L8 - DEALING WITH CAPITAL FLOWS: THE ROLE OF CAPITAL CONTROLS

JVI COURSE ON MACROECONOMIC POLICIES IN TIMES OF HIGH CAPITAL MOBILITY

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Asel Isakova, Economist, JVI

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Poll No 1. What is NOT international capital flow among the following?

1. Foreign direct investments
2. Workers’ remittances in foreign currency
3. Cross border bank loans
Why control capital flows?

**Net Private Capital Flows to Emerging Markets, 1990 - 2012**

- **Capital inflow surges:** sharp currency appreciation, less competitiveness, trade deficits, economy overheating, inefficient lending, housing bubbles, etc.

- **Sudden stops and capital outflows:** currency depreciation, slower growth or output contraction, high interest rates

Source: Klein, M. 2012 (based on IMF WEO data)
Possible impact of capital controls on inflows

• Reduce the volume of inflows

• Change composition of capital inflows

• Affect the real exchange rate

• Enable a more independent pursuit of monetary policy

• Affect financial stability
Classifying measures as capital controls in practice

• Directly targets a cross-border capital flow
  ➢ A measure designed to limit capital flows

• Applies to international capital transactions
  ➢ Usually, treats them less favorably than domestic capital transactions

• Explicitly discriminates on the basis of residency
  ➢ Restricts non-residents’ investments or residents’ access to foreign financing
What are capital controls?

**Capital controls** are residency based measures that governments can use to regulate flows from capital markets into and out of country’s capital account in the form of:

- taxes on transactions,
- restrictions,
- prohibitions
Capital controls – different labels

• Authors use various terms when talking about capital controls:

    ❖ Residency-based vs other measures

  ➢ Capital Account Regulations (Gallagher, K.P., et al. 2012)

  ➢ Capital Management Techniques (Epstein et al., 2003)
Types of capital controls

Market-based

• taxes on cross-border capital transactions
• differential bank reserve requirements for resident and non-resident accounts
• requirements that some proportion of capital inflows be deposited in a non-interest-bearing account at the central bank

Administrative

• prohibitions on foreign borrowing or lending
• quantitative limits on such transactions
• requirement that such transactions receive prior to regulator’s approval
Examples of capital controls on inflows

• Unremunerated reserve requirements (a proportion of new inflows are kept as reserve requirements in the central bank)
• Taxes on debt inflows or on foreign exchange derivatives
• Restrictions on currency mismatches
• Limits on domestic agents that can borrow abroad (e.g. only firms with net revenues in foreign currency)
• Mandatory approvals for all or some capital transactions
• Minimum stay requirements
Examples of capital controls on outflows

• Mandatory approval for domestic agents to invest abroad or hold bank accounts in foreign currency
• Mandatory requirement for domestic agents to report on foreign investments and transactions done with their foreign account
• Limits on how much non-residents can borrow in the domestic market
• Taxes on capital outflows
Use of capital controls: a Timeline

1914: Restrictions introduced during the outbreak of the WWI

1929: Strengthened capital restrictions (Reich Flight Tax)

1944: Bretton-Woods: capital controls – a permanent feature of the international monetary system

1958: Introduction of Eurodollar; effects of capital controls break down

1970s: Free market oriented policies; US, Canada, Germany, Switzerland, UK abolish capital controls

1980s - 2009: Washington consensus; capital controls should be avoided

1997: Asian Financial Crisis; some Asian economies introduced capital controls as emergency measure

1997: Asian Financial Crisis; some Asian economies introduced capital controls as emergency measure

2009: Global financial crisis; growing trend towards using capital controls
Crisis changed the views on capital controls

• Evidence shows that nations that used capital controls before the crisis, have fared better during the crisis

• Large capital inflows to emerging market economies (Asia, Latin America) raise macroeconomic and financial stability risks

• A number of emerging economies introduced capital controls to manage volatile capital flows (e.g. Brazil, Taiwan, South Korea)

• New IMF institutional view: a set of guidelines on the use of capital flow management measures
Chinn-Ito Index of Financial Liberalization, 1970

Note: Darker shades of blue show more financial liberalization
Chinn-Ito Index of Financial Liberalization, 1996

Note: Darker shades of blue show more financial liberalization
Chinn-Ito Index of Financial Liberalization, 2006

Note: Darker shades of blue show more financial liberalization
Chinn-Ito Index of Financial Liberalization, 2012

Note: Darker shades of blue show more financial liberalization
Poll No 2. What measures are classified as capital controls?

