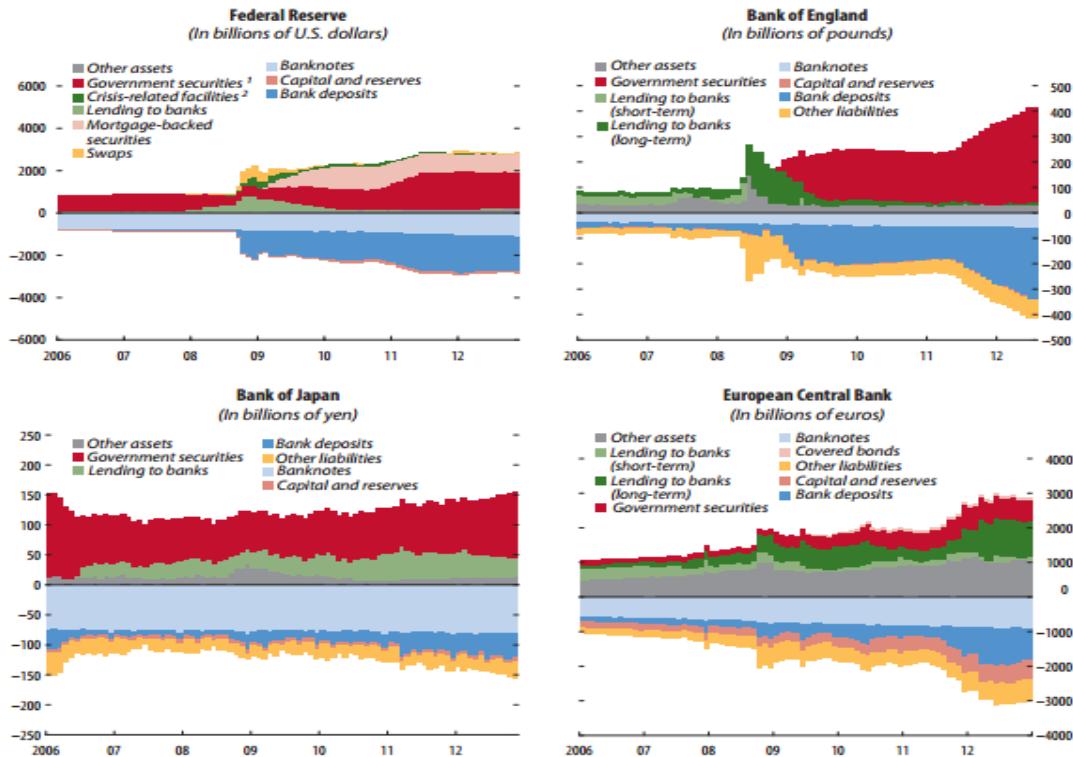
SARB Quarterly April 2013

B. The Global Context

Over the last several years new dynamics have emerged in global capital market changing the global capital policy orthodoxy. These changes were necessitated by the build-up of financial and capital imbalances and have been made even more important by the responses those imbalances created.

There has been a change in the dominant policy paradigm from one in which liberalization was seen as the most efficient method of capital account management, relying on the markets' ability to efficiently allocate capital and for economies to process signals from global economic actors. This paradigm was based on a view of the world where frictionless markets worked well.

Figure 6: Change in central bank balance sheets



Sources: Haver Analytics; national central banks; and IMF staff estimates.

Note: Government bonds purchased under the Bank of England's quantitative easing (QE) program are held by a separate subsidiary, which is financed by loans from the Bank of England (under "other assets"). Reported here are the amounts purchased under the asset purchase facility (the corresponding loan amount is subtracted from "other assets").

¹Including agency securities.

²Special-purpose vehicles, commercial paper, and money-market-related assets.

The response to the crisis has been dominated by central bank unconventional monetary policy which has resulted in broad asset purchases and policy communication. Conventionally interests are close to the lower zero bound, providing leverage incentives to private agents. Unconventionally, central bank asset purchase programmes have dislocated asset values from 'fundamentals'. Asset prices increasingly behave like other assets, making countries with current account financing needs particular vulnerable to exogenous factors. These factors complicate global liquidity and capital dynamics making policy responses highly uncertain.

The conundrum, particularly for small open emerging economies, like South Africa, is that capital account management is clearly required, but what that action should be is

very difficult to determine. Increased asset correlation and greater demand for high-yield assets, like South African equity and debt instruments have become a cause for concern among South African policy-makers particularly in the context of fiscal and current account deficits and the increased likelihood of dramatic capital swings not justified by fundamentals.

Macroprudential tools provide a mechanism for such economies to protect themselves. Such tools not only include LTV ratios, but could include the extent to which the financial sector is exposed to foreign currency risks, as well as the need for more diversity in ownership (between domestic- and foreign-control) of major retail banks.

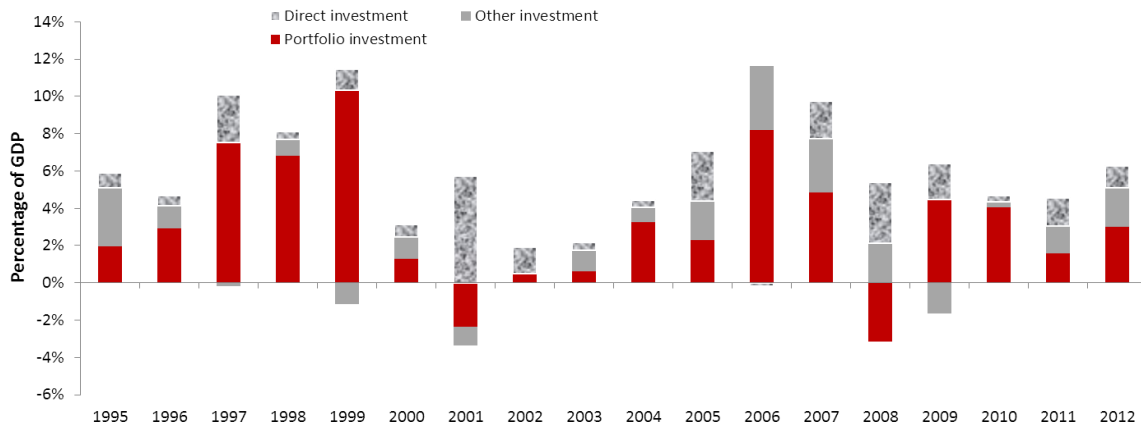
C. South Africa's Policy Response

Capital controls in South Africa were originally introduced in 1939, called exchange controls, using the Currency and Exchanges Act of 1933. Over time, however, the aims of capital controls changed as SA became a Republic, experienced sanctions in the 1980s as an Apartheid state and finally won its democratic freedom.

Following South Africa's democratic victory, the biggest threat to macro stability was the possibility of outflows. Capital account management policy was therefore disproportionately concerned with outflow management rather than today's dominant concern, inflows management and impact to financial stability and the balance of payments, although this has now changed.

South Africa has gradually liberalized capital controls. South Africa has increased foreign exposure limits on institutional investors and progressively increasing foreign asset caps on individuals and allowing South African firms to raise capital and expand their operations abroad. The financial reforms have generally been aimed at shifting from a capital control-based system to a prudential regulation of foreign exposure in order to reduce the risks associated with capital flows while boosting South Africa's competitiveness. Over the years, the reforms have been aimed at progressively modernizing the system and ensuring that the capital controls do not impede on SA's ability to attract foreign direct investment.

Figure 7: SA composition of inflows



Source: National Treasury

Since South Africa adopted a capital account liberalization path, South Africa has enjoyed faster GDP growth. South Africa has also experienced greater exchange rate volatility but has not experienced a significant or persistent exchange rate directional change. The effects of exchange rate volatility are as difficult to conclusively determine as the source. Exchange rate volatility may have been a drag on economic growth resulting in deferred investment, particularly those financed with foreign exchange. Exchange rate volatility may also have contributed to the development of sophisticated capital markets, particularly risk mitigating derivative products. The level of the Rand versus the volatility of the Rand remains, and their proportionate contribution to lower than expected GDP growth persists as a policy question in South Africa.

Figure 8: Rand volatility

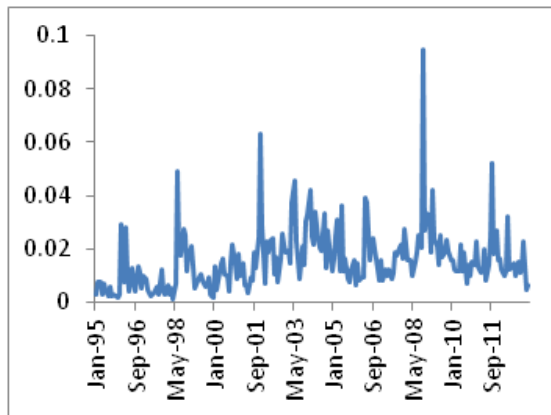


Figure 9: Real effective exchange rate



REER, 2000=100

D. Future Policy Initiatives

South Africa’s future capital account liberalization path needs to take developing international dynamics including a new global liquidity environment. South African

corporates are a significant source of domestic capital and therefore keeping corporate savings ‘captive’ yields economic benefits to South Africa. However, an environment that constrains corporate capital too much, results in the highly concentrated corporate and the inefficient capital allocation. South Africa already largely allows for corporates to move capital, but South Africa needs to further refine the framework to allow a greater role for market and price signals.

The financial sector may require greater constraint because of its systemic importance.

Macro and micro prudential regulations determine the financial sector’s ability to engage within the wider external capital environment. South Africa has in place foreign limits of 25% (plus another 5% for the rest of Africa) on bank total liabilities, excluding shareholder capital, as one prudential limit that applies to the banking sector.

Individuals cause the least concern for South African policy-makers, as they pose very little or no major risk, except for a few very high net worth individuals. Hence measures to relax limits on individuals have been implemented recently.

In all these areas, there are also challenging ownership questions that need to be considered. The nature of ownership, and the relationship between home-host supervisors, is particularly important in the financial sector. In many instances with foreign-controlled banks, the institutions are typically a domestic SIFI for South Africa, yet not for the home country – in these instances, there are no supervisory colleges. The relationship between home-host regulators is critical for effective supervision, and to allow for a fairer system of burden sharing in the event there is a need to re-capitalize stressed banks. These considerations may extend to ‘strategic national assets’ which means that some discretionary element to the capital account will likely always be a feature of South African policy.

In the context of a highly uncertain global liquidity environment, South Africa and other emerging economies are moving towards greater use of market-based approach with rules for capital account management. A greater reliance on market- or price-based rules allows for a more efficient allocation of capital, yet still provides incentives not to undertake activities that would compromise financial stability. The market- or price-based approach sees capital flows along a spectrum which reflects the nuances of current account deficit countries balancing financing needs with financial stability imperatives. A combination of these two approaches in reality is both desirable and necessary.

One challenge for South Africa is determining the appropriate macro prudential framework for the financial sector. Should policy aim for a pre-determined level of credit extension or should policy-makers target asset prices? These questions raise interesting questions about the interaction of credit and inflation and may cause policy overshooting if both tools are simultaneously deployed.

The difficult policy trade-offs require a global framework where emerging countries can learn from each other's experiences, and international policy advisors like the IMF, that understand the unique circumstances emerging countries find themselves.

Capital control liberalisation in South Africa

Liberalisation of capital controls: Beijing, China

Presenter: Ismail Momoniat , Deputy Director General: Tax and Financial | National Treasury of South Africa |
20 March 2013 Email: ismail.momoniat@treasury.gov.za



national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Outline of the presentation

- A. Background of capital controls in South Africa**
- B. Capital inflows**
- C. Current rules and limits on Outflows:**
 - I. Rules on corporates
 - II. Rules on financial institutions
 - III. Rules on individuals
- D. Future steps**

A. Background

- Capital controls in South Africa introduced in 1939 and were called exchange controls, using the Currency and Exchanges Act of 1933
 - Exchange controls were introduced in 1939 at outbreak of Second World War, as South Africa was a British colony and part of the sterling area
- Aim of capital controls changed over time, and as SA became a Republic, and experienced sanctions in the 1980s as an Apartheid state
 - Started with limiting transactions to non-sterling area countries but later were tightened to include sterling area members, introducing the **Exchange Control Regulations of 1961**
 - Debt Standstill in mid-80s led to a dual exchange rate system
- Post 1994 as SA freed itself from Apartheid and started as a democratic state under President Mandela, realised old-style controls did not protect SA and discouraged investment and growth



– Limited heterogeneity of participants in the foreign exchange market also led to liquidity and volatility problems

3

Changes since 1994

- To increase investment and growth **since 1995, the reform of exchange controls** has been a **broader strategy of economic policy, financial and institutional development.**
 - Abolished dual exchange rate system in 1995
 - Exchange controls in the 90s were ineffective, and costly. Controls on individuals and corporates led rich residents and large corporates to EMIGRATE or structure their businesses through offshore structures.
 - Gradual and on-going liberalisation still taking place with series of annual announcements.
- Gradual paradigm shift from crude controls (“thou shalt not...”) to **Rules and Risk-based system based on Prudential limits** (e.g. macro-prudential limits). The understanding is that **most risk is posed by financial institutions and major corporates** and that there is very low risk from individuals and small businesses.



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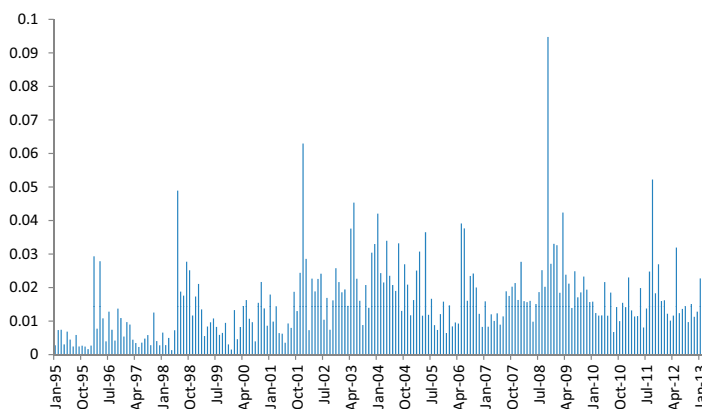
Steps taken since 1994

- Since 1994 SA has adopted a gradual approach to exchange control liberalisation. This sequential approach involves:
 1. The abolition of exchange controls on all current account transactions.
 2. The abolition of exchange control on residents.
 3. Approval of major SA companies to list offshore (inc recent dual listings)
 4. Gradually increased flexibility on approval of application for FDI by SA corporations.
 5. Allowing institutional investors to acquire foreign assets for portfolio diversification.
 6. Progressive relaxation of controls over resident individuals and
 7. Release emigrants' blocked funds.
 8. Supporting SA domiciled companies to grow into Africa and beyond (Gateway to Africa)

The effect of Exchange Control Reforms

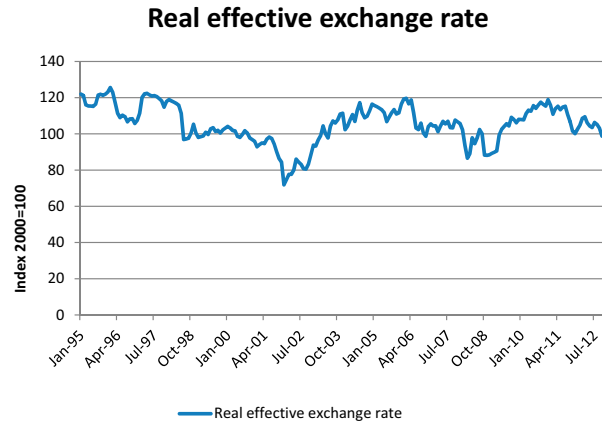
- South Africa did experience greater exchange rate volatility at the outset of exchange control reform...and volatility remains a problem.

SA Rand Volatility

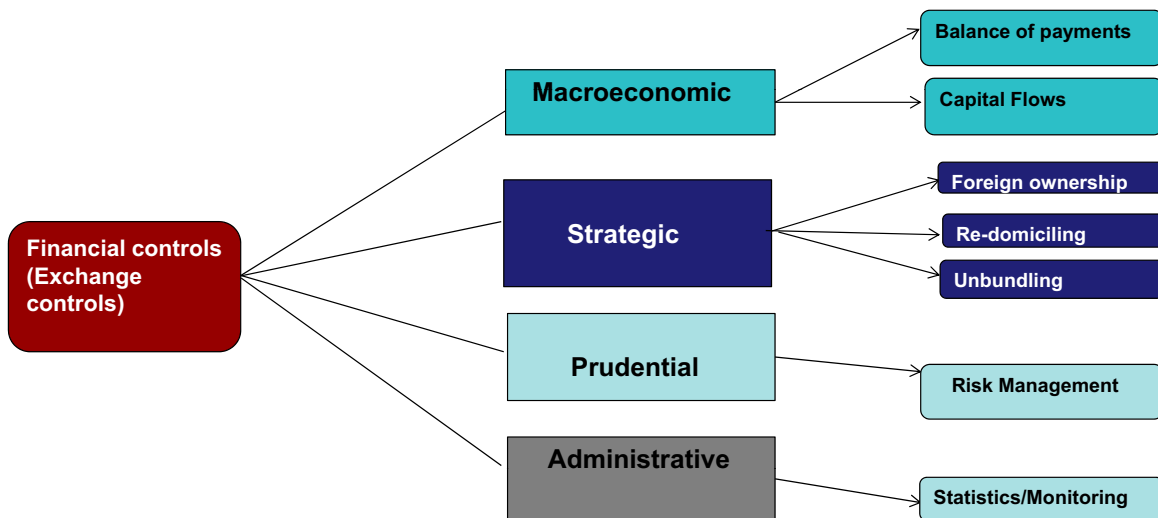


The effect of Exchange Control Reform

- South Africa has not experienced dramatic exchange rate revaluation since exchange control reform began, though there is volatility.



Objective of financial controls



B. Capital inflows

- **South Africa does not have any capital controls on inflows** on the basis of the following reasons:
 - (i) We are a small, open developing economy, with very low savings rates;
 - (ii) SA has a persistent negative current account balances and has very much relied on the capital inflows to finance this deficit; and
 - (iii) SA is in need of investments in order to grow its economy and create employment.
- Prudentially, there are some, but very limited risks from capital inflows. The currency has been volatile since 1994 reforms. Post 2008 Impact of loose monetary policy in advanced economies (QE) has not led to any new measures, as SA runs a twin deficit, and is dependent on foreign flows.
- Challenge of harmonising approach of different sector regulators (eg mining, communications, banking) as they impact on investments
- Normal tax laws apply to all, residents and non-residents (capital gains, securities transfer tax)

C. Corporates: outward and inward investment rules and limits

I. Corporates

- **Corporate Investments:** Corporates are allowed an annual FDI limit of R500m (US\$ 54 million) per year. Additional capital above this limit is allowed subject to an approval process.
- **Domestic Borrowing:** Rules apply on domestic borrowing by non-residents.
- **Foreign Borrowing:** Approval is required for foreign borrowing and is generally granted.
- **Foreign currency accounts:** Corporates involved in international trade may maintain a foreign currency account for trade, services-related payments, as well as for a wider variety of permissible transactions.
- **Corporate restructurings:** Approval is usually required for complex merger/acquisition arrangements between resident and non-resident companies e.g. redomiciling, primary listing on foreign exchanges.
- **Inward listings :** Approval required on non-resident companies accessing domestic capital markets through listing on the JSE.

C. Prudential limits on Financial institutions

II. Financial institutions

- **Prudential limits are applied** on institutional investors (fund managers) including pensions funds.
- **Institutional investors such as Pension funds** are allowed a maximum foreign investments of 25% of the total assets.
- Other, less prudential funds such as the collective investment schemes are allowed up to 35% foreign exposure.
- **Banks are allowed foreign investment limit of 25%** of their total liabilities, excluding capital.
- **In addition to the above limits, a 5% foreign investments** allowance for investments into Africa is allowed for banks as well as institutional investors.

C. Individuals

III. Individuals

- **Investment allowance:** Individuals are allowed an annual investments allowance of up to R5m (US\$545 000) per year.
- **Investments into foreign capital markets:** SA individuals can diversify their investment on foreign capital markets and instruments to the extent of their foreign investments allowance.
- **Foreign deposits:** Individuals may hold up to R5m (US\$545 000) per calendar year in foreign currency deposits.
- South Africa has **no financial controls on non-residents**.

D. Future approach

- SA's focus **continues to be that of further improving efficiencies; promoting investments to and from South Africa; and capital markets development, while managing potential risks** from volatile international environment.
- The focus has been to **move away from capital controls towards prudential regulation, esp for the financial sector.**
- Challenge is to continue to modernise approach towards outward investment as they affect corporates who want to expand off a domestic base
- Challenge of reducing barriers and costs to inward investment

Capital Account Policies in Chile: Macro-Financial Considerations Along the Path to Liberalization¹

Yan Carrière-Swallow and Pablo García-Silva

The unprecedented monetary stimulus that has been implemented in various advanced economies since the breakout of the financial crisis in 2008 has featured persistently low interest rates and large-scale asset purchase programs by national central banks. While this policy stance is likely to persist given the struggle to keep a weak recovery on track, sustained growth has continued in many emerging economies. The gap between growth rates in both groups of countries has generated a divergence in relative economic slack, and thus differing paths for monetary policy and short term interest rates. The resulting search for yield has led to large capital flows from advanced to emerging economies. While foreign capital serves as an important catalyst of productive investment that stimulates growth in emerging markets, “too much” of it can also present a number of challenges for receiving countries. These include the impact of real appreciation on the competitiveness of the tradeables sector, vulnerabilities from exuberance and increased leverage, and the threat that an eventual withdrawal of monetary stimulus will trigger sudden capital outflows and financial distress.

The return of abundant international liquidity has therefore rekindled the global debate on the appropriateness of capital controls, or Capital Flow Measures (CFMs) in recent IMF parlance. Authorities in some countries have maintained a liberal policy designed to take the flows in stride, often based on a flexible exchange rate to maintain external balance, while others have implemented a range of measures to try to stem the flows and intervened in the foreign exchange market to dampen their impact. Besides arguments about their desirability, there is also debate over whether controls on capital are even effective at accomplishing their objective in a world of highly sophisticated financial markets.

Against this backdrop, the Chilean experience with capital account policies merits attention. During the 1990s, while also facing a surge of capital inflows in an environment of low volatility and low global interest rates, Chile was an early adopter of CFMs to stem appreciation and current account pressures. In the last decade and a half, however, these types of policies have been conspicuously absent from the actual implementation of policies, and the capital account has seen a process of significant liberalization.

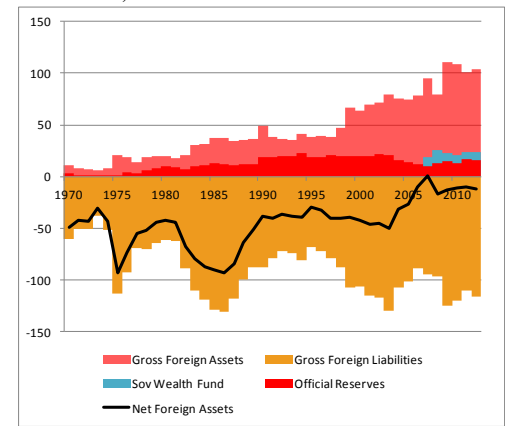
¹ This is an abridged version of the introduction to a forthcoming IMF Working Paper. The same disclaimers found therein apply here.

Figure 1 shows the evolution of foreign assets and liabilities over the past forty years, which can be considered the *de facto* measures of capital account openness. We can see that gross foreign assets and gross foreign liabilities are both currently above 100% of GDP. While liabilities have fluctuated around this level for many years, the main development has been the buildup of foreign assets, from well below 50% of GDP until late in the 1990s to over 100% of GDP today. This has also contributed to a significant reduction in net foreign indebtedness. The net foreign asset position has remained close to balance since 2006, which compares favorably with the previous history of hefty stocks of net foreign liabilities.

The significant shift in the net foreign asset position from 2000 onwards has coincided with the *de jure* liberalization process of the capital account. Figure 2 displays a number of capital account liberalization measures constructed by various authors, using the IMF's AREAER database. The indexes have been renormalized such that a value of 1 reflects the most restrictive stance on capital account arrangements, and a value of 0 the most liberalized stance, for all country-year pairs in each sample. All measures clearly indicate a shift towards a more open capital account starting in the late 1990s, which has moved Chile from having a quite restrictive capital account policy to a very flexible one.

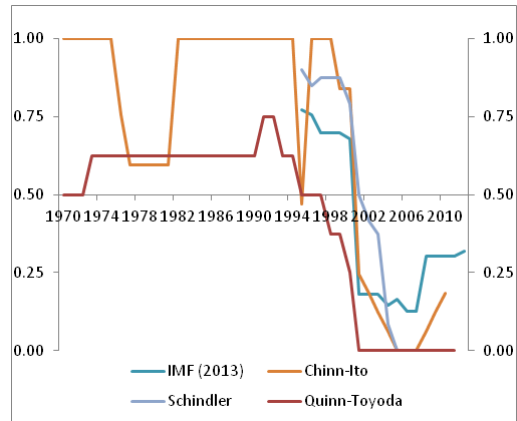
Analyzing this period allows us to highlight a number of features that are relevant for the current policy debate on capital account policies. First, it allows the comparison of two boom-bust cycles in the global environment that Chile faced using quite different policy frameworks. While the country maintained a monetary framework based on exchange rate stability and strict capital controls during the 1990s, currently Chile maintains a monetary framework based on exchange rate flexibility and a relatively open capital account. The run-ups, responses and recoveries surrounding the Global Financial Crisis of 2008-09 and those around the time of the Asian-Russian-LTCM crisis of 1997-98, provide a useful point of comparison for the degree of pro-cyclicality in policymaking and how it interacts with the capital account framework.

Figure 1: Chile's foreign assets and liability stocks (% of nominal GDP)



Sources: Official data from Budget Office and Central Bank and updated series from Lane and Milesi-Ferretti (2007).

Figure 2: *De jure* measures of capital account liberalization in Chile



Sources: Schindler (2009), Quinn and Toyoda (2008), Chinn and Ito (2008) and IMF (2012). Indicators based on the International Monetary Fund's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) database. All series have been normalized to a range of 0-1, with lower figures reflecting less restrictiveness.

Second, given that ebbs and flows in global capital markets are a fixture of the environment, a successful policy framework must be able to deliver growth and stability over the international credit cycle. Whichever macroeconomic framework a country selects, policy makers should be aware that the decisions they take during periods of abundance will largely determine the market's reaction to sudden switches in the environment. As such, policy making during periods of stress will be constrained by how past decisions have shaped private agents' expectations. The market participants' response —particularly domestic institutional investors in the Chilean case— to the outbreak of turbulence, as well as their portfolio allocations in periods of tranquility, are illustrative of how the capital account and macroeconomic frameworks interact.

Third, the long period of time under analysis permits the discussion of the rationales for the choices of specific capital account policies, both in terms of their implementation in the first part of the nineties as well as the subsequent liberalization process. To what extent the shift was motivated by the stated domestic policy goals of fostering stable job creation and economic growth? To what extent the shift was influenced by external factors, in particular the regular IMF Article IV consultations and the process of trade liberalization through bilateral trade agreements?

The decisions to implement CFMs in the early nineties, as well as the shift towards a more open capital account from the early 2000s can both be traced to domestic stability concerns, mainly the importance attached to securing resilient economic growth and job creation. Moreover, while the International Monetary Fund encouraged the authorities to adopt a more flexible stance on capital account policies in the nineties, it is not apparent that their insistence played an immediate role in the implementation of the new policy framework. In fact, the gradual evolution of the IMF's stance on capital account policies —starting in the case of Chile with the consultations in 1998 and 1999— stands in contrast to the move towards a more open capital account determined by the Chilean authorities.

Capital Account Policies in Chile

Macro-financial considerations in the path to liberalization¹

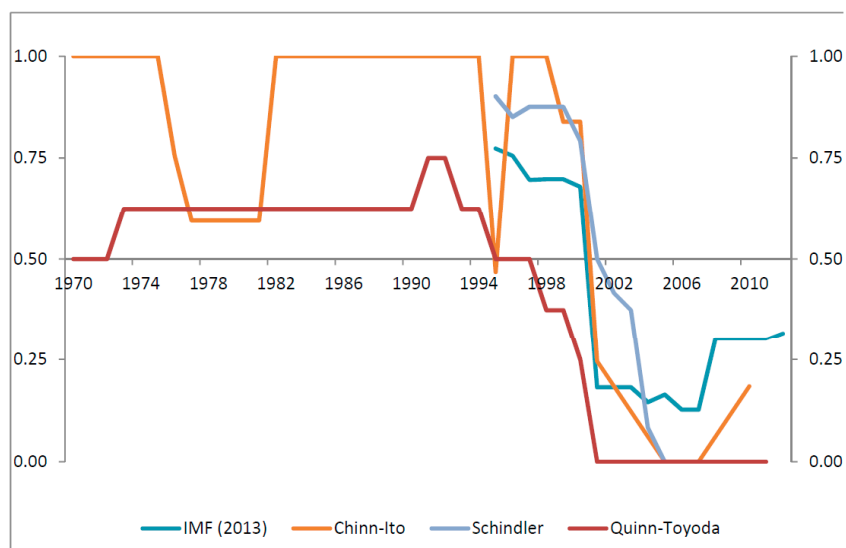
Yan Carrière-Swallow

Pablo García-Silva

March 20, 2012

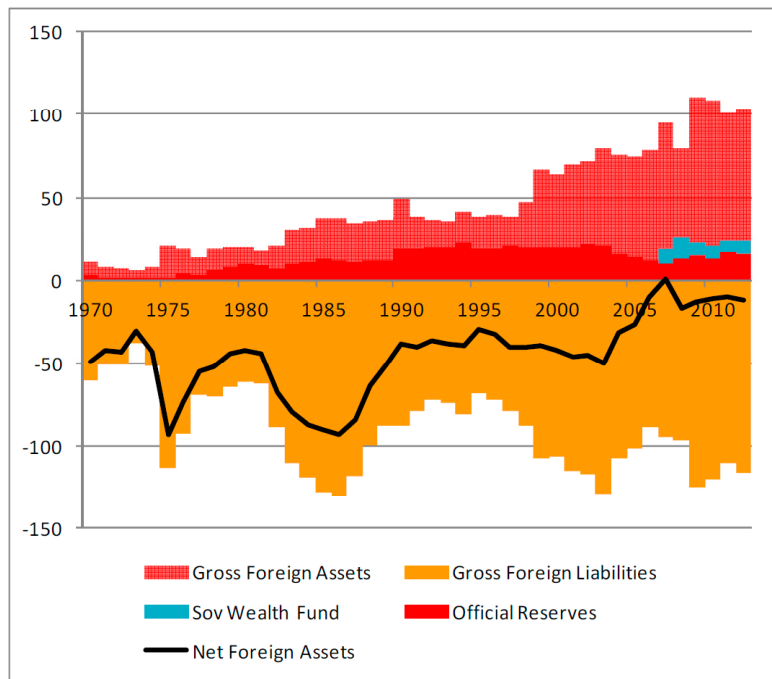
¹This paper was prepared for the IMF-PBoC conference on “Capital Account Management: Lessons from International Experience”, March 20th 2013, Beijing, China. The views expressed in this paper are those of the authors and do not represent those of the IMF Executive Board nor the Chilean authorities. We thank Abdul de Guia Abad, Karl Hambermaier, Gian Maria Milessi-Ferreti and Martin Schindler for kindly providing access to updated datasets on *de jure* and *de facto* capital account restrictions.

Significant capital account liberalization in Chile after Asian-Russian-LTCM crises (data from AREAR)



Sources: Schindler (2009), Quinn and Toyoda (2008), Chinn Ito (2007) and IMF (2013). Indicators based on the International Monetary Fund's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAR) database. All series have been normalized to a range of 0-1, with lower figures reflecting less restrictiveness.

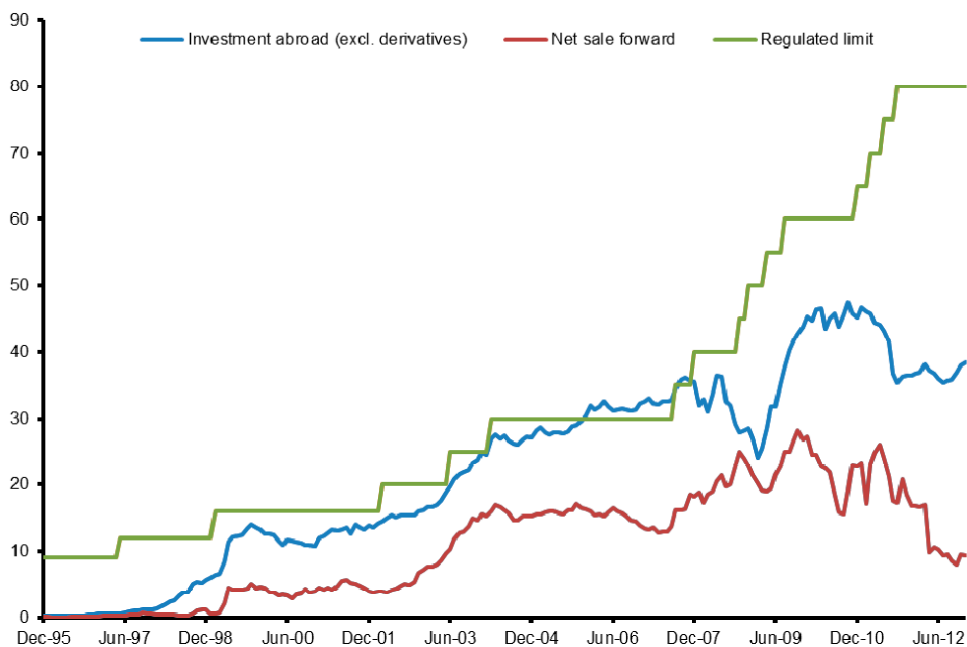
Capital account liberalization is followed by a large increase in non-official gross foreign assets



Sources: Official data from Budget Office and Central Bank and updated series from Lane and Milesi-Ferretti (2007).

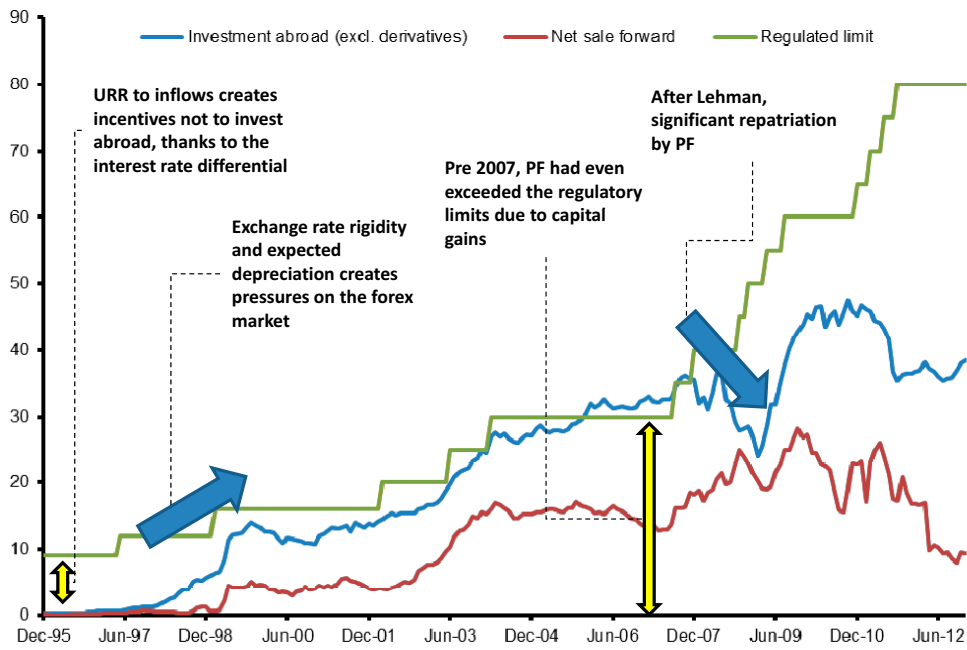
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The share of the pension funds' (PF) portfolio that can be allocated to foreign investments has increased significantly



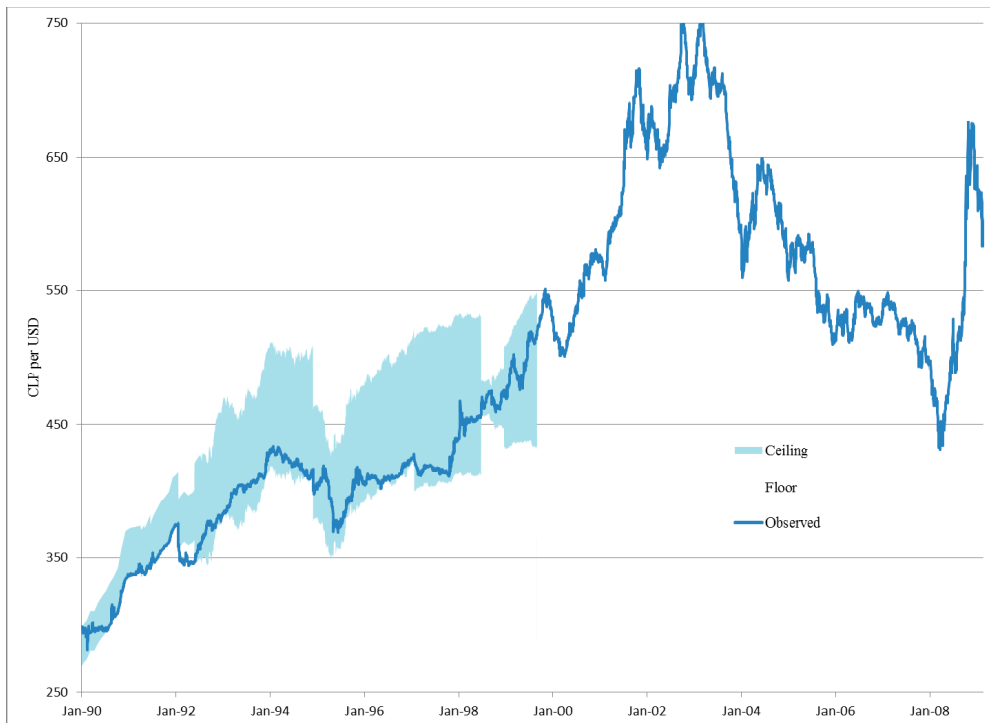
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Note the different reaction to the Asian-LTCM-Russian crises and the 2008 financial crisis, as well as pre-crisis environment



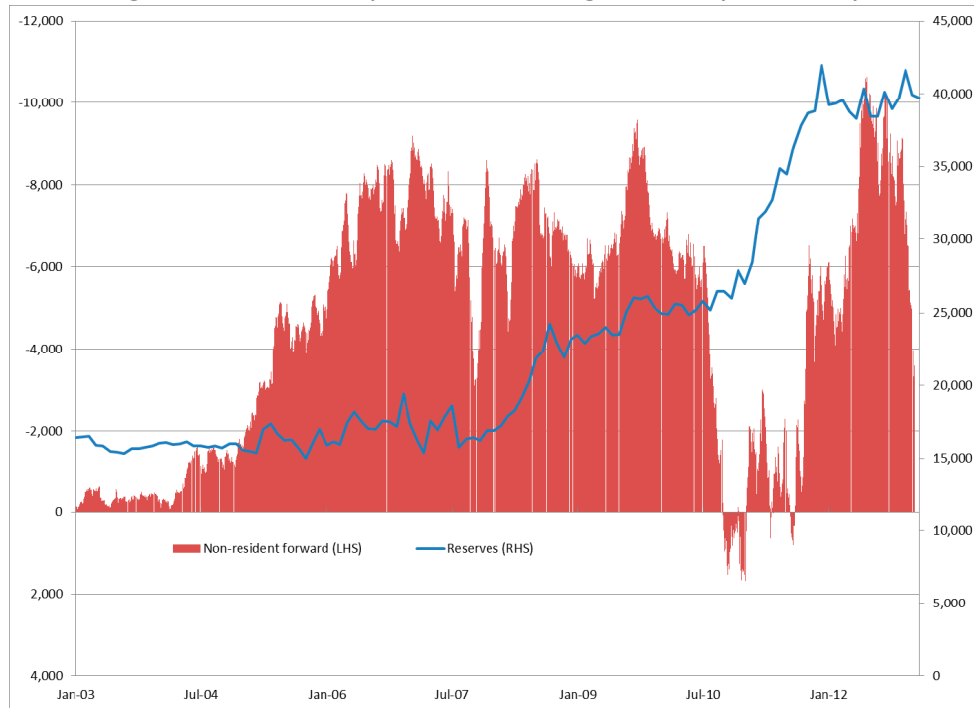
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The abandonment of the exchange rate band and the opening up of the capital account coincided with depreciating pressures and a weak external environment. Monetary policy reacted with a loose stance up to 2004.