1. They limit transactions that cause a systemic risk
2. They target cross-border capital flows
3. They restrict foreign exchange lending
Outline

- Capital Controls: Definition and Forms
- The Use of Capital Controls: Changing View and Practice
- Empirical Evidence on Use of Capital Controls
Capital Controls Can Be Costly

• Cause **financial repression** and limit market development

• Make it more difficult and **expensive** for firms to raise capital

• **Distort** allocation of resources

• May be **circumvented** over time
Traditional View on Capital Account Liberalization

• “Integrated approach” suggested in late 1990s
  ➢ FDI before debt, long-term before short-term, inflows before outflows
  ➢ Liberalization must be preceded by financial sector reform and sound macroeconomic policies

• A relatively limited practical applicability criticized – no clear hierarchy of risks

• Once liberalized, the country should not impose controls back (unless a severe balance of payment crisis – i.e. outflow controls)

• The role of various bilateral and multilateral international agreements on high level of capital and financial account openness (OECD, EU, WTO)
A Stylized Broad Liberalization Plan

Key Features of the IMF Institutional View


• Capital flows can have substantial benefits for countries but also carry risks and cause policy challenges

• Capital flow liberalization is generally more beneficial and less risky if countries have reached certain levels of financial and institutional development, but no presumption that full liberalization is an appropriate goal for all countries at all times.

• In case of inflow surges or disruptive outflows, a key role needs to be played by macroeconomic policies, sound financial supervision and regulation, and strong institutions.

• In certain circumstances, capital flow management measures can be useful. They should not, however, substitute for warranted macroeconomic adjustment.
Capital Flow Liberalization: Benefits and Risks

Benefits 😊

• Greater access to capital to finance investment
• Diversification of portfolios and managing risks

Benefits are the largest when countries are at certain level of financial and institutional development

Risks 😞

• Macro volatility and vulnerability to crises
• Increased risk of contagion

Full liberalization is not presumed to be an appropriate goal for all countries at all times

NOTE:
Financial and institutional development

• A number of factors reflect readiness of countries to increase their openness to financial flows

• An important concern is the ability to cope with the associated risks:
  ➢ Sound macroeconomic policies and policy space
  ➢ Sound and well-regulated financial system
  ➢ Deep economy and financial markets able to absorb flows
  ➢ Good governance and developed institutions
Financial Sector Development – How to measure?

World Bank GFDD suggests “4x2 framework”:

<table>
<thead>
<tr>
<th></th>
<th>Financial institutions</th>
<th>Financial markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth</td>
<td>Credit</td>
<td>Stock Market Capitalization</td>
</tr>
<tr>
<td>Access</td>
<td>Bank accounts</td>
<td>% of market capitalization outside of top 10 companies</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Interest rate spread</td>
<td>Turnover ratio</td>
</tr>
<tr>
<td>Stability</td>
<td>CAR</td>
<td>Volatility of stock price index</td>
</tr>
</tbody>
</table>

Source: Global Competitiveness Report 2013-2014

Note: This is the 8th pillar of the overall Global Competitiveness Index; measures availability of financial services, access to loans, soundness of banks, etc.
Policy options to manage capital inflows

Capital Inflow Surge

Macroeconomic Concerns
- Real exchange rate appreciation;
- Overheating of the economy and inflation

Macro policies:
- Exchange rate;
- Reserves;
- Monetary-Fiscal policy mix

Financial Stability Risks

Prudential policies:
- Strengthen/Introduce prudential measures

Impose/Intensify Capital Controls

Source: Ostry et al., 2010, Capital Inflows: The Role of Controls, IMF Staff Position Note, 10/04.
Coping with Capital Inflows: macroeconomic concerns

- Each circle represents cases where the relevant condition met.
- The intersection of all three circles (“c”) is where use of capital flow management measures may be appropriate.
- No intersection represents cases where one of the circles is applicable.

Source: IMF Policy Paper, 2011
Coping with Capital Inflows: prudential concerns (1)

Flows to domestic banks

- Fragile external liability structure (maturity mismatch)
- Currency risk (open FX position) or credit risk (unhedged borrowers)
- Credit boom, asset price bubble

Prudential/capital controls

- MPM: Liquidity requirements
- CC: Reserve requirements for banks
- MPM: Open FX limits, capital requirements
- MPM: Cyclical capital requirements, LTV limits

Other prudential

- Reserve requirements for banks
Coping with Capital Inflows: prudential concerns (2)

Flows through unregulated financial sector

- Fragile external liability structure (maturity mismatch)
  - Capital controls
    - CC: Discourage debt instruments

- Currency risk (lack of natural hedge)
  - Capital controls
    - CC: To discourage FX borrowing

- Asset price bubble
  - Capital controls
    - CC: Broad based
Brazil: Part 1

• Started gradual liberalization in 1990s and achieved almost open capital account in mid-2000s