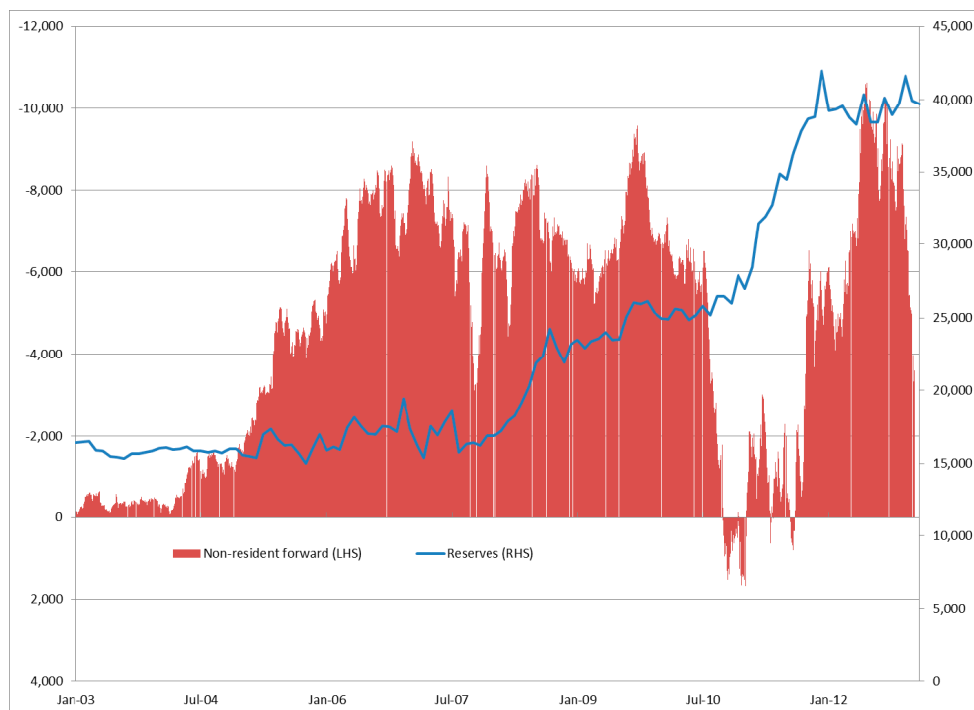
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The process of opening up the capital account occurred during a period of very low (up to then) domestic interest rates in Chile, facilitating the role of the peso as funding currency for carry trade



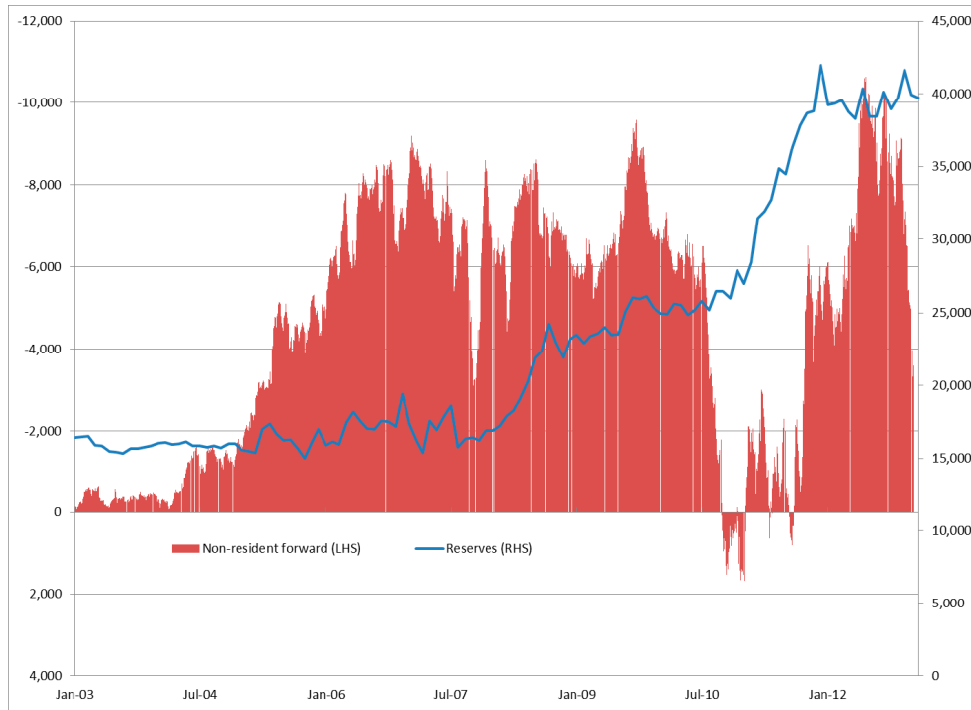
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For instance, long positions in Real *futuros* could be hedged with short Peso positions in off shore NDF



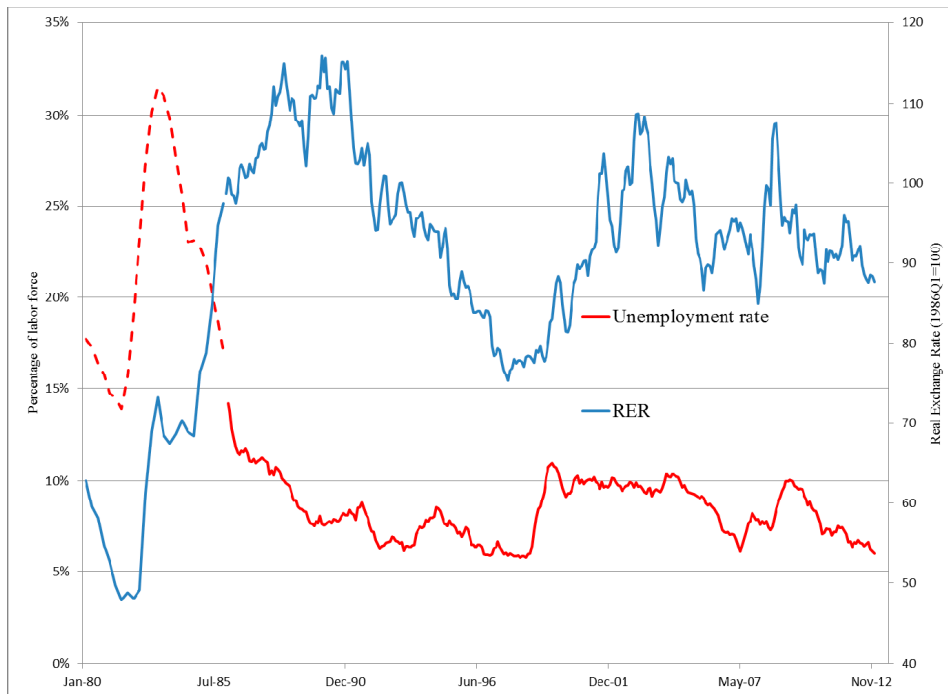
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Reserve accumulation policies are not always effective



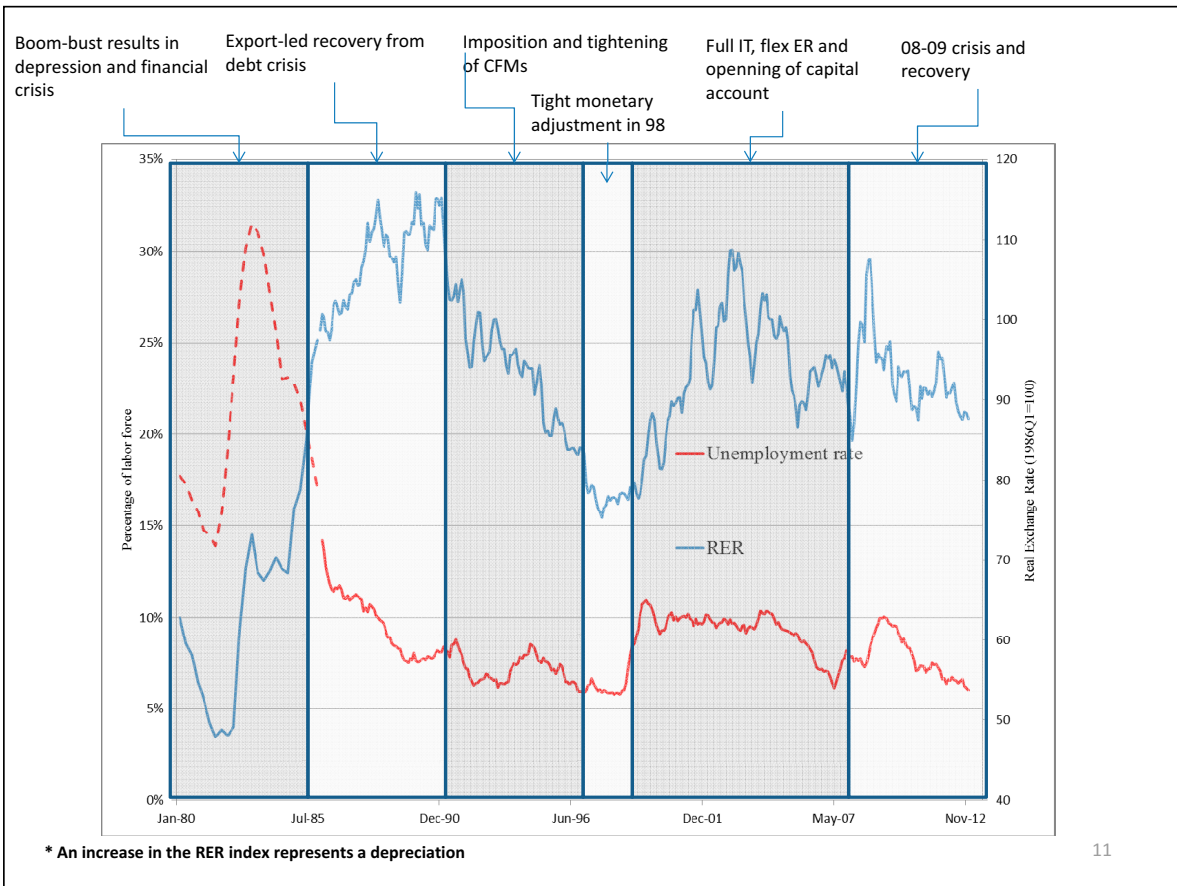
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Unemployment and Real Exchange Rate* dynamics since 1980



* An increase in the RER index represents a depreciation

10



Apart from domestic stability concerns (e.g. stable growth and employment), could external influences have affected the process of liberalization?

- Article IV consultations and overall Fund guidance
- Free trade agreements (notably, with USA in 2002 and EU 2003)
- OECD accession in 2009

It does not appear to be the case.

FTA's have not altered the legal attributions that its constitutional charter gives the Central Bank a exclusive regulator of foreign exchange and capital account transactions

An Annex in the FTA with the US constrains in some way discretion, but allows imposition of restrictions for up to two years, and limits claims of damage

OECD accession preserved all legal attributions

The use of capital controls was a point of contentions between the Fund and the authorities, which became heightened as controls were tightened against the Fund's position in 1995

13

When the Fund shifted its views towards a more agnostic stance regarding the specific case of Chile, in 1998 and 1999, authorities were embarked in the process of eliminating capital account restrictions

As of today, no restrictions have been imposed on capital account flows

Some technical steps remain for full integration of fixed income markets and payments systems, which require legal change

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On the effectiveness of a specific capital account restrictions (Unremunerated Reserve Requirements)

Broad academic consensus regarding a narrow definition of effectiveness: to change the composition of inflows towards long term flows in the 1990's

But it is a moving goalpost: the objective was more ambitious: preserve monetary autonomy, prevent overvaluation of the real exchange rate, reduce the risk of externally driven crises

It is questionable that these stability objectives were achieved given the experience of 1998 and 1999

The resilience of an alternative framework in 2008 is also a case in point

Effectiveness of this particular instrument (that discriminates between residents and non residents) today is questionable given the significant portfolio of foreign assets by domestic agents

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Some concluding thoughts

Crisis response in 1998 and 2008-2009 in Chile is an interesting exercise to compare alternative monetary, exchange rate and capital account frameworks for small open economies

Both the imposition of capital account restrictions, as well as their eventual lifting and the liberalization of capital account inflows and outflows can be justified on domestic stability grounds

There is an important nexus between the capital account policy framework and the exchange rate/monetary policy framework. In Chile, implementation of IT and flexible exchange rate regime went hand in hand with capital account liberalization

Also an important link between capital account and domestic financial liberalization. In Chile, broadening the investment opportunities of institutional investors was key for significant outflows

The implications for large economies are less clear cut.

16

Foreign Capital Flows Management in Brazil

Joaquim Levy

A. Historical Perspective

Before 1990s: Chronic shortage of foreign currency. Indexation and inflation-linked bonds moderated financial repression, but capital flows were limited, including FDI; progress in data infrastructure allowed SISBACEN to record all x-currency transactions electronically

After 1990s: Opening of the economy, structural reforms, control of inflation through market approach (including higher interest rates); abundance of foreign currency owing to global capital flows and higher FDI

Since the 2000s: Consolidated gains from 1990s, with floating exchange rate and fiscal responsibility; support from improved terms of trade

Very pragmatic process:

Long-term “structural” liberalization, with maintenance of mechanisms that allow for short-term “tactical” interventions to correct distortions, mainly through price/tax mechanisms

Capital flows are seen as part of the market discipline that helps improve resource allocation in the country. Mild regulatory mechanisms, applicable when global imbalances or domestic fragilities become acute are a price worth paying to ensure financial stability and the overall framework: they have played a role after the 1997 Asian crisis and in the current environment of high liquidity driven by the central banks of developed economies.

B. Basic Legislation and Institutional Evolution

Decree 23.258 of 1933 (with status of a Law after 1988) – still regulates part of the exchange rate regime, together with Law 4.131 of 1962, which is focused on (profit) remittances. They establish that:

- All settlements in Brazil to be made in the domestic currency, even if contracts include indexation to foreign currencies (e.g., NTN-C) – Decree 857/69 ; Domestic bank accounts are to be denominated in the local currency
- Central Bank regulates and participates in all exchange operations
- Exporters forced to convert all x-currency from foreign sales into local currency

- Until 2016, capital liberalization was done mostly without changing basic laws, relying on overhauling Central Bank regulations and innovative interpretation of the Law
- Creation of tourist x-rate in 1988, ending gray market, allowing use of credit card abroad, etc. Owning foreign currency was a “suspicious” activity no more.
- Overhaul of old (1969) CC5 mechanism in 1992: residents allowed to make deposit in local currency in Brazilian accounts of non-residents banks, which would convert it into foreign currency and transfer it to indicated accounts abroad (process streamlined in 1996 with BCB circular 2.667 replacing CC5)
- Elimination of tourist/dual currency in 2005 (CMN 3.265) and freedom to send money abroad, as long as declaring to the BCB that its origin is legal
- Law 11.736 of 2006 revamped the system on the heels of the consolidation of regulations (CMN 3.265):
- Exporters were now allowed an unlimited delay in the conversion of foreign receipts and to use these resources to directly pay for their liabilities; non-converted resources can now be invested abroad for an unlimited amount of time
- New role of BCB: no part of x-currency contracts anymore, receiving information for statistical purpose only (“end” of SISBACEN 2011)
- Focus on preventing money laundry in coordination with Internal Revenue and sharing responsibilities with banking system
- Remaining limitations on x-currency or foreign holdings of financial institutions, pension funds, investment funds, etc. now related to specific reasons and often established together with other regulators (e.g., pension funds regulator)

C. Interaction with Financial and Capital Markets

Liberalization of credit: Until the mid 1990s, only certain sectors could be financed using foreign resources (BCB Res 63/1967); by 2000, all restrictions were gone.

Focus on requiring banks to provide significant capital to support foreign exposures in order to foster financial stability and reduce short term loans.

Liberalization of other fund-raising mechanisms: authorization of special funds dedicated to stocks and fixed-income securities (1987); direct investment in stocks and bonds (1991, “Annex IV”); Depositary Receipts issued abroad (1992); need of authorizations for issuances

eliminated (Res. 2.628/1999 and 2.770/2000): anyone became entitled to freely issue abroad, subject to regulatory taxes (e.g., IOF) levied when resources enter the country.

Opening of domestic market to foreign institutions (commercial and investment banks).

By 2000, foreigners were allowed to invest in all instruments available to domestic investors, including derivatives, as long as they appointed a local representative for tax and custody purposes; registration facilitated by automated processes.

Understanding that quantitative controls in outward flows and changes in the rule of the game for money already in the country were out of bounds. (2011 IOF on derivative might be an exception owing to the possibility of varying tax rate when contracts are rolled, but this is known ex-ante reinforcing the principle of no ex-post changes in the rules of the game).

Results: foreigners account for 1/3 of transactions in the stock market, portfolio inflows reaching up to 4% of GDP (2011), FDI around 2%. Significant foreign ownership of stocks in domestic exchange (US\$ 200 billion) and ADRs (US\$ 150 billion) and of government domestic debt (US\$ 120 billion, or 14% of outstanding stock).

D. Mechanisms for Macroeconomic Management and their Effectiveness

Main mechanisms are built around the fact that investors have to declare the use aimed for the incoming resources when buying the domestic currency and, henceforth, resources remain in “sids” and can be tracked for tax purposes. Inflow can be redirected (e.g., from equities to FI), but it will be subjected to the tax rate of the new use. Foreign investors are always free to repatriate their capital.

Rate of IOF on fixed income or equity flows have varied over time

IOF has been charged on the issuance of ADRs and on the notional amount of currency derivatives (up to 25% of its value)

For the purpose of financial stability, banks may be subject to reserve requirements related to sold positions of foreign currency (which may reach 100% of the position after certain thresholds).

Mechanisms (taxes and capital requirements) helped mitigate risks related to foreign exposures of domestic agents when the economy was weak in the early 2000s, and modulate capital inflows in the high global liquidity environment in recent times; they provide a modest degree of freedom to the monetary policy. They are easy to modulate and bring back to neutral levels.

IOF on fixed income was effective to dampen inflows in 2011 onwards (e.g., from Japanese households), but weak in limiting the issuance of global corporate debt

Taxation of futures and spot sales of USD cut back standing positions sharply in 2011-12. It created an edge in the “coupon cambial” / currency PPP, indicating ability to insulate markets; Taxation of ADRs also created an edge between stocks listed in NY and SP

Effectiveness of mechanisms tends to erode over time, because trade moves abroad (e.g., from BMF to Chicago) or to OTC (e.g. bank swaps), etc. Most of the decline in x-rate in 2012 was due to macro policies (lower interest rates) or macro conditions (worse terms of trade), rather than capital flow management

E. Welfare, Growth, and Political Support of Capital Account Liberalization

Capital Liberalization was orderly and constructive, helping increase interest-rate discipline and fight inflation. It was welfare improving, as cautious implementation avoided precipitate major crises, while helped bring new opportunities (e.g., external finance of longer-term investment, foreign participation in IPOs, longer government debt maturity in local currency). It also helped Brazilian firms to expand abroad, including by allowing exporter the freedom to keep and invest export receipts abroad.

Liberalization benefited from floating exchange rate and fiscal/trade balance, and from “dampening mechanisms” to face unusual global conditions and provide some monetary policy independence; remaining controls are mostly through taxes on inflows, or prudential/consumer protection limits (e.g., foreign exposure of pension funds) that have been relaxed and are often not binding.

As with so many reforms in Brazil, it took time to unfold, but it enjoys broad support, with little risk of reversal. Still not too much support to get to full convertibility, due to global financial conditions.



Capital Flows Management: the Brazilian Experience

Joaquim LEVY
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Time line and main features of Brazil´s capital account



Historical perspective:

- before 1990s: chronic shortage of foreign currency and limited capital flows – SISBACEN allows electronic record of all x-currency transactions
- after 1990s: abundance of foreign currency and large capital flows
- floating exchange rate since 1999

Basic legislation:

- Decree 23.258 of 1933 (with status of a Law after 1988) – regulates the exchange rate regime
- Law 4.131 of 1962 focused on (profit) remittances
- Law 11.736 of 2006

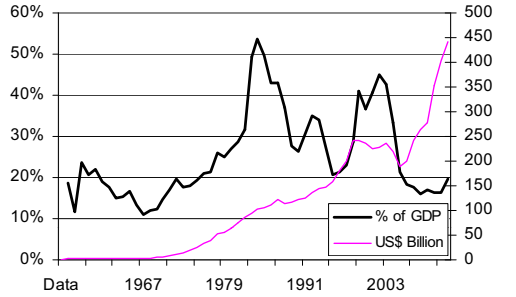
Liberalization since the 1990s:

- ✓ Mostly without changing the law (overhauling of regulation and interpretation of the Law), until 2006
- ✓ Very pragmatic: Long-term **“structural” liberalization**, with maintenance of mechanisms that allow for short-term **“tactical” interventions** to correct distortions and mainly through price mechanisms

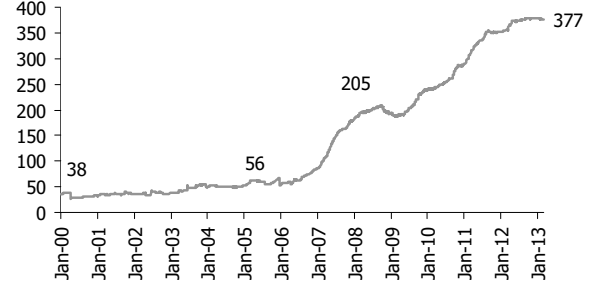
Time-line and macro developments



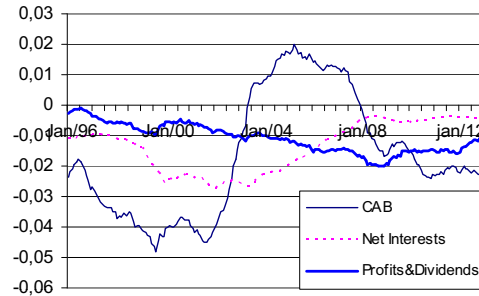
Brazil: Gross External Debt



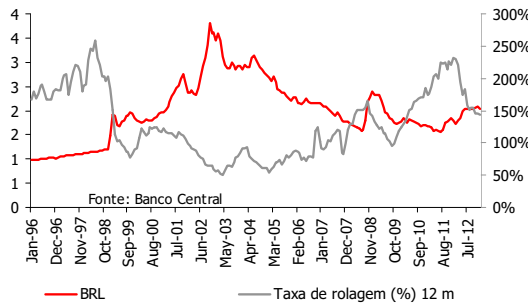
Brazil: International Reserves (US\$ bilhões)



BRAZIL: Current Account Balance as % GDP



BRL/US\$ and rolling ratio of External Debt



Evolving role of the Central Bank



Mandatory use of domestic currency:

- ✓ All settlements are to be made in the domestic currency, even if contracts include indexation to foreign currencies (e.g., NTN-C) – Decree 857/69
- ✓ Domestic bank accounts are to be denominated in the local currency
- ✓ CB is regulator of all exchange operations, including those conducted by the banking system through delegation, permission, etc.

Mandatory redemption of foreign currency:

- ✓ Historically, exporters had to exchange all their foreign holdings
 - ✓ After 2006, exporters were allowed to delay this exchange, or use these assets to directly pay their liabilities
 - ✓ while benefiting from the redemption holiday, resources can be invested abroad for an unlimited amount of time

New role of BCB:

- ✓ Transactions below US\$ 3000 do not need a specific contract
- ✓ BCB stops to be part of x-currency contracts; information sent to BCB through internet for statistical purpose ("end" of SISBACEN 2011)
- ✓ Focus on preventing money laundry – shared effort with banks

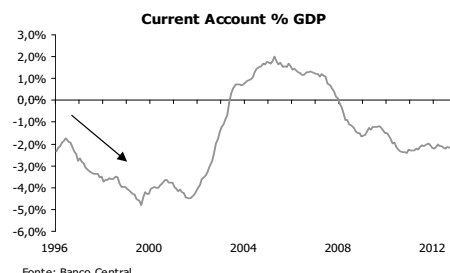
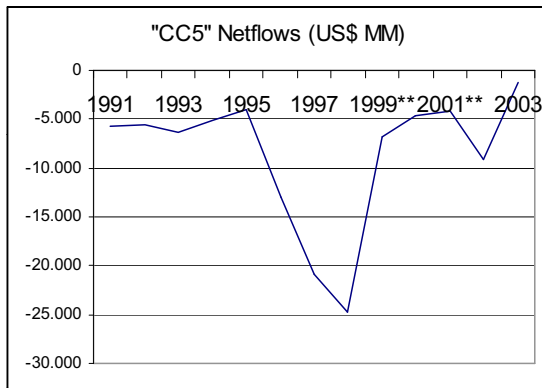
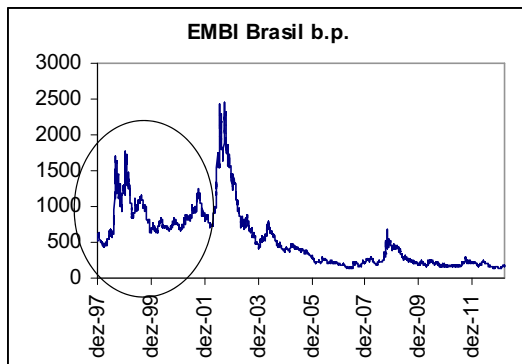
Liberalization is a continuous process



Cautious progress to avoid setbacks

- ✓ Creation of tourist x-rate in 1988, ending gray, opening the way use of credit card abroad, etc. – buying foreign currency was not a “suspicious” activity anymore.
- ✓ Overhauling of the CC5 mechanism (1992) allowing outward transactions using local accounts of non-residents (foreign banks would convert these domestic deposits in X-currency and transfer them to accounts abroad)
- ✓ Replacement of CC5 mechanism by permission of outright transfer of resources (BCB Circular 2.677, of 1996), with full disclose to BCB and taxes
- ✓ Elimination of dual currency in 2005 (CMN 3.265) and freedom to send money abroad, declaring to the CB that its origin is legal
- ✓ Formal end of the “coverage” concept enshrined in the 1993 Decree (establishing that only those who brought x-currency could sent it abroad) and elimination of x-change controls (Law 11.371)
- ✓ BCB focused on informing Internal Revenue about flows, also with a view to limit money laundering
- ✓ Remaining limitations on x-currencies concerning financial institutions, pension funds, investment funds, etc. are related to specific reasons established by other regulators (e.g., limiting risk exposure)

Net flows accommodated changes in the perception of residents



Increasing foreign investors' access to domestic



Broadening of the scope of loans backed by foreign resources

Until the mid 1990s, only certain sectors could be financed using foreign resources (BCB Res 63/1967); by 2000, all restrictions were gone

Liberalization of other fund raising mechanisms

Permission for special funds dedicated to stocks and fixed-income securities to act as vehicle to foreign investors (BCB Res. 1.289 of 1987, annex I-III)

BCB Res. 1832/1991 allows direct investment in stocks and bonds (annex IV)

Depository Receipts issued abroad were allowed in 1992 (annex V)

Annexes and the requirement of authorizations for issuances are eliminated (Res. 2.628/1999 and 2.770/2000)

Opening of the market to foreign institutions

Since mid 1990s several investment banks started to operate in Brazil, buying and selling domestic securities (and currency) creating new flows

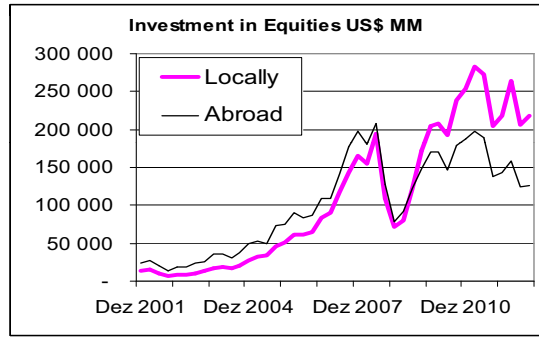
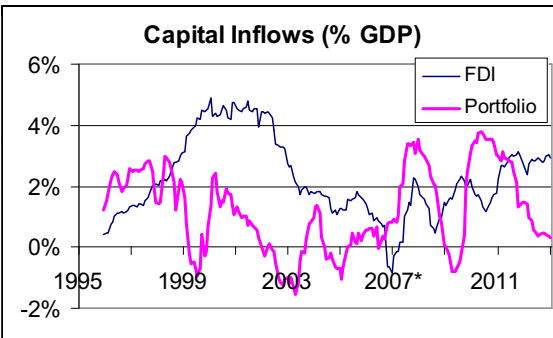
Simplification of requirements for portfolio investment

By 2000, foreigners were allowed to invest in all instruments available to domestic investors, as long as they appoint a local representative for tax and custody purposes; registration facilitated by automated processes

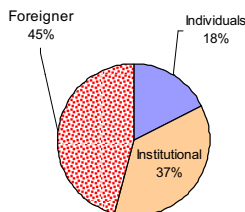
Access included derivative markets



Increasing foreign investors' access to domestic markets

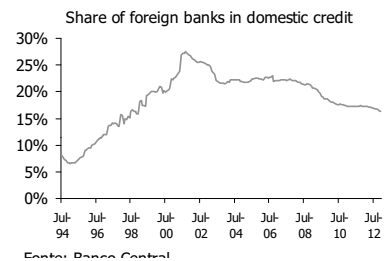


Share of foreign investors in Bovespa trades



Share of foreign investors in outstanding contracts

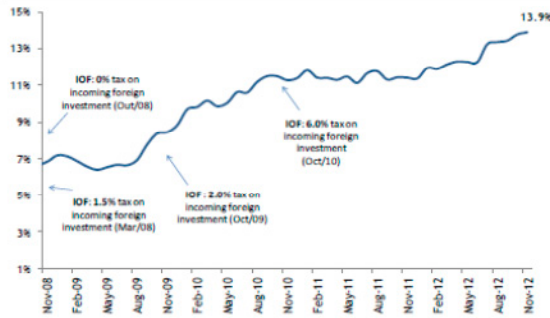
	Number of Contracts in BM&F	
	Total	Foreign (net)
IBOVESPA	341.113	-131.152
Interest Rates	15.608.608	2.394.169
Dollar	778.019	102.907



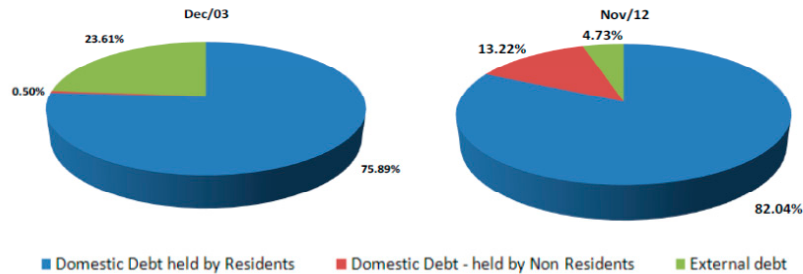
Foreign investors keep trading domestic for external debt



Federal Domestic Debt: share of non-residents



Source: National Treasury



Free capital movements have strengthened domestic debt market

Foreigners are important investors in long-term government securities in local currency

Easy entrance and no income tax were attraction factors

Total exposure has been damped by IOF taxes in recent years

("Tactical") Mechanisms to control flows



Resources still go through "silos"

Objectives of inward flows have to be declared, for tax and other purposes

Investors can redirect these flows (e.g., equities to FI), but in doing so, they may be tax liable if new destination is subject to higher taxation

Foreign investors are always free to repatriate their capital

Control and hurdles are put at the moment of entry (2011 IOF on derivatives is more nuanced because it may change while position in place)

- IOF has been charged on portfolio inflows (fixed income and equity) at different levels in different times (e.g., varying with bond maturity)
- IOF has also been charged on the issuance of ADRs and on the notional amount of currency derivatives (up to 25% of this value)

For the purpose of financial stability, the BCB can establish limits for the sale or purchase of x-currency, notably by banks

- Limits on sold positions of banks typically imply higher reserve requirements

External net exposures of banks are heavily charged in terms of capital requirements (including exposure due to the consolidation of foreign branches, subsidiaries or invested banks)

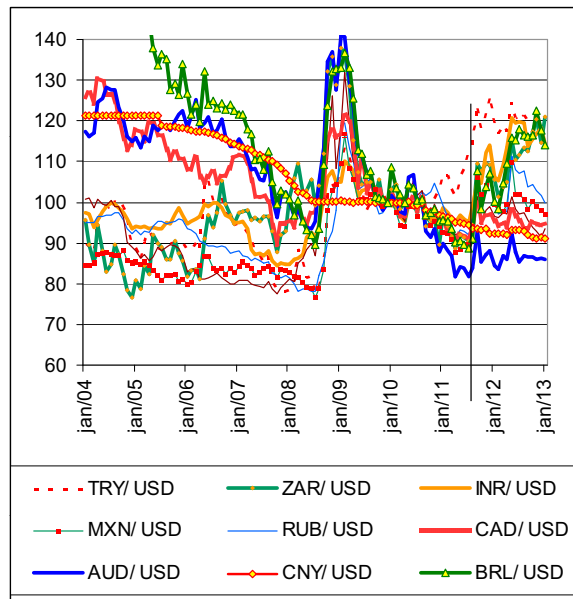
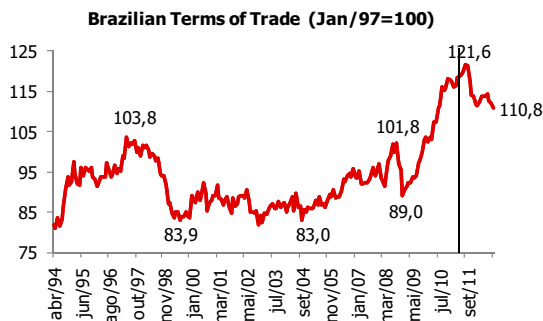
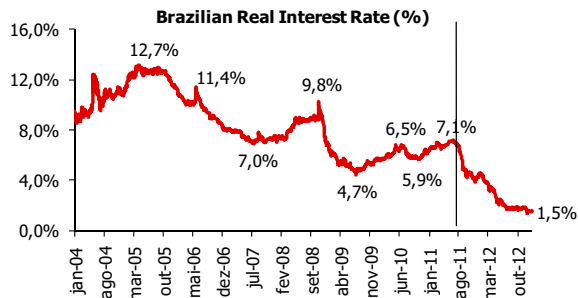
Selected Measures to modulate capital flows



10/19/2009	2% tax on equity and fixed income inflows
11/19/2009	1,5% tax on conversion of ADRs
10/04/2010	4% tax on fixed income inflows
10/18/2010	6% tax on fixed income inflows
01/06/2011	60% non-remunerated reserv requirement on banks gross FX positions above US\$ 3 billion
3/29/2011	6% tax on loans shorter than 1 year
04/06/2011	6% tax on loans shorter than 2 years
07/08/2008	60% non-remunerated reserv requirement on banks gross FX positions above US\$ 1 billion
7/26/2011	Variable tax on notional amount of currency derivatives (up to 25%)
12/01/2011	Elimination of tax on equity inflows
2/29/2012	6% tax on loans shorter than 3 years
03/01/2012	Restrictions on anticipated payment of exports due in more than one year
03/09/2012	6% tax on loans shorter than 5 years
3/15/2012	Exemption of exporters from tax on notional of currency derivatives for notional below 1,2x exports in previous year
6/13/2012	6% tax on loans shorter than 2 years
3/15/2012	Flexibilization of anticipated payment of exports due in less than five years
12/05/2012	6% tax on loans shorter than 1 year
12/18/2012	60% non-remunerated reserv requirement on banks gross FX positions above US\$ 3 billion

Source: Garcia and Chamom PUC wp 606

Identifying the impact of selected measures

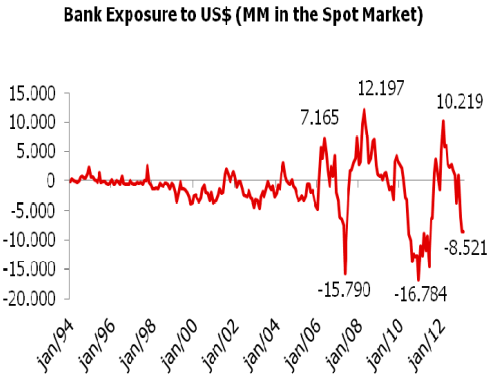


Adjustment of BRL/USD in 2011/12 was not unique among peers and reflected monetary and trade conditions

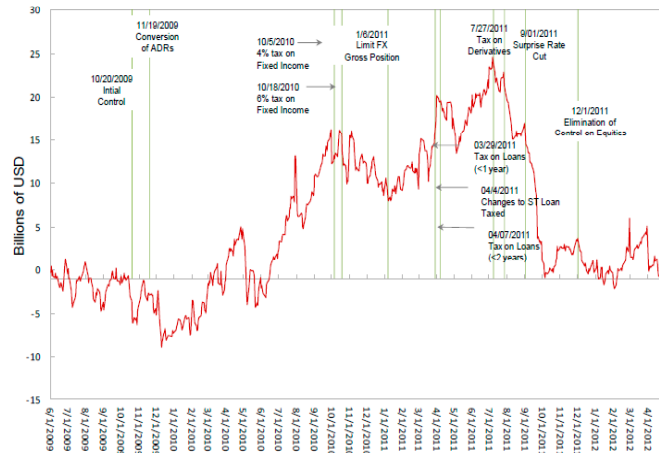
Identifying the impact of selected measures



Net position of foreigners at BMF/Selic Contracts



Source: Garcia and Chamom PUC wp 606



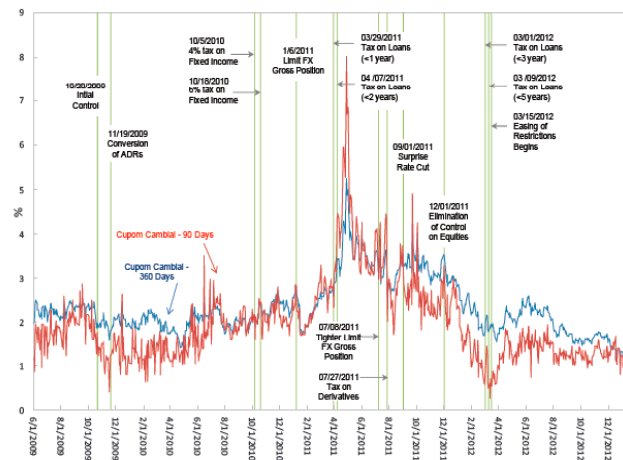
Bank Exposure and Futures Contracts have reacted quickly to the introduction of taxes and reserve requirements



Identifying the impact of selected measures



Deviation from PPP: fluctuation of the “coupon cambial”

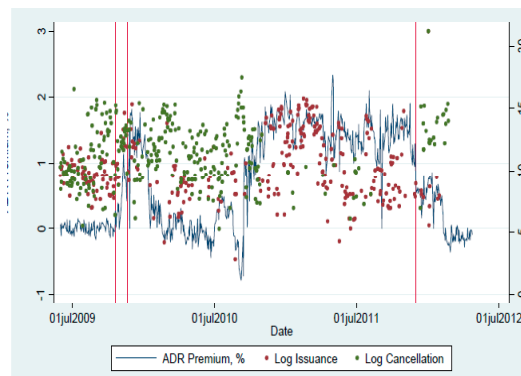


Source: Garcia and Chamom PUC wp 606

Several authors have shown that the tax edge does affect relevant markets

The persistence of macroeconomic effects is less obvious

Petrobras ADR premium over stock



What's next



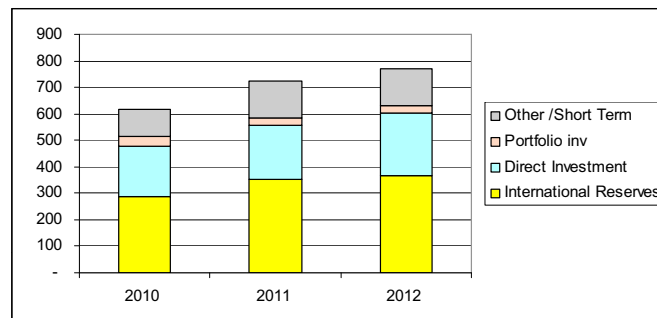
Lower interest rates are spurring international diversification

- Pension funds can invest up to 10% abroad (current portfolio below 2%)
- Domestic investment funds can invest 10%-20% abroad
- Brazilian assets abroad have risen to 35% of GDP

Government has interlocution with the financial sector to continue to simplify rules and open markets

- Banks' Association (Febraban) and GECEM

BRAZIL: Foreign Assets (US\$ Billion)



Summing up



Capital Flows Liberalization has been orderly and constructive

- Helped increase interest rate discipline and fight inflation
- Was welfare improving: did not precipitate major crises, while helped bring new opportunities (e.g., foreign participation in IPOs)
- Worked best with floating exchange rate
- As so many reforms in Brazil, it took time to unfold, but it is solid, with very little risk of reversal.
- Not too much hurry to get to full convertibility, also because of atypical external environment

Government retained enough tools to moderate distortions or shocks

Taxes and other price mechanisms help steer inward and outward flows

Concerns with exchange rate addressed through a range of instruments

Probably the weakening of the BRL in 2012 was due mostly to monetary policy (lower rates) and changes in terms of trade (weaker)

The taxation of exchange derivatives was contemporary to lower currency volatility and a sliding in the BRL

Tools are generally easy to adjust, with quick return to neutrality

LUNCHEON ADDRESS



Back to Fundamentals: Financing Asia's Growth in a Sea of Global Cross Currents

Andrew Sheng¹

For decades, policymakers in Asia have been struggling with the topic of capital account liberalization within the context of globalization. This concern was reinforced during the Asian Financial Crisis 1997/98, and the on-going European debt crisis, when unrestricted capital flows within a common currency zone led to divergent developments and eventual crises.

The sea change in global financial markets and the real economy since 2007 comprises six key factors.

Firstly, the advanced crisis economies have all had slower growth, with Europe still in recession, but the US economy is slowly recovering.

Secondly, the emerging market economies (EMEs) have not decoupled and are also growing more slowly, with some shift towards internal engines of growth rather than exports.

Fourth, total stock of global financial assets (excluding derivatives) still grew to \$256 trn or 3.7 times global GDP in mid-2012, albeit at a slower pace since 2007.

Fifth, financial globalization has continued. McKinsey Global Institute data suggest that global gross capital flows were \$4.6 trn in 2012, down 61% from a peak of \$11.8 trn in 2007². Most of this reduction was in intra-European flows, whereas net private capital flows to EMEs slowed but remained quite high relative to 2007.

Sixth, global foreign exchange turnover remained high at \$4 trillion daily, of which \$1.5 trn, was in spot, whereas derivative finance turnover was higher at \$2.5 trn daily. Despite the increase in total global FX reserves to \$10.8 trn, they remain small relative to highly volatile global FX and derivative turnover.

Note that many Asian EMEs have in fact excess savings, so that additional capital inflows only add to domestic over-heating. In short, we need to talk about capital account liberalization in the context of a stable and sustainable Asian financial system that will support Asia's employment and equity agenda.

¹ I am grateful to Mrs. Tan Wai Kuen, Ms Theresa Chan and Ms Jodie Hu for research assistance in the preparation of this paper. All views, errors and omissions are personal to the author and not associated with any of the institutions that the author is affiliated with.

² McKinsey Global Institute, —FinanciaGlobalization: Retreat or Reset?", 2013, Table E2.

A. Six Global Cross Currents

There are six global cross-current or transformative trends that have profoundly influenced the way we think about the sequencing of financial market reform. These are Re-balancing, demography, debt, technology, climate change and governance.

Re-balancing: The EMEs, especially the BRIC economies, are creating global convergence in income and wealth. Emerging markets now hold three quarters of global official reserves.³ The G4 countries or reserve currency countries (US, Europe, UK and Japan) currently account for 11.7% of population, but 54.5% of global GDP. The G4 are net borrowers from the rest of world to the tune of \$3.9 trn, \$6.4 trn excluding Japan or 20.8% of GDP.

Demography: The EMEs are enjoying favourable demographics in Asia, particularly a growing middle class and young labour force, but face problems of rising youth unemployment. In North Asia, an aging population, particularly in Japan, has serious consequences from a declining labour force, fiscal debt levels, and rising welfare expenditure.

Debt overhang: The global financial crisis of 2007-09 was the result of a decade of overconsumption financed by overleveraged financial institutions. Between 2008-2012, the advanced countries replaced private losses in the financial system with \$15.4 trn increase in public debt, with OECD countries having an average debt/GDP levels of 100% of GDP, sustainable only at near zero interest rates. The impact on EMEs is large levels of capital flows, asset bubbles and higher inflation. Surplus EMEs stand to lose 5% of GDP in foreign exchange losses in domestic currency terms for every 10% revaluation of their currency.

Technology: The world has become a systemic collection of networks of production, distribution, finance, knowledge and power, with high concentration in almost every field, but especially in finance. Over time, these networks exhibit signs of increasing synchronization with non-linear complex feedback mechanisms that defy any measure of control by national governments. Technology is simultaneously an opportunity and a disruption to the old order. Just as social media is disruptive of political order, mobile phone technology can disintermediate traditional banking.

Climate Change: Rising middle income consumption for the masses in EMEs threaten more carbon emission and rapid natural resource depletion. Ecological sustainability is both an opportunity and a threat. Both India, China, Korea and Malaysia are already changing their growth model towards greater energy and ecological sustainability.

Governance: The delivery of better infrastructure, rule of law and higher standards of living to a rising population would depend critically on the quality of governance. There is however a global collective action trap. No single country can deal with very large disorderly capital flows, especially if the capital account is fully open. Even with very high foreign exchange reserves, no single country is immune to the downsides of globalization. All central banks

³ World Bank, Global Development Horizons 2011, Multipolarity: The New Global Economy.

have to cooperate with the IMF and each other to ensure that capital flows are channeled largely for investment in the real sector and for the global public good.

B. The Challenges facing EMEs are different

The G4 countries are struggling with deflation, jobless recovery, deleveraging and a huge fiscal overhang, using unconventional monetary policy, with central bank balance sheets tripling in the last seven years, expanded fiscal policy, unsustainable debt burden and macro-prudential policies⁴.

It is not clear whether these policies are consistent for the world as a whole.

Within the advanced markets, the US financial sector reduced its debt by \$1.5 trn since 2007, whereas European financial sector increased debt by \$2.8 trn. In contrast, emerging market financial depth averaged less than half that of advanced economies (157 percent of GDP compared with 408 percent of GDP) at the end of June 2012.

Because credit growth emerges as the single best predictor of financial instability, there is greater awareness to deleverage the financial sector, including the shadow banking credit which was in the order of \$67 trn worldwide.

Since advanced countries are clearly in “excess financial depth” territory, with the need to deleverage, whereas EMEs, with half their financial depth, need to grow to break out of the middle income trap. The major policy contradiction is that regulatory rules like Basel III, designed to constrain advanced country financial sector excess leverage, is also being adopted by EMEs. If Asian banks also begin to deleverage or credit growth is constrained that slows Asian growth, then the world will go into a synchronized recession.

No one has calculated or thought through what is the combined impact of implementation of not just Basel III and a whole pack of global financial regulation that has huge cross-border implications, such as Dodd Frank, IOSCO rules, FATCA and Solvency II. The regulation on shadow banking has not even been formulated.

C. Financing the Real Sector in Emerging Markets

The growth imperatives in Asia alone require huge funding of infrastructure (\$8 trillion to 2020 according to ADB estimates), trade finance, SME funding and inclusive “Green Finance”. McKinsey and OECD estimated that SMEs in emerging economies have a \$2 trillion credit gap. Including SMEs in advanced countries, the credit gap is \$3.1 trillion to \$3.8 trillion.

In order to support rising population, create jobs and solve social and ecological imbalances, EMEs need to invest in a lot of infrastructure, improve social welfare by raising real wages of the labour force, remove financial repression, supporting the SMEs, reduce corruption,

⁴ For an excellent review of the debate, see Adair Turner, “Debt, Money and Mephistopheles: How do we get out this mess?”, CASS Business School lecture, 6 February, 2013.

improve the rule of law, reduce the power of state owned enterprises and allow market forces to work.

Financial sector reform, especially the development of long-term financial institutions, such as pension, insurance and private equity funds that can increase equity, absorb long-term maturity and foreign exchange risks, is a priority.

D. Taking a Systemic View of Global Structural Reforms

For finance to serve the real economy, it needs to manage at least three mismatches—namely, maturity, foreign exchange and structural. The first two mismatches were manifestly responsible for the Asian and European debt crises, but the underlying reasons were structural – the combination of lack of infrastructure, labour productivity, excessive welfare spending, consumerism, short-termism and fiscal gaps, all of which require painful structural reforms.

Current economic analysis, either focusing on a single closed economy, or just the advanced markets, or simply the emerging markets as a group, is fundamentally incomplete. Globalization has created an open economy where we need to look at the complex interaction and interdependence between advanced markets and emerging markets as a systemic whole.

Ex-post, the interaction is a zero-sum game, but ex-ante, it could either be win-win or lose-lose. If we are not careful, we could all go into a synchronized collective action trap of global recession. Alternatively, if we co-operate well, the world will reflate towards a new sustainable, green and socially just, financial stable, and peaceful world.

There are today two engines of global growth – the advanced markets and the EMEs, likened to two jet planes. Prior to 2007, the lead plane was advanced (AvJet), with the EMjet in the slipstream. Today, AvJet is relying on the EMjet for fuel, but it flew into turbulence, and is close to stalling speed.

To keep on flying, monetary policy is about pumping fuel from the left wing to the right wing. Fiscal policy is about whether you can shed weight and keep on flying. Macro-prudential is about strengthening the plane to withstand crashes.

Here is the trick. If the EMjet still keeps on flying, whilst the Avjet slows and repairs itself, the whole world will slowly be pulled out of the crisis.

But the current rules of the game require EMjet to increase its safety requirements, but by adding more equipment and limits, there is a risk that EMjet becomes so burdened that it also stalls.

In other words, there is always a tradeoff between growth and stability. Of course there are risks, but without risk, there is no growth. Hence, the EMEs really need to decide whether they should focus on growth and employment or focus on Basel III implementation. In my humble opinion, if growth collapses, the best Basel III implementation will not save the banking system. I am not trying to downgrade the importance of improving bank supervision, but to point out that the needs of the advanced markets and emerging markets are slightly

different. Both need quality growth, but the advanced markets need inflation to erode its debt, whereas the EMEs need to avoid inflation that would widen social inequality.

E. The EME Impossible Trinity

The above analysis has direct implications on the intricacies of capital account liberalization. In 1997, Stanley Fischer, then Deputy Managing Director of the IMF, offered three ways of looking at capital account liberalization⁵:

- The benefits of liberalizing the capital account outweigh the potential costs;
- Countries need to prepare well for capital account liberalization with appropriate economic policies and institutions, particularly the financial system;
- Amending the Fund's Articles of Agreement to ensure that capital account liberalization is carried out in an orderly, non-disruptive way.

Although there is still debate whether the first condition holds true, the real debate is how much time is required to prepare domestic financial and real sector institutions to adapt to a more volatile world. The key question therefore for surplus EMEs is whether opening up to volatile capital flows will help development or disrupt it.

What any economy (advanced or EM) faces today in a globalized financial market with highly leveraged capital flows is that with total capital mobility, you can either control the exchange rate or the interest rate but not both. The corollary of this is that if you want to control the exchange rate and the interest rate, you may need exchange controls of one form or another.

Herein lies the dilemma for EMEs. The Asian financial crisis laid down the important lesson that central banks cannot manage fixed exchange rates with limited foreign exchange reserves against market players who are highly leveraged. Even with flexible exchange rates, this is not easy.

Ideally speaking, economies that grow faster than advanced markets should have interest rates that broadly match the real rate of growth. But if there were completely no capital controls, the law of one-price will equalize global interest rates, which means that under current near zero interest rates in G4, there will be massive capital inflows into EMEs, which will have exchange rate appreciation and inflation. The lesson from Japan is that if the appreciation of the exchange rates is very fast and the domestic sector cannot adjust to it, there will be a structural balance sheet recession after a credit and asset bubble lasting more than two decades. Under such circumstances, the EMEs would boom and then crash, leading to a synchronized global recession.

In other words, the financial markets are moving far faster than the real sector can adjust, which comes back to the question whether there should be sand in the wheels, as James

⁵ Fischer, Stanley, Asia and the IMF, IMF Seminar. September 1997

Tobin recommended. As we all know, EMEs such as Brazil, Chile and Korea have tried a variety of controls on capital inflows with varying degrees of success. Some of them were macro-prudential regulations. All of them either tried to increase the cost of speculation or limit the amount of leverage in FX transactions.

As we are aware, the Eurozone has already agreed in principle on a financial transaction tax (FTT). I understand that the UK position is that it would agree to a FTT if the rate was universally applied. This is a classic collective action trap. No single country is willing to apply FTT, because if the others do not, there will be flight of financial services and transactions to escape FTT. So the ideal situation is to apply a uniform global FTT. My personal view is that countries with exchange controls, like China and India, would be in an ideal position to impose FTT and then use that position to negotiate a globally uniform FTT rate. This rate could be initially zero and adjusted when conditions become adverse. Given the huge shortage of fiscal revenue to finance global public goods, I am on record that a uniform FTT is good for managing financial and fiscal stability⁶.

Concluding Remarks

The reality is that in a multi-polar world, there are complex interaction and interdependencies between different economies, with different stages of development, financial depth and understanding of how to manage financial and economy stability.

I agree with the view that if China is to deal with its internal imbalances, interest rate reform is a priority. The secondary question is how to get the financial sector ready for such interest rate reform and how to get the real sector, especially the enterprise sector, to live with more market volatility.

Collective action traps occur because there is no common understanding by different stakeholders, lack of appreciation of the options, the tools and the outcome.

The trouble with any controls or regulations is that once they persist for a long time, they create distortions and rent-seeking activities that eventually perpetuate the distortions. Just as QE creates vested interests that prevent an early exit, capital controls also create distortions and vested interests against change.

Central banks around the world face the same dilemmas. If they accommodate temporary misalignment by printing money, then the politicians may not take the tough action and pain for necessary structural reforms, including fiscal adjustments. If they do not accommodate, there could be a precipitation of crisis.

The whole process of getting buy-in and getting the financial sector and the policy consensus will take time.

⁶ Andrew Sheng, 2011, “The Case for a Tobin Tax”, chapter in David Hale and Lyric Hughes, “What’s Next?” Princeton University Press.

Ultimately, balancing monetary policy, fiscal policy and structural policies to obtain growth, jobs and social justice will require economies to sacrifice high growth for more sustainable slower growth. Getting that balance is complicated and delicate, requiring tradeoffs in the short term. It also takes time to build institutions, to get political consensus and to get the policies and tools in place.

To sum up, the reality is that we are in a highly global distorted environment. No single EME can get to market equilibrium if the largest advanced economies are not in equilibrium.

It is too late to say that central banks should take away the punch bowl when the party gets interesting. The whole world is high on very low interest rates. A wrongly executed exit policy could trigger off very high volatility in asset prices with large capital flows.

This makes central banking more interesting than ever, so that it remains an art rather than a science.



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President

20 March 2013

IMF-PBC Conference

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The Fung Global Institute is an independent think-tank and learning institute that generates and disseminates new thinking from Asian perspectives on issues that are transforming the global economy. Its business-relevant research is combined with practical experience and learning that can be applied by senior global business executives as well as policymakers and civil society leaders. The Institute is a non-profit organisation based in Hong Kong.

Key Messages

- We need to have a Back to Fundamentals holistic approach to capital account opening.
- Problem is that in Inter-connected, Interdependent world, central banks have lost control of monetary policy, due to highly leveraged capital flows and offshore, off-balance sheet Shadow Banking Credit.
- Asian surplus economies have lesser need for volatile capital flows. Asia needs to channel domestic savings to deepen its capital market to serve the real sector - infrastructure, SMEs and trade finance.
- Regulatory changes should “fit” broader strategy to grow sustainably – getting balanced growth without structural, foreign exchange and maturity mismatches
- Going forward, Asia needs to work out a package of balanced rules and regulations, including macroprudential, microprudential and capital account opening, to ensure a stable and sustainable Asian financial system that will support Asia’s employment and equity agenda.

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Outline

1. Finance needs to serve Real Sector and help manage Black Swan Effects and Non-linear Network Contagion
2. Capital Flows, Unconventional Monetary Policy and Liberalization of Capital Account
3. Back to Basics
4. Concluding Thoughts

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Section 1 | **Managing Black Swan effects and Non-Linear Contagion & Network Feedbacks**

Re-think Financial System relationship with Real Sector

- As China and others go through Lewis turning point, real wages will rise and savings growth will slow.
- As households age, greater expenditure will be spent on medical and support care – households will need higher retirement income.
- Government fiscal debt are reaching higher levels as there is global drive to lower tax rates and increase welfare expenditure – room for pension contributions limited.
- Asian corporate governance need to switch from high investment model to high dividend and transparent model.
- Hence, we need to re-examine the impact of pension schemes on labour market efficiency, labour mobility, consumer expenditure and fiscal positions.
- Need to think beyond conventional portfolio strategies to thinking long-term impact on economy and strategic risks.

Need to support Real Sector

- Macro-prudential policy is one of many policy tools.
- We have Collective Action Trap because national regulators cannot deal with global markets that have complex feedback mechanisms that no one controls.
- A Tobin Tax will limit leverage and provide friction to capital flows, and allow monitoring of markets.
- Reduction of leveraged carry trade will give some traction to domestic monetary and structural policies to buy time for adjustment of real sector.
- Support real sector, reduce self-serving incentives of financial sector will redress current distortions of (unfettered) Global Shadow Banking.

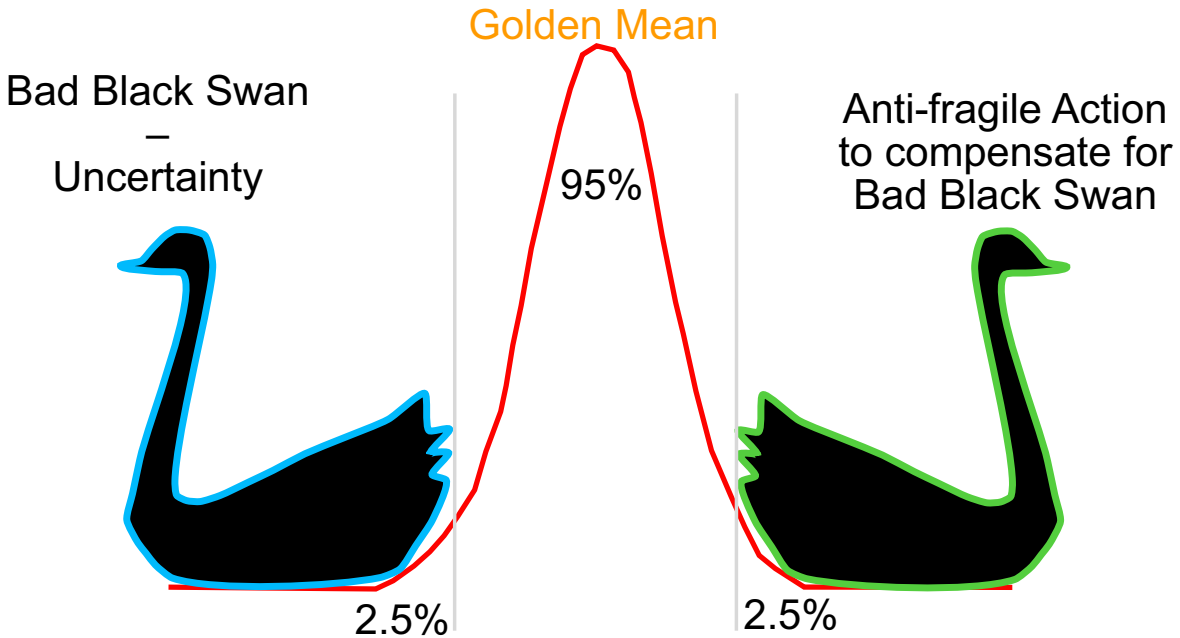
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Get financial institutions to serve Real Sector

- Historically, financial sector made money intermediating for real sector – as agents, not principals.
- Once they engaged in proprietary trading, they competed with their clients – hence conflict of interest and loss of trust.
- Need to go back to basics – **financial institutions must be seen to be making money from serving real sector – if real sector makes money, then finance can flourish without being predatory.**
- If not, self-interest will induce massive conflicts of interest.
- Banks made money from interest rate spreads, helping finance trade, and also M&A and capital raising activities.

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You can't directly hedge against bad Black Swan effects (uncertain but huge negative impact when they happen)



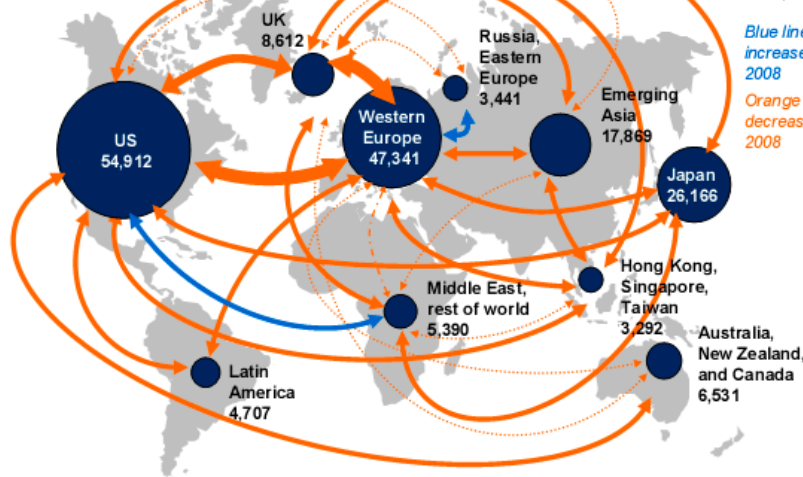
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Global Markets are highly interconnected and vulnerable to financial contagion

Width of lines shows total value of cross-border investments between regions¹
 Figures in bubbles show size of total domestic financial assets, \$ billion, 2008
 2008 exchange rate

↔ 0.5-1% of world GDP
↔ 1-5% of world GDP
↔ 5-10% of world GDP
↔ 10%+ of world GDP
 World GDP, 2008 = \$61 trillion

↔ Blue lines represent an increase between 2007-2008
↔ Orange lines represent a decrease between 2007-2008

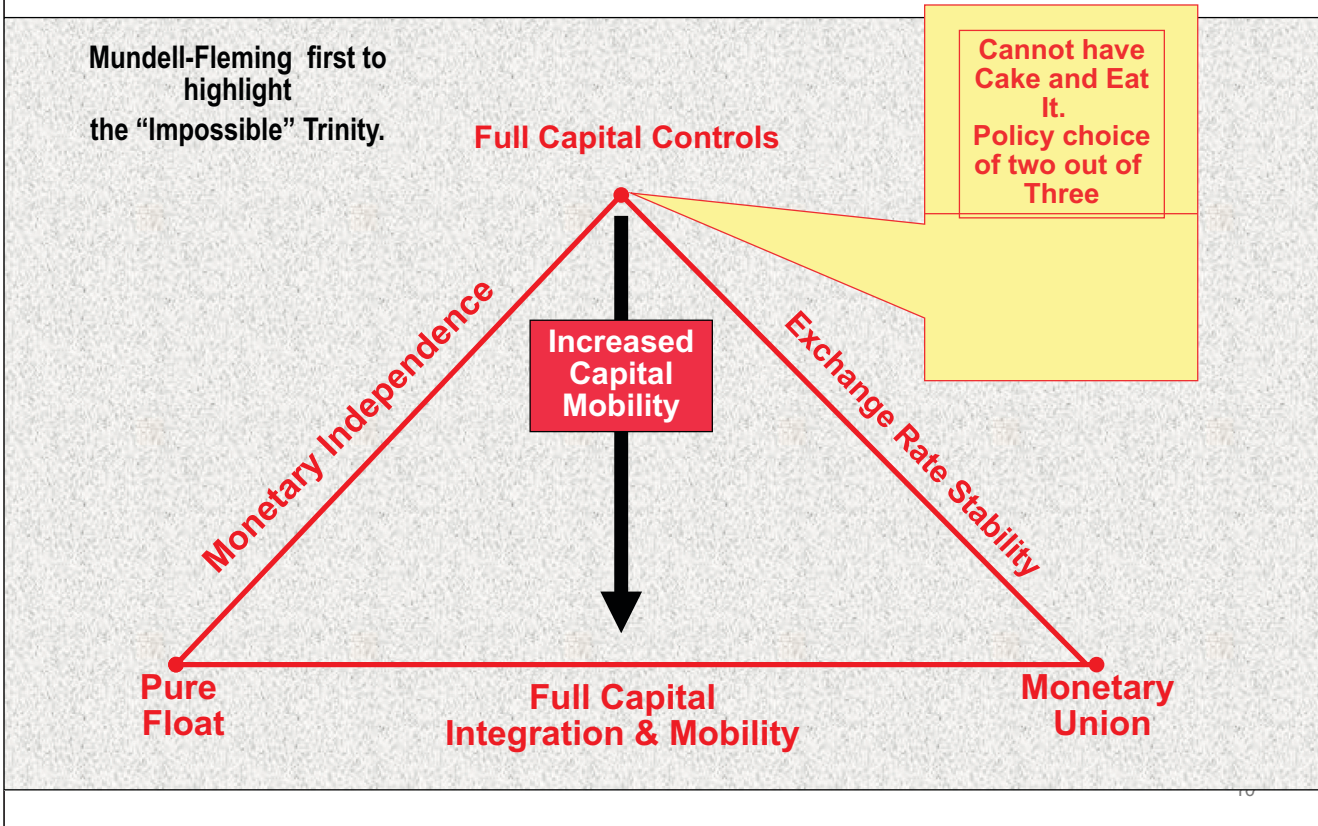


¹ Includes total value of cross-border investments in equity and debt securities, lending and deposits, and foreign direct investment.

Source: McKinsey Global Institute, 2009.

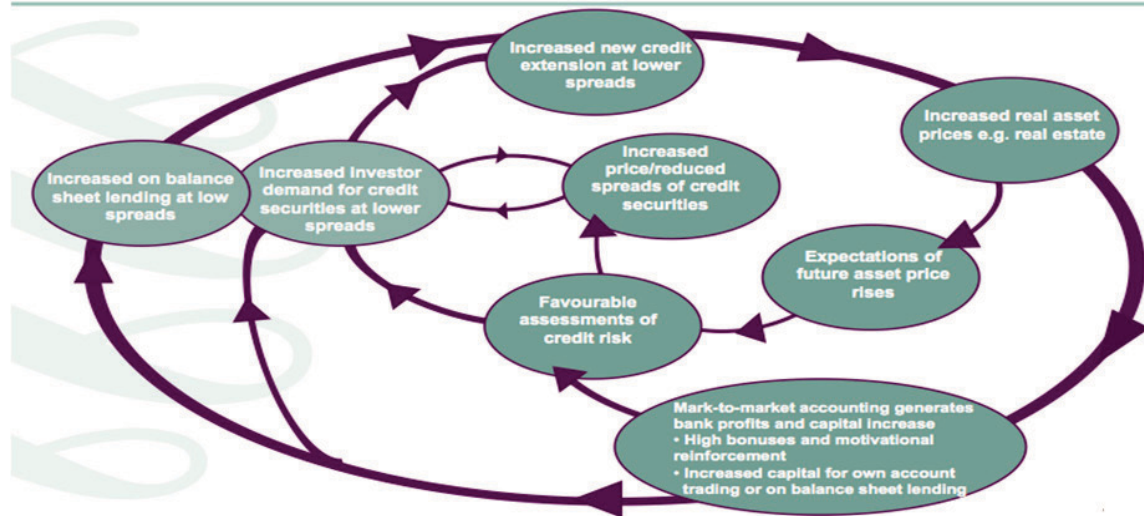
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The Asian Impossible Trinity



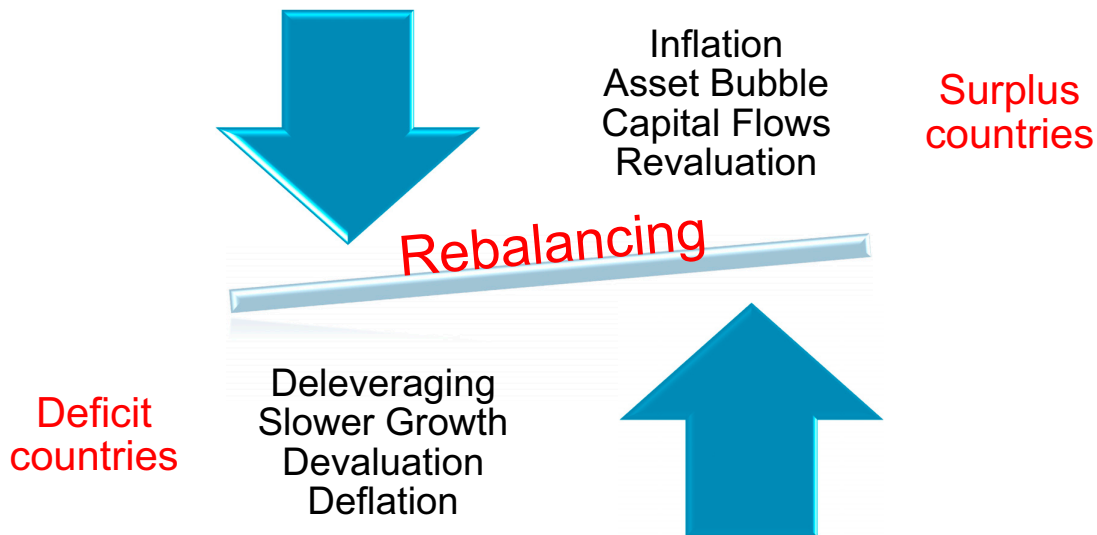
Asset bubbles spread across borders through leveraged capital flows

Credit and asset prices: with securitised credit and mark-to-market accounting



Source: Adair Turner, 2010.

Effects of Rebalancing on Surplus countries



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Economic Rebalancing brings new opportunities

- Within a decade, Asia (China, India, Japan, Korea, ASEAN, Middle East) will have the largest middle-class, wealth, savings and be drivers of change;
- There will be at least 3 Asian global currencies – Yen, RMB, Rupee
- Three levels of opportunities: -
 - At state – infrastructure investments and funding
 - At corporate – M&A, ODI and JV with MNCs abroad, SME, IPO
 - Consumer – housing, wealth-management, consumer finance

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Demand for banking services will soar in Asia while advanced economies are still deleveraging

Overview of the World Economic Outlook Projections

	Year over Year			
	2009	2010	Projections	
			2011	2012
Advanced Economies	-3.7	3.1	1.6	1.9
United States	-3.5	3.0	1.5	1.8
Euro Area	-4.3	1.8	1.6	1.1
European Union	-4.2	1.8	1.7	1.4
Japan	-6.3	4.0	-0.5	2.3
United Kingdom	-4.9	1.4	1.1	1.6
Newly Industrialized Asian Economies	-0.7	8.4	4.7	4.5
Emerging and Developing Economies³	2.8	7.3	6.4	6.1
Central and Eastern Europe	-3.6	4.5	4.3	2.7
Commonwealth of Independent States	-6.4	4.6	4.6	4.4
Developing Asia	7.2	9.5	8.2	8.0
China	9.2	10.3	9.5	9.0
India	6.8	10.1	7.8	7.5
ASEAN-5 ⁴	1.7	6.9	5.3	5.6
Latin America and the Caribbean	-1.7	6.1	4.5	4.0
Middle East and North Africa	2.6	4.4	4.0	3.6
Sub-Saharan Africa	2.8	5.4	5.2	5.8

ASEAN-5: Indonesia, Malaysia, Philippines, Thailand, and Vietnam

Source: IMF World Economic Outlook 2011

Banking profitability in advanced economies will be affected:

- Lower real economy returns carry over into financial services
- Driven by limited credit availability, funding costs will remain high
- Lower demand for risky, high-margin, complex products

Biggest engines of economic growth are in Asia, LA, Middle East and Africa

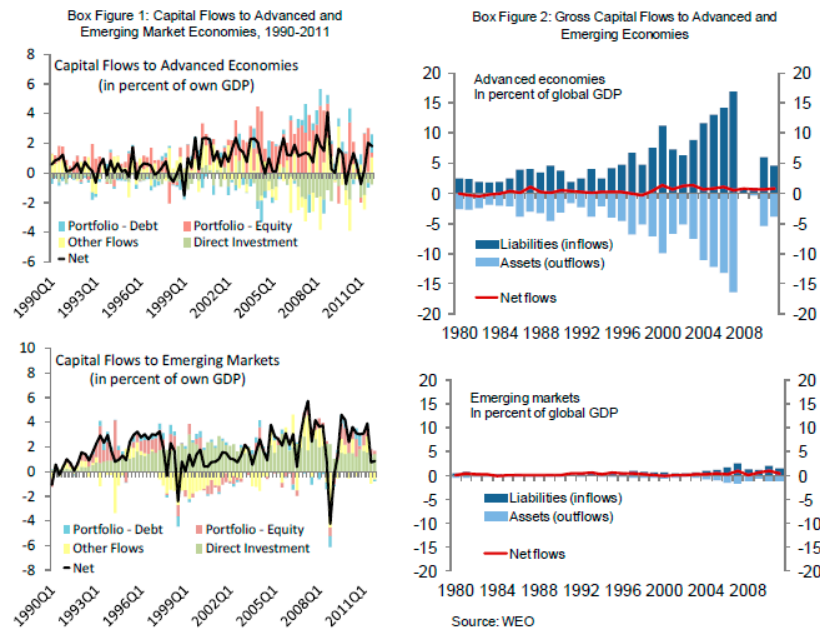
Section 2 | Capital Flows, Unconventional Monetary Policy

Leveraged capital flows have negative externalities

- Capital flows: arbitrage is speculative because of high leverage
- Balance Sheet risks: Global Imbalances at macro-level, but also mismatches at national and institutional levels make systems fragile and vulnerable
- Price Misalignment attracts arbitrage of prices, taxes, regulation and even grey market / illicit flows.
- However, LEVERAGED capital flows magnify risks in terms of volatility, speed and scale.
- Reversal of capital if G4 interest rates are raised is real policy risk.

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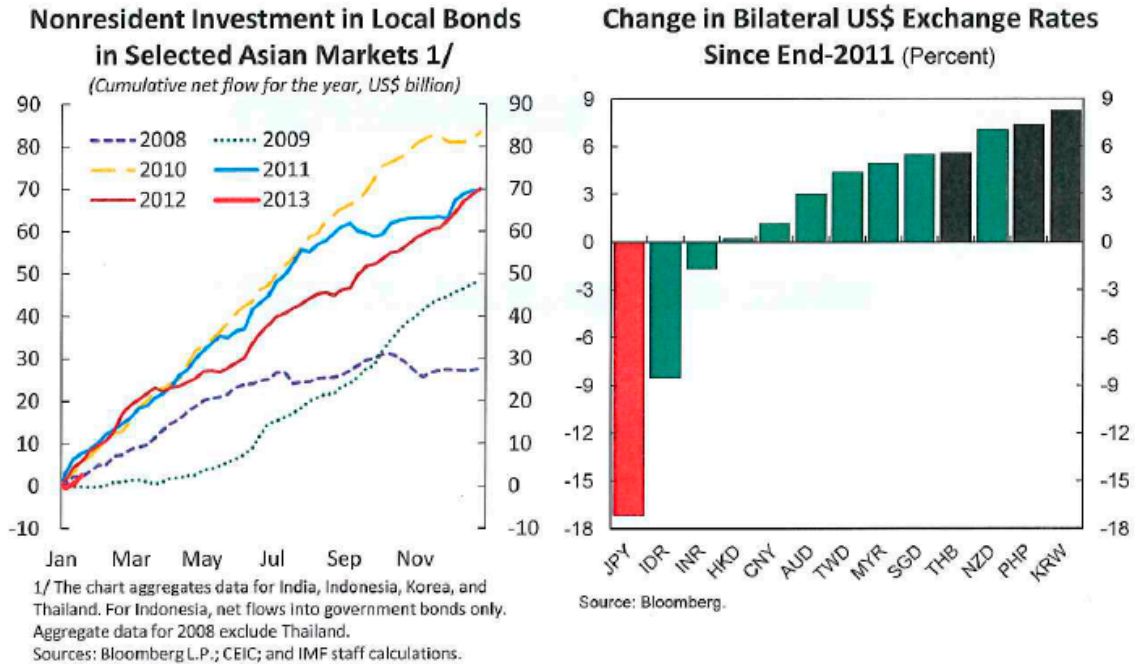
Cross-border capital flows have increased significantly in size and volatility



1/ "Emerging economies" are defined here as all emerging market and developing countries (WEO group 200) but excluding countries eligible for concessional financing from the Fund (WEO group 30).
 2/ IMF, 2011a and Ostry et al., 2012.

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Massive portfolio flows to Emerging Asia

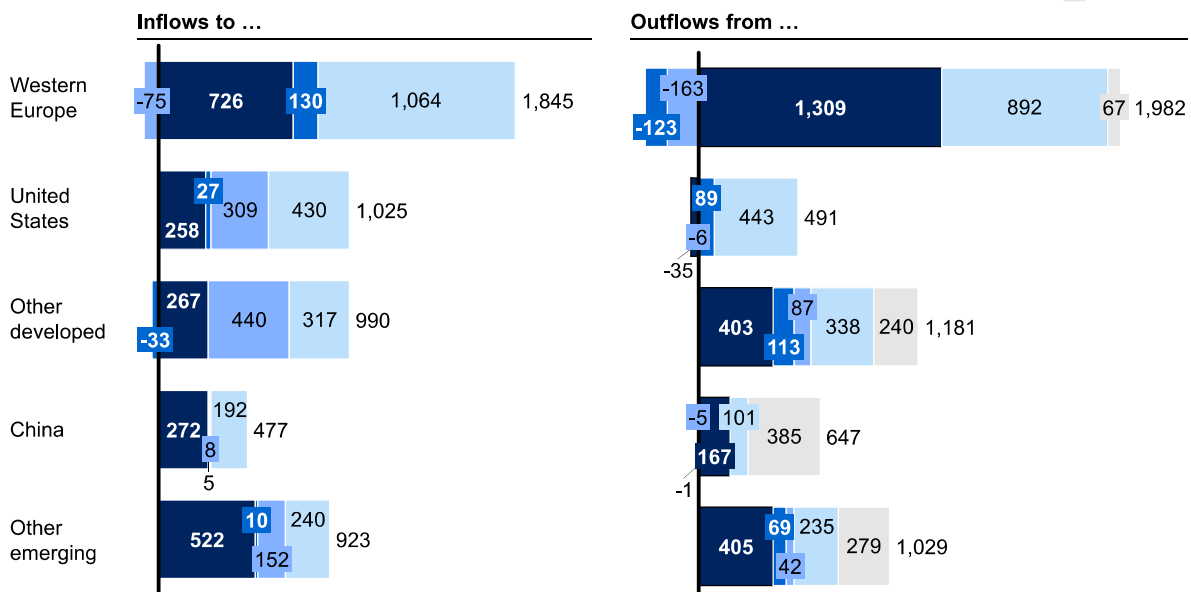


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Cross-border capital inflows and outflows by region, 2011

\$ billion

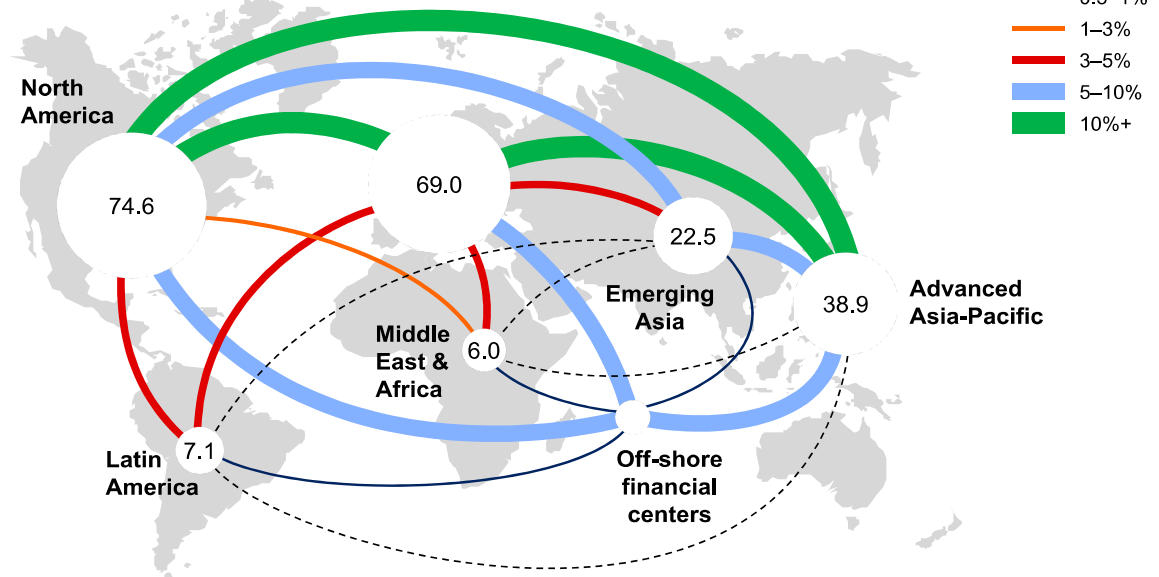
- Loans¹
- Bonds
- Equity
- FDI
- Reserves



1 Includes primarily loans, currency and deposits, as well as a small share of trade credit.
NOTE: Numbers may not sum due to rounding.
SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

By 2011, the web of cross-border investment assets had grown significantly in breadth and depth

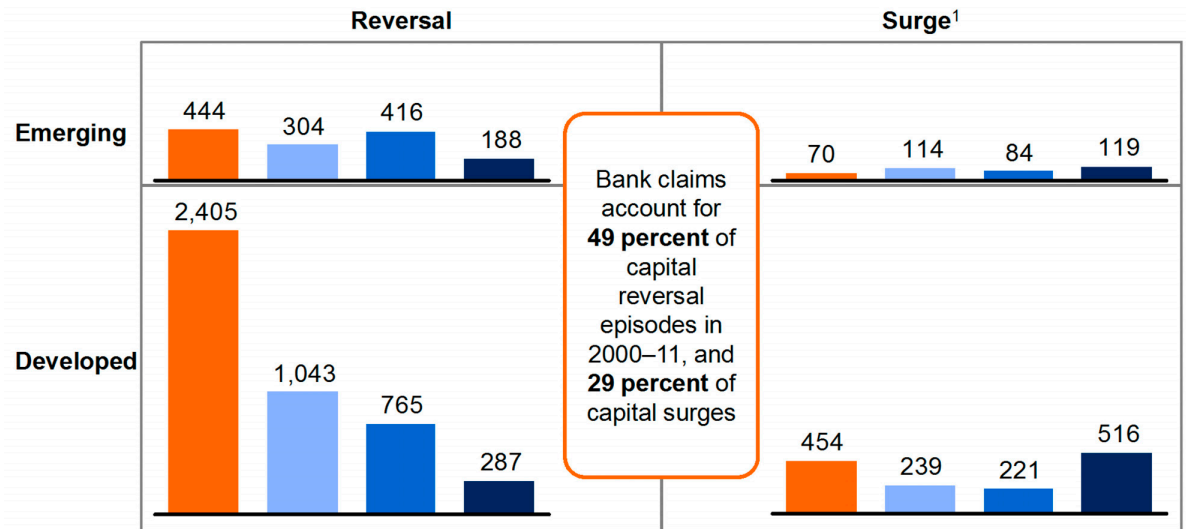
Width of lines shows total value of cross-border investments between regions as percent of global GDP¹



¹ Includes total value of cross-border assets; GDP in 2011 = \$70 trillion.
 NOTE: Only select lines are shown.
 SOURCE: McKinsey Global Institute Bilateral Foreign Investment database

Bank flows have more episodes of capital reversal and surges than other asset classes

Events of capital flow reversals and surges, by type of asset
 Number of instances based on quarterly data, 2000–11

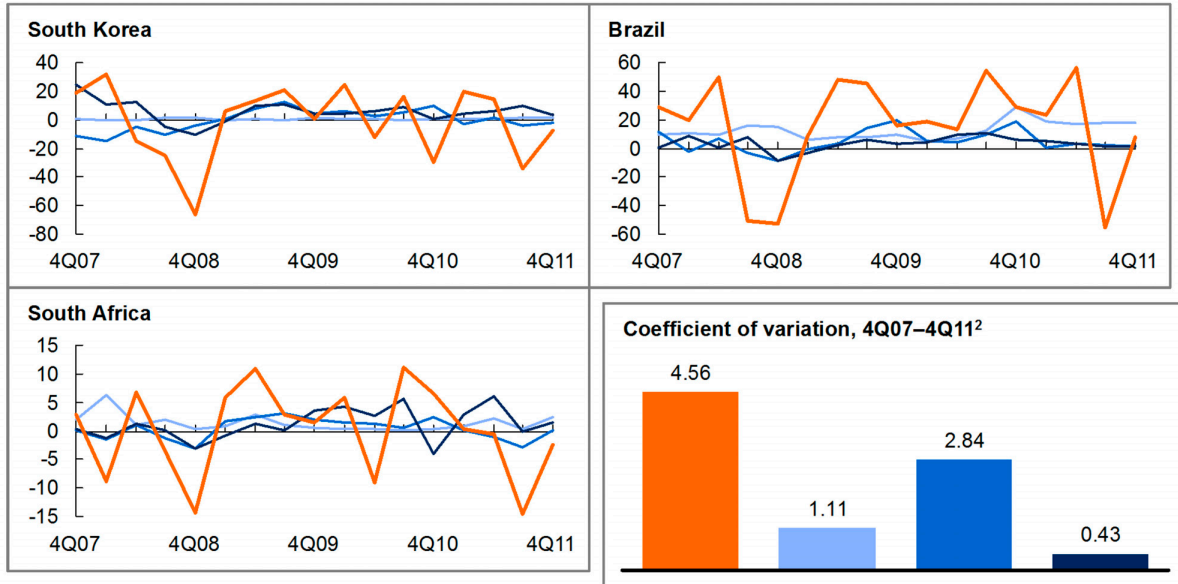


¹ Defined as an inflow that is at least two standard deviations higher than the average quarterly inflows five years leading to the surge.
² Bank net acquisition of cross-border loans (~80%) and other debt assets (~20%) in emerging and developed economies.
 NOTE: Sample includes 29 developed markets and 120 emerging markets.
 SOURCE: Bank for International Settlements; International Monetary Fund; McKinsey Global Institute analysis

Bank claims are the most volatile type of cross-border flow for selected countries

Cross-border capital inflows to select countries, by type of asset
\$ billion, nominal exchange rates

- Bank claims¹
- Bonds
- Equity
- FDI



1 Foreign bank net acquisition of cross-border loans and other debt assets in select countries.

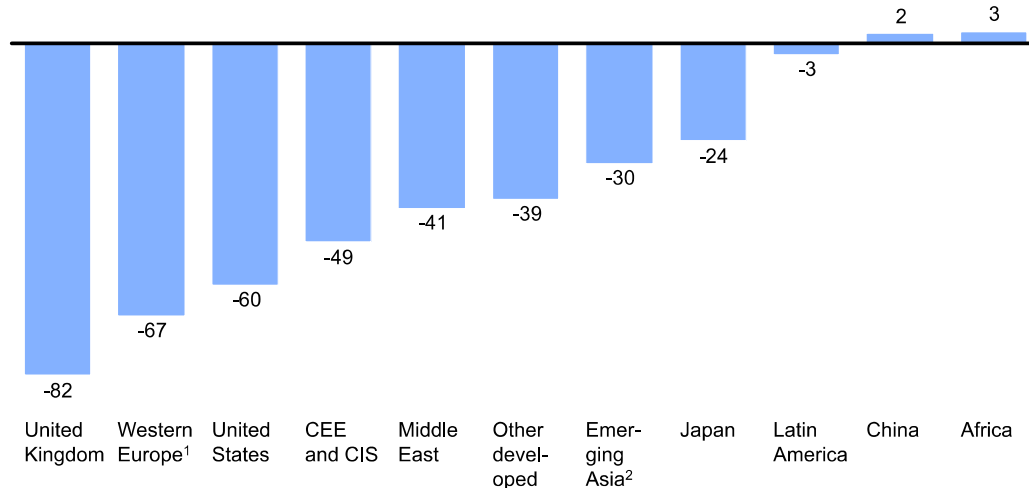
2 Calculated on the quarterly inflow to South Korea, Brazil, and South Africa.

NOTE: Not to scale.

SOURCE: Bank for International Settlements; International Monetary Fund; McKinsey Global Institute analysis

Cross-border capital flows have declined significantly in most regions since 2007

Change in total capital flows (inflows + outflows by region), 2007–11
%



Total capital flows (\$ trillion)

	United Kingdom	Western Europe ¹	United States	CEE and CIS	Middle East	Other developed	Emerging Asia ²	Japan	Latin America	China	Africa
2007	3.3	9.9	3.8	1.0	0.5	2.1	0.4	1.1	0.6	1.1	0.2
2011	0.6	3.2	1.5	0.5	0.3	1.3	0.3	0.9	0.6	1.1	0.2

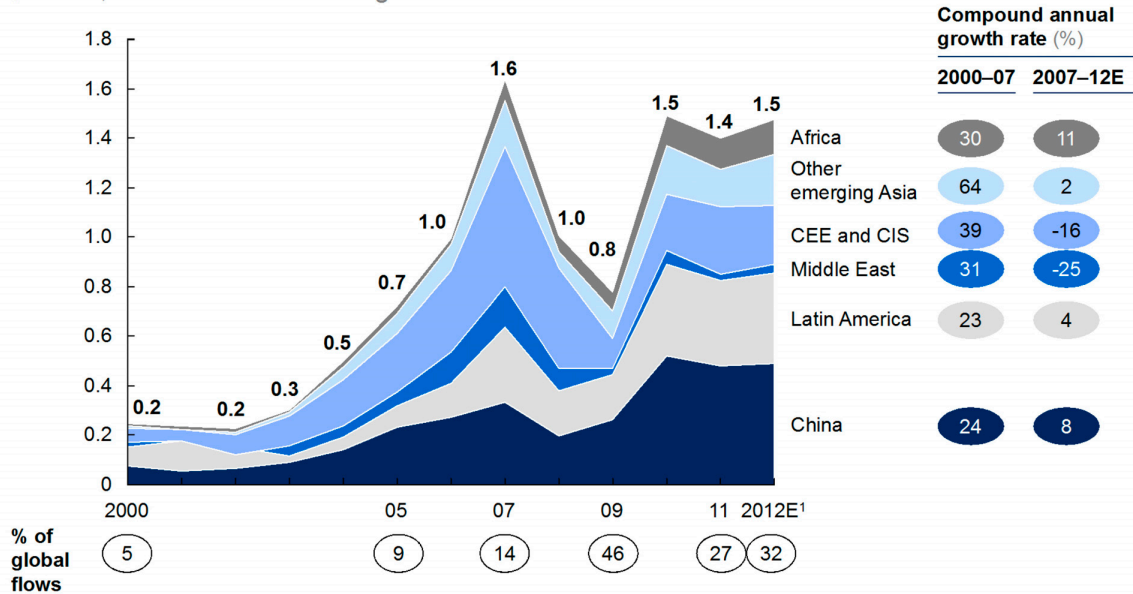
1 The United Kingdom is removed from Western Europe in this chart to avoid double counting.

2 Asia excluding China and developed Asian countries (Hong Kong, Japan, Singapore, South Korea, and Taiwan).

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

Capital inflows to developing economies totaled \$1.5 trillion in 2012 and are near the pre-crisis peak

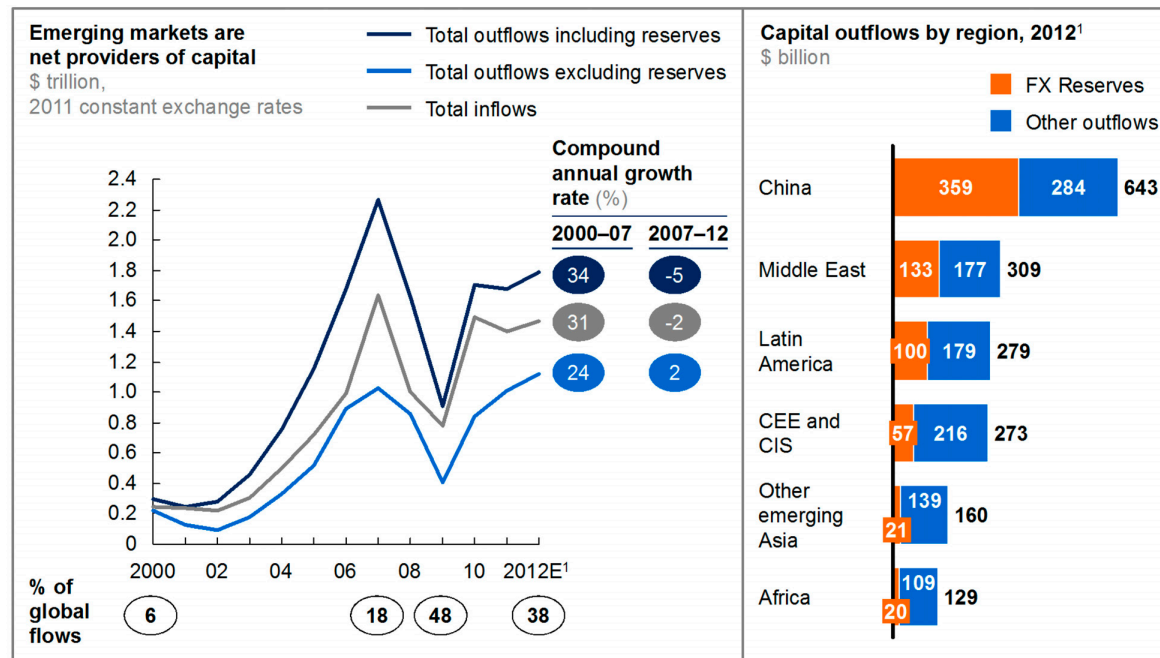
Global capital inflows to developing countries, by region
\$ trillion, 2011 constant exchange rate



¹ Estimated based on data through Q2 2012. For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

Emerging markets' capital outflows are even larger than inflows, at \$1.8 trillion in 2012

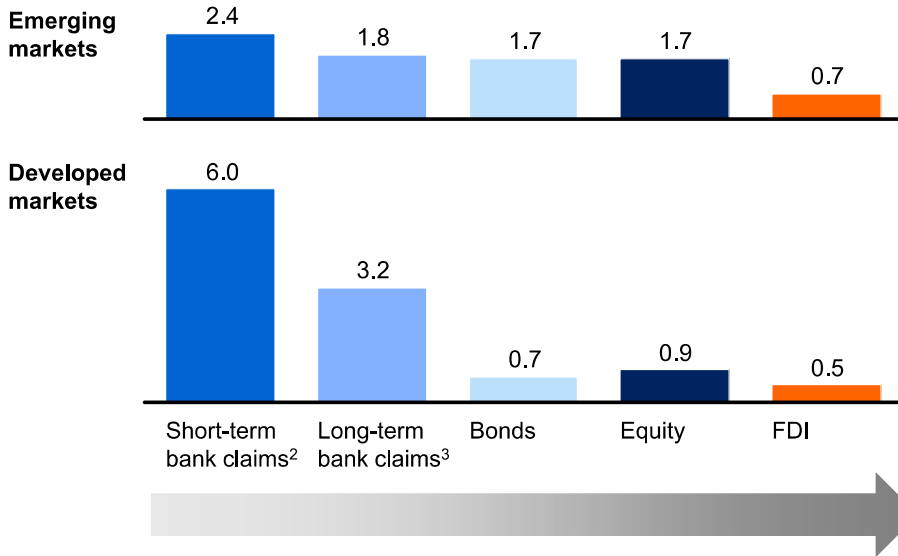


¹ Estimated based on data through Q2 2012. For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

FDI is the least volatile type of capital flow; short-term lending is 3 to 12 times more volatile

Coefficient of variation of inward cross-border flows by maturity¹
1Q00–4Q11



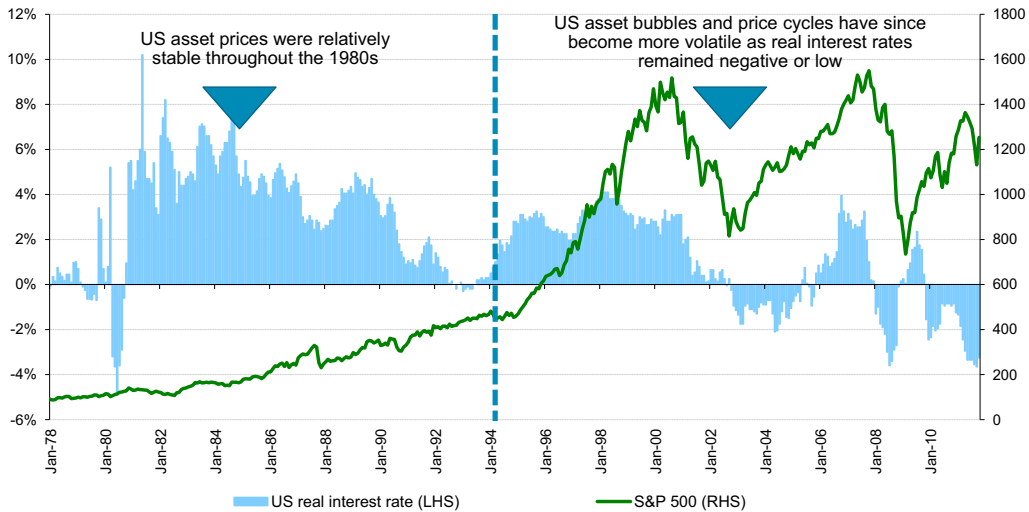
1 Coefficient of variation defined as standard deviation normalized by the mean; calculations are made on quarterly data.
 2 Maturity less than or equal to two years.
 3 Maturity more than two years.
 SOURCE: Bank for International Settlements; IMF; McKinsey Global Institute analysis

Real estate and equity prices have risen sharply



Source: IMF APD Advisory Group Meeting, 29 January 2013.