• Deep capital markets, **high interest rates** and **strong economic growth** after crisis made Brazil attractive to investors

• Macroeconomic policy reinforced pull factors:
  - procyclical fiscal policy
  - interest rate hikes by Central Bank of Brazil (BCB)
  - foreign exchange interventions pushed reserves to historic high (17 months of imports)

• Firms in Brazil have taken advantage of the favorable global financial environment by issuing external debt at low cost: **increasing corporate leverage**
Brazil: Part 2

- In 2010 **gross capital inflows** amounted to US$141 billion (6.8% of GDP) in comparison to US$ 92 billion in 2009

- **Real appreciated** by over 30% in Nov. 2008 - Nov. 2009:
  - IMF staff estimates suggested **significant overvaluation** in real terms

- A **tax on inflows** (IOF) originally introduced in 1993 and was used intermittently since then, has been a key tool to managing capital inflows
Brazil: Part 3

• Before the crisis, IOF was applied to fixed income inflows at 1.5% during March-October 2008.

• Re-introduced 2% tax on fixed income and equity in October 2009 to stem volatile carry trades, lengthen maturities of the inflows, and ease persistent appreciation pressures of the domestic currency.

• Increased to 6% on fixed income inflows in October 2010 to deal with ongoing inflows and evasion (lower rate on equity purchases).

• In December 2010, BCB started tightening prudential and regulatory measures.
Arguments vary: controls have been effective in reducing the volume of inflows and changing their composition.

Tax may have eased appreciation pressures but the effect was short-lived.

Some evidence that IOF had impact in containing short-term and speculative capital inflows, possible because of increased uncertainty about other potential measures.
Buzz groups

Please discuss in your groups whether imposing capital controls in Brazil could be avoided. Think following the IMF suggested options. Answer the following questions:

- What were macroeconomic challenges in Brazil after the crisis of 2007-2008?
- Were capital controls an appropriate measure and could they be avoided? (Discuss arguments for YES and NO)

Discuss in 5 min in your group and present your arguments.
Some “critique”/ discussion of new IMF view

• Recommended eventual liberalization:
  ➢ however, no strong correlation between degree of capital account liberalization and growth

• Macroeconomic adjustment (exchange rate appreciation, etc.) before imposing controls, e.g.:
  ➢ measuring over/under valuation of exchange rate is difficult
  ➢ effects of tighter fiscal policy take time

• Some countries do not have policy space to impose controls due to membership in trade treaties, etc.
International Arrangements Limiting Capital Controls

• WTO/GATS: removing capital controls if commitment in financial services sector, however, limited in scope and subject to rounds of negotiations

• Bilateral Investment Treaties (BITs) and Free Trade Arrangements (FTAs): 2500 BITs around the world, provide legal protection for FDI, temporary safeguards on capital flows to mitigate financial crises.

• OECD: Code of Liberalization of Capital Movements enables members to remove restrictions, members are permitted to lodge reservations w.r.t. specific transactions

• EU: members are prohibited to impose any restrictions on cross-border movements of capital among EU and with third countries; safeguards for temporary imposition, but once in the currency union such safeguards may only be imposed by EU Council and are limited to non-members
Poll No 3. If a country faces large and volatile capital inflows and goes through a credit boom, should it impose capital controls?

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<tbody>
<tr>
<td><strong>1</strong></td>
<td>No, all countries should aim at full financial liberalization, and should only use prudential measures</td>
<td><strong>2</strong></td>
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<td></td>
<td></td>
<td><strong>3</strong></td>
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</tbody>
</table>
Outline

- Capital Controls: Definition and Forms
- The Use of Capital Controls: Changing View and Practice
- Empirical Evidence on Use of Capital Controls
Some empirical evidence on effects of capital controls

- Ostry et al. (2010) analyze 21 country and cross-country studies (cases of Brazil, Chile, Colombia, Croatia, Malaysia, Thailand)

- Objectives and effects:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Number of Studies</th>
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<tbody>
<tr>
<td>Reduce the volume of inflows</td>
<td>10 studies found some effects in reducing the volume (but mostly short-term)</td>
</tr>
<tr>
<td>Alter the composition of inflows</td>
<td>19 studies found some effects in altering the composition (7 short-term effects)</td>
</tr>
<tr>
<td>Reduce real exchange rate pressures</td>
<td>6 studies found some effects in reducing the real exchange rate pressures</td>
</tr>
</tbody>
</table>
Some empirical evidence on effects of capital controls

• Ostry et al. (2011) study effects of capital controls and prudential policies in 41 countries in 1995 – 2008