Lessons from the US: bubbles associated with low real interest rate

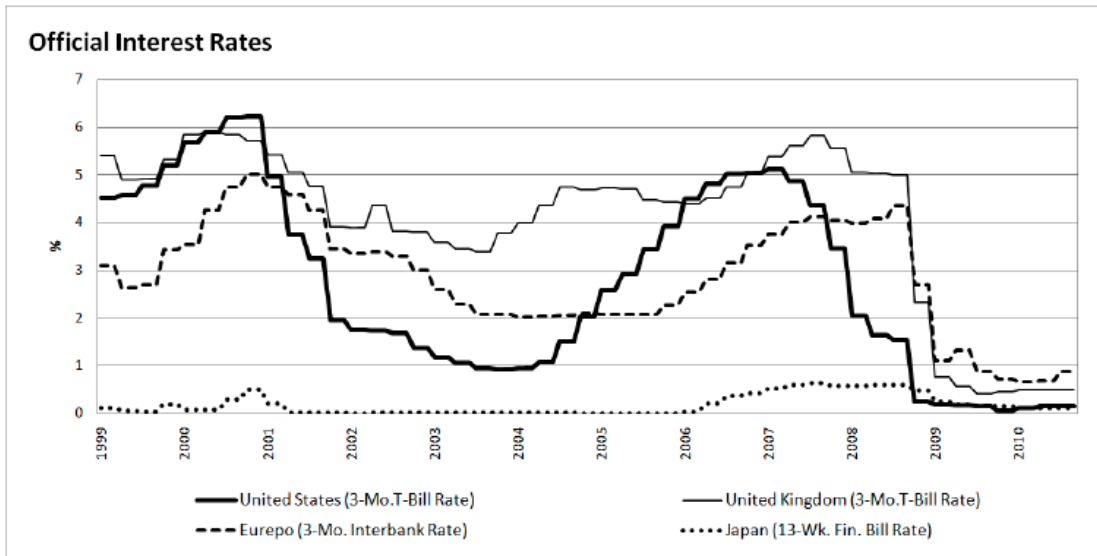


Source: Bloomberg.

- Negative to low real interest rates, among other factors, have led to increasingly frequent and intense price cycles in the US.

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Loss of monetary control: Japanese zero lower bound since 1990s failed to lift economy



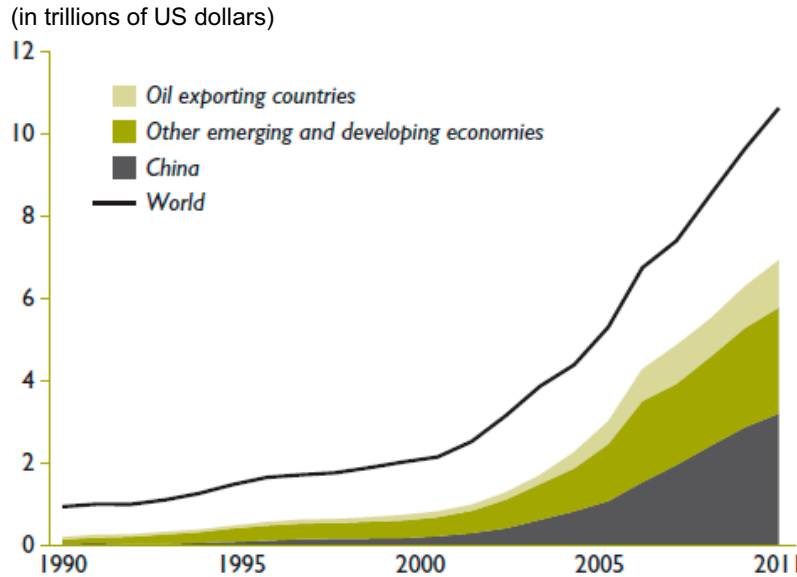
Source: IFS, IMF

Notes: U.S. and U.K. are 3 months treasury-bill rate, Europe repo is 3 months interbank rate and Japan is 13 week financial bill rate.

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Source: Loss of Monetary Control: Savings Glut or Shadow Banking Credit?, 2011. Andrew Sheng, Kian-Teng Kwek and Cho-Wai Cho.

Fear of Volatility – EMEs hold large amounts of international reserves



Source: IMF, *International Financial Statistics*.
¹Total reserves minus gold.

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But revaluation will cause large stock losses for high FX reserve economies

Impact of Global Imbalances on Surplus Countries
 - Global Net Foreign Asset (NFA) and Liability Position, 2008

Region/Country	Net Foreign Asset (+), Deficit (-) US\$ bn	GDP 2008 US\$ bn	NFA/GDP %	Exchange rate impact due to 10% change in USD	Impact as % of GDP
Asian Surplus	+ 4,994	12,309	+ 40.6	- 499	- 4.1
Other Surplus	+ 2,863	3,706	+ 77.3	- 286	- 7.7
Total Surplus	+ 7,857	16,015	+ 49.1	- 786	- 4.9
Euro Area	- 2,584	13,631	- 16.9	+258	+ 1.9
USA	- 3,690	14,441	- 25.6	+369	+ 2.6
Australia	- 501	1,062	- 47.2	+ 50	+ 4.7
Subtotal Deficit	- 6,775	29,134	- 23.3	+ 678	+ 2.3
Other Countries	- 1,082	16,070	- 6.7	-108	+0.1
Global Total	0	61,219			

- For every 10% revaluation relative to G4 countries, the surplus holders of global FX reserves stand to lose roughly 5% of their GDP.

Source: Author's calculations.

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Global Imbalance: Reserve Currency Countries (G4) vs. Rest of the World

% Global GDP (2010)	G4 – US, Eurozone, Japan, UK	Rest of the World
Share of Global GDP	54.6%	45.4%
World Population	11.7%	88.3%
Current Acc. deficit (2008) Excluding Japan	2.2% 3.1%	
Net Foreign Liability NFA (ex. Japan)	\$3.9 trn (11% of GDP) \$6.4 trn (20.8% of GDP)	
FX Reserves (ex. gold)	16.1%	83.9%
Stock Market Cap	56.7%	43.3%
Public debt	79.6%	20.4%
Private debt	81.1%	18.9%
Total Debt Market	80.4%	19.6%
Bank Assets	65.4%	34.6%
Total Financial Assets (TFA)	69.2%	30.8%
TFA/GDP (%)	503.2	270.1

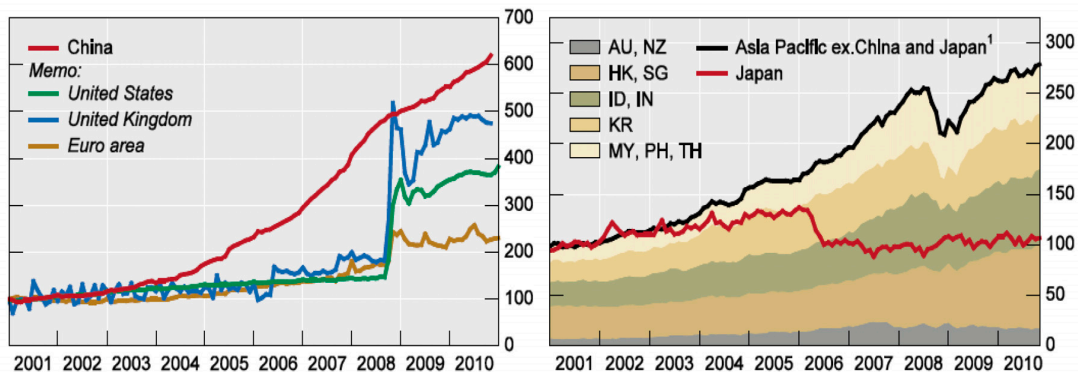
Source: IMF Global Financial Stability Report, author calculations.

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Central Bank Balance Sheet: Huge expansion (by size and country)

Graph 1

Central bank total assets (2001 = 100)



AU = Australia; HK = Hong Kong SAR; ID = Indonesia; IN = India; KR = Korea; MY = Malaysia; NZ = New Zealand; PH = Philippines; SG = Singapore; TH = Thailand.

¹ Sum of listed economies.

Sources: IMF, International Financial Statistics; national data.

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Central Bank Balance sheet: Large relative to currency, M2 and bank credit

Table 1
Central bank total assets in 2011

	In billions of USD	As a percentage of quantity indicated			
		GDP	Currency in circulation	M2	Bank credit
China	4425	62	621	36	49
Hong Kong	315	129	1063	40	65
Indonesia	161	19	352	53	72
Korea	417	35	1177	48	37
Euro area	2994	24	227	23	15
United Kingdom	391	16	523	9	8
United States	2857	19	288	21	32

Source: IMF, International Financial Statistics; national data.

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EMEs, such as China, have very small Long-term Institutional Funds, relative to banking industry [Maturity Mismatch]

	GDP	Conventional Assets Under Management				In percent of GDP	
		Pension	Insurance	Mutual Funds	Total		
(billions of US dollars)							
China	2005	2257	8	171	300	479	21
	2010	5930	41	720	365	1126	19
World	2005	44595	23382	19370	18082	60834	136
	2010	63075	29061	24600	24699	78360	124
ROW	2005	42338	23374	19199	17782	60355	143
	2010	57145	29020	23880	24334	77234	135

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Capital Markets

		Stock market cap	Debt: public	Debt: private	Debt: total	Bank Assets	Total	In percent of GDP	
		(billions of US dollars)							
China	2002	1,454	400	203	157	359	2,154	2,913	200
	2011	7,319	2,704	1,179	2,328	3,507	14,419	20,630	282
World	2002	32,164	22,077	16,531	26,826	43,357	85,003	150,437	468
	2011	69,899	47,089	44,622	53,766	98,388	110,378	255,855	366
Of which -Asia(ex.JPN,AUS,NZ)									
	2002	3,811	1,966	552	815	1,367	4,911	8,244	216
	2011	13,582	9,961	2,828	4,010	6,838	22,957	39,755	293
Of which -Japan									
	2002	3,993	2,069	4,842	2,163	7,005	15,349	24,423	612
	2011	5,867	3,541	12,791	2,579	15,369	12,756	31,666	540

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Bulk of Asian Central Bank Assets are FX

Table 2
The composition of central bank assets¹
As a percentage of total assets

	Foreign assets		Domestic assets; claims on							
			Government ²		Private sector		Banks ³		Others ⁴	
	2001	2010	2001	2010	2001	2010	2001	2010	2001	2010
China	46.5	85.6	6.6	6.1	0.5	0.0	26.5	3.8	20.0	4.5
Hong Kong SAR	100.0	100.0	...	...	...	...	...	...	...	...
Indonesia	48.5	74.4	42.9	24.0	5.8	1.1	2.8	0.4	...	...
India	56.1	77.6	37.5	22.0	...	...	1.7	0.3	4.7	0.1
Korea	86.7	93.4	6.3	4.5	...	...	7.1	2.1	...	...
Malaysia	78.4	84.3	1.0	0.6	18.4	2.7	2.3	12.4	...	...
Philippines	74.1	87.5	18.1	8.7	2.8	2.7	5.1	1.1	...	...
Singapore	95.7	97.5	4.3	2.5	...	...	...	...	...	...
Thailand	73.2	94.3	6.2	5.4	18.4	0.0	2.2	0.2	...	...

¹ Data less than 0.04 is shown as 0.0; unavailable data is shown as '...'. ² Claims on government and public enterprises. ³ Deposit money banks. ⁴ Other financial sector entities.

Sources: IMF, *International Financial Statistics*; national data.

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Asia's FX Reserves come from Current Account Surplus

Chart 2: Asia's Balance of Payments and Foreign Reserves (\$ Billions)

Market	Start Year	Opening Reserves	Capital Account	Current Account	Errors and Omissions	Closing Reserves	Interest income
		[A]	[B]	[C]	[D]	[E] = [A]+[B]+[C]+[D]	
China	1997	105.0	559.0	1,797.7	(62.7)	2,399.0	259.6
Hong Kong	1999	89.6	(25.7)	189.2	2.7	255.8	51.4
India	1998	24.2	311.4	(71.5)	(5.4)	258.7	44.6
Indonesia	1999	23.6	(11.0)	70.9	(17.4)	66.1	15.1
Japan	1985	22.1	(1,948.9)	2,839.8	83.5	996.6	337.2
Korea	1997	29.4	42.8	185.5	12.3	270.0	66.5
Malaysia	1999	26.2	(111.4)	211.6	(29.6)	96.7	22.6
Philippines	1997	11.7	17.5	19.0	(4.0)	44.2	9.3
Singapore	1995	58.3	(215.1)	332.3	12.3	187.8	61.9
Taiwan	1995	92.5	(44.5)	280.2	20.0	348.2	100.9
Thailand	1993	21.2	54.0	41.1	22.1	138.4	31.9
Total (US\$ bn)		503.9	(1,371.7)	5,895.8	33.7	5,061.5	1,000.9

Sources: Bloomberg, National Bureau of Statistics of China, State Administration of Foreign Exchange, Census and Statistics Department, Hong Kong, Hong Kong Monetary Authority, Reserve Bank of India, Bank Indonesia, Bank of Japan, Ministry of Finance, Japan, Bank of Korea, Bank Negara Malaysia, Bangko Sentral ng Pilipinas, Department of Statistics, Singapore, Monetary Authority of Singapore, Central Bank of China, Taiwan, Bank of Thailand

Source: SSGA, "Asia's Foreign Reserves: 2009 Reserve Allocation Update" Hon Cheung, 2010.

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Unconventional Monetary Policy raises policy consistency questions

- Unconventional Monetary Policy (to rescue financial systems and prevent meltdown) - justified by severity of crisis and political paralysis – have pushed both CB Balance Sheet and financial system to uncharted territory.
- CB and the financial industry hold huge stocks of government bonds, at very low yields.
- Explosion in commercial bank reserves at the CB compounded by high and growing public debt.
- In EME and G4, asset bubbles have not fully deflated, with risk of bond market bubbles.
- Simultaneously, regulatory authorities try to deleverage credit (Basel III, Solvency II, Dodd-Frank, Liikanen, Vickers, Volcker, etc.)
- **The greatest risks today are from Policy and Regulatory mistakes.**
- **How do we look at exit policies?**

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Asian sterilization imposes huge costs in terms of bank balance sheet and interest rates

Table 13
Estimates of sterilisation costs and valuation losses from domestic currency appreciation

	As of December 2010		Central bank equity ^{1,2}	Central bank revenues ^{1,2}	100 % Sterilisation cost ^{1,3}	Valuation loss for a 10% appreciation of domestic currency (%) ¹
	FX reserves (USD bn)	Short-term rate (%)				
China	2,667	3.1			0.6	4.6
Hong Kong SAR	266	0.3	34.2	6.9	(1.0)	11.8
India	272	6.7			0.7	1.8
Indonesia	83	0.2	1.7	0.5	0.7	1.1
Korea	290	2.8	0.6	1.9	0.8	3.0
Malaysia	99	3.0	7.1	1.4	0.7	4.2
Philippines	46	0.7	3.2	1.1	0.5	2.4
Singapore	215	0.3	10.9	-3.1	(0.6)	9.8
Thailand	159	1.9	-0.9	0.7	0.0	4.8

¹ As a percentage of nominal GDP. ² 2009 annual report total equity and revenue figures reported by respective central banks. ³ Assumes entire FX reserve is invested in 1–3 year US government bonds and the funding rate is the domestic deposit rate.

Sources: IMF; Bloomberg; Datastream; BIS calculations.

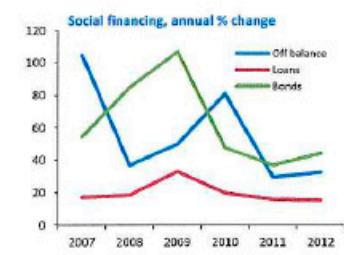
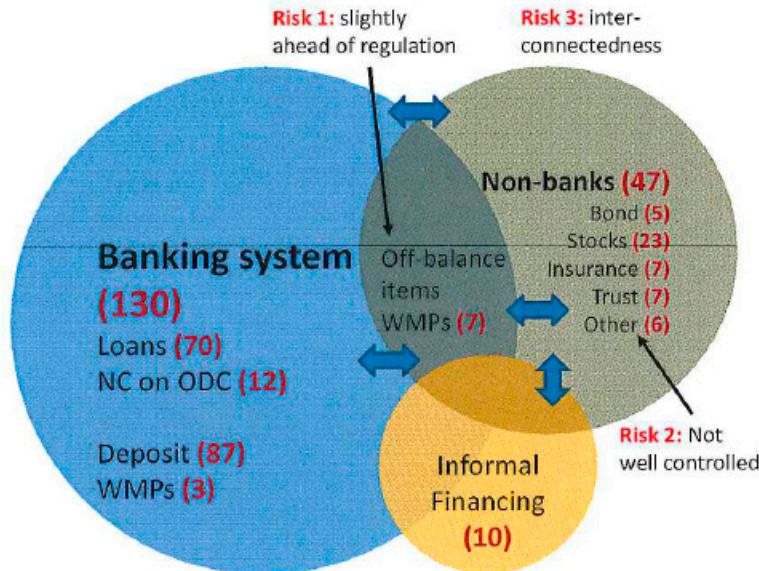
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Global Shadow Banking Credit Creation not monitored for monetary or financial stability reasons

- Global markets allowed regulatory arbitrage into leveraged, pro-cyclical Shadow Banking.
 - Bank-Shadow Banking Nexus created highly leveraged and opaque system.
 - Funding and accounting is off-balance sheet and off-shore and regulators did not pay attention to size of Overall Leverage until it was too late.
 - Concentrated Prime Brokers became Too Big to Fail – Too Big to Manage.
- Supervision failed to ameliorate procyclical risks.
 - Insufficient understanding of financial engineering.
 - Insufficient attention to build-up of systemic risks.
 - No understanding that market had moved to Ponzi financing as a whole.
- So bank management gained through forced bailout by being TBTF.

41

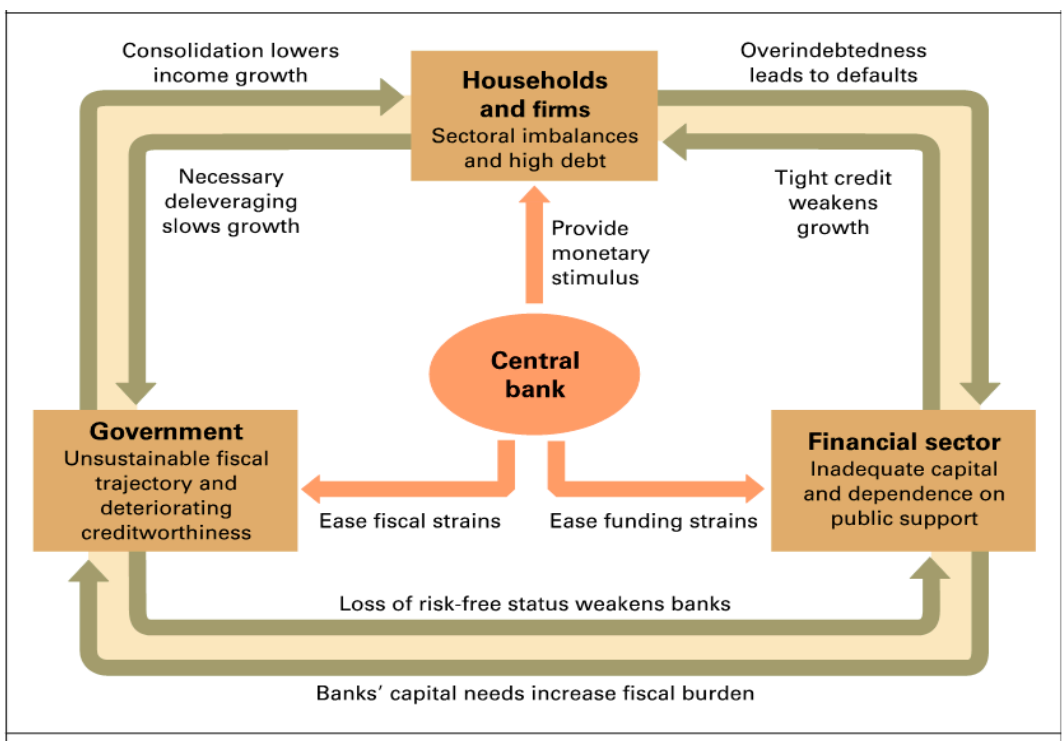
“Shadow bank credit” also exist in EMEs



(.) are assets rounded to RMB trillion; 2012 GDP was RMB 52 trillion

Source: APD Advisory Group Meeting, 29 January 2013.

Vicious cycles and the burden on central banks



Section 3 | Back to Basics

Difficulty to reconcile domestic policy needs with global policy requirements

- Present system of silo regulation has huge coordination problems in trying to get a Systemic View of Financial Risks – not just at national level, but at global level.
- Despite regulatory reforms, present system has not dealt with shadow banking, proprietary trading conflicts and excessive leverage.
- Important to monitor balance sheet fragilities, cash flows and capital cushions. If real estate bubble occurs, reversal of bubble has huge solvency pressure on financial sector (Spain etc).
- Different countries have different structures – no “One-Size-Fits-All” optimum structure. Depends on how system stability function is implemented.
- Micro-institutional stability cannot be divorced from macro-economic policies, e.g. interest rate and exchange rate affect balance sheet solvency and vice versa.

Major Meso and Meta-Blind Spots

- Meso: Institutional framework will tell you where the weak links are – Follow the money and Finance supply chain.
- Meta: The Market is not always right; Price distortions are huge. What is price of derivative using DCF when interest rate is zero?
- Incentives: What is Business Model of banks? Where do they make the Money? How do they make the Money? Where are the Risks?
- How can we change the incentives to make them serve the Real Sector?

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Money and Finance must serve Real Sector needs

- Real Sector operating in hugely distorted monetary environment.
- You have to get real sector growth to deal with excessive fiscal debt, shadow banking and lack of financial inclusion (weak pension savings, poor healthcare etc)
- Financial system needs to get out of Short-termism
- Focus on helping SMEs to create jobs and innovation
- Finance long-term infrastructure and Green Growth investments
- Widen financial inclusion and strengthen equity/deleverage corporate and household sectors to become antifragile

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Central Banks' limited reserves CANNOT defend stability against Momentum Trading

- Carry trade has leveraged self-fulfilling momentum especially for small open markets. Double play – win from zero cost of carry, higher asset prices, appreciating invested currency, and depreciation in borrowed currency.
- Central Banks with limited FX reserves cannot defend stability against large momentum play, especially when CDS and ability to naked short currency or sovereign debt is added.
- Bank of Thailand 1997 experience is that leveraged defense using forwards can lead to high loss.

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Need for systemic cooperative solutions

- Capital flows arise when there are global imbalances, which means that there will always be arbitrage opportunities.
- Capital flows are volatile, because they are highly leveraged and therefore speculative, and if there are policy inconsistencies and unsustainable balance sheet fragilities, accidents will happen.
- The underlying problem arises from private shadow banking credit creation with public underwriting of losses. This is a systemic problem. System problems cannot be fixed piecemeal – systemic cooperative solutions are needed.
- There is no one size fit all solution, but we need to fix fiscal and incentive issues through Financial Transaction Tax, and a combination of tools, including surveillance and regulatory measures.

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Need to avoid moral hazard at national and global levels

- Capital flows are dual – opportunities as well as threats.
- They become problematic if national policies are complacent and global policy is sanguine.
- National policies are required to ensure that the right “toolbox” fit the scale of potential problem, such as avoidance to massive deficits and asset bubbles
- Global policies require overall surveillance of global credit creation and limits on leverage that have massive spillover effects.

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Priority should be to create jobs through new job structure, improve infrastructure and social equity

- With ZIRP and QE, advanced economies in Japanese-style Liquidity Trap.
- ZIRP only adds distortion for emerging markets and helps speculation and leverage, not real savers and efficient resource allocation.
- Fiscal Policy gridlock due to pressure to cut taxes and increase welfare, but debt crisis means limits reached.

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Dealing with Capital Flows is Collective Action Trap

- No single country can cope with this global problem, unless one is perfectly closed economy.
- Derivatives and off-shore NDFs erode capacity of central banks to monitor and defend against speculative attacks.
- Non-transparent OTC markets mean that prices and flows can be manipulated without official oversight.
- Individual country action in terms of capital controls will not deal with root of problem – private gain at social loss.
- Solution has to be global taxation and better oversight.

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Turnover Tax is good way of slowing flows and monitoring manipulation

- Lord Adair Turner (UK Financial Services Authority):
 - Since the financial sector has become the “perpetual prosperity machine”, with massive moral hazard, a “Tobin tax” or a turnover tax is the first step in the Global Fiscal reform.
- FTT now supported by EC for global public goods. UK position supports uniform global FTT.
- Uniform Global Tobin Tax will succeed if Japan, India and China supports.

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Policy options for managing capital flows

- | | |
|--|---|
| 1. Allow currency appreciation? | 1. Japan-style boom-bust |
| 2. FX intervention + reserve accumulation? | 2. Currency manipulation? |
| 3. Sterilization? | 3. Limits to sterilization |
| 4. Monetary loosening? | 4. Accelerate bubble |
| 5. Fiscal tightening? | 5. Limits to expenditure cut/tax increase |
| 6. Regulatory tightening? | 6. Limited impact |
| 7. Capital control? | 7. Controversial |

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Asian cooperation is likely to be bottom-up rather than top-down

- Asian economic cooperation starts with the growing level of intra-Asian trade, today at nearly 55% of total trade.
- Asian cooperation has been pragmatic and business-like, driven more by the formation of the Asian global supply chain than regional diplomacy.
- We need a broader, inclusive analytical framework so that Asia can engage the world in global discourse as partners of global sustainable development.
- Multilateralizing Chiangmai Initiative is right way to go, but link this with supporting trade finance.

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Asian solutions for Euro Crisis lessons

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Bank/Shadow Bank Nexus 2. Bank/Sovereign Bond trap 3. Lack of lending to real sector 4. Decline in profits for banks leading to risk-taking 5. Cross-border flows | <ol style="list-style-type: none"> 1. Monitor contingent liability of shadow banks – e.g. MMF 2. Asian banks also hold sovereign bonds – shift bonds to pension funds 3. Promote domestic trade finance for SMEs 4. Asian growth potential – give back profits for real sector financial support 5. Use Tobin Tax – uniform rate across Asia |
|--|---|

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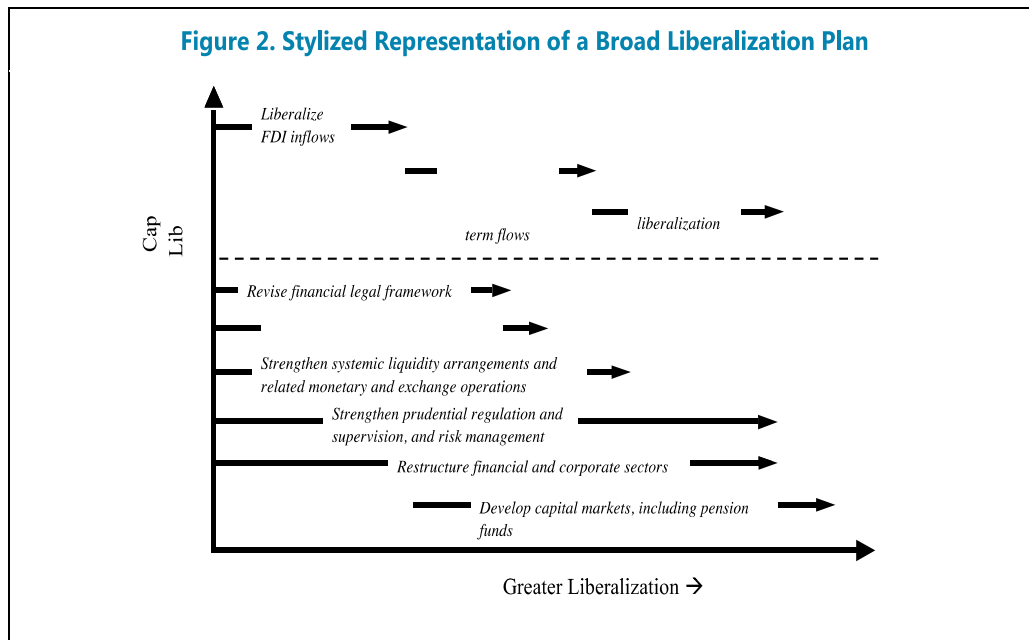
Institutional view capital flows

1. Capital flows benefit countries; they also carry risks.
2. Capital flow liberalization is more beneficial and less risky if countries have reached certain “thresholds” of financial and institutional development.
3. Liberalization needs to be well planned, timed, and sequenced.
4. Countries with extensive and long-standing measures to limit capital flows are likely to benefit from further liberalization in an orderly manner. However, no presumption that full liberalization is an appropriate goal for all countries at all times.
5. Rapid inflow surges or disruptive outflows create policy challenges. Appropriate policy responses involve flows-receiving countries and flows-originators.
6. For countries that have to manage the risks associated with inflow surges or disruptive outflows, macroeconomic policies have a key role, sound financial supervision and regulation, and strong institutions are also needed. Capital flow management measures can be useful but they should not substitute for macroeconomic adjustment that are necessary.
7. Policymakers in all countries, including countries that generate large capital flows, should take into account how their policies may affect global economic and financial stability. Cross-border coordination would help mitigate the riskiness of capital flows.

Source: The Liberalization and Management of Capital Flows: An Institutional View, November 2012.

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Stylized Capital Liberalization Plan



IMF's views on excessive reserve accumulation on the stability of the international monetary system

- Policy initiatives should target distortions and their causes rather than symptoms such as excessive reserves.
- Discussion of reserve accumulation in the multilateral context should be embedded in a comprehensive treatment of threats to global financial stability, one that is informed by developments in global liquidity and financial markets.
- Policy initiatives that are meant to deal with systemic externalities must take into account the relative size of countries' contributions to the externality;
- Reserve adequacy indicators should be applied flexibly and reflect country-specific circumstances.
- The multiple trade-offs involved in decisions on reserve accumulation and reserve adequacy at the country level need to be recognized, and advice on reserves should be integrated with advice in related policy areas. Advice should not be directed only to EM but, when necessary, take into account the concerns in advanced economies.

Balanced and Sustainable growth

- Ensure that financial system is stable, sustainable and fulfills broader policy objectives.
- In implementing global standards, need to ensure that tighter standards do not choke off national and global recovery.
- Support the development of a global mechanism for managing volatile short-term capital flows, and development of macroprudential surveillance and regulation at the national and regional levels.
- Establish an effective regulatory framework for macroprudential supervision and regulation at the national and regional levels.

Source: Asian Development Bank Institute, Policy Recommendations to Secure Balanced and Sustainable Growth in Asia, October 2010.

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Section 4 | Concluding Thoughts

Concluding Thoughts

1. Emerging Asia is facing a structural rebalancing in Global economy.
2. We have to work together to escape from Collective Action Trap.
3. This begins with a Tobin Tax to limit leverage and provide friction to capital flows.
4. Reduction of leveraged carry trade will give some traction to domestic monetary and structural policies to buy time for adjustment of real sector.
5. Current theory does not give enough guidance to this messy crisis of (unfettered) Global Shadow Banking.
6. Next step is to re-design system to Asian needs.

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SESSION III

The IMF's "Institutional View" on Management of Capital Flows

The Recent IMF Institutional View on the Liberalization and Management of Capital Flows¹

Vivek Arora

A. Introduction and Context

Capital flows have increased significantly in recent years and are a key aspect of the global economy. In China, for example, capital flows have increased substantially since 1994, when FDI was liberalized further. Now other parts of capital account are being gradually liberalized as the QFII and QDII initiatives are being expanded, and other plans are moving forward with the March 2013 National People's Congress envisaging an eventual goal of full capital account liberalization.

In the rest of the world as well, capital flows are sizable. Advanced economies account for the bulk of gross capital flows, although their share in the total has fallen from 90 percent in the years before the global financial crisis to around 75 percent now. Emerging and developing economies account for a correspondingly smaller share of global capital flows, but their share has risen sharply in recent years—from less than 10 percent before the crisis to 25 percent more recently. Moreover, net capital flows as a share of GDP are larger on average in emerging and developing economies than in advanced ones.

Capital flows offer potential benefits to countries, but their size and volatility can also pose policy challenges. Because capital flows have a bearing on economic and financial stability both in individual economies and globally, an important challenge for policymakers is to develop a coherent approach to the risks that they can pose. It is, moreover, useful in this environment to have a common understanding of the appropriate policy responses to volatile capital flows, on the part of both recipient and source countries. Many authorities are concerned about how their actions in response to capital flows will be viewed by international investors. In particular, even actions that are warranted and appropriate might meet with punitive investor reactions if they are poorly understood or communicated.

A basis on which to provide guidance ahead of time is more useful in these circumstances than assessments after the fact. Some progress has been made toward this end in recent years, including the G20's November 2011 "Coherent Conclusions for the Management of Capital

¹ By Vivek Arora, Assistant Director, IMF Strategy Policy & Review Department. These remarks are based on the paper "The Liberalization and Management of Capital Flows: An Institutional View", <http://www.imf.org/external/np/pp/eng/2012/111412.pdf> (Washington, DC: December 2012) authored by a range of Fund staff. The remarks communicate some elements of the institutional view but they do not comprehensively cover the view and are not the official view. For the full and official institutional view, please refer to the December 2012 paper.

Flows.” And a number of bilateral and multilateral international agreements establish norms and rules applicable to their members with respect to capital flows. However, no comprehensive global approach currently exists for providing such guidance.

The IMF’s “institutional view” on the liberalization and management of capital flows is part of the effort to fill this gap. The institutional view builds upon a body of policy and research papers published over previous years based on theoretical and empirical analysis and country experience. It proposes some broad principles for the liberalization of long-standing restrictions on capital flows and for the management of temporary surges of capital inflows and of disruptive capital outflows. It considers the circumstances under which capital flow management measures (CFMs), which are measures designed to limit capital flows, are appropriate. The view will guide Fund advice to members, but it does not alter countries’ rights and obligations to the Fund or under other international agreements. We expect the institutional view to evolve over time in light of new experience, research, and feedback from country authorities and others.

B. Capital Flow Liberalization

It is well known that capital flows can have substantial benefits for countries, including by enhancing efficiency, promoting financial sector competitiveness, and facilitating productive investment and consumption smoothing. An important “collateral” benefit of openness is that, as countries develop, they need more advanced financial systems; and more advanced financial systems generally go hand-in-hand with more open capital flows. This benefit may explain the ongoing preference among many countries for further liberalization of capital flows.

At the same time, capital flows carry risks. The global financial crisis has shown that even countries that have long been open and drawn benefits from capital flows can be vulnerable to these risks, which are magnified by gaps in their financial and institutional infrastructure. Capital flow liberalization is generally more beneficial and less risky if countries have reached certain levels or “thresholds” of financial and institutional development. These thresholds relate to factors such as income and growth, macroeconomic stability and cushions, and governance and the business environment.

Three main policy implications follow. First, there is no presumption that full liberalization is appropriate for all countries at all times. The extent of liberalization that is appropriate for a given country at a given time depends on its particular circumstances, especially its financial system and institutions. Second, countries with long-standing restrictions would likely benefit from more liberalization. Many emerging economies, for example, have well-established track records of growth and macroeconomic stability, ample foreign reserves, and low debt. For them, the benefits of some further capital flow liberalization may be high relative to the costs of prevailing restrictions. In this regard, China’s intentions to further

open capital flows goes in the right direction. Third, in countries that are moving forward with capital flow liberalization, liberalization needs to be well planned, timed, and sequenced in order to ensure that its benefits outweigh the risks.

An “integrated approach” to liberalization is preferable that envisages achieving the pre-conditions for safe liberalization and proceeding through successive phases, which can, however, overlap. The sequencing of the various items of the capital account that are opened up is, first, FDI inflows, then FDI outflows and long-term portfolio flows, and finally short-term portfolio flows. Liberalization needs to be supported by reforms to the legal, financial, and corporate frameworks and development of financial markets. If countries find that they have liberalized too fast, in the sense that they are unable to handle the resulting volume of capital flows, then it is appropriate temporarily to re-impose CFMs until the supporting reforms are put in place.

China’s capital account reform strategy has followed in many respects the approach sketched out above. First FDI was opened up, particularly since 1994, and then over the last decade or so portfolio flows have been gradually liberalized through schemes including the QDII and QFII. Measures have included an expansion in both the size and the range of instruments allowed under these schemes. At the same time, China has made substantial progress with setting in place the financial and other supporting reforms that are needed for mediating cross-border capital flows. In parallel, China has been moving to internationalize the renminbi, a move that would both be supported by more open capital flows and itself contribute to more open flows.

C. Managing Capital Flows

Apart from considerations of liberalization, many countries that are already relatively open are facing policy challenges caused by temporary surges of capital inflows or, on the other extreme, large disruptive outflows. Many emerging economies, in particular, such as several ASEAN economies as well as Brazil, Chile, Poland, South Africa, and Turkey have been dealing with inflow surges in recent years. Other emerging economies, meanwhile, on occasion have had to deal with disruptive outflows, as have some countries where these outflows were associated with economic crises (such as Iceland).

Inflow surges

The challenge in developing countries historically has not been too much capital but too little. Indeed, for decades one objective of many development strategies was to attract foreign capital in order to supplement domestic saving and finance greater investment. FDI is generally attracted by the prospect of high returns, often mirrored in rapid economic growth, and security of capital, including through good governance and business environment. Non-FDI inflows are motivated by similar considerations, but in order to benefit the most from them countries generally need to have financial systems that can absorb and mediate flows

efficiently. Financial system development is, therefore, a useful focus of policy attention for this reason among many others.

While inflows can be beneficial, sudden large surges can give rise to policy challenges. They can create asset market volatility, large and rapid currency appreciation, overheating, and other macroeconomic and financial stability risks. Countries have responded to these challenges in different ways. During the post-2010 episode of inflow surges, some countries have relied principally on currency appreciation and reserve accumulation. Examples include the Philippines, South Africa, and Turkey, of which the Philippines and South Africa also further liberalized capital outflows in order to alleviate the pressure from inflows. In other countries, meanwhile, such as Brazil, Indonesia, Peru, Thailand, and Uruguay, macroeconomic policy adjustment was accompanied by CFMs and macro-prudential measures to protect financial stability and smooth the macroeconomic adjustment.

How to think about these policy choices? A permanent inflow of capital—one that is likely to be sustained over time, because it is driven by structural factors—requires a fundamental macroeconomic adjustment, including an appreciation of the real exchange rate and reduction in the current account balance. But what is the appropriate policy response to a temporary inflow surge?

According to the Fund's institutional view, the appropriate policy mix for a country that receives capital inflows would rely importantly on macroeconomic adjustment and the specific mix would depend on country-specific considerations. Such considerations include, for example:

- lowering domestic yields, by lowering policy rates if there is no overheating or asset price boom, or, if the scope for monetary easing is limited, by tightening fiscal policy;
- allowing the currency to strengthen if it is not overvalued. Appreciation would help external adjustment as well as help reduce overheating pressure; and
- building reserves if these are not already more than adequate. (If, however, reserves already high, then sterilization costs and valuation losses would argue against increasing them further.)

In certain circumstances, CFMs can be useful to safeguard macro policy adjustment and financial stability. In terms of the above argument, the circumstances in which CFMs would be appropriate are those where the room for macroeconomic adjustment is very limited, say if overheating rules out monetary easing, fiscal policy is already tight, the currency is overvalued, and reserves already high. In addition, if inflows raise the risk of financial system instability, or if the needed macroeconomic adjustment takes an unduly long time to implement or take effect, then CFMs can be useful while the necessary policies are being put

in place. While they can be temporarily useful in the above circumstances, CFMs should not be used as a substitute for warranted macroeconomic adjustment.

As for their design, CFMs on capital inflows should be transparent, targeted, temporary, and preferably not discriminate between residents and non-residents. If, however, a failure to differentiate between residents and non-residents would render the measure ineffective, the least discriminatory measure that is effective should be preferred. Effectiveness, in fact, is a key consideration when using CFMs. In countries that have advanced financial markets, or that are very large, CFMs are less likely to work well because they may be easier to circumvent. In other cases, too, their effectiveness has been seen to erode over time as economic agents find ways to circumvent them.

The discussion above refers to countries that receive capital flows. But countries that are the sources of those flows have policy responsibilities too. Indeed, capital flows to emerging and developing economies mainly originate in the advanced economies. So-called —push factors that contribute to the volume and riskiness of capital flows include monetary and prudential policies in systemically large advanced economies, global risk appetite, and private sector liquidity generated by globally active financial institutions.

All countries should take into account the spillovers of their policies for other countries. While orienting their policies to domestic objectives, countries should seek to achieve those objectives with the policies that on balance generate the smallest negative spillovers. Such spillovers include those that occur through monetary policy and through cross-border activities of markets and institutions. Globally there is a need to complete national and international financial regulatory and supervisory reforms. Some progress has been made in recent years, for example in reforming international standards for minimum bank capital and liquidity, but in general it is uneven and incomplete. And much further work is needed to improve policy coordination in the financial sector, especially cross-border cooperation on resolution plans and on the treatment of global systemically important financial institutions.

Outflows

Large capital outflows can pose particularly difficult challenges during times of economic crisis. A country would face greater risks if it has not built up its economic and financial resilience, or if it has allowed large stock imbalances to develop as occurred in several central, eastern, and southern European countries during the run-up to the global crisis. Outside of a crisis context, there is usually scope for policymakers to handle outflows primarily with macroeconomic policies. Korea, Russia, and South Africa, for example, have used macroeconomic policy responses to handle disruptive outflow episodes in recent years. During a crisis, however, or when a crisis is imminent, there can be a temporary role for CFMs as part of a broader policy package that includes macroeconomic adjustment. Outflow CFMs can help to prevent or arrest the wave of outflows that often accompanies a crisis and

allow time for the necessary policies to be put into effect. They are not a substitute for warranted macroeconomic adjustment. Unlike inflow CFMs, which should be targeted, outflow CFMs generally need to be comprehensive in order to be effective. They should, like inflow CFMs, be temporary, transparent, and seek to be non-discriminatory. It is recognized, however, that in a crisis non-discriminatory measures may not be effective and discriminatory measures may be needed. Once again, the least discriminatory measure that is effective should be preferred.

During the past decade, only a few countries have used CFMs on outflows (Argentina, Iceland, Ukraine, as of March 2013), and only Iceland's have been generally effective. Even when CFMs are effective, the exit from CFMs can be complicated. In the case of Iceland, a concern is that large non-resident holdings of local currency liquidity locked in by the controls may leave as soon as the controls are lifted, with the sudden large outflow causing disruptions. The authorities need, therefore, to design the exit strategy carefully and manage the sequence of measures that leads to a safe lifting of the controls only gradually, even though CFMs have costs and the public is impatient to lift them quickly.

Conclusion

In conclusion, some key points on the Fund's institutional view are as follows. The institutional view is intended to provide input for our policy advice. It does not alter countries' rights and obligations to the Fund or under other international agreements. With respect to capital flow liberalization, the benefits are greatest when financial and institutional development is adequate and macroeconomic conditions strong. There is no presumption that full liberalization is appropriate for all countries at all times, but countries with long-standing restrictions would benefit from more liberalization. Liberalization should be well-planned, timed, and sequenced. For managing volatile capital flows, both recipient and source countries' policies are important. Policymakers everywhere should pay attention to spillovers from their policies. In recipient countries, macroeconomic responses play a key role. CFMs are useful in some circumstances, but they are not a substitute for warranted adjustment.



资本流动的自由化与管理：国际货币基金组织的观点

The Liberalization and Management of Capital Flows: *An Institutional View*

Vivek Arora, International Monetary Fund

March 2013

This presentation was prepared by the author and should not be attributed to the IMF, its Executive Board, or its Management.

Outline

IMF Institutional View on Capital Flows: motivation and uses

Capital Flow Liberalization

Managing Capital Flows

- ▶ Inflows
- ▶ Outflows
- ▶ Push factors, source countries and coordination

Conclusion

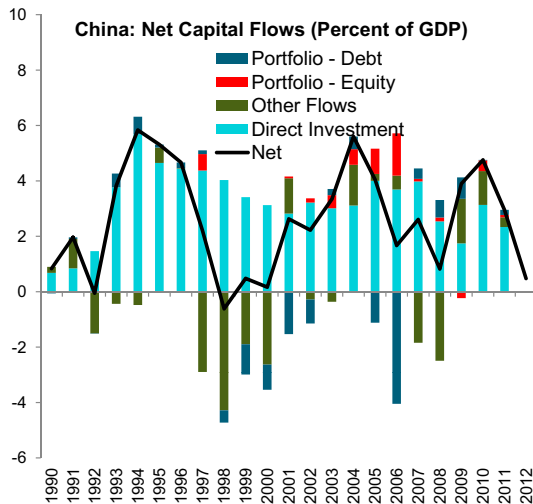


Institutional View on Capital Flows: Motivation and Uses

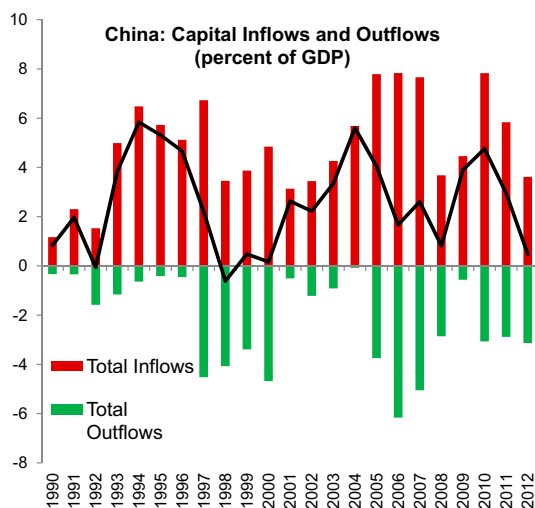
基金组织对于资本流动的观点: 初衷及观点的使用

China: Rising capital flows, dominated by FDI

Large FDI inflows since 1994



Rising gross capital flows over time



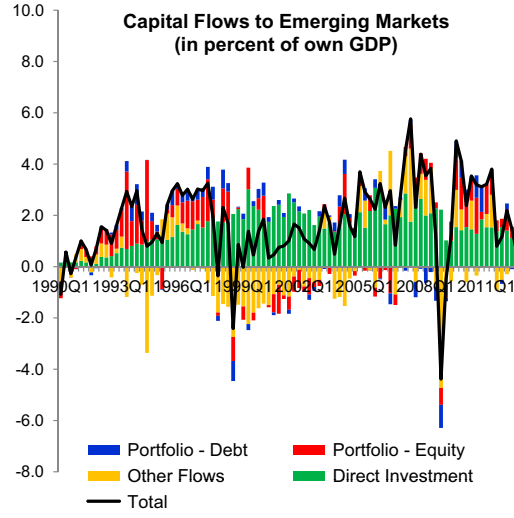
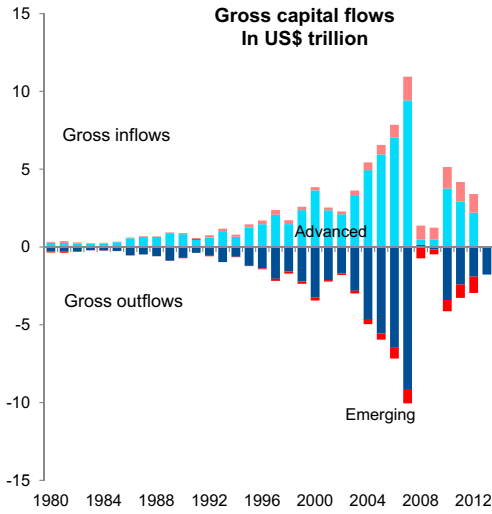
Source: WEO and BOPS



Capital flows increasingly important in global economy

Advanced economies account for most gross capital flows

For EMs: net capital flows more significant as percent of GDP



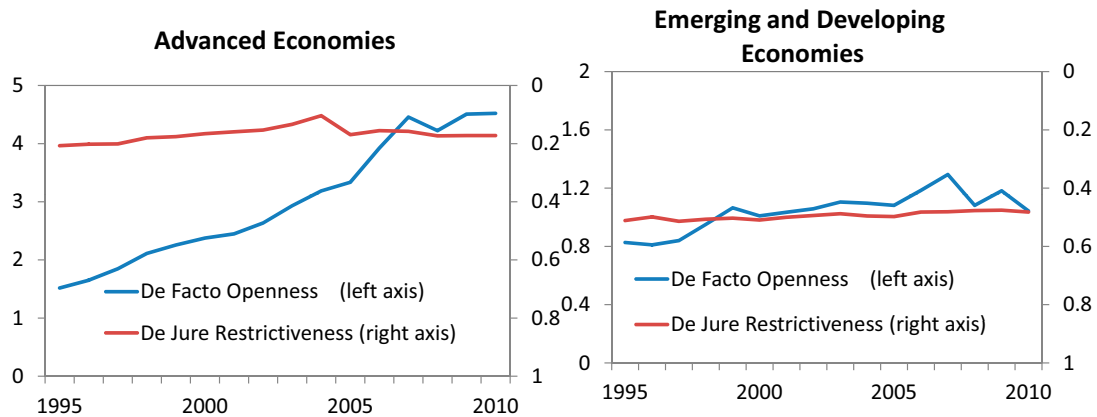
Source: WEO, IFS

Liberalization of Capital Flows

Reaping benefits of capital flows while recognizing risks



Gradual increase in openness to capital flows



Terminology: CFMs and MPMs

Capital flow liberalization: Removal of CFMs

- ▶ Other international frameworks define liberalization differently (e.g., OECD; EU Treaty)

Capital Flow Management Measures (CFMs): Measures designed to limit capital flows, comprising:

- ▶ “Capital controls”: measures that differentiate between residents and non-residents;
- ▶ Other CFMs: measures that do not differentiate between R and NR.

Macro-prudential Measures (MPMs): Measures designed to address systemic risks to financial stability

CFMs and MPMs can overlap





Benefits and risks

Benefits

- Efficiency, technology, investment, consumption smoothing
- Economic development requires more advanced financial systems, which go hand in hand with greater capital flows

Risks

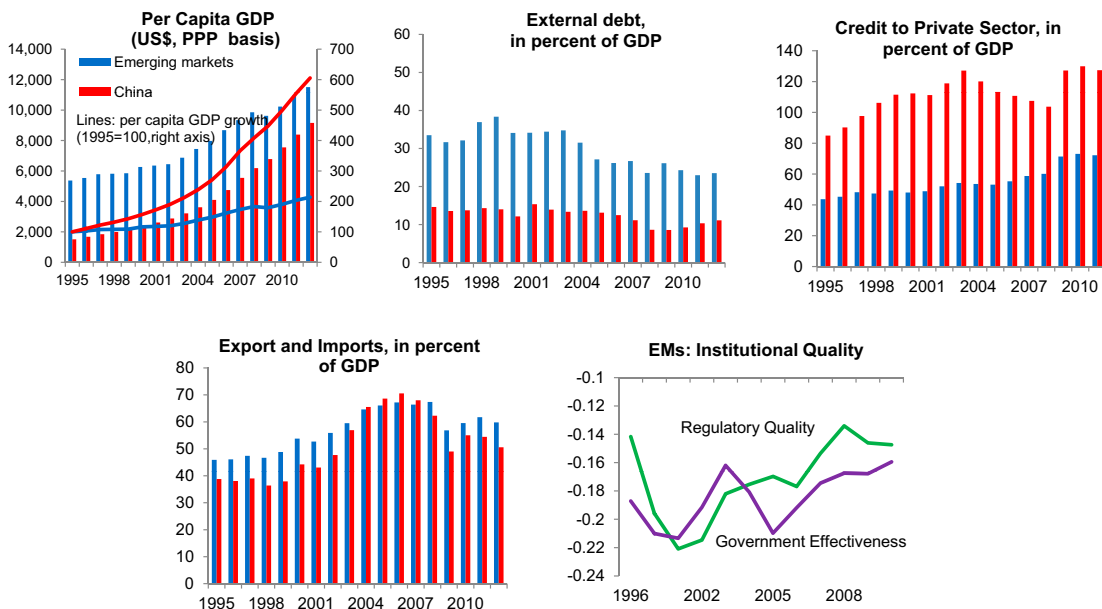
- Macroeconomic volatility, vulnerability to crises
- Risks magnified if gaps in financial and institutional development

Key elements

- Benefits largest when financial/institutional development adequate and macroeconomic situation sound
- No presumption full liberalization appropriate for all countries at all times
- But countries with long-standing restrictions would likely benefit from more liberalization
- Need systematic process and pace of liberalization (“integrated approach”)



Some preconditions: macroeconomic, financial, institutional

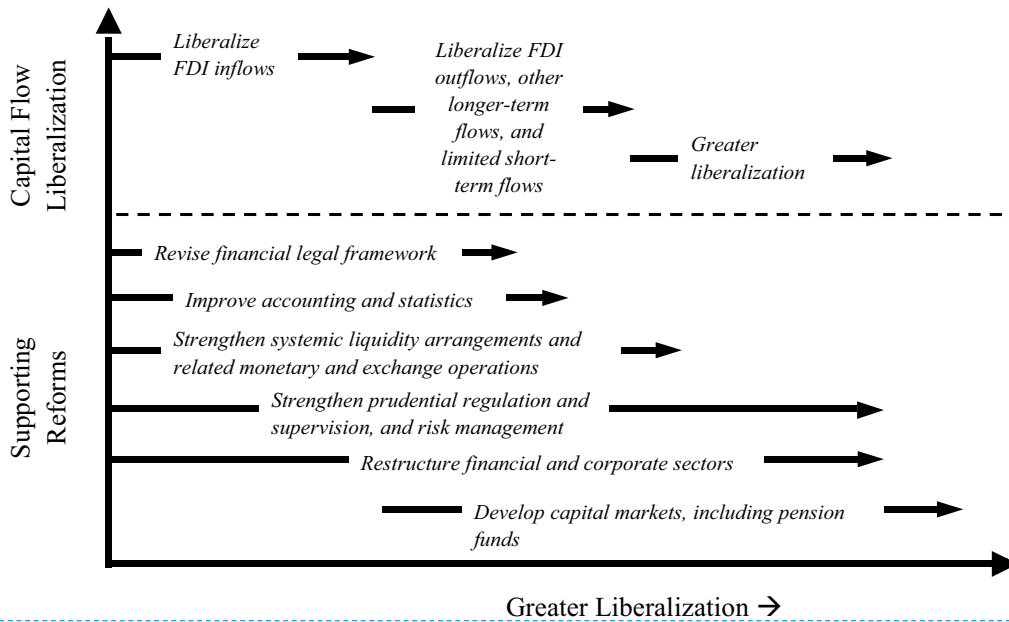


Source: WEO; WDI; World Bank WGI and staff estimates





Integrated Approach to Capital Flow Liberalization



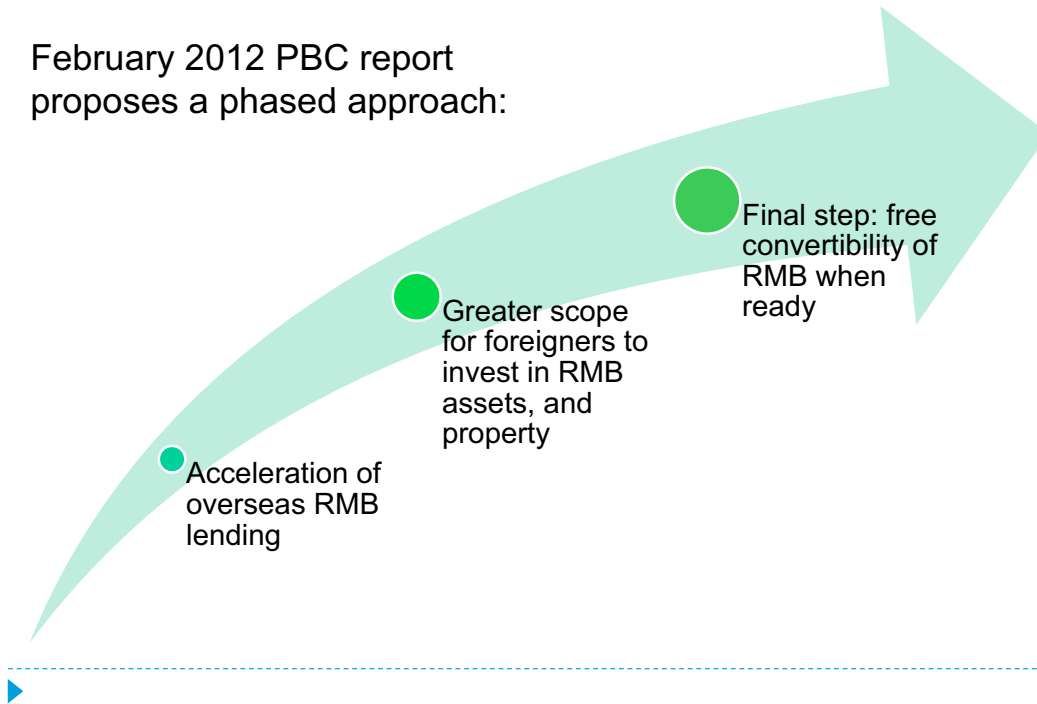
China's sequence of measures

Year	Measure
2001	Resident corporates list overseas; resident individuals buy B-shares
2002	QFII scheme (nonresident portfolio investment in China)
2004	Approved corporates lend abroad; emigrants transfer limited assets abroad
2005	Nonresidents issue RMB bonds in China (Panda bonds)
2006	QDII scheme (resident portfolio investment abroad); eliminate approval and expand financing sources for ODI
2007	Expand QDII institutions; raise QDII quota; residents issue RMB bonds offshore
2009	RMB use for trade and FDI settlement
2010	Approved central banks/foreign bank invest in Chinese bond market; resident corporates borrow abroad
2011	R-FDI scheme (settle FDI in RMB); R-QFII scheme (portfolio investment by approved corporates with subsidiaries in Hong Kong)
2012	QFII quota increased to \$80 billion; R-QFII quota increased to RMB200 billion; quotas on central banks/SWF removed
2013	R-QFII: Eligible institutions expanded; restrictions on asset allocation eased



China: moving forward

February 2012 PBC report
proposes a phased approach:



Managing Capital Flows

Mitigating risks from disruptive capital flows



Effectively intermediating capital flows

Develop domestic financial markets

- Absorb inflows more effectively while coping with outflows
- Complementary reforms (institutions and regulation, pool of domestic savers) to further reduce risks

But, rapid inflow surges or outflows can be disruptive

- Macro volatility, rapid asset price changes, exchange rate pressure



Country responses vary

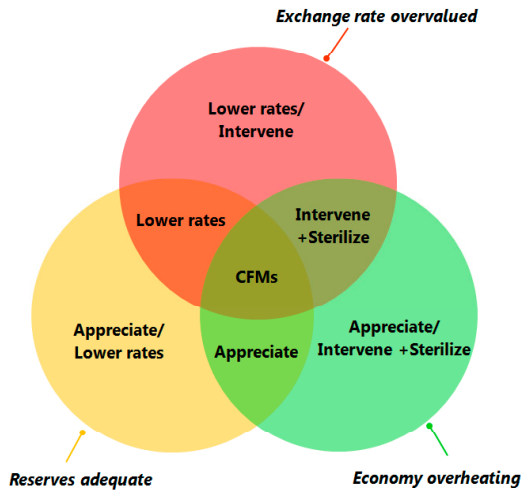
During the post-2010 inflow episode:

- ▶ Philippines, South Africa, Turkey: currency appreciation, reserve accumulation.
(PHL, SA also further liberalized outflows)
- ▶ Brazil, Indonesia, Thailand, Peru, Uruguay: macro. adjustment accompanied by CFMs/prudential measures, motivated by financial stability and breathing space for implementing adjustment.





Responding to inflow surges: Recipient Country



Macro policy options

- Exchange rate appreciation, reduce interest rates, currency intervention

CFMs useful in certain circumstances

- Can use to address macroeconomic and financial sector vulnerabilities
- But not substitute for needed adjustment
- Preference for non-discriminatory CFMs (i.e., not based on residency)

Considerations for the use of CFMs

- **When to consider CFMs?**
 - In the intersection?
 - Other
- **How to design CFMs?**
 - Targeted
 - Transparent
 - Temporary
 - Non-discriminatory



Role of source countries

Spillovers

- “Source” includes both official and private liquidity
- All countries, including “source” countries, should take into account spillovers of their policies for other countries

Role of source countries

- Internalize spillovers from monetary and prudential policies

Regulatory reforms

- Complete regulatory reform agenda to address riskiness of flows





International coordination

Efficiency

- Coordination may be more efficient than unilateral action

Further work is needed on reform agenda

- Some progress in cross-border resolution plans, treatment of G-SIFIs (e.g., Vienna Initiative, Basel III)

Design and implementation of MPM framework

- Macro-prudential perspective would help in addressing cross-border risks
- Collaboration needed to narrow data gaps, improve awareness of multilateral risks



Outflows: Considerations for using CFMs

Circumstances

- In crisis or imminent crisis situations

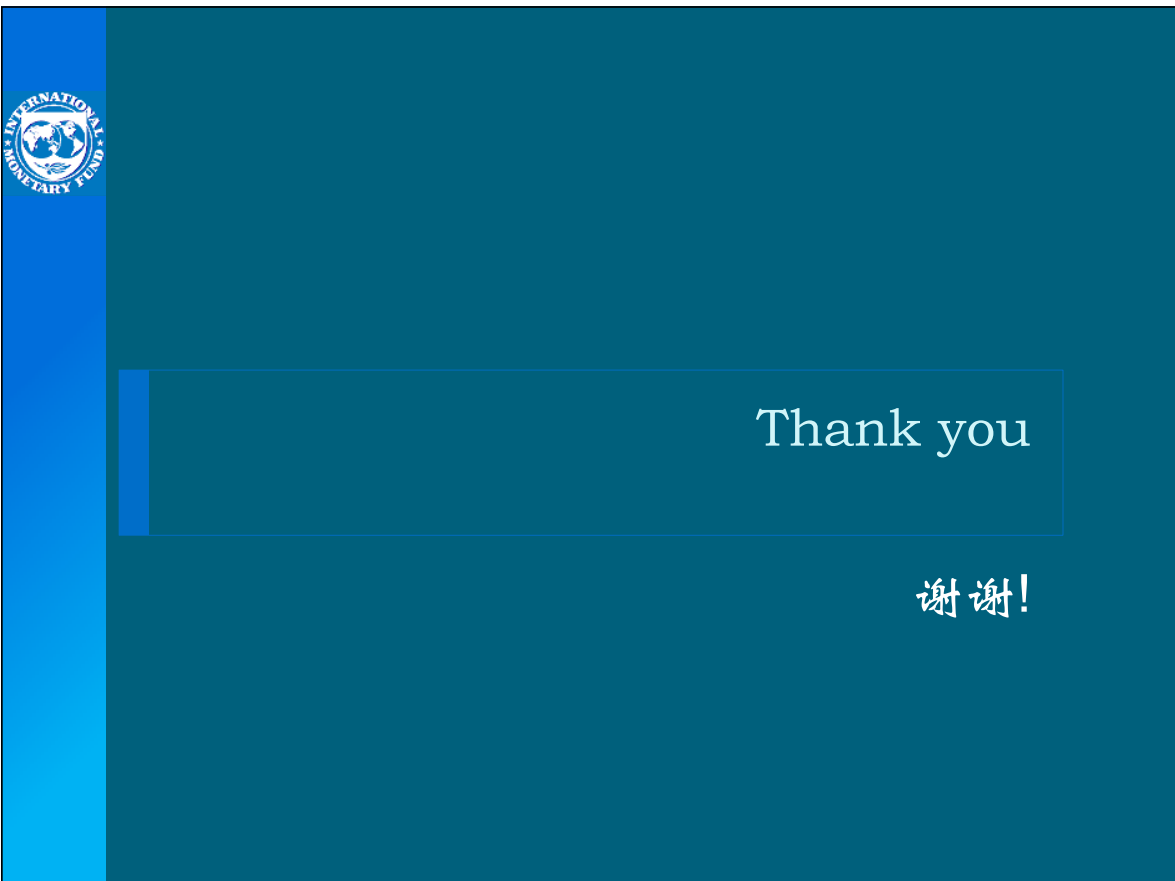
Implementation

- Need to be comprehensive, temporary, transparent, and seek to be non-discriminatory
- Not substitute for macro adjustment



Summary

- ▶ Fund institutional view intended for policy advice. No impact on countries' rights/obligations or other international agreements.
- ▶ Liberalization:
 - ▶ Benefits of capital flows greatest, and risks best managed, if financial and institutional development are adequate and macroeconomic situation sound;
 - ▶ Liberalization should be well planned, timed, sequenced (integrated approach);
 - ▶ No presumption of full liberalization for all countries, but countries with long-standing restrictions would benefit from more liberalization.
- ▶ Managing capital flows:
 - ▶ Appropriate policy responses involve both recipient and source countries;
 - ▶ Key role played by macro policies and financial/institutional set-up;
 - ▶ CFMs useful in some circumstances, but not substitute for warranted adjustment;
 - ▶ Policymakers in all countries, incl. those that transmit capital flows, should pay attention to spillovers. Importance of cross-border coordination.



The Convertibility of China's Capital Account and Balance of International Payments

JIN Zhongxia

A. Main Features of the Current Opening Framework of China's Capital Account

Maintaining the asymmetric nature of “substantial release of inflows while restriction on outflows” in direct investment and portfolio investment.

1. **Direct investment.** Overseas direct investment (ODI) is more difficult than foreign direct investment (FDI) in China. Limited types of institutions conduct ODI, of which the state-owned enterprises account for more than 70% of the whole. In recent years, the total ODI has developed rapidly. In 2012, China's non-financial ODI has hit \$77.22 billion¹, reaching an accumulation of \$459.5 billion. However, compared with the FDI of \$111.7 billion in 2012 and an accumulation of \$1.28 trillion², ODI is relative small. We should that in the field of direct investment, the convertibility of China's capital account is the highest, but for small and medium-sized private enterprises and individual investors, the basic investment channels are closed, and the characteristics of “substantially release of inflow while outflow restriction of foreign exchange” is still maintained.
2. **Portfolio investment.** Channels for institutional investors have been opened in portfolio investment, but the scale is relatively small, with the characteristics of “substantial release of inflows while restriction on outflows”. The quota of Qualified Domestic Institutional Investor (QDII) is \$90 billion, which is much smaller than the total capital inflows. For example, the quota of Qualified Foreign Institutional Investor (QFII) is \$80 billion, the quota of RMB Qualified Foreign Institutional Investors (RQFII) is 270 billion yuan, and the current market value of the B shares is 169 billion yuan; by the end of 2012, three types of foreign institutions are approved to trade bonds in the inter-bank bond market, and the amount has reached 139 billion yuan.

Direct investment by non-financial institutions and individuals in foreign stocks, bonds and other financial products are not allowed in China currently. Non-residents have not been allowed to issue equity securities in China yet. The International Finance Corporation and Asian Development Bank were approved to issue a small amount of “Panda bonds”, financing only 3.13 billion yuan. In contrast, from 2006 to 2012, the Chinese enterprises listed overseas have financed \$178.8 billion, of which a high proportion is remitted to China and settled. Capital inflows are significantly more than the outflows under portfolio investment account.

1 This data is from the Ministry of Commerce, but according to balance of international payments published by the SAFE, the net value of ODI is \$48.4 billion.

2 This data is from the Ministry of Commerce, but according to balance of international payments 2012 published by the SAFE, the net value of FDI is 280.1 billion yuan.

Capital inflows and outflows under other investment items are substantially liberalized

Over the past few years, the amount of China's cross-border lending was less than that of cross-border borrowing. By the end of 2012, accumulated outflows in trade credit and cross border loans was up to \$626.9 billion, and accumulated inflows in trade credit and cross border loans was up to \$649.8 billion. Capital inflows are more than outflows, but the gap has become smaller, mainly because the outflows have been significantly more than inflows since last year.

In 2012, there was deficit for other investment Items. Outflows in trade credit and cross border loans increased by \$ 127.1 billion, of which 54% was short-term. And inflows in trade credit and cross border loans increased by \$25.5 billion, of which short-term loans were substantially reduced.

By the end of 2012, the deficit under other investment items has been as high as \$260 billion, resulting in that the whole capital account deficit reached \$ 16.8 billion in total. The reasons: first, China abolished compulsory foreign exchange settlement and sales; second, banks were approved to hold more foreign exchange positions, capital controls for banks and other financial institutions were greatly weakened, and foreign exchange assets management was relatively less limited. Over the past years, that inflows were more than outflows was caused by shortage of foreign exchange; in recent years, it is relevant to spreads of domestic and foreign interest rate as well as appreciation and devaluation expectations of the RMB exchange rate. The capital inflows and outflows in large quantities and even the net outflows under other investment items last year showed that capital flows under neutral management for other investment items will be affected more by the differentials between both interest rate and exchange rate inside and outside.

There are possibilities of sustainable capital outflows under credit account in the future. Because commercial banks in China are traditionally not highly internationalized, the foundation of overseas business is weak, and loan management and risk control need to be improved. Due to risk aversion, commercial banks are not actively engaged in lending abroad. Additionally, interest rate in the international lending market maintained low for a long time, and RMB is expected to appreciate, which made RMB loans abroad unattractive. As the negative effects of factors above would diminish in the future, the net outflows are likely to continue to occur and even increase under credit account.

Reasons for asymmetric convertibility of capital account

First, China had been in scarcity of foreign exchange in most of time after the founding of the People's Republic of China, which is the historical reason for policy of "substantial release of inflows while restriction on outflows". Thinking is dominated that surplus is better than deficit, without the awareness of the potential risk of twin surplus in BOP.

Second, domestic financial market is underdeveloped. A lot of enterprises pursue overseas listing due to the imperfectness of accounting, rating and information disclosure, and over

administrative intervention in bond and stock issuance at home, which results in capital inflow.

Third, worry about capital outflows. Some people thinks there is less sufficient protection of property rights and claims in China than in developed countries, particular in individual property rights. For instance, there is no ownership but only use right within decades for real property bought by Chinese residents. Also, there is a gap in business environment between China and the developed countries. According to “Doing Business 2012”, a report published by World Bank focusing on the business environment for small and medium-sized private enterprises, China’s business environment ranked 91th among 185 countries. To a large extent, China’s business environment is more favorable for state-owned enterprises and multinational corporations than for SMEs. Due to the reasons above, some people believe residents and SMEs have intention to transfer their funds abroad for investment.

Forth, RMB exchange rate formation mechanism is not flexible enough to serve as the main tool for BOP adjustment. As a result, China relies more on foreign exchange administration, taxation and other administrative measures to adjust the balance of payments.

Fifth, balance of payments cannot be well managed by any single government department because the adjustment of BOP involves too many price and structural variables home and abroad. Like most countries, China does not have a dominating agency taking care of BOP adjustment. SAFE is only responsible for monitoring and statistics of BOP, has limited impact on capital flows by foreign exchange administration, unable to change the structure of BOP substantially alone. The financial regulators seldom consider the impact on BOP from the introduction of opening measures for financial institutions and market, so these measures often looks rational at the micro level but unreasonable at macro level.

The impact of asymmetric convertibility of capital account

For many years, the absence of automatic stabilizing mechanism like cross-border arbitrage hedge in China, leads to twin surplus, constrain of capital outflows and enlargement of RMB appreciation pressure, which is one of important reasons for excessive reserve accumulation, the difficulty in domestic liquidity management and asset bubble. As a result, most of investment abroad is in terms of foreign exchange reserve investment, it is difficult to achieve diversification of decision-making, investment and risk management, balance the risk and return of foreign assets reasonably. In the case that China’s current account is roughly balanced, the shortage of capital outflow channels may also lead to overvalue of RMB, which is bad for maintaining reasonable international competitiveness of Chinese manufacturing and agriculture industry.

SAFE has abolished the system of compulsory exchange settlement and sales, and liberalized some investment items substantially. Now in the capital account, lots of channels have been opened for both inflow and outflow, but asymmetric and imbalanced problems still exist, which cause the loss of equality and efficiency.

B. Path of Further Liberalization of Capital Account

The short and long-term goal of capital account liberalization should base on current capital account management, domestic and global economic environments.

The short-term goal should be set to achieve a neutral and balanced capital account management.

Redress the asymmetric management of direct investment and portfolio investment, and optimize the structure of capital outflows. Open up outflow channels in direct investment and portfolio investment for non-financial institutions, especially private enterprises and individuals. By removing restrictions on market entry for domestic capital in foreign exchange market, foster high-quality, global institutional investors, and significantly increase the quota of investment in Qualified Domestic Institutional Investor (QDII). Allow non-residents to issue bonds or stock in the domestic market, and gradually expand their market share. Increase infrastructure investment in foreign countries, and expand capital outflows by a combination of official aid and commercial investment and financing, including the outflow of RMB. Meanwhile, given unconventional monetary easing policies in developed countries, to redress asymmetric liberalization of capital account China should consider temporary suspension on quota expansion of the Qualified Foreign Institutional Investor (QFII) and the expansion of approved overseas large-scale bond and stock issuance by domestic institutions. For credit management, prudential measures are needed to manage the size of external borrowings of domestic institutions.

According to international experience, countries with current account surplus do not necessarily put liberalization of capital inflows at the first place, but often accounted for liberalization of capital outflows first. Germany, for instance, firstly began to relax restrictions on capital outflows in 1958, but the restrictions on capital inflows were not completely abolished until 1981.

The medium and long term goal is to take a neutral and non-discriminatory principle for capital account management. China should gradually entitle the same treatment and enlarge the extent of liberalization synchronously for capital inflows and outflows, for individuals and official agencies, for residents and non-residents, until the full liberalization is achieved. Strengthening the protection for various property rights, speeding up cross-border investment and financing in infrastructure, improving the cross-border credit investigation, rating, mortgage guarantee and investment protection system. In addition, improve the domestic business environment, especially for the small and medium-sized enterprises and individuals. Currently non-resident investors have been given the residential treatment, but residents have home advantage after all. Also, the investment environment is worse than that in many developed countries. Enhance attractiveness to foreign investors by improving domestic business environment, and reduce domestic capital flight disguised as foreign capital.

Enhance the role of macroeconomic policy instruments in the balance of payments adjustment.

With the changes in China's capital account management, China's BOP has been mainly affected by exchange rate and the spreads between domestic and foreign real interest rates. The real interest rate parity has come into play in a different way.

Neutral liberalization can not guarantee a static or dynamic balance, and capital inflows are not necessarily equal to the outflows, and the current account surplus is also not necessarily balanced by the capital account deficit. More flexible exchange rate, market-based interest rates, market-oriented monetary policy and other macro-economic measures are playing the fundamental role in the dynamic adjustment of international payments.

C. China's BOP in the Future

After the further liberalization of capital account in China, there will probably be a current account surplus almost equal to capital account deficit and the steady scale of foreign exchange reserves.

Currently, with the further development of economy, the marginal rate of return on capital will gradually be reduced. In order to pursue higher yields in the market of developed countries and other emerging markets, both individuals and institutions have an incentive to "go out"; overvalued assets caused by ample domestic liquidity give rise to cross-border arbitrage opportunities; the overcapacity of the manufacturing sector in China and the risk from excessive appreciation of RMB will inhibit the further appreciation of the exchange rate. Therefore, in the short to medium term, the possible and fitting structure of China's balance of payments is current account surplus almost equal to capital account deficit.

In the long term, the return on capital in the domestic market will converge with that in the international markets due to liberalized capital flows. Huge amount of capital inflows are often accompanied by equally large capital outflows. The aging trend in China will reduce savings rate, and ultimately make it close to the rate of investment. Appreciation of the effective exchange rate of the RMB will ultimately push current and capital account towards balance respectively, which is the state that China's balance of payments can achieve and should strive to achieve in the foreseeable future.

SESSION IV

China—Options, Risks, and Spillovers

Capital Account Management: Swedish Experiences

Lars Nyberg

When Sweden deregulated the financial markets in the 1980-ties, we got the sequencing wrong. We do not talk of accidents in the process, as some of you have done today. We did not fully see the dangers, we took some decisions that turned out to be very unfortunate and we missed others that we should have taken. We paid for that by having a severe banking crisis in 1990-1992. But in the end we came out very well and we have no intention to move back towards more regulated financial markets. If someone can learn from our mistakes, perhaps you can avoid making them yourselves.

Back before the early 1980-ties, the Swedish financial sector was in all important respects centrally planned. The central bank decided what savings should go to the government, to housing finance, to commercial investment etc. Interest rates were regulated and credit was rationed (the central bank decided each month how much credit was permitted to grow for each bank and down to the second decimal). And all capital transactions with foreigners required permission. Any Swedish citizen going for holiday could bring around 1000 dollars, but no more, without asking the central bank. The current account was not regulated, given the importance of the Swedish export sector.

In the early 1980-ties we all thought that the foreign exchange regulations should be the most difficult to get rid of and we were afraid of what would happen when, after many decades of regulation, capital transactions cross border were suddenly set free. In retrospect, that turned out to be the least worry.

Deregulation is a process in many steps. In Sweden it took ten years, starting with the short fixed income market, moving towards longer maturities, introducing derivatives and finally addressing the cross border capital flows, allowing foreigners to invest in Sweden and Swedes to invest abroad. The deregulation period ended with a crash, which was not really caused by deregulation, but by a number of fiscal mistakes.

The financial crisis involved, as in so many other cases, a rapid credit expansion by banks that had waited for this opportunity for a long time. High inflation and favourable tax rules made households happy to borrow. After tax interest rates were negative for a long period in the 1980-ties. But in 1990 the government changed the tax rules, suddenly bringing after tax real interest rates from minus 3% to plus 4% - to be named afterwards the Swedish a real interest rate shock. Demand for housing virtually stopped and prices fell sharply. The tax reform was good, but the timing was disastrous.

Furthermore, high wage increases and inflation above the European level had led to loss of competitive power. And the government had not taken actions to reverse the trend, but in fact

quite the opposite, running large deficits even during the boom period. So badly timed tax policy and irresponsible fiscal policy were enough to create the crisis.

Household debt peaked in 1989-90 at around 130% of disposable income. It took 15 years for debt to arrive at that level again, but now we are far above, around 170%, which is a worry, but not in this seminar. Full recovery from the crisis took around 10 years. In 1999, the Riksbank became independent, taking responsibility for the inflation target of 2%, which had already been used for a number of years. Inflation peaked in 1990, but inflation expectations remained high for many years afterwards. Sweden had a long history of high inflation and a number of ad-hoc devaluations, which made people doubt the new inflation target.

The crisis was preceded by speculation that the Swedish krona should be devalued. In November 1992 we had to leave the fixed exchange rate after some considerable political struggle and a weekend with a repo-rate of 500%. The central bank intervened heavily in the foreign exchange market to defend the currency, but it was too late. After 1992 there has been virtually no interventions up until today. The exchange rate is not considered to be a target for central bank policy.

Back in the early 1980-ties, opening up the capital accounts was thought to be the big problem and a number of research reports were written in the central bank, all being inconclusive. How much capital would flow out of the country? At last the governor just said, "let's do it". And very little happened. In fact, for the first six years more capital flowed into the country than flowed out of it. Looking at direct investment, the story is similar. Not much happened until the late 1990-ties, when both outflows and inflows started to grow as a result of further international integration. In retrospect, the problem of the capital account had been grossly overstated.

What lessons can be learnt? First, sequencing is essential, and not only sequencing in deregulation, but how fiscal measures are fit into the process. Second, when the capital account is opened, do not keep the fixed exchange rate, that is just too risky. Third, and this relates more to credit deregulation, see to that the supervision is up to standards. In Sweden, after nearly 40 years of regulation, neither the banks nor the supervisors knew how to evaluate credits. Fourth, have your public finances in order and have a strict fiscal policy framework.

The fiscal policy framework in Sweden grew out of the experiences from the crisis but was not complete until several years. In the mid 1990-ties, structural reforms in the labour market were introduced and the pension system was changed in such a way that the fiscal budget should never become overburdened. Many European countries still today face similar challenges. In 2000, a new fiscal policy framework was introduced, requiring a surplus budget over the cycle and adding a strict nominal expenditure ceiling, being determined by parliament on a rolling three-year basis.

Today Sweden has had a stable GDP-growth for a long period – albeit a slow one compared to China. Inflation is low and government finances are in good order with a falling national debt. The banking system is stable and well capitalized. The experiences from the crisis in 1990-1992

helped us in getting through the present crisis, simply because we were better prepared. And, in spite of the trouble we had, there is no wish to return to the regulated financial sector we had before the 1980-ties.



Capital Account Management – Swedish Experiences

Lars Nyberg, Ph.D.

Beijing, March 20, 2013

Outline



- Early 80-ties; Swedish financial markets strictly regulated
 - Domestic financial markets regulated
 - Currency transactions regulated – Fixed exchange rate
 - Now; Fully market-conform stabilisation policy
 - Independent central bank – inflation target, floating exchange rate
 - No credit or currency regulations – firm supervision
 - In between we had the financial crisis 1990-1993
 - Why it is a good idea to turn from regulated to non-regulated and market-conform governance
 - How to avoid the mistakes and how to find the best way for this transition
-



The old regulatory system in Sweden

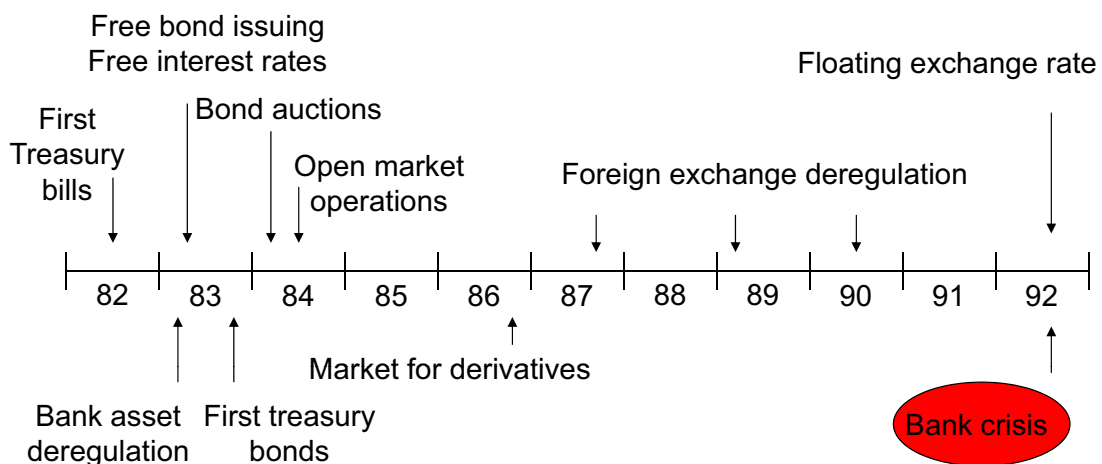
- Interest rate regulation
- Investment Quotas
- Credit Rationing
 - Credit ceilings
 - Bond issue restrictions
 - Entry restrictions
- Foreign exchange regulation



A centrally planned
financial sector

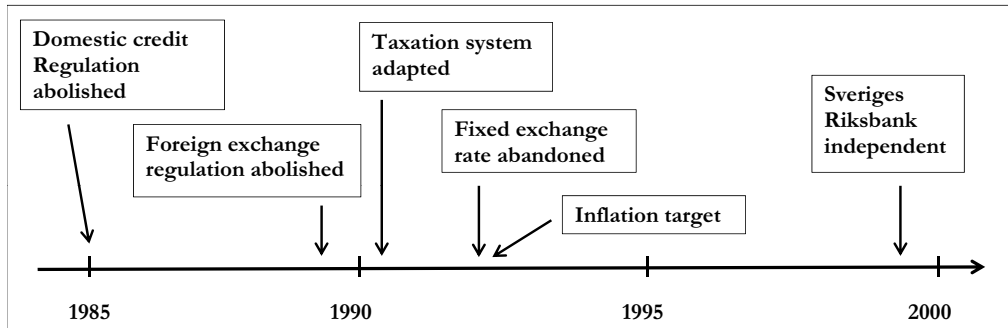


Deregulation





Regulations gradually abolished



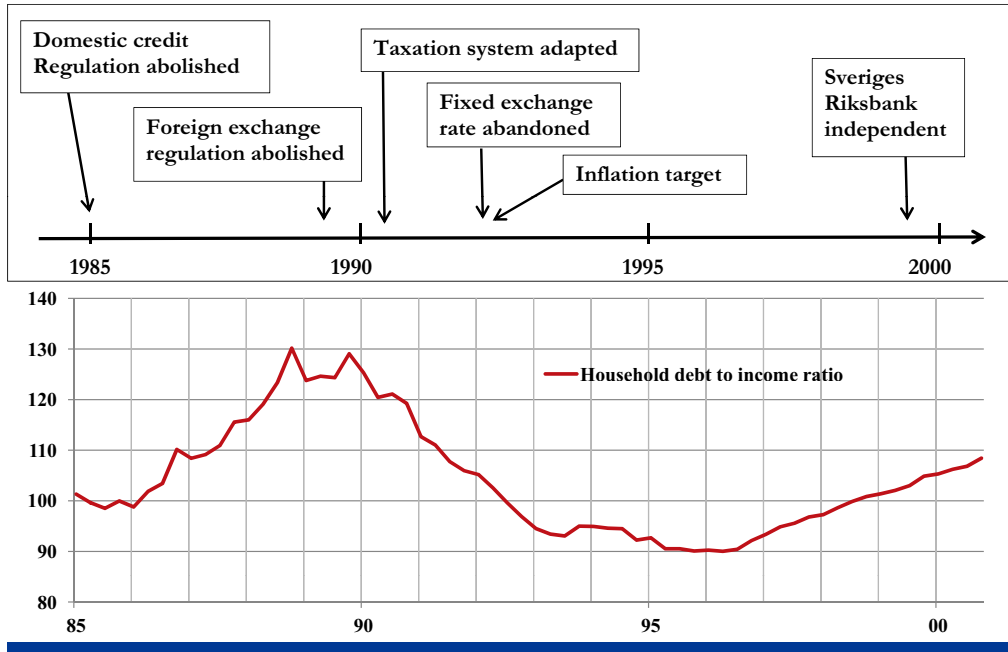
- Transition to non-regulated markets began early -80-ties
 - Domestic credit regulation successively abolished
- ... and was finalised when the fixed exchange rate was abandoned i November 1992.