• Capital controls measure based on IMF AREAER and internal surveys

• Objectives and actual outcomes:

<table>
<thead>
<tr>
<th>Composition of capital flows</th>
<th>Yes, smaller share of debt liabilities</th>
</tr>
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<tbody>
<tr>
<td>Credit booms</td>
<td>Yes, smaller magnitudes of credit booms</td>
</tr>
<tr>
<td>Crisis resilience</td>
<td>Yes, stronger growth resilience</td>
</tr>
</tbody>
</table>
Effects of controls over capital outflows

• Saborowski et al. (2014) study 37 countries that introduced outflows restrictions during 1995-2010

• Find evidence that tightening of capital outflows restrictions indeed reduces gross capital outflows, however under certain conditions:
  - Strong macroeconomic fundamentals (growth rate, inflation, fiscal and current account balances)
  - Good institutions (World Bank Governance Effectiveness Index)
  - Existing restrictions (intensity of capital controls or comprehensiveness)
Designing Effective and Efficient Capital Controls

Macroeconomic concerns

- Applied only to temporary flows
- Price-based controls (tax, URR)
- Broad-based, limited exemptions

After macro policy space has been exhausted

Financial stability risks

- Applied to temporary or persistent flows
- Quantity-based (ceilings, limits)
- Targeted at certain types of flows, taking into account circumvention possibilities
Poll No 4. How do capital controls differ from macroprudential measures?

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<tbody>
<tr>
<td>1</td>
<td>Macroprudential measures may or may not aim at risks that are related to capital inflows</td>
</tr>
<tr>
<td>2</td>
<td>Controls aim at limiting capital inflows; macroprud measures aim at limiting capital outflows</td>
</tr>
<tr>
<td>3</td>
<td>There is no difference; both aim at limiting capital flows</td>
</tr>
</tbody>
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Concluding remarks

• In traditional view, countries around the world were encouraged to continue financial liberalization path, while use of capital controls was stigmatized

• Views on capital controls have evolved after the crisis, and they are believed to be effective under certain circumstances

• Capital controls should be a part of the broader toolkit to deal with capital inflows surges and should compliment macroeconomic adjustment and prudential policies

• Successful implementation of capital controls depend on country specific factors and objectives and should account for multilateral agreements
References/suggested reading


ANNEX

Iceland: Capital Controls
Iceland: Part 1

• Member of EEA since 1994: removed all capital controls
• Inflation targeting regime since 2001
• Iceland’s economy expanded strongly during 2004-07, driven by domestic demand fed by capital inflows:
  ➢ GDP increased by 28% during 2003-07 cumulative driven by private consumption and large investments in power-intensive industries
• Privatization and liberalization of the banking system since 2003, three largest banks grew rapidly:
  ➢ Banking system grew out of proportion, expanding to nearly tenfold of Iceland’s GDP by 2007
  ➢ Three largest banks had short term liabilities to foreign investors at 600% of GDP
Iceland: Part 2

• Growing external imbalances:
  - Current account deficit exceeded 15% of GDP each year over 2004-07;
  - Gross external debt almost 450% of GDP

• High interest rates before the crisis attracted a large amount of carry trade funds

• Krona appreciated significantly due to strong capital inflows

• Global financial turmoil hit hard Iceland’s economy revealing severe problems in the banking system:
Iceland: Economic Developments in Charts

Iceland: Part 3

• Global financial turmoil revealed weaknesses: three largest banks collapsed within a week in October 2008

• Financial sector regulation and supervision lagged behind, no macroprudential toolkit

• Large krona depreciation (25%) just before the collapse of banks in October 2008, and further depreciation after the banks went down

Source: IMF country report October 2014, Central Bank of Iceland
Iceland: Part 4

- Fiscal policy was loose: high surpluses but significantly weaker is structurally adjusted
- Monetary policy was tightened but not sufficient to affect domestic demand and inflation
- Preparation of a SBA with IMF starts on October 9, 2008; finalized on October 24
- Given unprecedented size and scope of the financial and economic crisis, the new IMF program was designed to restore confidence:
  - Restoring confidence in krona including through the use of capital controls
  - Fiscal consolidation
  - Rebuilding the banking system
Iceland: Part 5

• Capital controls were imposed in November 2008 on foreign exchange transactions:
  ➢ Nonresidents’ krona assets (deposits and securities) were blocked and proceeds from them could not be converted into other currencies and transferred abroad
• The spread between the krona exchange rate onshore and offshore attracted residents and nonresidents who exploited opportunities to circumvent restrictions:
• Capital controls continuously tightened to reduce circumvention
• Effective implementation of capital controls provided Iceland with policy space and help stabilization