Causes for the crisis 1990 - 1993

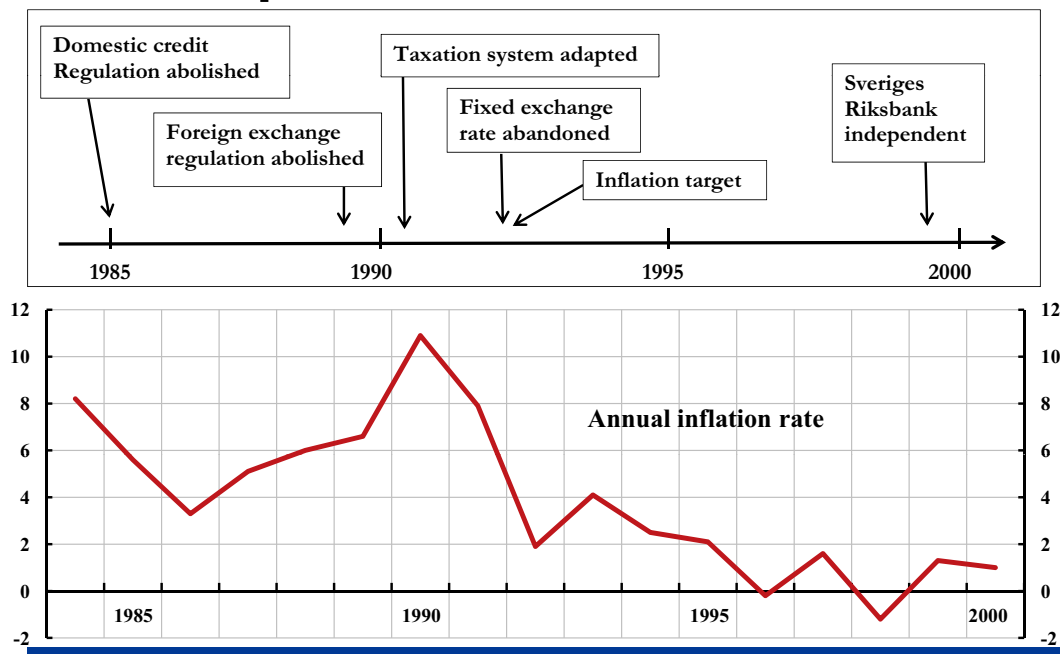


- Rapid credit expansion
 - Suppressed loan demand; green-house effect of isolating the Swedish credit market
 - Negative cost of borrowing; distortions from taxation and high inflation
 - Institutional shortcomings; weak surveillance and supervision
- Excessive Government spending
- Continued high inflation
 - Swedish Krona increasingly overvalued => loss of competitive power
 - Policy rate a weak tool in defence of the fixed exchange rate
 - Exchange rate under pressure; huge speculation against SEK

Household debt peaked in 1989 - 1990

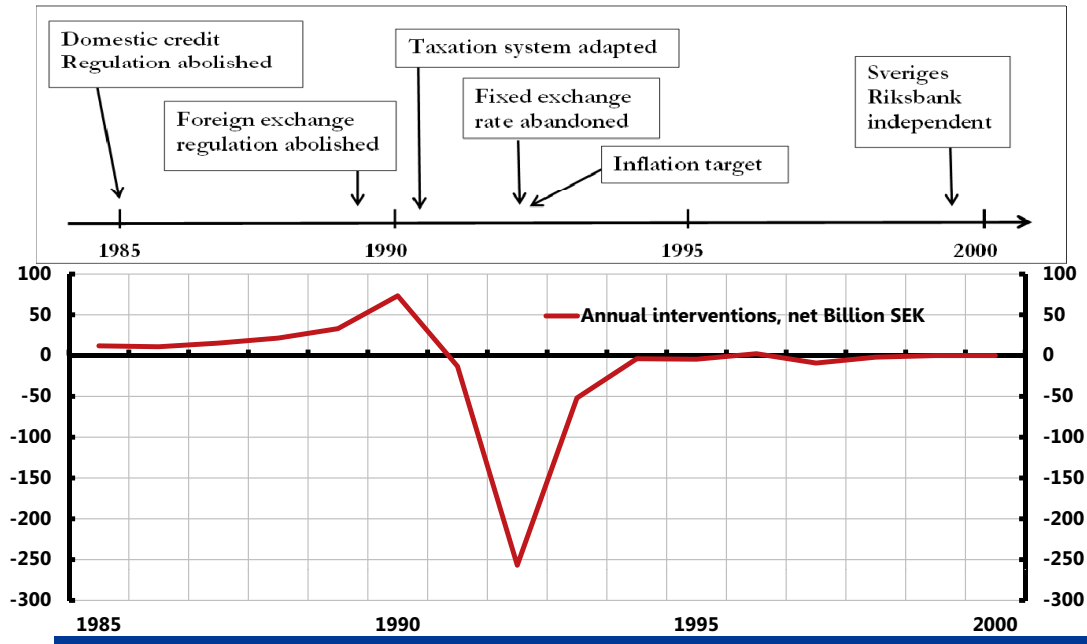


Inflation peaked in 1990





Interventions in support of fixed exchange rate

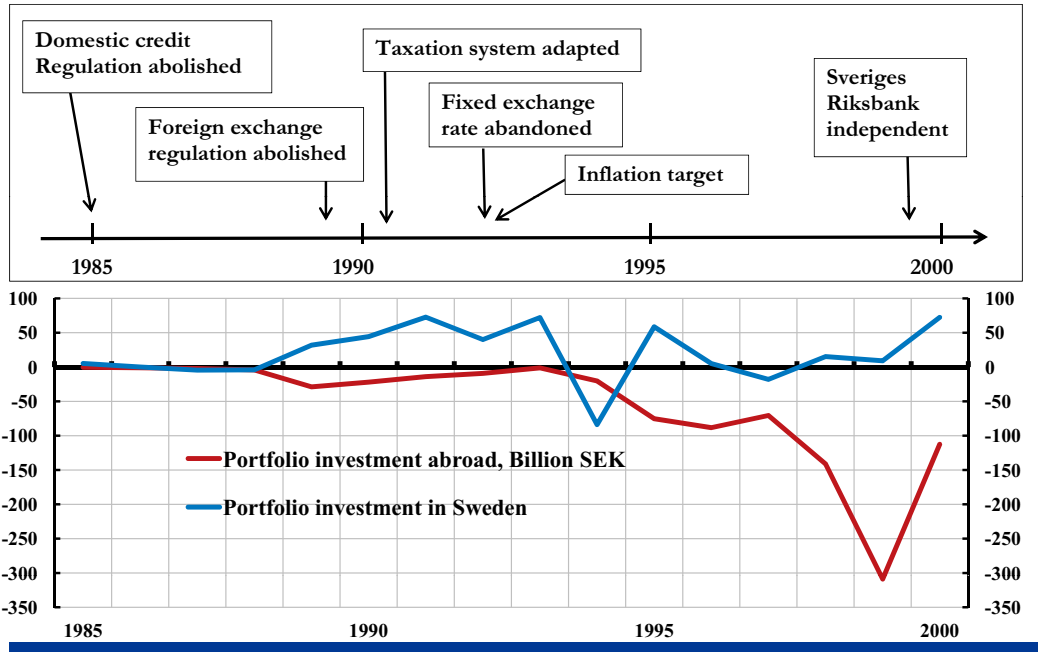


Four crises in one

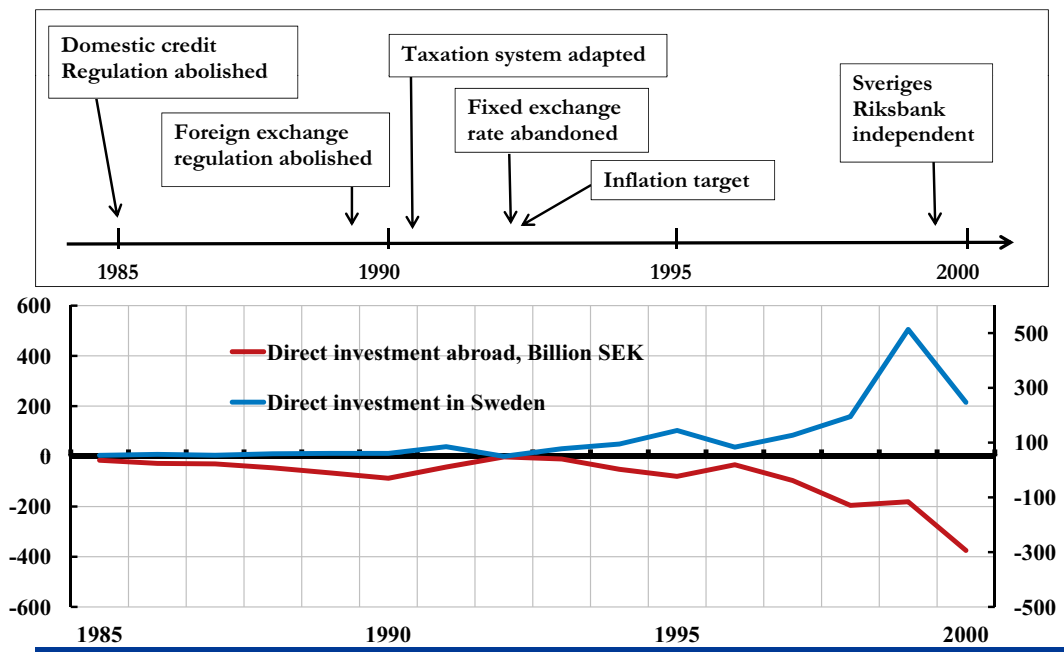


- Outbreak of financial crisis 1990 – 1992
 - Credit losses threatened big banks, other disappeared
- Macroeconomic crisis
 - Financial crisis and loss of competitive power caused downturn
- Government finance in deep crisis
 - Deficit reached 12 % of GDP in 1992
- Currency crisis
 - Heavy interventions from Sveriges Riksbank in autumn 1992
 - Policy rate 500 % in September 1992
 - Fixed exchange rate abandoned in November 1992

Cross-border Portfolio flows



Cross-border Direct Investment



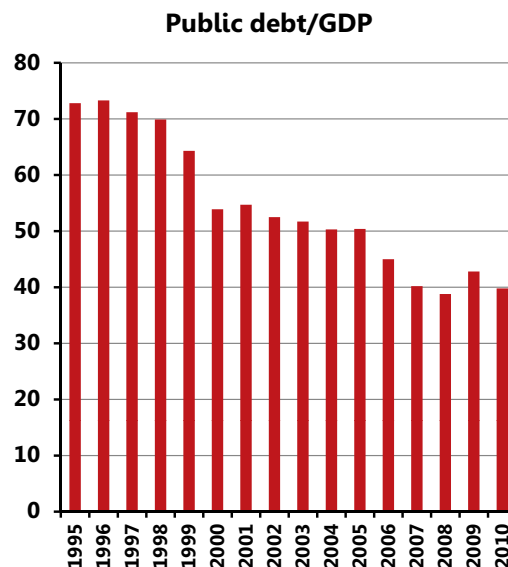


Learning lessons

- Timing and sequencing crucial
 - Credit market deregulation was made 6 years before adjustment of taxation rules
- Policy rate cannot defend a fixed exchange rate
 - Fixed exchange rate not sustainable without FX-regulation
- Important to have the institutions and regulations as required by deregulated markets – Sweden did not!
- Important to bring order and sustainability into public finances
 - A new financial policy framework
 - Structural reforms in pension system and labour market
- Cross border flows after deregulation
 - Posed no problem for stabilisation policy
 - Reflected globalisation and state of Swedish economy

A new fiscal policy framework

- Introduced in 2000
- An explicit surplus target:
1 percent of GDP on average over a full business cycle
- A three-year rolling nominal ceiling for central government expenditures (including pension system)
- Balanced municipal budgets
- A strict, top-down budgetary process





Was deregulation a good idea?

- The closed system reached the dead end
 - Under free markets and market-conform policy
 - Markets signal imbalances or potential threats
 - Unsustainable policy measures are punished
 - Today
 - Sweden has the most stable banking system i Europe
 - Government finance in balance, gross debt 38 % of GDP
 - Inflation in the range 1 – 2 %
 - Stable GDP-growth over a long period
-

Capital Account Management: Lessons from International Experience

Ratna Sahay

China's Financial System today is dominated by a large banking sector. Banking assets are close to 200 percent of GDP, compared with about 110 percent for the United States. However, China's nonbank financial sector is much smaller, and total financial sector assets are similar to the U.S. level of 220 percent of GDP. Capital markets in China are also relatively small. The stock market capitalization of 36 percent of GDP at end-2012 was less than half of the size of the U.S. market. Domestic bonds outstanding were 46 percent of GDP at the end of 2011, less than one-third of the U.S. level.

China's financial sector is growing fast and will become more important in the world tomorrow. A fast growing segment in the financial sector is wealth management products (WMPs). An extrapolation of recent trends puts the value of WMPs at close to \$15 trillion by 2021. Interest rate liberalization may temper this trend, but the growth of the nonbank financial sector will likely continue to be strong.

- **Trade and trade settlement in RMB will continue to grow.** Based on an extrapolation of recent trends, the share of China's trade in global trade is projected to increase to 16 percent by 2021 from 9 percent today.
- **The use of RMB will continue to grow.** At current trends, nearly all trade would be settled in RMB by 2021.

Capital account liberalization poses some risks to the financial sector as well as the economy. Cross-country experiences suggest that risks associated with capital account liberalization are not negligible. In many cases in which liberalization was not implemented appropriately, financial crises tend to follow. Based on case studies in the IMF Occasional Paper 211 (2002), the following five countries encountered financial crises following their capital account liberalization.

- **Korea:** Weakness in both corporate and financial sectors; inappropriate sequencing
- **Mexico:** Macroeconomic imbalances, with large short-term debt; inadequate financial sector oversight
- **Sweden:** Inadequate financial sector oversight
- **Turkey:** Weak macroeconomic fundamentals; fragile financial sector
- **Paraguay:** Inadequate financial sector oversight

A number of principles derived from country experiences can help guide the liberalization process. The 2012 IMF Board paper “Liberalizing Capital Flows and Managing Outflows” outlines 10 principles for capital account liberalization, which draw on country experiences from both successful and unsuccessful cases. Of these principles, seven are particularly important.

Principle 1—Maintain Sound and Sustainable Macroeconomic Policies. Macroeconomic instability can exacerbate financial sector weakness, and capital account liberalization in such circumstances can accentuate such instability. Particular attention must be given to ensuring the exchange rate regime is consistent with other macroeconomic and structural policies.

- China appears to have very sound macroeconomic policies: high economic growth, low public debt, moderate inflation, and current account surplus.

Principle 2—Establish a Market-Based Policy Framework. Market-based monetary policy arrangements and effective policy transmission are critical as they help improve monetary control and foster broader market development. Well-functioning monetary arrangements, supported by strong public debt management practices, are essential to managing the risks from short-term capital flows.

- China’s monetary policy framework is not yet market-based. The PBC manages monetary conditions in a number of ways, including reserve requirements, administratively determined interest rates, credit quotas, and open market operations, although the latter has recently been given a more prominent role in managing short-term interest rates (1-day and 7-day repos).
- Interest rate liberalization is also moving gradually forward. Banks are now allowed to offer deposit rates 10 percent higher, and lending rates 30 percent lower, than the official benchmark rates.

Principle 3—Continue Financial Market Reforms. Liberalization without well-functioning markets could pose substantial risks due to risk mispricing. Deep, liquid capital markets also help the capacity to absorb large capital flows. Measures to introduce market-based policy instruments should go hand in hand with measures to develop markets (e.g., money and foreign exchange markets).

- Chinese money and foreign exchange markets are not large relative to those in advanced economies and some other emerging market economies, but provide necessary conditions for a market-based monetary policy framework.

Principle 4—Strengthen Financial Sector Oversight. Strong financial sector oversight is essential to financial stability, especially in an environment in which systemic risks could arise following capital account liberalization. In most cases where capital account liberalization led to financial crises, financial sector oversight was inadequate.

- China has completed restructuring of large state-owned banks, and the banking sector looks strong with low NPLs and high provisioning. However, rapid financial innovation could create new risks, such as the rapid growth of WMPs. Increased cross-border flows could also increase the risks in banks' operations, so the regulatory framework needs to be strengthened.

Principle 5—Carefully Sequence the Liberalization of Different Capital Flows. It is more appropriate to liberalize long-term before short-term flows, financial institutions before corporations, corporations before individuals, and inflows before outflows. It is important to liberalize domestic interest rates before opening more opportunities for residents to borrow abroad and corporations and individuals are allowed to conduct outward capital transactions. Appropriate sequencing should help build the risk management capacity of domestic agents and prevent a significant buildup of systemic risks.

- For China, FDI flows are more liberalized than short-term capital flows. Currently, FDI is subjected to approval. Portfolio investments are under the Qualified Foreign Institutional Investors scheme (QFII) for inflows and Qualified Domestic Institutional Investors scheme (QDII) for outflows, respectively. External borrowing by eligible entities remains subject to quotas.

Principle 6—Health of the Nonfinancial Sector Matters. Financial and structural weakness in the nonfinancial sector matters, as they can become sources of vulnerabilities.

- China's corporate and household sectors are not highly leveraged, consistent with the high saving rate.

Principle 7—Increase Policy Transparency and Data Disclosure. Policy transparency and data disclosure can help shape market expectations, reduce uncertainty, and facilitate overall financial sector reforms. They are key elements for financial markets to function more efficiently.

- Based on World Bank's Doing Business, the degree of investor protection, which reflects the extent of data disclosure, is currently low by international standards.

With sound macroeconomic policies and robust economic performance, there is a good case for capital account liberalization to move forward. Establishing a monetary policy rate early in the reform sequence would improve monetary control and foster broader market development. The financial market infrastructure presents no obstacles to further capital account liberalization, but continued improvement in the operation of the markets would be helpful. It is also crucial to continue strengthening financial regulation and supervision, improve inter-agency coordination, and monitor vigilantly new developments in the financial sector. It would seem a good strategy to ease restrictions on FDI outflows first, followed by increased quotas on QFII and DQII, and on medium- and long-term borrowing before short-term borrowing. In the process, the non-financial sectors should be closely monitored for emerging risks. Meanwhile, improved information disclosure and policy transparency would help shape market expectations and reduce uncertainty.



China: Lessons from Country Experiences
IMF-PBC Conference

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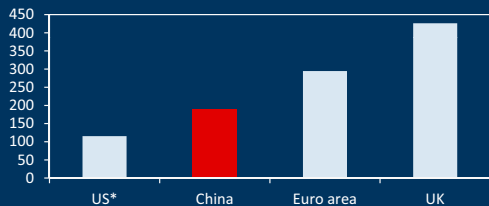
March 20, 2013



China's Financial System — Today

Banking sector is large...

Banking System Assets*, 2012
(In percent of GDP)



Source: International Financial Statistics (IFS), and World Economic Outlook (WEO)
* Including foreign assets, as well as claims on central bank, government and other sectors

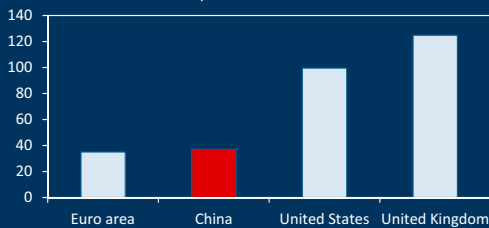
Broad Money, 2012
(In percent of GDP)



Source: International Financial Statistics (IFS), and World Economic Outlook (WEO)

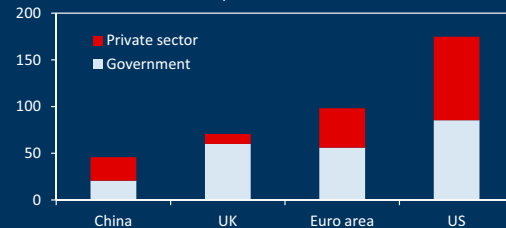
...relative to non-banking sector

Stock Market Capitalization, 2012
(In percent of GDP)



Source: Bank for International Settlements; and IMF staff Calculations

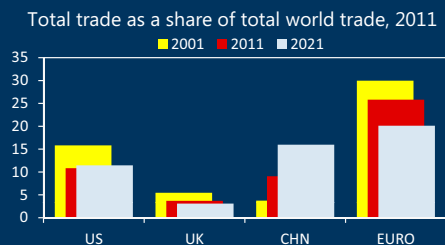
Domestic Securities, 2011
(In percent of GDP)



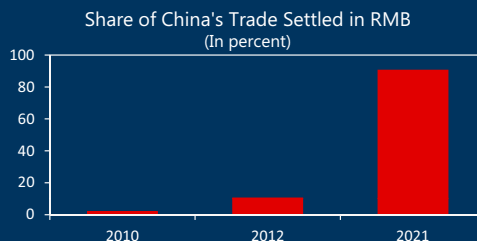
Source: Bank for International Settlements; and IMF staff Calculations

China's Growing Importance in the World — Tomorrow

Trade and trade in RMB will grow...

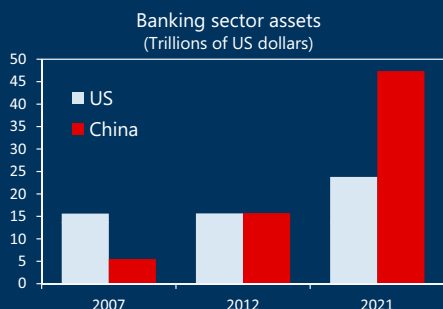


Source: World Economic Outlook (WEO)



Source: World Economic Outlook (WEO)

...and so will the financial sector

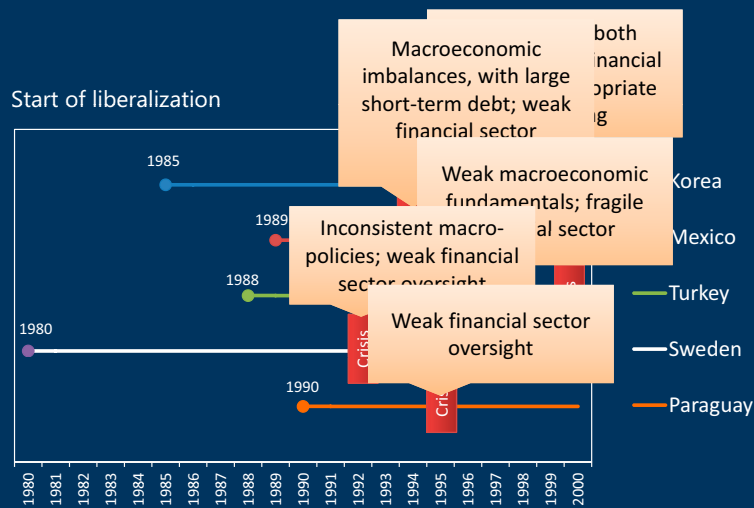


Source: International Financial Statistics (IFS)



Source: International Financial Statistics (IFS)

Risks of Capital Account Liberalization



Lessons from country experiences

Broad Principles*	
1	Maintain sound and sustainable macroeconomic policies
2	Establish a market-based policy framework
3	Continue financial market reforms
4	Strengthen financial sector oversight
5	Carefully sequence the liberalization of different capital flows
6	Health of the nonfinancial sector matters
7	Increase policy transparency and data disclosure

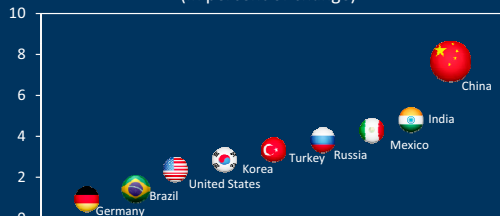
* There are 10 principles in the 2012 IMF's Board paper: "Liberalizing Capital Flows and Managing Outflows".

Maintain sound and sustainable macroeconomic policies

1

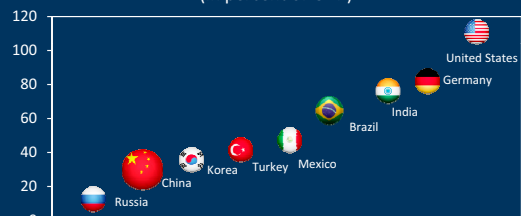
Strong growth

Real GDP Growth, 2012
(In percent of change)



Relatively low public debt

Public Debt, 2012
(In percent of GDP)



Low inflation

Inflation, 2012
(In percent of change)



And moderate current account surplus

Net Current Account, 2012
(In percent of GDP)

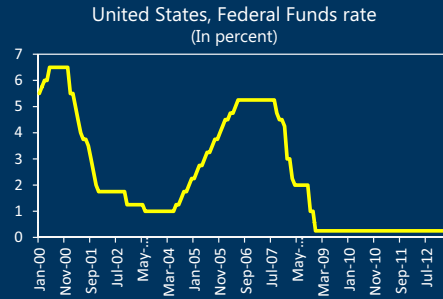
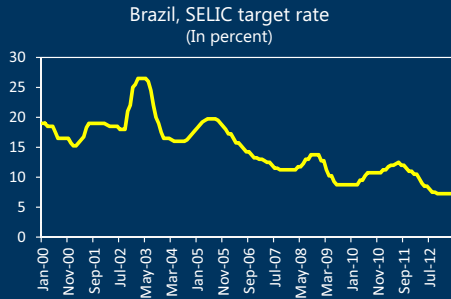
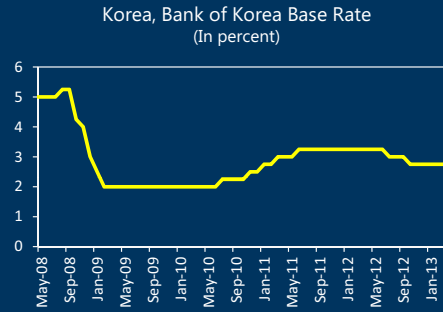


Source: World Economic Outlook (WEO); and International Financial Statistics (IFS)

Establish a market-based policy framework

2

The monetary policy framework is not yet market-based...



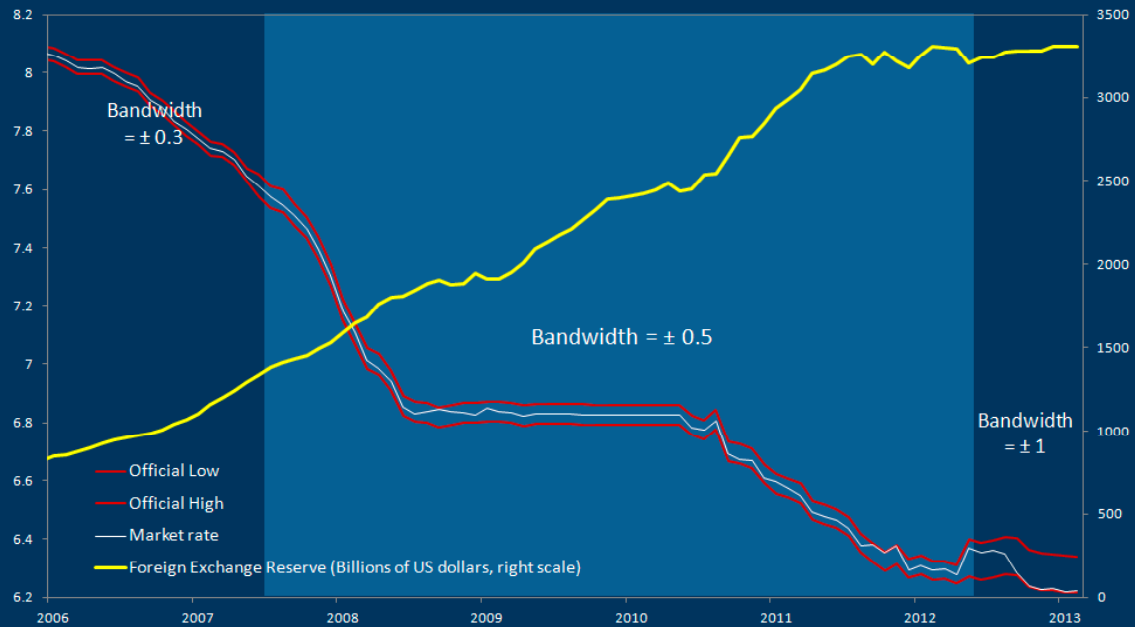
Source: Bloomberg, and International Financial Statistics (IFS)

Establish a market-based policy framework

2

...but the exchange rate is becoming more market determined

China Exchange Rate Arrangement

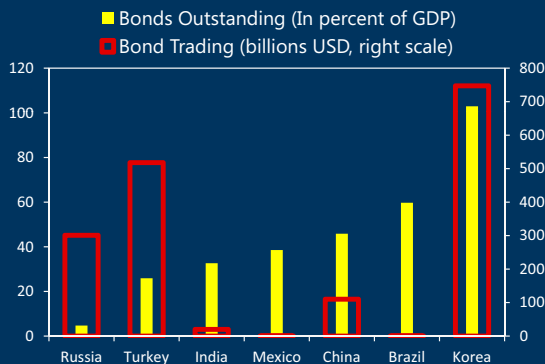


Source: Bloomberg

Continue financial market reforms

3

Money and foreign exchange markets need further deepening



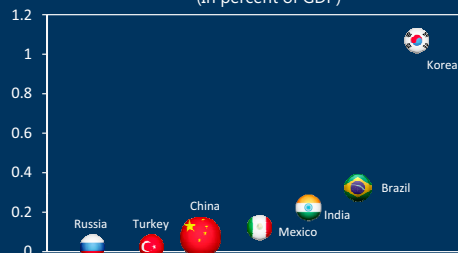
Source: Bloomberg; World Federation of Exchanges members, and IMF staff calculations

Foreign Exchange Market Turnover, 2010
(In billions of US dollars)



Source: Bank for International Settlements (BIS)

OTC interest rate derivatives turnover, 2010
(In percent of GDP)

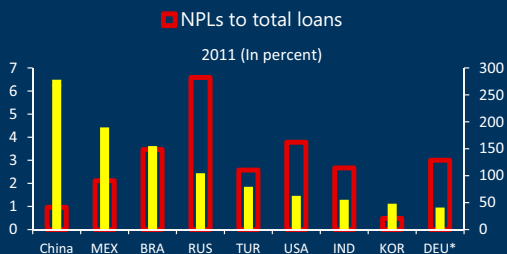


Source: Bank for International Settlements (BIS)

Strengthen financial sector oversight

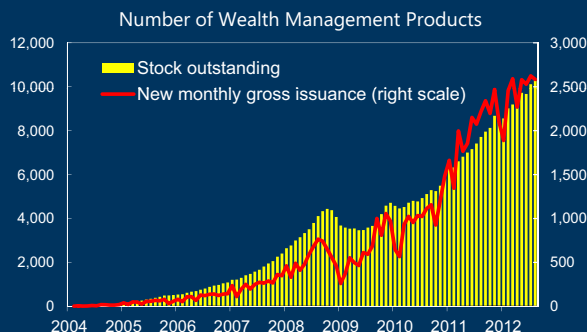
4

NPLs are low and provisioning is high



Source: IMF's FSI website

...but rapid financial innovation creates new risks

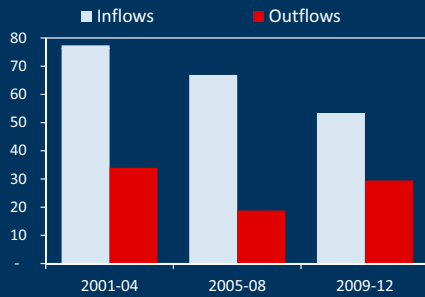


Carefully sequence the liberalization of different capital flows

5

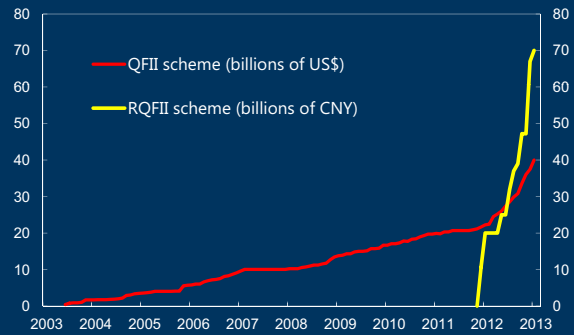
Sequencing has been appropriate with FDI flows liberalized earlier than other capital inflows

Direct investment as a share of total flows
(In percent)



Source: World Economic Outlook (WEO)

Total Allocated Quota for Qualified Foreign Institutional Investors



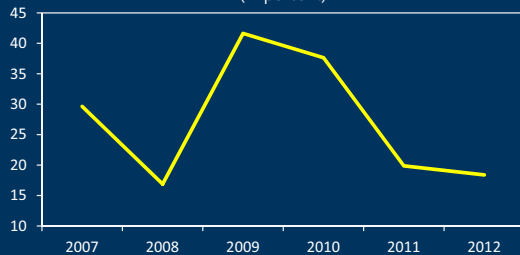
Sources: CEIC; and IMF staff calculations.

Health of the nonfinancial sector matters

6

The household and corporate sectors are not highly leveraged...

LTV for mortgage lending
(In percent)



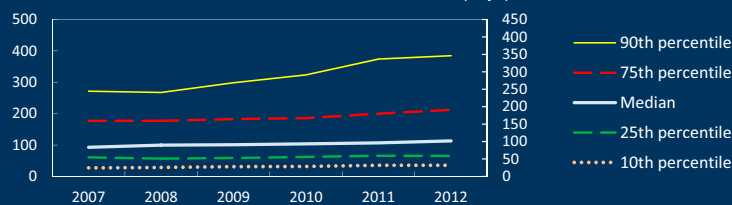
Gross External Debt - Nonfinancial Sector, 2011
(In percent of GDP)



Source: The World Bank Group

...but corporate leverage is rising and needs close monitoring

Corporate Leverage in China 1/
(Ratio of total liabilities to common equity, percent)



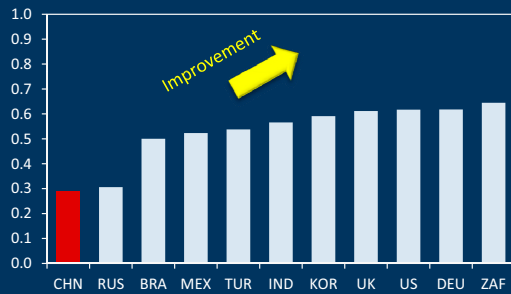
Sources: CreditEdge; and IMF staff calculations.

1/ Leverage ratio is computed for a balanced sample of 523 non-financial companies in China.

Improve policy transparency, corporate governance and data disclosure

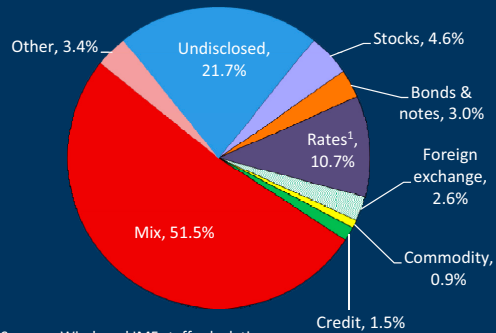
7

Corporate Governance Quality Index (0-1), 2011



Source: IMF

Stock of WMPs Outstanding by Type of Underlying Asset (as of end-August 2012)



Sources: Wind; and IMF staff calculations
¹ Interest rate derivative products

Principles	Next steps
1	Good case for opening up capital account
2	Policy rate should be introduced early in the reform sequence
3	Continue to deepen financial markets, supported by robust market infrastructure
4	<ul style="list-style-type: none"> ➤ Strengthen financial regulation and supervision, improve inter-agency coordination, and monitor closely innovations in the financial sector ➤ Enhance framework for early detection of systemic risk, including risks from cross border flows ➤ Stand ready to use macroprudential policy to address financial stability risks
5	<ul style="list-style-type: none"> ➤ Ease restrictions on FDI outflows ➤ Increase the quotas on QFII and QDII and open the scheme to more institutions ➤ Increase the quotas on medium- and long-term borrowing before short-term borrowing ➤ Liberalize bank flows first followed by corporate and individual flows
6	Closely monitor risks emerging in the non-financial sector
7	Improve information disclosure and policy transparency to help shape market expectations and reduce uncertainty

A Larger Room for RMB Reform

HE Fan

China has always been named and shamed as “currency manipulation.” Its critics claim that China intentionally suppresses the RMB value below a fair level through massive market intervention, to raise the competitiveness of its exports. The market, however, has a quite different perception. RMB has appreciated by 30% since the 2005 exchange rate reform, and the market for non-deliverable forwards (NDFs) starts to move in both directions, which indicates that the value of the currency has started to level off. At the same time, China’s surplus has come way down. China’s current account surplus, after reaching record levels of around 10 per cent of GDP in 2007, has dropped to 2.6 percent of GDP in 2012.

People’s Bank of China (PBOC), the central bank in China, changed its course silently. Before the global financial crisis, PBOC used to purchase large amount of US dollar to stabilize the RMB exchange rate. Now it cleans its hand and sits aside. From early 2005 to Q3 2011, about \$100 billion assets will be added to the balance sheet of the PBOC every quarter on average, but from Q4 2011 to Q4 2012, only \$2.4 billion USD assets shows up every quarter on average. It is a clear signal that the PBOC has abandoned the clumsy direct intervention of the market. The way PBOC managing the market now is setting the mid-price daily, which the market takes as the starting point for that day’s trading.

It’s good news. It helps to free the hands of the PBOC and increase the autonomy of China’s monetary policy. The PBOC does not need to have the worry as before: when it bought more USD from the market, there would be more pressure on domestic money supply. But, is the current policy sustainable?

Probably not.

First, under the current under-limit and lower limit control, the rise or fall of the RMB against the USD cannot exceed 1 percent of the middle rate. When supply exceeds demand on the foreign exchange market, as it happened in Q4 2012, and the PBOC did not soak up all the USD supply, the RMB to USD exchange rate would hit an upper-limit and the trading on the market freeze consequently. This happened more often recently, and if this becomes the new normal, it will damper the development of foreign exchange market.

Second, taking into consideration that in the future, there is still room for RMB to appreciate, it makes sense for the private sector to prefer holding RMB assets rather than USD assets. How could the PBOC encourage the private sector to hold more USD assets? Well, one way to do this is through more strict administrative measures, for example, the regulatory agency can urge companies to pay back their foreign debts, so that companies

has to get more USD from the market. But this means the private sector has to bear more burdens. It looks more like a sort of penalty.

My colleague Zhang Bin and I recently made a new proposal for RMB exchange rate reform¹⁴. It's simple: keep the one percent daily band if you like, but make a clear announcement that unless the RMB exchange rate (with the USD, and/or with a currency basket) moves up or down more than 7.5 percent annually, the PBOC will not intervene the market.

It means that the PBOC will play the role as a firefighter and only response to emergencies. Let's think about two extreme cases.

Scenario one. If the RMB exchange rate goes up dramatically, by more than 7.5 percent, then the PBOC should step in and calm down the market, and for good reasons. If RMB appreciated too fast, Chinese government would worry about massive bankruptcy of export factories and rampant unemployment of migrant workers in these factories. It is not only an economic crushing blow, but also a threat to social stability.

Scenario two. If the RMB exchange rate goes down dramatically, by more than 7.5 percent, then the PBOC also need to do something to back it up. If this scenario happens, it indicates that RMB is overpriced, and China will go back to a de facto peg-to-the-USD regime. It is much better than doing nothing, watching a plummeting of RMB, and the sequel of capital flight and financial crisis.

But why do we choose the mysterious number 7.5? It's just a happy coincidence with this year's growth target, which is also 7.5 percent, and a back-on-the-envelope calculation. You may want to pick up another number if you like. How about 8, which is the lucky number in China? The point is, whatever number you choose, it should be large enough to convince the investors, but not too large to scare the market.

The purpose of this new proposal is to send a clear signal to the market, and create a larger room for the reform of RMB exchange rate regime.

Under this new regime, RMB may appreciate further, and there is going to be more fluctuation of the RMB exchange rate. Will this hurt China's export, employment and macroeconomic stability?

China has a diversified group of trade partners. What really matters is not the bilateral exchange rate, or the nominal exchange rate. If you want to see the impacts of exchange rate on trade performance, better looking at the Real Effective Exchange Rate (REER),

¹⁴ Zhang Bin and He Fan, "Next step for RMB exchange rate reform", *Caijing*, Feb 16, 2013. Beijing.

which is the weighted average of a country's currency relative to a basket of the currencies of its major trade partners, and adjusted for the effects of inflation. We checked the data on the REER movement of RMB, USD, EURO, Singapore dollar, Korea Won, India Rupee, and Mexican Peso in the period of 1994 to 2012. This is the period when China moved from fixed exchange rate regime to the new managed floating regime. We found that the Singapore dollar, which is under a kind of BBC (Basket, Band and Crawling) regime, was the most stable currency. The implication is that, constant market intervention does not guarantee exchange rate stability. A larger band for fluctuation, with more clear rules, probably suits China better.

There is already a large body of literature discussing the exchange rate target zone¹⁵. The basic message is, given the assumption that central bank can make a credible announcement, the movement of exchange rate will be rather smooth and stable within the band. China has enormous foreign exchange reserve and the economic growth is quite robust. China still has large room for maneuver for its fiscal and monetary policies. It's the right time to speed up the reform of RMB exchange rate policy.

We do not buy the argument that RMB appreciation can help the U.S. a lot on reducing its current account deficit. A study by our colleagues at the Institute of World Economics and Politics (IWEP) shows that the income elasticity of China's exports are much larger than the price elasticity, meaning that China's exports depend more on how deep are American's pocket, not on how cheap the price on the tag of "Made-in-China" goods.¹⁶ But we do believe that RMB exchange rate reform should be one of the major components of any policy packages to balance Chinese economy. Exchange rate is not only the relative price of two currencies, but also the relative price of tradable and non-tradable products. China's manufacturing sector is very competitive, even by international standard. But its service sector, which is mainly the non-tradable sector, is lagging behind. Getting the price right, then resource reallocation will follow. It helps to facilitate the long-wanted structural changes.

We also believe a faster RMB exchange rate reform can pave the way for other reforms like RMB internationalization and capital account liberalization. But sequence matters.¹⁷ Some argues for a more rapid RMB internationalization and capital account liberalization right now. We cannot see why we should do it in such a rush. RMB internationalization will have a very profound impact on global financial system. Capital account

¹⁵ Paul Krugman, "Target Zones and Exchange Rate Dynamics", *The Quarterly Journal of Economics*, Vol. 106, No. 3 (Aug., 1991), pp. 669-682.

¹⁶ Qingyi Su, Zhizhong Yao and Feng Tian, "Income and Price Elasticities of China's Exports," *China & World Economy*, Vol. 21, No. 1, pp. 91, 106, 2013.

¹⁷ Yu Yongding, *Temptation for China's Capital Account*, Project Syndicate, March 27, 2013.

liberalization is a prerequisite for RMB internationalization. But these are long-term goals. It's a long march for China's financial reform. First things first. What we need to do is pushing forward the reform of exchange rate and interest rate. Cleaning the house, then open the door and welcome the guests. Even if we want to utilize the opening up policy to create new momentums for domestic reform, as China did successfully in early 2000s with its entry into the WTO, why not opening up the financial sector directly? You just cannot put the cart before the horse.¹⁸

We are living in an age of uncertainty. International financial markets are in turmoil, and domestic financial sector is fragile. Advanced countries pumped money to their economies through quantitative easing policy, and released a huge flood of liquidity to the international financial market. One day they decide to exit and increase the interest rate, a sudden stop of capital inflow, or even a panic of capital flight will trail, and cause serious risks for emerging markets. So, why make a frantic dash now?

¹⁸ Eswar Prasad, Thomas Rumbaugh, and Qing Wang, "Putting the Cart Before the Horse? Capital Account Liberalization and Exchange Rate Flexibility in China", IMF policy discussion paper 05/01, 2005.

The Sequencing of Capital Account Liberalization in China

Fan He

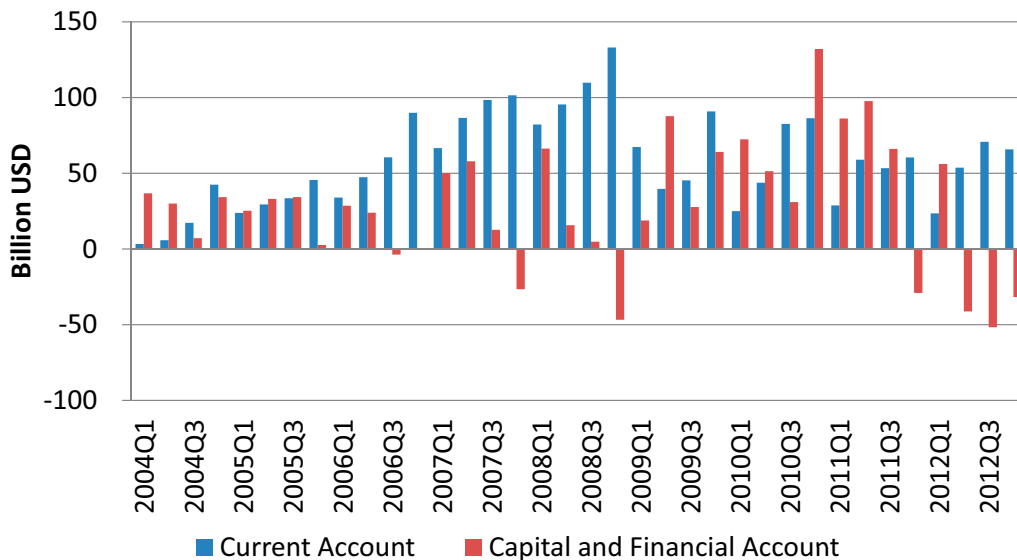
Deputy director

Institute of World Economics and Politics

Chinese Academy of Social Science

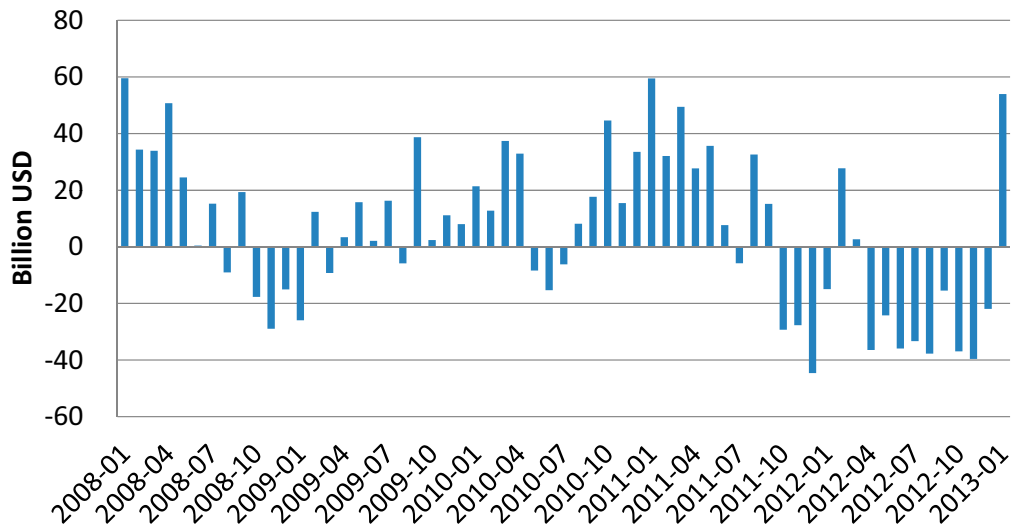
March 20, 2013

The new normal of China's BOP: from twin surplus to current account surplus and capital account deficit?



Source: CEIC.

Short-term capital outflow reversed again in January 2013



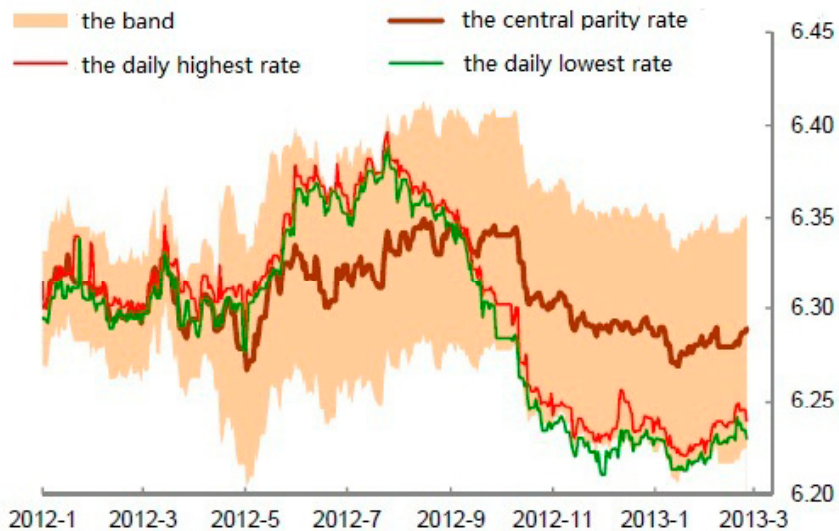
Note: The short-term capital flow is calculated by using the increment of forex purchased by banks to minus good trade surplus and the utilization of FDI.

Source: CEIC and the author's calculation.

The current RMB exchange rate regime

- The setting of RMB central parity rate depends on the following three benchmarks:
 - Short-term equilibrium exchange rate (based on market demand and supply);
 - The currency basket exchange rate (with reference to a basket of currencies);
 - The exchange rate of last trading day (the last central parity rate);
- However, the above 3 benchmarks are often in conflict, the PBC tries to strike a balance among them;

When daily price touches the upper or lower limit, the transaction will stop



资料来源: Bloomberg, 中金公司研究部

A new proposal for RMB exchange rate reform

- Keep the daily fluctuating band of +/- 1%;
- Announce explicitly the annual fluctuation band of both RMB to USD rate and RMB's effect exchange rate, i.e. +/- 7.5%;
- Only when the exchange rate breaks through the +/- 7.5% limit, should PBC intervene on the market. Otherwise, the RMB exchange rate would be decided by market forces;

The advantages of the new proposal

- Easy to operate;
- Decreasing the PBC's intervention and adding the vibrancy of the foreign exchange market;
- Achieving better resource allocation not only between China and the rest of world, but also between domestic manufacturing sector and service sector;
- Facilitating the capital account liberalization and RMB internationalization;
- Reducing external pressure and international trade frictions;

The arguments for and against the acceleration of China's capital account

Pro	Cons
Capital control is not effective	It is effective, although with some leakages
It is a time window now (low valuation of foreign firms after the crisis)	Not a time window (QE, some EMEs readopting capital control measures, and IMF changed its tones)
Promoting the efficiency of resource allocation	The relating financial crisis will hurt resource allocation
Alleviating RMB appreciation pressure (by loosing capital outflow)	RMB exchange rate is near to equilibrium level and one-way appreciation period ends
Promoting domestic structural reforms	Good or bad commitment device, not so easy to promote domestic adjustment
No sequencing	There should be a sequencing

The sequencing of capital account liberalization

- There are at least 3 prerequisites for the full openness of China's capital account:
 - RMB exchange rate Liberalization;
 - RMB interest rate Liberalization;
 - The exchange rate and interest rate liberalization could reduce the price distortions, mitigate the cross-border arbitraging activities, and control the relating welfare losses;
 - The liberalization of Chinese financial market to domestic private capitals;
 - Only after the development of domestic financial market reached some threshold, could capital account liberalization promote sustainable economic growth and financial stability;

RMB internationalization

- RMB internationalization and capital account liberalization are two sides of one coin. To push RMB internationalization further in the future, the speeding up of capital account openness seems unavoidable;
- However, this might bring new risks and welfare losses:
 - Our field investigation and data analysis found that, cross-border interest rate and exchange rate arbitraging between the mainland and Hong Kong played a very important role in the so-called RMB cross-border trade settlement;
 - RMB internationalization might not push forward domestic structural reforms (bad commitment device);
- Our suggestion:
 - RMB internationalization would be a result of Chinese economic growth and financial market development. It should be a result, and not the primary objective on the current government agenda;
 - RMB internationalization has the same prerequisite conditions as the liberalization of capital account.

How to strengthen the capital flow management?

- Macro-economic policies:
 - China should operate a independent monetary policy with more exchange rate flexibility and some extent of capital control;
 - Chinese government should avoid a over-expansionary fiscal policy, drawing the lessons from the countries in crisis;
- Macro-prudential policies:
 - Control the currency mismatch and maturity mismatch of financial institutions' balance sheet;
 - Reduce other financial vulnerabilities;
- Capital flow management measures:
 - Continue to open capital account gradually and cautiously;
 - The cooperation between different ministries such as MOFCOM, SAFE, Customs, etc. to identify the short-term capital flow in the disguise of other transactions (such as transfer pricing);
 - Use price measures to substitute quantitative measures;

Thanks

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Modulating Risk-Return Tradeoffs on the Path to an Open Capital A/c

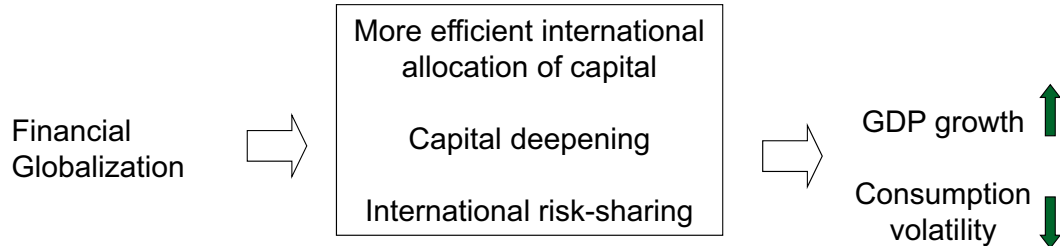
Eswar S. Prasad

Cornell University, Brookings Institution, and NBER

Benefits of CAL: Theory and Evidence

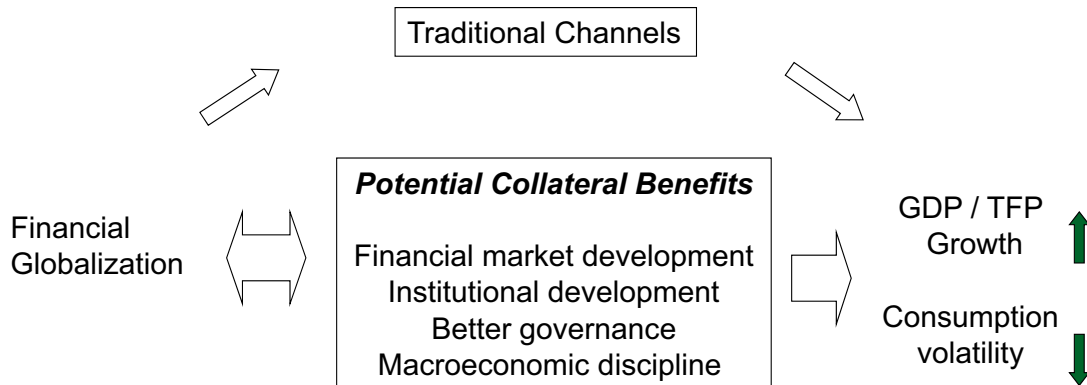
- In theory: CAL promotes better international allocation of capital; better sharing of risk through diversification
 - Little robust empirical evidence of growth benefits of foreign capital; capital exporters grow *faster* on average
 - Risk-sharing actually worse at intermediate levels of financial integration
 - **But:** Some types of flows (FDI, portfolio equity) do seem to lead to positive growth, risk-sharing outcomes
-

The Traditional View



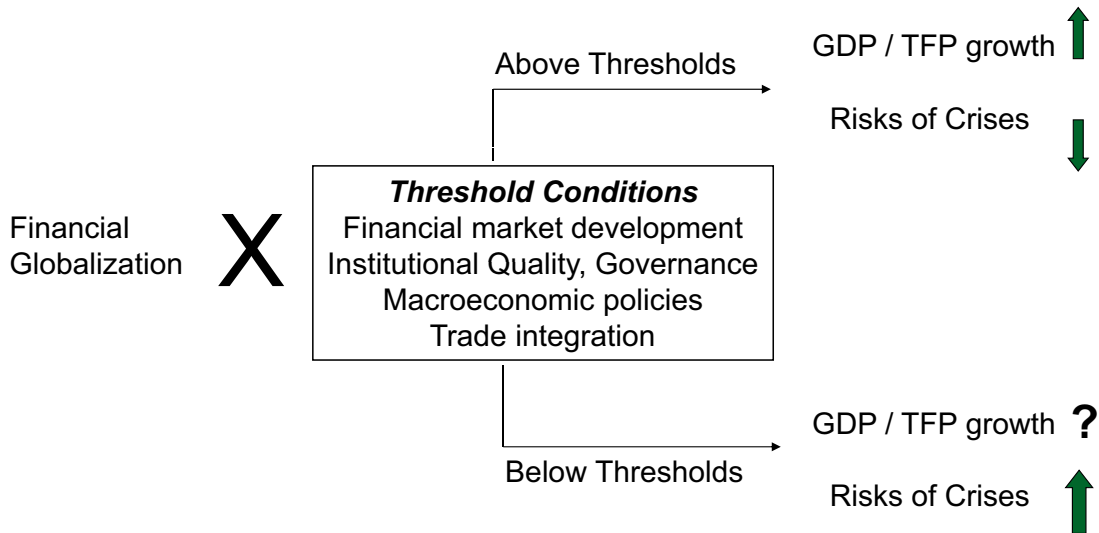
The traditional view focuses on the importance of channels through which capital flows could directly increase GDP growth and reduce consumption volatility.

A Different Perspective



This perspective acknowledges the relevance of the traditional channels, but argues that the role of financial globalization as a catalyst for certain collateral benefits may be more important in increasing GDP/TFP growth and reducing csmn. volatility.

Complication: Threshold Effects



Financial globalization leads to better macroeconomic outcomes when certain threshold conditions are met. This generates a deep tension as many of the threshold conditions are also on the list of collateral benefits.

Factors that Influence Outcomes of Financial Integration: Threshold Effects

- Financial Sector Development
- Institutions, Governance
- Macro Policies
- Trade Openness
- Exchange Rate Regime

Figure 1. Average private credit to GDP for emerging economies, 1975-79 and 2000-04

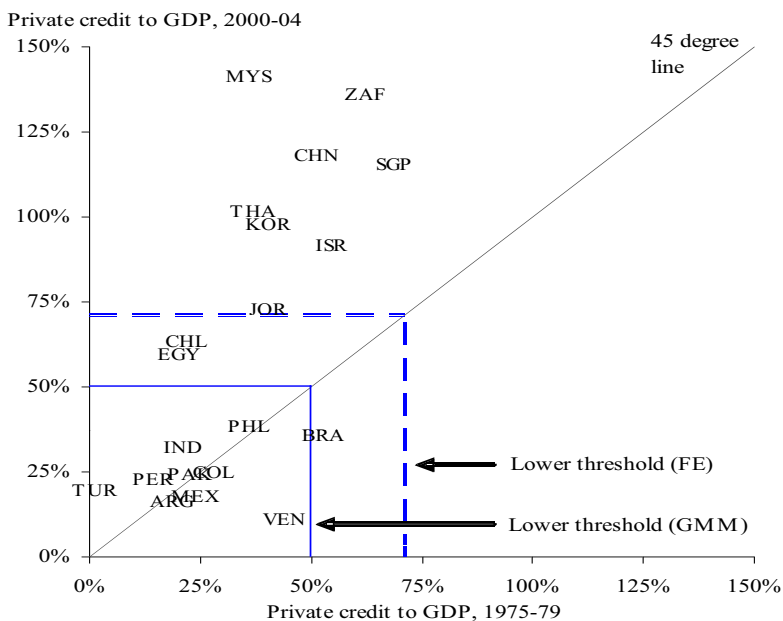
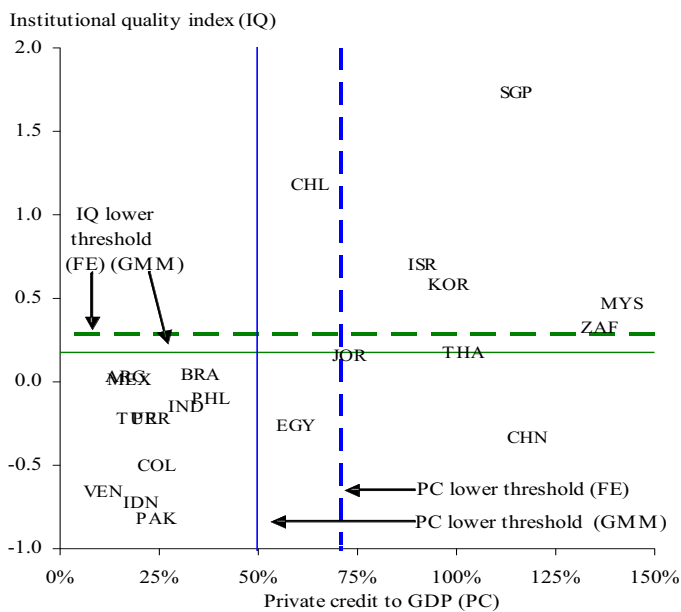


Figure 2. Average private credit to GDP and institutional quality for emerging economies, 2000-04



TENSION !!

- Developing countries need financial integration to improve governance, develop their financial markets, impose discipline on macro policies, break power of interest groups etc.
- But, in absence of a basic pre-existing level of these supporting conditions, financial integration can wreak havoc

Collateral Benefits Framework Could Help Make Progress

- Unified conceptual framework
- Country-specific requirements, initial conditions can be taken into account
- Selective approach to liberalization based on prioritization of collateral benefits
- Can manage risks during transition to thresholds, but can not eliminate them

Keeping Concepts Clear

A. International use of renminbi

B. Capital account convertibility

C. Reserve currency

A, B neither necessary nor sufficient for each other

A + B + fx flexibility necessary for C

Is progress on A hindered by lack of B + fx flexibility?

Internationalization of Renminbi

- Trade settlements in yuan
- Offshore yuan deposits
- Yuan denominated bonds
- Currency swaps with other central banks
- Some central banks already hold RMB reserves

Risks? Proxies for domestic financial reforms?

Risks of Premature CAL

- Putting the cart before the horse: CAL before greater exchange rate flexibility, reform of financial system risky
- Difficult to control currency value if capital a/c open
- Risks to financial system if outflows unrestricted
- High ratio of bank deposits to GDP; capital flight?

Risks of Premature CAL

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- High ratio of bank deposits to GDP; capital flight?

Are these major risks? \$3.3 trillion of foreign exchange reserves buys a lot of protection. But not without costs in terms of domestic distortions.

Capital Account Opening Up Fast

- QDII
- Corporate and banking outflows
- High individual outward remittance limit (\$50k per year)
- De facto opening through other channels as well

Question is whether financial development, regulatory structure are keeping pace with developments on the ground.

CAL as Framework for Domestic Reforms

- Consensus around objective of making RMB global reserve currency could help focus reform agenda
- Achieving objective while mitigating risks requires:
 - Better, deeper, well-regulated financial markets
 - Fx flexibility
 - Better macro policy framework

On Capital Account Convertibility

LI Bo

After a full day of discussion, I want to briefly discuss three questions on the shoulders of giants.

A. What is Capital Account Convertibility?

It is a somewhat fuzzy concept. There is no clear standard for what constitute capital account convertibility, in contrast to current account convertibility.

In fact, in China the concept is often confused with four other concepts including exchange rate reform, free capital flow, access to financial market, and currency internationalization. They are connected, but are also different. For example, currency internationalization is neither necessary nor sufficient for capital account convertibility.

However, capital account convertibility does have a framework. The IMF has a table with 7 categories of capital account items and 40 sub-items, including capital market, money market, collective investment vehicles, cross-border credit, personal investment, and real estate transactions. This table could be used as a checklist for gauging a country's degree of capital account convertibility.

There is a popular misconception that capital account convertibility means 100% free flow for international capital. On the contrary, we think convertibility does not preclude necessary tools to manage cross-border capital flows. Our observation is that the IMF also supports this position in recent years. There are at least four types of tools. The first type includes AML, CFT, and measures preventing abusive use of tax haven, mainly focusing on illegal capital flow. The second type is macroprudential management of external debt which, if not managed well, could pose risks to financial and economic stability. The third type is macroprudential management of short term capital flow, such as the Tobin tax used by Brazil and a number of other countries in the latest round of surging capital flow. The last type is temporary control in times of crisis, which is allowed by the IMF charter.

B. International Comparison

Among the sixty countries (or regions) which have announced capital account convertibility, the OECD countries have higher level of capital account convertibility than non-OECD countries. For OECD economies, capital flow management mainly focuses on macroprudential and national security management. In non-OECD economies, more administrative controls are in place, such as quantity control and account management.

Among emerging markets, the Brazilian and Indian cases are illustrative. Brazil took a gradual approach towards capital account convertibility, coordinating with other financial reforms and applying price tools to manage cross-border capital flows. India announced a roadmap and timetable to guide market expectations, coordinating with other financial reforms and combining price and quantity tools.

C. The Chinese Case

Achieving capital account convertibility is a gradual process. We established convertibility as a goal 20 years ago, and announced current account convertibility in 1996, after which we encountered the Asian financial crisis. Our capital account convertibility program slowed down during the crisis. Ten years ago we reemphasized our convertibility goal. Much progress has been made since then, including FDI, QFII, QDII, bond market issuance and investment, and RQFII.

To continue the process, the biggest challenge for us lies in consensus building. There is always disagreement, and people are worried about potential risks to financial and economic stability if we open capital account fully. Critics typically identify four types of risks. The first type is the risk of external debt. The second type is the speculative attack by international hot money. The third type relates to derivative products which could wreak havoc with the financial system. The last one is potential capital flight. China is not far from capital account convertibility. According to a rough scoring system, the average convertibility score of EMEs that already announced capital account convertibility is 81.79/100, while China's score is 71/100. The three main areas that fall short are capital market transactions, personal investment channel, and FDI convertibility.



On Capital Account Convertibility

LI Bo
The People's Bank of China

March 20, 2013

1



Outline

- **What Is Capital Account Convertibility?**
- **International Comparison**
- **The Chinese Case**

2



What is Capital Account Convertibility?

- **I. No clear standard**
 - Current account vs capital account convertibility
 - Latest view: some capital control may be desirable for EMEs
- **II. Capital account convertibility and other reforms**
 - Exchange rate reform
 - Free capital flow
 - Access to financial market
 - Currency internationalization

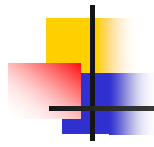
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What is Capital Account Convertibility?

- **III. Managing capital flow after becoming convertible**
 - AML, CFT, preventing abusive use of tax haven
 - Macroprudential management of external debt
 - Macroprudential management of short term capital flow
 - Temporary control in times of crisis

4



International Comparison

- **In 60 countries or regions which have announced capital account convertibility, the OECD countries have higher level of capital account convertibility, while none OECD countries are relatively low.**
- **For OECD economies**
 - Capital flow management mainly focus on macroprudential, national security etc.
- **In Non-OECD economies**
 - More administrative controls are in place: Tobin tax, quantity control, account management

5



International Comparison

- **Brazil**
 - Take a gradual approach
 - Coordinate capital account convertibility with other financial reforms
 - Apply price tools to manage cross-border capital flows
- **India**
 - Announce a roadmap and timetable to guide market expectations
 - Coordinate capital account convertibility with other financial reforms
 - Combine price and quantity controls

6



The Chinese Case

- **Historical Review**

- **First raised** in 1993 (The 3rd Plenary Session of 14th CPC Central Committee)
- RMB **current account convertibility** realized in 1996
- **Faced challenges** (due to the complicated process, unstable international financial environment, and no consensus on the pros and cons), and **paused** during the Asian financial crisis
- **Emphasized again**, on the 3rd Plenary Session of 16th CPC Central Committee in 2003, and then carried out in order
- **Slowed down** as the subprime crisis spread in 2007
- **Progress** in the last ten years : QFII, QDII, bond market issuance and investment, RQFII, and direct investment

7



The Chinese Case

- **Pros**

- Global perspective
 - economic globalization
 - international capital market integration
 - reform of international monetary system
- Domestic perspective
 - change the development model
 - control inflation
 - internationalization of RMB
 - necessary part of market economy
 - natural component of open-door policy

8



The Chinese Case

- **Cons**

- Risk of external debt
- Risk of speculative attacks by short term capital flow
- Risk of derivative products

9



The Chinese Case

- **The current status**

- Most of the items of capital account have capital flow channels (5 items are fully convertible, 4 items are not convertible, the rest have realized partial convertibility)
- De facto convertibility is higher than nominal convertibility
- Capital control mainly relies on pre-approval and quantitative tools

10



The Chinese Case

- **The current Status**
 - Not far from RBM capital account convertibility
 - Current convertibility score: 71 points
 - Not far from the average score of EMEs (81.79)
 - Main gaps
 - Capital market transactions
 - Personal investment channel
 - FDI

11



The Prospect

- Personal capital account
- Capital markets
- Administrative reform

12

China Sequencing

Peter Garber

Sequencing refers to the integration of a country's capital flows and markets into the rest of the world in a way that minimizes the risk of crisis and loss from the process.

The discussion surrounding the proper sequencing for China reminds me of the similar discussion during the 1990s when the Washington Consensus had the IMF pushing for open capital accounts. This caused me to search my bookshelves for the Princeton volume that memorializes that era, "Should the IMF Pursue Capital-Account Convertibility?", issued at an unfortunate time in May, 1998. (Stan Fischer, Rudi Dornbusch, Dick Cooper, Jacques Polak, etc.)

My contribution to this volume was to caution that the history of opening of the capital account is filled with examples of crises that have subsequently occurred. This has happened so regularly that it is almost inevitable that a crisis will occur fairly soon after such a liberalization. In many cases, the crisis and its losses are simply an exposure of the losses that have built up in the old system and that have been hidden. The losses are already there and are not caused by the crisis. Indeed, the opening of capital markets is a means of keeping such losses from growing even larger.

Nevertheless, the losses will be blamed on the technical officials and even senior political officials who encouraged the reforms. Therefore, part of the public relations drive in selling a capital market opening should be a clear description of what is expected to happen after it occurs.

One natural source of crisis: in the protected system, there are always financial institutions that are effectively subsidized or that are protected when they have losses on assets because of the closed system's channeling of capital to make good their investments. Once the system is opened, bad assets will emerge on the books of these institutions, and they will become walking dead. In trying to survive, they will double up their bets on risky assets, just at the moment that they are released to do so.

It should be noted that many of the crises that occurred in previous capital account openings concerned countries that had been defending overvalued currencies, running current account deficits, and that had large net or gross short term exposures to foreign capital, for example, Mexico, South Korea, Thailand, etc. This is not a problem for China.

But, for another reason, we should be careful in using the historical examples to give advice to China. The historical evidence is mainly about small economies that had to adjust to given rest-of-world asset pricing and interest rates. An opening of China's

capital markets will have a macro-economic impact on the rest of the world and will force a major shift in their pricing structures as well. This is yet another reason to get it right.

In one dimension of potential crisis, it may be better to compare the post-reform China to e.g. Japan or Germany after the end of Bretton Woods. In these countries, the pressure from exchange markets was to appreciate their currencies. They tried to maintain a fixed rate to the dollar by intervention for too long after the 1971 departure from gold and had to buy dollars in world record amounts, only to take major foreign exchange losses within two years.

I expect China to face a foreign exchange “crisis” at the end-game of the opening of its capital account, although of a different nature. It won’t be quite like the speculative attack on an undervalued currency that Vittorio Grilli studied in his dissertation long ago.

People will be trying to sell RMB for several reasons. First, there is just the normal desire to diversify portfolios once the door is open, causing big inflows and outflows. Initially, I expect that outflows will be dominant. The authorities are preparing for this in the current sequencing, gradually expanding opportunities for the inflow and outflow of capital by the private sector. Slow movement in this direction has its costs, for example, in the form of an implicit subsidy from the PBC to encourage the CNH markets and to allow foreigners a golden access to the higher interest rates onshore in the face of an appreciating currency. This cost can be justified as a way of avoiding chaotic movements if the capital account were suddenly to open. Second, I also expect that funds will flow out in cases of crack-downs on corruption or speculation as people try to get funds out.

But there also will be a massive macro-economically generated outflow in the end-game that is inevitable. This should not be considered a crisis when it occurs, but a natural result of the process of opening. The risk is that it will be taken for a dangerous attack and counter actions may undermine the transition process.

When Michael Dooley, David Folkerts-Landau, and I started publishing our “Bretton Woods II” description of China’s development strategy ten years ago, we claimed that the system would last for at least ten or more years. The features of this system are well-known: export driven growth supported by undervalued exchange rates, increasing acquisition of foreign exchange reserves and hence foreign assets, a driving down of real interest rates in industrial countries. But there was also to be also a steady, though long, transition in which the system would eventually end via rising real wages effected through rising nominal wages and a gradual nominal appreciation of the exchange rate toward equilibrium levels. In the end-game, systematic interventions would cease and the capital account would be opened.

We were often asked for an opinion of how the end-game would occur as capital markets opened and interventions ceased. Imagine a benign end, in which the appreciating RMB reaches an acceptable equilibrium, after which the capital account is opened. Remember that the renminbi is predictably appreciating gradually during this transition against the dollar, the euro, and other currencies. If domestic yields were below foreign yields, as they should be in open financial markets, this, by itself, would not attract speculative inflows. But they have substantially exceeded foreign yields since the 2008 crisis, so there is every pressure to push foreign capital through controls to get the double treat of appreciation and positive carry. This has been the impetus for the successful growth of the CNH markets, which are a back door through the controls.

During the transition to the opening of the capital account, there is an accumulation of speculative inflows, which the PBC accommodates through its crawling peg. Finally, the end come and the capital account opens, the currency stops appreciating, and domestic and foreign interest rates equilibrate as they do in the industrial economies. Now, the easy profits from holding renminbi disappear, so the speculative money moves out at once. This will look exactly like a speculative attack and a crisis—atop the real money trying to diversify. But this sudden outflow of funds an inevitable outcome of the liberalization policy. We saw a small version of this in late 2011 when the renminbi ceased appreciating temporarily and began to depreciate. The CNH market suddenly became illiquid as speculators tried to pull out of the market.

The proper response is to accommodate the outflow and to pour out foreign exchange at the end-game equilibrium exchange rate in one last intervention, admit the loss on the accumulated foreign exchange reserves that the old system has imposed, and be done. However, the officials in control when this occurs will take a terrible public beating, and the policy of opening the capital account will be attacked for having itself caused the loss.

So the temptation will be not to intervene so massively in the face of this outflow and to let the RMB sharply depreciate. This sets up a real game between the public and the official sector and creates the chance of serious miscalculations. In addition, in this event, real money will now see the potential for an unexpected, sharp exchange rate discontinuity and may join the outflow with the speculative money. Now, we have a real crisis and possibly a reversal of the transition. To block all this, of course, controls can be kept in place in the background.

This leads to a key additional prescription for the sequencing process: make sure that the public is aware of what you expect to happen at the transition point, so that it will not be derailed by political pressure at the moment when the expected disgorging of foreign exchange reserves should occur.

Capital Account Liberalization and China's Capital Markets Development

QI Bin

Capital account liberalization is a vital part of a series of reforms necessary to sustain China's long-term economic growth. Compared to the opening-up of the current account, capital account liberalization is a much more complex issue which requires more preconditions to achieve. This inevitably leads to the discussion on China's capital markets, since capital account liberalization and capital market opening go hand in hand. I will take this opportunity to give a brief overview on China's capital markets, and to investigate the relationship between capital markets opening and capital account liberalization. Finally, I will explore the possibility of synchronizing the two processes in the future.

A. China's Capital Markets: An Overview

For the past two decades, the landscape of China's capital markets has changed dramatically. According to the World Federation of Exchange (WFE), China's stock market capitalization reached USD 3,697 billion by the end of 2012, which is the second largest in the world. This growth has been fueled by more than 2000 initial public offerings, including the listings of China's largest banks. Additionally, China's balance of bonds and trading volume of commodity futures - both of which ranked among top markets globally - have also grown significantly.

Nevertheless, China's capital markets are still emerging markets in a transitional economy, and are far from satisfactory. The structure of equity markets is unbalanced. Compared to the pyramid structure of NYSE, NASDAQ, OTCBB/Pink sheet, and Grey Market in the US, China's equity markets have a reversed-pyramid structure: the main board has the largest number of listed companies, followed by SME and GEM boards, while a healthy pattern would be exactly the opposite. In addition, corporate bond markets' development lags significantly behind that of equity markets, not to mention the futures and financial derivatives markets.

The market culture of China is quite unique too. While the turnover ratios for major markets in the world vary from 119% to 210% in 2007, implying that a typical investor will flip his/her stocks once or twice a year, the ratio for Shanghai and Shenzhen stock exchanges is 927% and 987% respectively, indicating that China's markets are primarily

driven by retail investors with short-term trading habits, and the development of institutional investors is quite inadequate.

B. Opening up of the Capital Markets

In order to introduce more long-term institutional investors, the number of licenses and the total investment quota for the QFII and RQFII scheme were both increased significantly last year. Now QFII have presence in 89.1% of listed companies on domestic markets.

There is also a surge of interest in overseas markets among Chinese investors. China launched the QDII pilot program in 2007, and now we have more than 67 QDII products with a total market value of RMB 62.7 billion.

In fact, the actual degree of opening up of China's capital markets is probably higher than it seems to be. A great number of foreign capital flows into China to invest in Pre-IPO form through the channel of foreign direct investment (FDI). On A-share market, there are over 11,000 foreign trading accounts, most of which are enterprises eager to explore opportunities in China's stock markets. There are currently more than 1,000 Chinese companies listed overseas, and the market cap of Hong Kong listing is USD 1,800 billion, which composes 48.8% of the entire market. 15% of shares of Chinese companies listed home and abroad are owned by foreign investors. B-share market has been completely open to foreign investors since the beginning. By the end of 2012, the number of B-share companies is 108, and they have already raised RMB 33.8 billion. CSRC has authorized 14 joint venture securities companies and 41 joint venture fund management companies, and foreign investors are allowed to hold up to 49% of the companies' shares.

The markets' opening up process in China proved to be a win-win strategy. On one hand, China has gained a great deal from opening up. By adopting the best practices from international marketplace, China sped up the learning process considerably. And by introducing international competition, domestic players have become more robust and competitive. The philosophy of value investment and long-term investment has been gradually developed, partially thanks to the introduction of QFIIs. On the other hand, foreign investors were able to share the fruits of China's economic growth via the QFII scheme.

C. Synchronizing the Two Processes

In spite of the remarkable success achieved within such a short period, China's capital markets are still young, and the potential for further growth is huge. To enhance the efficiency and robustness of Chinese domestic markets, multi-layered capital markets need to be developed. The nurturing of long-term institutional investors is also required, since they will form the major force in transforming China's capital markets culture. We also need to encourage and facilitate financial innovations, and improve competitiveness of securities firms and asset managers. Without introducing foreign players into the market, we will not be able to accomplish these tasks.

Capital markets with greater openness will be an indispensable component for full convertibility of RMB under the capital accounts. In the future, China's capital markets will be further opened up gradually, with more and more international investors coming into China, promoting China's economy and benefiting themselves. Meanwhile, more local investors will be able to access the overseas markets, and diversify their assets globally.

CSRC has been working with The World Bank in the past few months on a project to lay out a blue-print of the development of China's capital markets in the next 5-10 years. We would like to work with PBOC and IMF on similar projects to formulate strategies for capital account liberalization in the years to come.

Asia's History of Capital Market Development The ASEAN Experience of 1980's: Insights on Road to Capital Account Opening

Ray W. Jovanovich

The objective of my address sought to thread together the parallel evolution of capital market development and nascent capital account management across the periphery of ASEAN from the late 1980s into early 1990s.

The experience of all three peripheral ASEAN members, Thailand, Indonesia and the Philippines provide a broad illustration of both the benefits and costs associated with rapid capital market and capital account liberalization. Success ensured failure given insufficient progress on behalf of policymakers to fully appreciate the common and vast linkages between both.

All three ASEAN states possessed undeveloped micro-stock markets in the late 1980s. These markets were essentially dormant; Jakarta offered only eight listed companies. Minimal domestic investor participation was evident and the local funds industry was non-existent. Negligible foreign investor activity was noted and “trading by appointment” necessary given low daily volumes. As such, price distortions (and volatility, long before the VIX was a casual acronym) were an early feature of these stock markets.

Semi-open capital accounts mattered little at the time as there existed minimal direct flows resulting from stock market activities. Trade flows were entirely another matter; as a share of GDP significant. Indonesia, by virtue of its burgeoning hydrocarbon reserves, experienced stable long term capital flows owing to two-decade LNG contracts with Japan while Thailand enjoyed capital flows from its abundant agri-economy, in particular rice exports.

The late 1980s creation of a series of pioneering closed-end single country funds for these three ASEAN states changed everything. These three novel funds, Siam Fund/1988 (Thailand), Malacca Fund/1989 (Indonesia) and Manila Fund/1989 (Philippines), began the irreversible process of simultaneously opening and fostering capital market development along with introducing ever larger capital account flows.

Each Fund raised US\$50 million from foreign investors, primarily Europe (UK/Swiss) and Japan Insurance firms. Given the immediate success of these products, nearly 300 other Thai, Indonesia and Philippines country funds followed within 24 months.

The US\$50 million Malacca Fund expanded the Jakarta Stock Exchange market capitalization by a massive 25% while the US\$50 million Manila Fund equaled 5% of Philippines Stock Exchange market capitalization.

By contrast, China's total QFII quota facility equals only 1.5% of current “A” Shares market capitalization. This seems rather insignificant given the scope and dimension of China's economy, SOE structure and status of the domestic stock market. More to this point later.

Essentially, these three landmark country funds were pioneering access products; providing seamless and comprehensive exposure to these otherwise untradeable stock markets with administration and custody. One-stop shopping for foreign investors was the offer.

The three country funds also helped establish international capital market credibility. Each product involved a five year closed duration, followed by conversion into an open-end structure, given the assumption each respective domestic stock market had sufficiently evolved to handle larger trading activity.

The closed-end status allowed maintenance of investor inventory, similar to China's QFII structure. Additionally, it provided the ability to monitor unusual movement in Fund trading.

This entire initiative was a first for all involved; fund proprietor, foreign investors and local public officials. We encountered concerns regarding both the capital account and currency implications from Central Banks, in particular Indonesia and the Philippines.

Given US\$/Rupiah and US\$/Peso flows were pedestrian in the late 1980s, the respective Central Banks expressed apprehension over potential consequences resulting from large foreign portfolio capital inflows associated with our new Funds.

As such, we suggested and established a regular dialogue with both Monetary and Stock market officials in both countries. We met quarterly with Bank Indonesia (BI) and the Central Bank of the Philippines (the independent BSP was only established in 1993) and with BAPEPAM (Indonesia's Stock Market Regulator) and the Philippines' SEC to discuss the status of our investment policy, views of the local economy and market along with other issues of mutual interest. We believed this approach was both necessary and incumbent upon us in order to assist and facilitate development of the local markets.

Such a dialogue could be nurtured in China involving all four actors; the largest QFII quota holders, the CSRC, the PBOC and SAFE.

The Siam Fund, Malacca Fund and Manila Fund helped to accelerate respective capital market development and expedite capital flows to supplement each economy.

Visible, high profile "Go Public" advertising campaigns promoting stock markets locally were featured. Tax incentives were introduced to encourage companies to list. The capital markets across Thailand, Indonesia and the Philippines became the preferred avenue to raise a combination of onshore/offshore financing, non-existent prior to 1991.

This reality spurred parallel development of both domestic brokerage and asset management activities. To some extent, it also provided gradual, somewhat controlled, "training" of capital flows management as the sums grew over time, following an initial large inflow as our respective Funds initially deployed portfolio capital.

This historical account of the successful late 1980s capital market opening and development unleashed a broader capital flows trend over the next decade.

Ultimately, due to several factors, it led to reckless corporate behavior as a rush to access cheap US\$ debt created conditions for the 1997 Asian Financial Crisis. Two factors immediately surface in the context of capital account management; capital markets evolution and regulation.

Properly functioning (developed and deep) domestic capital markets is an absolute prerequisite to capital account liberalization.

A robust regulatory framework supported by vigorous oversight and enforcement is necessary.

Part of the solution for China rests with expanding the current QFII quota facility for "A" Shares. Increasing foreign participation by a factor of five on an immediate basis is both warranted and sensible, given the need to further develop and deepen the domestic equity market and the appetite for China "A" shares by the global investment community.

ASIA'S HISTORY OF CAPITAL MARKET OPENING

THE ASEAN EXPERIENCE of 1980s

INSIGHTS on ROAD to CAPITAL ACCOUNT OPENING

**IMF & PBOC JOINT CONFERENCE
CAPITAL ACCOUNT MANAGEMENT**

**RAY W. JOVANOVIH
20 MARCH 2013
BEIJING**

ASIA'S HISTORY OF CAPITAL MARKET OPENING
- *THE ASEAN EXPERIENCE of 1980s*

- Undeveloped Micro-Markets; Jakarta SE ONLY 8 Listed Companies
- Regulatory Framework Evolving
- Minimal Domestic Investor Participation; Local Funds Industry Non-Existent
- Negligible Foreign Investor Activity
- "Trading by Appointment"
- Semi-Open Capital Accounts Mattered Little
- ***Pioneering Closed-End Single Country Funds Changed Everything (Indosuez/Amundi)***
- ***Creation of World's 1st Country Funds in 1988/89... Thailand (Siam Fund), Indonesia (Malacca Fund) and Philippines (Manila Fund)***
- Each Fund raised US\$50 Million
- Capital Raised Primarily from Europe (UK/Swiss) & Japan Insurance Companies
- Nearly 300 other Thai, Indonesia and Philippines Country Funds Followed...
- ***Malacca Fund US\$50 Million = Expanded Jakarta SE Market Cap by 25%***
- ***Manila Fund US\$50 Million = 5% of PSE Market Cap***
- ***By Contrast, China's Total QFII = Only 1.5% of A Share Market Cap***

ASIA'S HISTORY OF CAPITAL MARKET OPENING - THE ASEAN EXPERIENCE of 1980s

- **Essentially, Pioneering Access Products; Seamless Exposure with Admin & Custody**
- **Helped Establish International Capital Market Credibility**
- C-E Status Allowed Maintenance of Investor Inventory = Similar to China's QFII Structure
- Monitor Unusual Movement in Fund Trading
- Capital A/C & Currency Concerns by Central Banks - US\$/Rupiah & US\$/Peso Flows Pedestrian
- **Established Regular Dialogue with Monetary & Market Officials - Central Banks Bank Indonesia / CB Philippines & Indonesia BAPEPAM / Philippines SEC**
- Five Year Fund Duration / Conversion into Open-End Structure
- Antithesis to "Smash and Grab" Mentality of Many Investors Today
- All 3 Markets Quadrupled in 5 Years = Asia's Best Performing
- 25 Years Hence; Jakarta SE Market Cap = \$426 Bn & PSE Market Cap = \$266 Bn

ASIA'S HISTORY OF CAPITAL MARKET OPENING - THE ASEAN EXPERIENCE of 1980s - INSIGHTS on ROAD to CAPITAL ACCOUNT OPENING

- **3 Funds Helped Accelerate Capital Market Development and Expedite Capital Flows to Supplement Economy**
- Visible, High-Profile "Go Public" Advertising Campaigns to Promote Stock Market Locally
- Tax Incentives Introduced
- Capital Markets Became Preferred Avenue to Raise Combo Onshore/Offshore Financing...Non-Existent Prior to 1991
- Spurred Parallel Development of Both Domestic Brokerage and Asset Management
- Provided Gradual (Controlled) "Training" of Capital Flows Management
- **Late 1980s Capital Market Opening & Development Unleashed Broader Capital Flows Trend Over Next Decade**
- **Ultimately Led to Reckless Corporate Behavior as Rush to Access Cheap US\$ Debt Created Conditions for 1997 Asian Financial Crisis...Poor Regulatory Oversight**

IMF Attitude on Capital Control in Historical Perspective: Implications for China Reform on Macro-Prudential Management Regime

LU Feng

As the last discussant for this important workshop, I find that I have to talk after almost all issues with immediate theoretical and policy importance have been more or less covered by the distinguished speakers already. I therefore choose to look at the changing attitude of IMF on capital control in an historical perspective. If we look at historical time span, the topics of this workshop signifies the fourth swing of the mainstream attitude towards capital control in which IMF plays very crucial role in defining and shaping the consensus. An historical overview may give us useful implications.

As a major historical departure from the “sacrosanct doctrine of free capital flow”, IMF from very beginning allowed “member countries may exercise such controls as are necessary to regulate international capital movements” (Section 3 of Article 4). Though there were debates inside IMF in the 1950s, the famous “definitive interpretation” announce by IMF executive board in 1956 gave final verdict: “Members are free to adopt a policy of regulating capital movements for any reason...without approval of the Fund”.

As the leading scholar in advocating capital control, Lord Keynes said in 1944 at the Upper House (House of Lords) “What used to be a heresy is now endorse as orthodox”. But this orthodox did not last forever. After break-down of the old Breton-woods system in the early 1970s, the IMF attitude towards CC started to change in the late 1970s. In amendments to the Articles of Agreement, the Article IV was included the sentence —the essential purpose of the international monetary system is to provide a framework that facilitates the exchange of goods, services, and capital among countries.

The momentum strengthened in the 1980s and 1990s. According to IMF Independent Evaluation Office (IEO, 2005), of numerous programs conducted by IMF in the 1990s, 18 provide suggestions for capital account liberalization, though implementation of CCL has never been regarded as the formal conditionality. In the meantime, criticizing CC has become the mainstream opinion in the international academic circles.

The clock pendulum swung to an opposite direction again in recent decades. IMF stopped active discussion of Capital account liberalization after the EA financial crisis. Decisive change of its attitude towards CC occurred in the aftermath of the financial crisis. In the early report of “Initial lessons of the crisis” produced in Feb. 2009, IMF acknowledged that lack of financial regulation “equipped to see risk concentration and flawed incentives

behind the financial innovation boom” as one major cause of crisis, implying the necessity of re-examination of CC.

From Nov. 2010 to Mar. 2012, four IMF board paper focused on CC issue representing the substantial change of the attitude. The current report may be regarded as the systematic demonstration of the Fund’s current understanding and policy stance on the subject. It is indeed a milestone of the change of ideas in the area. The report takes a rather balance view on CC with acknowledging both benefits and risks of CF. It draws wide and rich experience and lessons regarding CF accumulated in recent decades especially in the most recent episode leading to the international financial crisis. The report will again play an important role in shaping new consensus against the old one.

Why there is the change? There are three driving force behind the changing attitude towards CC may be three folds. Driving force No. 1, helped by modern information technology and networks as well as forces of market mechanism, the magnitude and speed of short capital flow is so unprecedented and overwhelming and they may impose huge destabilized effects on a national economy. No. 2, as identified in the IMF report in Feb. 2009, huge short term unregulated financial flows, characterized by various sophisticated financial derivatives plays a crucially facilitating role in global imbalances and financial crisis. No. 3. the extraordinary loose monetary policies adopted by the major international currency issuing countries due to similar and different motivations has caused, and will continue to cause flooding of hot money and liquidity. All the factors are to varying degree new for the current global economy.

Though the current change is somewhat similar to the historical episode from the classical gold standard to Bretton-woods rules, it should be noted that the current situation regarding CC is substantially different from the past. The driving forces are new. The world is not returning to universal fixed exchange rate regime that underpinned the CC in Keynes era. China is a good example indicating the spirit of the current change. Though China has always pay a due consideration of CC that has been proved wise and prudent, China is now planning new reform further deregulate her exchange rate and interest rate policy and further liberalize her capital account.

The old CC hailed by Lord Keynes as a new “authodox” was interpreted as “imbedded liberalism” in literature, a term coined by Professor Ruggies. The current inquiry into the appropriate scale and scope of capital flow or control indicates that it is a recurring rather than once for all subject to look at the necessity that function of market mechanism favored by “liberalism” principle should be appropriately “embedded” in social, institutional and historical settings. But rationales behind and likely destination of the move is so different, we may confidently say that there will not be wholesale return to

“imbedded liberalism” of Keynes era. Instead we need a “new imbedded liberalism” suited for our current era of the global economy in the 21 century.

SESSION V



Concluding Remarks

HE Jianxiong

History and outlook

The policy objective for RMB convertibility has been stated and repeated for almost twenty years. China took a gradualist approach, which is a less risky approach, and we are still crossing the river by feeling the stones. Given the changes in the global and domestic situations, new initiatives to further liberalize China's capital account will be deliberated and debated among Chinese policymakers. Looking forward, we wish we could have moved faster. But looking back, the progress we made is significant and we may have moved faster than expected on many occasions.

Future direction

China should move on with capital account liberalization. There will be risks, but they are manageable, provided progress is made on the related fronts, such as macro-prudential measures, etc. The consensus on the direction is well established. But the questions are how to do it, which to go first and at what speed. There is less consensus on the urgency of reform.

Sequencing

We should first clarify what is capital account liberalization. Different people may have different interpretations of capital account liberalization. Some understand it as the completion point of the liberalization process, and some treat it as the process itself. If sequencing is about the completion point, then full capital account liberalization probably should come last. However, for policy makers, it is more practical to think of capital account liberalization as a process, which means the gradual liberalization of capital account will not wait until other reforms, e.g. interest rate liberalization, are completed.

Benefits of capital account liberalization

There is broad consensus on two accounts. First, the benefit on the global resource allocation is quite clear. With capital account opening, one country can allocate domestic resources globally. Second, it can improve the macroeconomic policy framework, especially for a large economy like China.

There are also other benefits, which probably have not been fully recognized. The first is contribution to the transformation of the growth model. An open capital account could

help balance investment and consumption. The second is contribution to economic and financial stability. If you can manage the risks globally, I think you are better able to maintain stability and also reduce the distortions. For instance, with closed capital account, some capital flows are disguised as current account flows, and hence more difficult to monitor and manage. With more open capital account, risk management capacity of financial institutions will be improved, thereby reducing the accumulation of imbalance. More fundamentally, the opening of capital account is a very important component of market-oriented institutions.

There is no simple answer to whether capital account liberalization promotes growth. On that, I think the evidence is mixed and the debate will continue.

Conditions

I believe the conditions for capital account liberalization are basically in place. There are risks, but they are manageable. First, the flows are already very large. Second, incentives for further opening are increasing, especially for outflows. Third, economic fundamentals are relatively sound. Forth, financial institutions are relatively healthy. They could be better, but are in a much better shape than in the past. Fifth, complementary reforms, such as the reform of exchange rate regime, are on track. Sixth, macro-prudential tools are more available right now than probably three years ago. Lastly, the international community is more open to capital flow management measures when they are necessary.

A few additional thoughts

First, external environment, for instance, low interest rate, abundant global liquidity and potential of asset price bubble, may increase the risk and complicate the task of capital account liberalization.

Second, there is a possibility of large asset reallocation among different currencies after capital account liberalization, which could have implications on exchange rate, capital flow, export and employment, not only in China but also in partner countries. I believe we should be vigilant to such possibility and carefully consider what can be done to avoid disorderly adjustments.

Lastly, while appropriate sequencing is important, I don't know the answer whether a preannounced roadmap for capital account opening down the road would be helpful or not, including a timetable and sequencing of items.

Nicholas Lardy

I would like to underscore what at least one of the other speakers mentioned in passing-- more market determined interest rates on deposits are a precondition for further successful liberalization of China's capital account. Substantial flexibility from PBC benchmark lending rates has already been successfully introduced over the past decade but upward flexibility from benchmark deposit rates has only just been introduced within the past year and remains quite limited. Most banks raised their deposit rates to the top of the new band last year, suggesting that a further widening of the band would lead to higher rates.

Moreover, more market determined interest rates would not only help pave the way for further capital account liberalization, but also help to sustain China's economic growth. There are three channels through which market determined deposit interest rates would promote growth. First, higher rate on deposits would raise household income and for any given savings rate lead to increased household consumption demand. Second, higher deposit rates would likely lower the household saving rate; the household saving rate rose significantly after average real deposit rates turned negative in late 2003. Third, banks would pass on a part of their higher cost of funds to their borrowers, helping to reverse the decline in real lending rates that took place after 2003. Higher lending rates would lead to less capital intensive development, more job creation in the service sector, leading to higher household income and thus more private consumption expenditure. If the consumption share of GDP rises through these three channels, China is more likely to be able to sustain reasonably rapid growth.

The policy case for interest rate liberalization is stronger today than in the past because environment for deposit rate liberalization has improved. The differential between PBC benchmark deposit rates and rates on wealth management products appears to have declined over recent quarters, indicating that further liberalization would lead to a moderate and thus manageable increase in deposit rates. In any case liberalization can be gradual via periodic increases in the allowed upward adjustment margin from benchmark deposit rates. Second, bank liquidity has declined substantially from peak of 22.2 percent at end 2008 to 15.4% at end 2012. The liquidity overhang is rapidly declining, a key precondition for successful interest rate liberalization.

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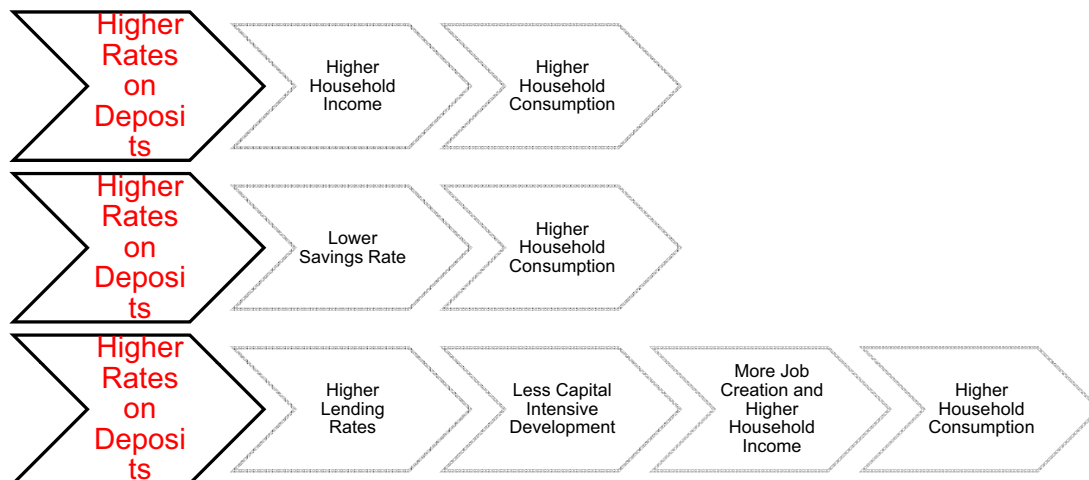
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Anthony M. Solomon Senior Fellow

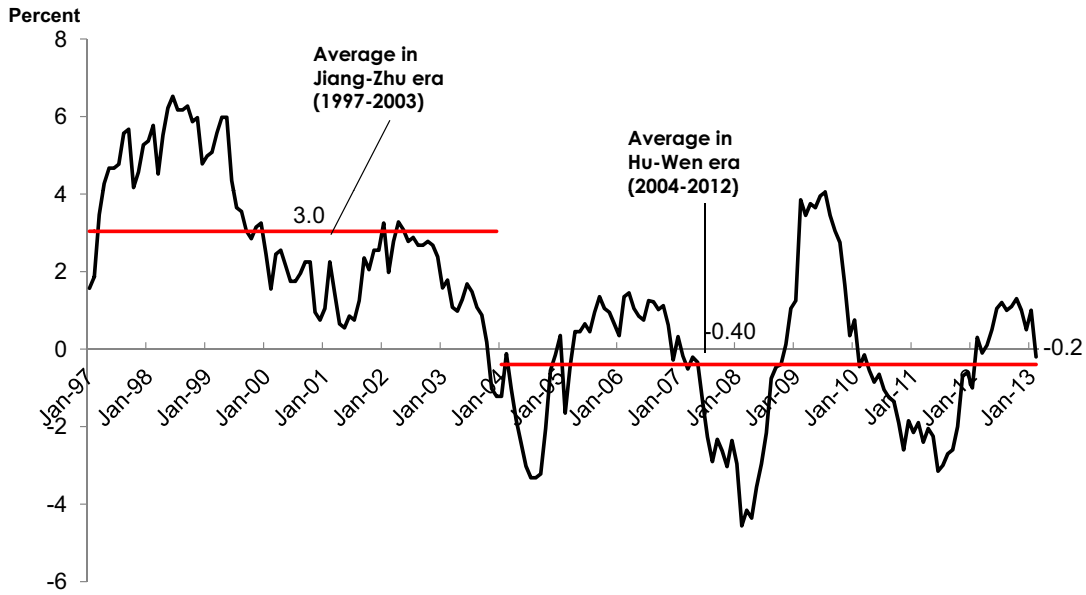
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Links between higher real interest rates and household consumption



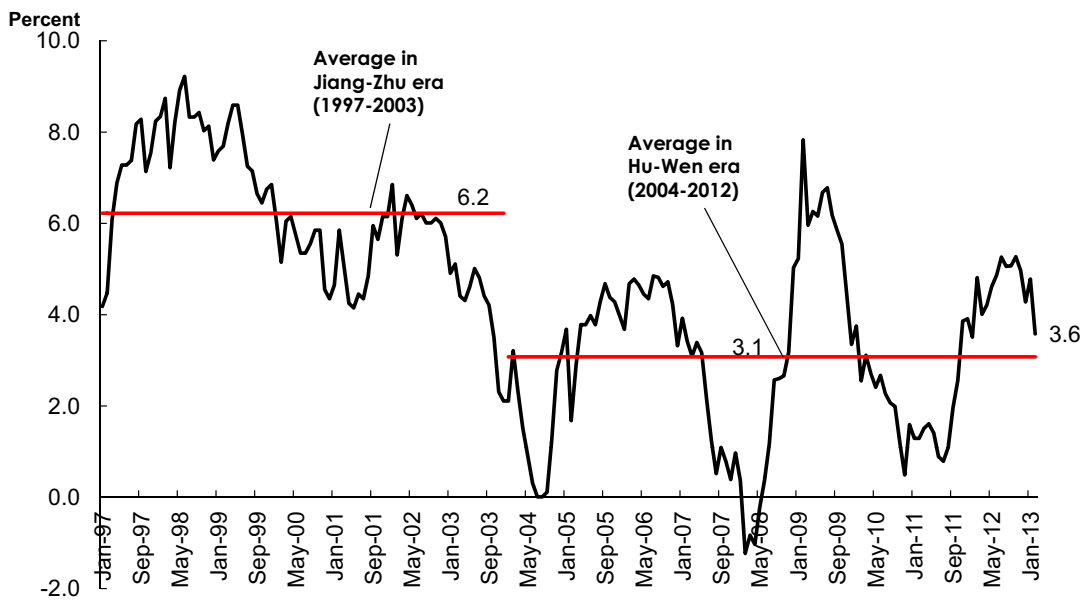
Real return on households one-year deposits, 1997-2012



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Nicholas R. Lardy

Real interest rate on one-year loans, 1997-2012



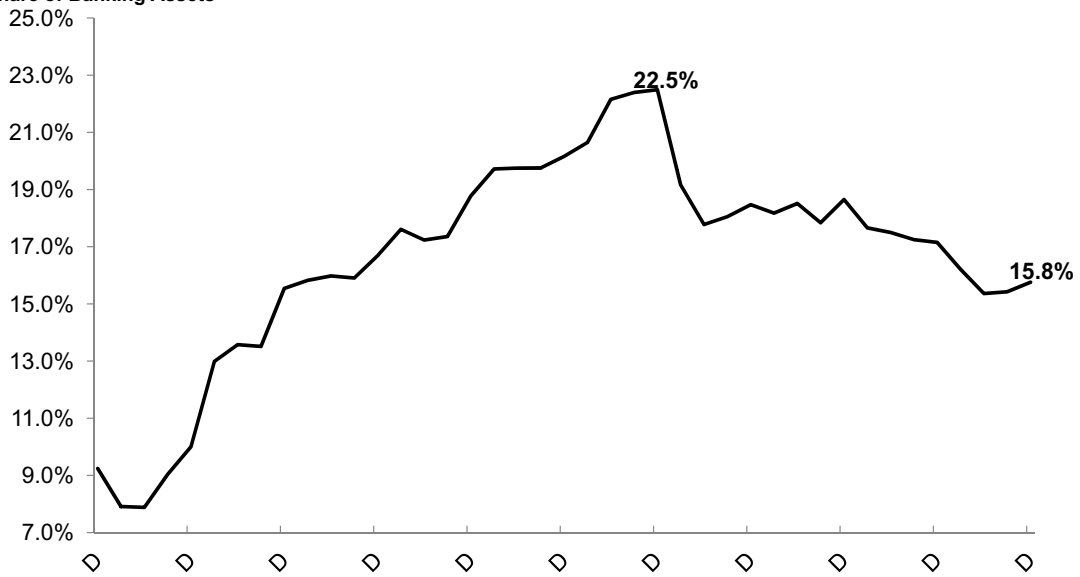
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Nicholas R. Lardy

Share of liquid assets in Chinese banks, 2002-2012



Share of Banking Assets



Joaquim Levy

Capital Account Liberalization tends to be beneficial, e.g., by helping develop equity markets, lower the cost of and increase the access to credit, and improve capital allocation domestically and abroad, even if the associated welfare gains are difficult to measure. By boosting the financial sector, liberalization tends also to increase financial risks and affect equilibrium interest rates.

Most participants agreed that macroeconomic balance is important to help capital account liberalization to succeed: the experiences of Chile and Israel in the 1980s and of Sweden in the 1990s are examples of risks when certain conditions are not met. Macro balance helps limit the risk of major capital dislocations through excessive inflows/outflows and currency swings.

Adequate financial regulation and supervision is also a key to avoid imbalances in credit, sharp exchange rate appreciation and the build up of excessive short term external liabilities (Korea, Sweden).

Monetary policy on its own will be powerless to stem the build up of risks in the absence of the two previous factors. It may also be challenged by competing goals, e.g., reducing the volatility of interest and exchange rates in presence of strong flows (Turkey).

There was some agreement that sequencing reforms might help reduce transition risks—process may begin with liberalization of trade-related transactions, followed by the current account, and—observed the right conditions, the capital account. However, there were examples of successful liberalizations that did not follow conventional sequencing (e.g., Poland).

Regarding detailed roadmaps for reforms, some participants considered more useful to announce general goals (and their rationale) in an articulated way, than having a step-by-step plan that may not be feasible in changing market conditions. Credibility is often best built by delivering a few actions that show commitment and help create the right momentum.

There was some support for a “pragmatic” approach of gradual liberalization (e.g., Brazil), in which the government keeps instruments to respond to unusual situations in the global environment, e.g., by introducing price ceilings in capital inflows or capital charges for banks and other institutions with significant external exposures. In some cases, reforms might be slowed down by specific factors suggesting prudence (South Africa, India).

The typical benefits of liberalization appear to apply to China, especially in view of its stock of international reserves, and the advantages of a flexible/market allocation of capital inside and outside the country. In particular, an ambitious expansion of RQFII and QDII programs could help strengthen that allocation now and be an effective first step towards further liberalization.

There was a diversity of views on how far China has moved towards liberalization, and about the risks of further moves, owing to varying perceptions of the strength of financial institutions and existing incentives to state owned enterprises. Priority in addressing these questions appeared to be warranted, facilitating liberalization, although no transition is immune to risks.

Markus Rodlauer

This has been, by all accounts, a terrific conference—let me thank you all not just for coming here today, but also for the excellent presentations from each of you, and for the stimulating discussions we have had.

While it is hard to sum up in a few words the broad and deep insights we received today, I would take away the following three main points:

- *First, be careful but don't stop.* Everybody agreed, and the various country experiences presented to us clearly demonstrated, that premature capital account liberalization risks accidents and crisis. Therefore China will be served well by continuing its careful approach, gradually widening the scope of cross-border flows and authorized institutions. There was also broad agreement that FDI, long-term and non-debt-creating flows should go first, consistent with China's approach to date and the IMF's institutional view. A particular feature of the Chinese system has been reliance on a number of specific institutions authorized to transact flows (especially portfolio) in areas opened up, subject to overall limits and sub-limits—an approach that has allowed close monitoring and adjustments if needed, and that could usefully continue to be used going forward. At the same time, liberalization must continue, and China's ultimate goal to make the Renminbi fully convertible is well placed. Unless opening-up moves forward, partially-liberalized markets tend to overtake and 'arbitrage around' overly rigid rules, and experience has shown that the restrictions themselves prevent market participants from developing the skills needed for effective market-oriented behavior.
- *Second, accelerate the work to firm up supporting conditions.* The two pre-conditions where I saw general agreement today were deepening capital markets and strengthening financial supervision and monitoring. Our Chinese colleagues emphasized the progress already being made in these areas, and most concurred that further progress was needed. Where we had perhaps somewhat less agreement, and less discussion, was on two other points: macroeconomic conditions, and the role of hard budget constraints.

On macroeconomic conditions, most would agree that China's situation is sound. But here, too, more work needs to be done—the underlying fiscal situation, including quasi-fiscal activities and debts, is less strong than implied by the data on general government operations; the external position continues to be strong, but the exchange rate system needs to become more flexible as the capital account is opened up; and monetary policy needs to adapt in an environment of liberalized financial markets, from the current situation where the cost of capital is too low and the growth model relies in part on financing high levels of investment through a tightly regulated financial system.

- This brings me to my third, and final point, one that we did not talk about much today: *the role of hard budget constraints*. As the process of financial reforms in China lifts the traditional ‘anchors’ of the system (quantitative credit controls, administered interest rates, capital controls, and the exchange rate anchor), it is critical to establish new effective anchors for the system. One is, of course, effective monetary control, which is why the PBOC has, rightly, been considering and implementing for some time the reform of China’s monetary framework, to one based mainly on price signals (such as a policy interest rate). Equally important, as demonstrated by the experience of other transition economies, is ensuring firm budget constraints for economic agents, borrowers and investors alike. One of the most dangerous phases of reforms tends to be partial liberalization, where enterprises, banks, investors and borrowers receive increased latitude to act, but under only partly reformed incentive structures and weak budget constraints—such as, in particular, widespread explicit or implicit guarantees. It is therefore critical that liberalization go hand in hand with firming up budget constraints, clarifying ownership rights, and establishing clear and transparent economic accountability for agents’ decisions and actions.

Authors' Biographies





Dr. ZHOU Xiaochuan, Vice Chairman, Chinese People's Political Consultative Conference and Governor, the People's Bank of China. Dr. Zhou was born in January 1948 at Beijing, People's Republic of China. He graduated with a B.E. degree from Beijing Institute of Chemical Technology in 1975 and received a Ph.D. in Economic Systems Engineering from Tsinghua University in 1985.

Dr. Zhou was Assistant Minister of Foreign Trade and Economic Cooperation from December 1986 to December 1989 and, between November 1986 and September 1991, was also a member of the State Economic System Restructuring Committee. He became Vice President of the Bank of China in September 1991 and remained in that position until October 1995 when he was appointed Administrator of the State Administration of Foreign Exchange. Between October 1996 and February 1998, Dr. Zhou was Deputy Governor of the People's Bank of China and Administrator of the State Administration of Foreign Exchange. Then, he served as President of the China Construction Bank until his appointment as Chairman of the China Securities Regulatory Commission in February 2000. Dr. Zhou returned to the People's Bank of China as Governor in December 2002, and started to chair the regular meetings of the Monetary Policy Committee in January 2003.

Dr. Zhou is among the first group of intellectuals who are entitled to receive special government allowance and the author of over 100 academic papers and more than 10 books.

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Mr. LI Bo joined the PBOC in 2004, working in the Legal and Regulation Department before joining the Monetary Policy Department II in 2009. Prior to joining the PBOC, Mr Li was a practicing attorney with the New York law firm of Davis Polk & Wardwell. Mr. Li holds a Ph.D. degree in economics from Stanford University and a J.D. magna cum laude from Harvard Law School. He is a member of the Chinese and New York Bar.

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Mr. HE Jianxiong has worked in the PBC since 1991, first as Deputy Division Chief, then as Division Chief, Deputy Director-General, and Director-General in the International Department. During this period, Mr. He has held a few positions in the IMF, as Advisor to Executive Director in 1995-1997, Alternate Executive Director for China in 2006-2009 and Executive Director for China from May 2009 to November 2011.

Before joining the PBC, Mr. He was Deputy Manager of the CITIC Trading Inc, following his academic experiences in the University of International Business and Economics where he secured his Bachelors and Masters degrees and then worked successively as Assistant Lecturer, Lecturer and Deputy Dean in the School of International Business. In 2001-2005, Mr. He was also Vice President of China Institute of International Economic Relations. Mr. He has published many articles in international finance and economics.

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Dr. JIN Zhongxia started as a project officer in People's Bank of China for industrial and agriculture projects financed by domestic and international financial institutions in late 1980s and early 1990s. He worked as a consultant in the World Bank in Washington D.C. in 1996-97, a technical assistant in China Executive Director's Office in IMF in 2002-03, the Chief Representative in PBC's Rep. Office in America in 2006-08, Deputy Director General of International Department and Deputy Director General of Monetary Policy Department during 2008-11. He has been involved in promoting regional financial cooperation in Asia. He has been member of working groups under G20, IMF and BIS, in areas such as international monetary reform and global liquidity management. Now he is the Head of Research Institute of PBC. He obtained his BA and Master degree in economics from Beijing University in 1980s and got his Ph.D. degree in economics under the ADB scholarship program from University of Hawaii in USA in 1996.

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Dr. GUAN Tao serves as public servant since 1992 and is the director-general of BOP Department of State Administration of Foreign Exchange (SAFE). He has spent quite a long time in studying theory and practice of exchange administration, currency convertibility and exchange rate policy. He is a active scholar in China's academic society. He was conveyed master degree from Australian National University and Phd from Peking Normal University.

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Mr. QI Bin is the Director-General of Research Center and Executive Director of BISF, the think-tank of the China Securities Regulatory Commission. Prior to his current position, Mr. Qi was a Deputy Director of the Fund Supervision Department, supervising mutual

fund industry and QFII's in Chinese capital market. Mr. Qi joined CSRC in 2000 as a member of its Strategy and Planning Committee.

Before joining CSRC in 2000, Mr. Qi was a partner of a New York-based venture capital firm. Prior to that, Mr. Qi worked with Goldman Sachs Asset Management and Paribas Capital Market in New York and London. Mr. Qi holds a Ph. D. in Economics from Tsinghua University, an MBA from the University of Chicago and an MS in Biophysics from the University of Rochester. From 1991 to 1992, Mr. Qi lectured physics at Tsinghua University, where he received his BS in physics.

In 2005, Mr. Qi translated “The Great Game, The Emergence of Wall Street as a World Power,” into Chinese, which became a best-seller in China and has been reprinted more than 45 times since then. In 2007, Mr. Qi led a team of CSRC and The World Bank and drafted China Capital Markets Development Report, the first of the sort, which provides a comprehensive review of the history of Chinese Capital Markets and full analysis of the challenges of the market, and development strategies for the years to come (till 2020). The report is available in both Chinese and English in CSRC website (www.csrc.gov.cn).

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Ms. ZHU Jun, Deputy Director-General, International Department, the People's Bank of China.

Ms. Zhu Jun joined the People's Bank of China in 1993 and has held a variety of positions since then. After working in the Governor's Office, Ms. Zhu joined the International Department in 1997, first in the BIS Division and then in the Research Division. In 2001, she became Deputy Director of the Research Division, and in 2006 the Director. She was appointed Deputy Director-General of the International Department in 2009.

She worked in the BIS as a secondee from March to October 1999. In September 2003, she returned to the BIS and worked as an Economist until December 2005.

Ms. Zhu graduated from Peking University with a Bachelor's degree in Economics in 1989, and received her Master's degree in Economics in Peking University in 1993.

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Prof. BAI Chong-en is Associate Dean, School of Economics and Management, Tsinghua University. Professor Bai joined Tsinghua's faculty in 2004 and now holds the Mansfield Freeman Chair. He chairs Tsinghua's economics department and is director of the National Institute for Fiscal Studies. He is also a member of the Chinese Economists 50 Forum, and was a non-resident senior fellow of the Brookings Institution. He earned doctorates in mathematics and economics from UC San Diego and Harvard, respectively, and previously taught at Boston College and the University of Hong Kong. Bai's research interests include economic institutions, public economics, corporate governance, development and transition economics. He has served on the editorial boards of *Journal of Comparative Economics* and *World Bank Economic Review*. His books include *Technology and the New Economy*.

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Mr. HE Fan is the deputy director of Institute of World Economics and Politics, Chinese Academy of Social Sciences.

Dr. He is one of the most active young economists in China. His fields of interest include Chinese macro-economy, international finance, and international political economy. He is the author or editor of 10 books and more than 100 papers in professional economics journals. During the last few years, Dr. He has worked on a broad range of issues like RMB exchange rate policy, China's foreign trade and FDI policy, and financial system reform. He is a consultant for Ministry of Finance, Ministry of Commerce, People's Bank of China, Ministry of Foreign Affairs, and is deeply involved in many policy discussions. Dr. He is also a member of the Bellagio group of central bankers and academics (Group Thirty), and the chief economist of Alternative Investment Research Center of China Society of Economic Reform.

He was selected as Young Global Leader by the World Economic Forum in 2005, Asian Young Leader by the Asia Society in 2006, and Young Leader (YLF) by NCUSCR (National Committee of US China Relationship) in 2007.

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Dr. LU Feng works as a professor of National School of Development, Peking University. Dr Lu obtained his Ph.D. from Leeds University, UK in 1994, and he visited Harvard University, Australian National University, Institute of Development Studies in UK as research fellow. He publishes extensively on the issues regarding China's open macro-economy, including exchange rate policy, external imbalance, inflation,

capital return etc, and subjects on agricultural trade and food security for China. He is the founding editor of the English Journal “China Economic Journal”.

Dr. Lu works as a member of expert team or provides consultancy services for various ministries in China including Ministry of Agriculture, Ministry of Finance, Ministry of Human Capital and Social Security, the People’s Bank of China, etc . He now serves as a team leader provides advisory services in the areas relating to G-20 summit and other international issues for the relevant department of Ministry of Finance of China.

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Mr. Jonathan Anderson is President of Emerging Advisors Group, a China-based emerging market macro consultancy that services the global fund management and financial industries. Prior to founding EM Advisors Jonathan was the Global Emerging Market Economist at UBS Investment Bank; he has also worked at Goldman Sachs and the International Monetary Fund, where he served as Resident Representative in both China and Russia. Jonathan received his MA and PhD candidacy in economics at Harvard University, and speaks fluent Russian and Mandarin Chinese.

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Mr. Vivek Arora is an Assistant Director in the IMF’s Strategy, Policy & Review Department, where his responsibilities include issues related to capital flows and related policies. Mr. Arora was previously the Fund’s senior resident representative in China based in Beijing during 2006–2010. He also managed the IMF sub-office in Hong Kong SAR for a part of this period.

Mr. Arora joined the IMF in 1992 and has worked on a range of country assignments, including United States, Canada, South Africa, Korea, and the Philippines. He has published several research papers on economic growth, emerging market finance, monetary and fiscal policy, and exchange rate regimes.

Mr. Arora received a Ph.D. in economics from Brown University in the United States and a B.A. (Honours) in Economics from St. Stephen’s College, Delhi University.

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Mr. Steve Barnett is a Division Chief in the Asia and Pacific Department of the International Monetary Fund (IMF). He has spent the better part of the last 10 years covering Asia, including serving as Assistant Director at the IMF Office for Asia and the Pacific in Tokyo, Resident Representative to China, and Resident Representative to Thailand. Prior to joining the IMF in 1997, he earned his PhD in economics from the University of Maryland. He has a Bachelor's degree in economics from Stanford University as well as a Master's degree in Russian and East European Studies also from Stanford.

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Mr. Woon Gyu Choi is currently a Deputy Governor and the Director General of the Economic Research Institute at the Bank of Korea (BOK). Before joining the BOK in June 2012, he worked at the IMF (the Asian Division of the IMF Institute, 2000–2012). At the IMF Institute, he taught various courses in macroeconomics, international finance, finance, and related policy issues to government officials worldwide. He led and/or coordinated various IMF courses including financial programming and policies, macroeconomic diagnostics, economic policies for financial stability, financial market analysis, macroeconomic management and financial sector issues/fiscal policy, and monetary and exchange rate policy. Prior to joining the Fund, he worked at the Research Department of the BOK (1987–1991), and taught all levels of courses including money & banking and advanced macroeconomics as an assistant professor at the Hong Kong University of Science & Technology (1995–2000). His research interests include monetary policy and financial markets, aggregate and corporate money demand, exchange rate policy and fiscal policy issues, international reserves, financial cycles, macroeconomic policies and unemployment, and global financial market issues. He has publications in leading academic journals including *Journal of Monetary Economics*, *Journal of International Economics*, *Journal of Money, Credit, and Banking*, and *Journal of Financial and Quantitative Analysis*. He obtained his Ph.D. in economics from the University of California, Los Angeles (UCLA).

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Dr. Karnit Flug has been the Deputy Governor of the Bank of Israel since July 2011. She was appointed Deputy Governor by the Israeli Government, in accordance with the Bank of Israel Law, 2010, and on the recommendation of the Governor of the Bank of Israel. Dr. Flug received her M.A. (cum laude) in economics from the Hebrew University in 1980 and her Ph.D. in economics from Columbia University in 1985.

In 1984, Dr. Flug joined the IMF as an economist. In 1988, she returned to Israel and joined the Research Department of the Bank of Israel, where she worked and published papers on topics related to macroeconomics and the labor market, including minimum wage, immigrant absorption, and poverty. In 1994–1996 Dr. Flug worked at the Inter-American Development Bank as a senior research economist. In 1997, upon return to the Bank of Israel, she was appointed Deputy Director of the Research Department, and in June 2001 she was appointed Director of the Research Department and a member of the Bank's senior management.

Dr. Flug has served on a number of public and government committees, including the Committee on Increasing Competitiveness in the Economy, the Committee for Social and Economic Change (“the Trajtenberg Committee”), the Committee for the Defense Budget (“the Brodet Committee”), the Committee on Ensuring the Long Term Financial Stability of National Insurance, the Planning and Strategy Committee, and the Committee to Study Raising the Retirement Age for Women.

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Mr. Peter Garber is a Senior Adviser in Global Markets Research at Deutsche Bank where he has worked since 1998. He has been professor of economics at Brown University, the University of Rochester, and the University of Virginia. He received his Ph.D. in economics from the University of Chicago and his AB from Princeton University. He has been a visiting scholar at the Board of Governors of the Federal Reserve, the Bank of Japan, the IMF, and Houblon/Norman Fellow at the Bank of England. He has published numerous articles and books on the economics of speculative attacks, bubbles, financial crisis, financial history, and financial and banking structure, and the revived Bretton Woods system. He is the author of Famous First Bubbles: The Fundamentals of Early Manias, Bubbles, Speculative Attacks, and Regime Switching, The Mexico-US Free Trade Agreement, and The Economics of Banking, Liquidity, and Money.

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Mr. Pablo García-Silva is a Chilean national, currently Executive Director at the IMF representing the southern cone constituency (Argentina, Bolivia, Chile, Paraguay, Peru, Uruguay). He was Alternate Executive Director in the same constituency from 2010 to 2012. Previously, he held a number of positions at the Central Bank of Chile, including Chief economist and Research Director (2007-2010), Financial policy Director (2006-2007), Manager of the Macroeconomic Forecasting and Policy Analysis unit (2000-2006).

He has participated as external expert on various TA missions by the Fund related to implementation of inflation targeting in emerging economies. He was member of the CGFS/BIS working group on capital flows, 2008-2009. Mr García-Silva has a Ph.D. in economics from the Massachusetts Institute of Technology (MIT), where he graduated in 1999. He obtained his MA and BA in Economics at the Catholic University of Chile in 1993. He has published on diverse topics related to int'l finance, particularly reserve accumulation, exchange rates and capital flow issues, as well as on monetary policy and macroeconomic modeling.

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Dr. Subir Gokarn is currently Director of Research, Brookings India and Senior Fellow, Brookings Institution, Washington DC, USA. He is working on developing the research agenda for Brookings India and putting the resources to execute the agenda in place. Prior to this, he was Deputy Governor of the Reserve Bank of India (2009-12), where he oversaw Monetary Policy, Research, Financial Markets, Communications and Deposit Insurance and represented the Reserve Bank at the G-20 Deputies' forum. Earlier, 2009, he was Chief Economist of Standard & Poor's Asia-Pacific (2007-09), Executive Director and Chief Economist of CRISIL (2002-07), Chief Economist at the National Council of Applied Economic Research (NCAER), New Delhi (2000-2002) and Associate Professor at the Indira Gandhi Institute of Development Research (IGIDR), Mumbai (1991-2000). He received a doctorate in economics from Case Western Reserve University, USA in 1989. He was awarded a Fulbright Research Fellowship in 1997, on which he spent an academic year at the Economic Growth Centre at Yale University, USA. He contributes a fortnightly column on current economic issues to the Business Standard, a leading financial daily of India, which he had done for 13 years before joining the Reserve Bank of India. Besides this, he has regularly participated in committees and other activities of industry associations, academic institutions, government agencies and civil society organizations. He is currently serving a two-year term as member of the National Security Advisory Board.

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Mr. Dong HE is Executive Director (Research) at the Hong Kong Monetary Authority (HKMA), responsible for managing the Research Department and for directing research and policy advice on issues relating to the maintenance of macroeconomic and financial stability, and the development of financial markets. He is also Director of the Hong Kong Institute for Monetary Research, responsible for leading the Institute's research activities.

Prior to joining the HKMA in August 2004, Mr. He was a staff member of the International Monetary Fund during 1998-2004 and a staff member of the World Bank during 1993-1998. He had wide-ranging experience working with member countries in policy consultation, loan negotiation, and technical assistance.

Mr. He holds a doctorate in economics from the University of Cambridge, and has published extensive works on macroeconomic and financial market issues relating to Hong Kong, Mainland China and other emerging market economies.

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Mr. Ray Jovanovich spent the past quarter-century living and working in Asia, primarily Hong Kong. Worked entire 24 year career in Asian asset management with one firm, Amundi. Served as Chief Investment Officer-Asia during last decade of career.

He retired at the end of 2011 in order to focus on educational initiatives, including regular guest lectures on various Asian topics at colleges and graduate schools, both in America and Asia.

Mr. Jovanovich was selected a Member of the Wabash College Board of Trustees and serves as Senior Advisor to the Wabash Asian Studies Program. He was selected a Member of the University of Washington Foster School of Business Global Advisory Council and Asian Bankers Program.

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Deputy Governor of the Central Bank of the Republic of Turkey **Turalay Kenç** received a Ph.D. in economics at the University of York, England. He worked at several UK universities including the University of Cambridge, Birkbeck College London, the University of Durham, Imperial College London at different capacities. Before joining the Central Bank of the Republic of Turkey as a Board Member in April 2009 he was Professor of Finance at the Bradford University School of Management.

Finally, at the Bank Professor Kenç was appointed as Deputy Governor in April 2011.

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Mr. Ryszard Kokoszcyński was born on January 19, 1954, in Warsaw, where he also completed his primary and secondary education. In the years 1973-77, he studied econometrics and statistics at Warsaw University Institute of Economic Science, where he received his Master's degree. Since 1977, Ryszard Kokoszcyński has been on the staff of the Department of Statistics and Econometrics at the Faculty of Economics (holding a professorship since 2005). His research interests have focussed on the questions of macroeconomic and financial modelling, monetary economics and the banking system. During his university career he has also extended his academic education and gained experience in other areas of interest via participation in a student internship at the statistics and research department of the Malta trade union federation, study visits and academic conferences, as well as a year-long internship at the Institute of the World Economy in Kiel (Germany).

In 1987, Ryszard Kokoszcyński began work - initially on a part-time basis - in the Team of Research Experts at the National Bank of Poland. He has served in various capacities in the bank (i.a. Deputy President), where he is currently Deputy Director General (Research) of the Economic Institute. He is also an alternate member of the Economic and Financial Committee of the Council of the European Union.

His professional experience also includes chairing the Supervisory Board of Powszechny Bank Gospodarczy, Łódź (1991-97), membership in the Supervisory Board of the Warsaw Stock Exchange (1992-97) and of the PKO BP bank (2002 - 2005), courses and training at the World Bank and the Banque Nationale Suisse, and secondment to the head office of Dresdner Bank in Frankfurt.

Ryszard Kokoszcyński is the author of some 90 academic publications, Polish and foreign, on macroeconomics, monetary policy, banking and financial econometrics. He is a member of several editorial boards of economic journals and an editor of the book series "Polish Studies in Economics" (published by Peter Lang).

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Mr. Nicholas R. Lardy is the Anthony M. Solomon Senior Fellow at the Peterson Institute for International Economics. He joined the Institute in March 2003 from the Brookings Institution. Before Brookings, he served at the University of Washington, where he was the director of the Henry M. Jackson School of International Studies from 1991 to 1995. From 1997 through the spring of 2000, he was also the Frederick Frank Adjunct Professor of International Trade and Finance at the Yale University School of Management.

Lardy's most recent books are *Sustaining China's Economic Growth after the Global Financial Crisis* (2012), *The Future of China's Exchange Rate Policy* (2009), *Debating China's Exchange Rate Policy* (2008), the later two co-authored with Morris Goldstein. His previous books include *Integrating China into the Global Economy* (2002), *China's Unfinished Economic Revolution* (1998), *China in the World Economy* (1994), *Foreign Trade and Economic Reform in China, 1978–1990* (1992); *Agriculture in China's Modern Economic Development* (1983), and *Economic Growth and Distribution in China* (1978).

Lardy is a member of the Council on Foreign Relations and is a member of the editorial boards of the *China Quarterly*, *China Review*, and *Journal of Contemporary China*.

He received his BA from the University of Wisconsin in 1968 and his Ph.D. from the University of Michigan in 1975, both in economics.

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Mr. Il Houg LEE is the IMF's Chief Resident Representative in Beijing, China.

Mr. Lee joined the IMF through the Economist Program in 1989. Since then, he worked in various departments and his country assignments in Asia included a wide range of economies from Japan, Thailand, Malaysia, the Philippines and Vietnam. Before coming to China, he was an Advisor in the Asia and Pacific Department working as the mission chief on the Philippines.

Mr. Lee has a BSc in Economics from the London School of Economics, and a Ph.D. in Economics from Warwick University. He taught economics at Warwick University and at the National Economics University in Hanoi.

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Mr. Joaquim Vieira Ferreira Levy is the Chief Executive Officer of Bradesco Asset Management (BRAM). Joaquim graduated in Naval Architecture and holds a Masters in Economics from the Fundação Getúlio Vargas (1987) and a PHD in Economics from the University of Chicago (1993). He started his career in 1984 in the Engineering Department of Flumar S/A Navegação, lecturing on the Fundação Getúlio Vargas MSc program, before joining the IMF – International Monetary Fund in 1992. Up until 1999 he held several positions in the Western Hemisphere

Department, Western European Department and Research Department. From 1999 to 2000, he served as Visiting Economist at The European Central Bank, working within the Capital

Markets and the Monetary Strategy Divisions. In 2000, he was appointed Deputy Secretary for Economic Policy at the Brazilian Ministry of Finance, becoming Chief Economist at the Brazilian Ministry of Planning, Budget and Management in 2001. In January 2003, he became Secretary of the National Treasury, serving in that position until March 2006. In April 2006 he became Executive Vice-President of Finance and Administration of IDB – Inter-American Development Bank. In January 2007, he was appointed Secretary of Finance for the State of Rio de Janeiro, leaving in May 2010, after Rio succeeded in becoming the host of the 2016 Olympic Games and achieving Investment Grade credit rating. He joined BRAM in June 2010.

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Mr. Jun MA is Managing Director, Chief Economist for Greater China, and Head of China/Hong Kong Strategy with Deutsche Bank. Prior to joining Deutsche Bank in 2000, Jun worked as economist and senior economist at the International Monetary Fund and World Bank from 1992-2000. From 1988-1990, Jun was an Economic Research Fellow at the Development Research Center of China's State Council. Jun has published eight books and several hundred articles on the Chinese economy, global economy, and financial markets. Jun was frequently invited by government agencies for policy discussion. His main research interests include macroeconomic forecasting, monetary and exchange rate policy, RMB internationalization and capital account liberalization, financial market development, and structural reforms.

Jun has been frequently rated at the top in his fields by various investor polls. His recent accolades include the No.1 Asia economist and the No.1 China analyst in Institutional Investor's for the past four years in a row (2009-2012), one of "Top Chinese Bankers" by Finance Asia (2012), as well as many No 1 rankings on China economics and strategy research by Asia Money, Thomson-Reuters, and Sohu Finance, among others.

Jun received his Ph.D. in Economics from Georgetown University in 1994, his master's degree in Management Science from Fudan University in 1988.

Jun is a member and director of China Finance-40 Forum, member of the academic committee of Boyuan Foundation, member of the academic committee of International Finance Forum, member of the academic committee of Shanghai New Finance Institute, Vice Chairman of Hong Kong Chinese Finance Association, member of the Youth Committee of All-China Federation of Overseas Chinese, and Adjunct Professor at Fudan University.



Mr. Ismail Momoniat is the Head of the Tax and Financial Sector Policy Division at the National Treasury. This division is responsible for proposing the reforms for financial sector regulatory framework, including the shift towards a twin peak model. The division is also responsible for tax policy and legislation.

Momoniat started his career as a lecturer in mathematics at Wits University. He was an organiser of the United Democratic Front and later worked in the ANC's economic policy department. He has an MSc from the London School of Economics and an MSc (Maths) from Wits University.

Ismail Momoniat joined the Treasury in 1995 and has been part of the team modernising the budget process. He initially headed the division responsible for provincial and local government finances. He has driven key public finance governance legislation such as the Public Finance Management Act and the Municipal Finance Management Act.

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Mr. Papa N'Diaye is deputy division chief in the IMF China division. Prior to that, Mr. N'Diaye worked on the Japan and Malaysia desks at the IMF. He studied at Sorbonne university, specializing on macroeconomics and econometrics, and taught macroeconomics to undergraduate students at Dauphine University. Mr. N'Diaye has numerous publications on various topics, including monetary policy, asset prices, macroprudential policies, fiscal policy, and rebalancing growth in China.

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Mr. Lars Nyberg is the former Deputy Governor of the Swedish Central Bank. He has a long career as central banker and as an investment banker as Executive Vice President with Handelsbanken and Deputy CEO of Föreningsbanken, as well as CFO of Swedbank. He has extensive experience from bank regulations, supervision and restructuring. As a central banker, Nyberg had a number of European and global roles.

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Ms. Franziska Ohnsorge is senior economist in SPR. She has worked on European advanced countries before and during the euro area crisis (Germany, Belgium, Austria, Switzerland) as well as on emerging markets (Russia, Israel, Lithuania). Recently, she was head of the Macroeconomics Unit at the Office of the Chief Economist at the European Bank for Reconstruction and Development.

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Prof. Eswar Prasad is the Tolani Senior Professor of Trade Policy at Cornell University, New Century Chair in International Economics at the Brookings Institution, and Research Associate at the National Bureau of Economic Research. He was previously chief of the IMF's China Division. He has co-authored and edited numerous books and monographs, including on international capital flows, financial regulation and on China and India. Prasad's latest book is *Emerging Markets: Resilience and Growth Amid Global Turmoil* (with M. Ayhan Kose). His report on "The Renminbi's Role in the Global Monetary System" (with Lei Ye) was published by the Brookings Institution in February 2012. Prasad has testified before the Senate Finance Committee, the House of Representatives Committee on Financial Services and the U.S.-China Economic and Security Review Commission. He serves on an Advisory Committee to India's Finance Minister and is the Lead Academic for the DFID-LSE India Growth Research Program. He is the creator of the Brookings-Financial Times world index (TIGER: Tracking Indices for the Global Economic Recovery).

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Mr. Markus Rodlauer is Deputy Director of the IMF's Asia and Pacific Department. He was head of the team that prepared the 2012 Article IV Consultation for the People's Republic of China. His previous operational responsibilities include being Deputy Director in the Western Hemisphere Department, Assistant Director in the Asian Department, and IMF Representative to Poland and the Philippines. Dr. Rodlauer worked with the Ministry of Foreign Affairs of Austria before joining the IMF. His academic training includes various degrees in economics and international relations and a Doctor of Law from the University of Innsbruck.

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Ms. Ratna Sahay is Deputy Director (Strategy, Planning, and Coordination) of the Monetary and Capital Markets Department at the International Monetary Fund (IMF). She is responsible for setting strategic priorities for the department, developing policy positions, ensuring quality control, and coordinating the work and resource management of the department. She led the project on setting a financial surveillance strategy for the Fund last year. She has worked in the Asian, European, Middle East, and Western Hemisphere Department, leading several missions to emerging market countries. She has led or contributed to key analytical and policy initiatives in the Research and Finance Departments. In her previous roles, she has served as Advisor to Stanley Fischer (First Deputy Managing Director) and Michael Mussa and Kenneth Rogoff (both Economic Counselors of the IMF). She has initiated regional surveillance in the Western Hemisphere Department, coordinated Fundwide research on low income countries, and led an international effort on raising funds for clearing Liberia's debt arrears and providing debt relief. She has published widely in leading journals on financial market spillovers and financial crises, economic growth, fiscal policy and debt sustainability, and transition economies. She has taught at Delhi University and holds a Ph. D in Economics from New York University.

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Mr. Andrew Sheng is well known in global financial circles as a former central banker and financial regulator in Asia and a commentator on global finance. As the Institute's President, Andrew is responsible for its operations and, with the support and advice of the Academic Council, for driving its research agenda and thought leadership.

He is also the Chief Adviser to the China Banking Regulatory Commission and a Board Member of Khazanah Nasional Berhad, Malaysia. In addition, he serves as a member of the International Advisory Council of the China Investment Corporation, the China Development Bank, the Advisory Council on Shanghai as an International Financial Centre and the International Council of the Freie University, Berlin. He is also an Adjunct Professor at the Graduate School of Economics and Management, Tsinghua University, Beijing and the University of Malaya, Kuala Lumpur.

In 2009, he became the Pro-Chancellor of Universiti Tun Abdul Razak. Andrew served as Chairman of the Securities and Futures Commission of Hong Kong from 1998 to 2005, having previously been a central banker with the Hong Kong Monetary Authority and Bank Negara Malaysia. He also worked with the World Bank from 1989 to 1993. From 2003 to 2005, he chaired the Technical Committee of the International Organisation of Securities Commissions (IOSCO).

He has published widely on monetary, economics and financial issues. His most recent book is entitled *From Asian to global financial crisis: an Asian regulator's view of unfettered finance in the 1990s and 2000s*. He is also a regular contributor to leading economic magazines and newspapers in China and the Asian region. A chartered accountant by training, he has a BSc. in Economics and an honorary doctorate from the University of Bristol.

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Mr. Murtaza Syed is IMF's Resident Representative in Beijing, China.

Murtaza Syed joined the IMF through the Economist Program in 2004. He has since worked in the Fiscal Affairs Department and the Asia Pacific Department.

Mr. Syed has previously covered a broad range of Asian economies, including Japan, South Korea, Hong Kong SAR, and Laos. He has also been involved in the IMF's regional surveillance in Asia and its lending program with Dominica. His research interests include trade, investment, inequality, fiscal sustainability, and financial spillovers.

Mr. Syed has a Ph.D. in Economics from Oxford University (Nuffield College). Before joining the IMF, Murtaza worked as Research Economist at the Institute for Fiscal Studies (IFS) in London, Senior Policy Analyst at the UNDP-sponsored Human Development Center (HDC) in Islamabad, and taught at Oxford.