  

The Pros and Cons of Capital Controls

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Economic Policy

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Agenda

1 Free capital mobility – Perfect world and reality

2 Potential problems related to free capital mobility

3 Capital Controls

3.1 The Trinity Model

3.2 Under which circumstances are capital controls successful ?

3.3 Different types and successful examples of implementation

4 Pros and Cons of capital controls

5 Reflection

Although the view has changed over time, a free mobility of capital flow has largely been regarded as beneficial, especially for emerging countries

Free Capital Flow

Definition of Capital Flow

- Movement of money for the purpose of investment, trade or business production across all asset classes and across corporations, countries and different markets.
- Various forms such as FDI, portfolio investments or debt investments are possible

General Idea / Theory

- Free capital flow (between emerging and advanced economies) is usually seen to be positive as it promotes investment and growth as well as it gives financing opportunities

Theoretical Advantages

- Enables the capital to flow to the most efficient places – helping both investors as well as all stakeholders
- Enable emerging economies to diversify narrow production base while simultaneously benefiting from technological spillover
- Capital flows from capital rich to capital poor countries as they should have higher returns
  - Reduce cost of capital
  - Enable investments
  - Increase growth

Real life examples have shown that a free flow of capital might not only have positive consequences. A careful analysis is needed in order to evaluate the advantages and disadvantages

Source) Haldane, A. (2011), Moghadam, R. (2011)

Several factors, both on a macro- and micro level, determine the degree to which capital flows from advanced economies to emerging economies

Distinction between Cyclical and Structural Factors as well as between Push and Pull Factors:*

- Cyclical Factors describe events which take place on a reoccurring basis, but are subject to periodical changes
- Structural factors describe general processes which take place in the environment. They can be seen as overall trends
- Push factors are seen from an advanced economies perspective. These factors inherently drive capital towards emerging economies
- Pull factors are seen from an emerging markets perspective. They describe a local environment which is favorable for foreign capital

	Cyclical	Structural
Push	■ Low US interest rates ■ Low global risk aversion ■ Strained balance sheets of advanced economies	■ International portfolio diversification ■ Low potential growth of advanced economies and thus low yield for investors
Pull	■ High commodity prices ■ High domestic interest rates ■ Low domestic inflation	■ Improving balance sheets of emerging countries ■ High interest rates of emerging countries and thus high yield for investors ■ Trade openness

Source) Moghadam, R. (2011)

In a perfect world, free capital mobility leads to growth increases, reduced volatility and general prosperity for emerging countries

Free capital flow in a perfect world

Advanced economies

- Low interest rates lead to a search for yield
- Investors seek to diversify their portfolio
- Search for investment opportunities as excess capital is available

Emerging economies

- EM's have a narrow production base and low technological knowledge
- Cost of capital are high as it is nearly not available
- All factors lead to low growth rates

Consequences

Perfect capital allocation:

- As there are no control mechanisms, capital flows to the place where it is needed the most
- Emerging countries provide higher returns and thus, are target for capital flows
- Capital flows largely from advanced economies to emerging economies

Investor Benefits

Investors gain higher returns:

- Investors are able to diversify their portfolio and thereby reduce risk
- Provides investment opportunities for investors
- Access to new and attractive markets
- Free capital flow enables investors to seek the individually desired yield to the specific risk appetite
- Increases returns due to lower transaction costs with no capital controls

Local Benefits

Local economy grows due to:

- Large capital inflows allow for domestic investments
- The local economy benefits from technological spillover
- Investments attract foreign managerial / organizational expertise → Improvement of local human capital
- Due to higher local profits, tax revenues increase
- Positive side effects on the development of local financial markets, legal system, and political stability

→ Substantial advantages both for advanced economies as well as for emerging economies

Source) Block, B., Forbes, K. (2004); Kose, M.A., Prasad, E., Rogoff, K., Jin-Wei, S. (2006); Moghadam, R. (2011)

However, reality is not a perfect world and free capital mobility also has potential disadvantages

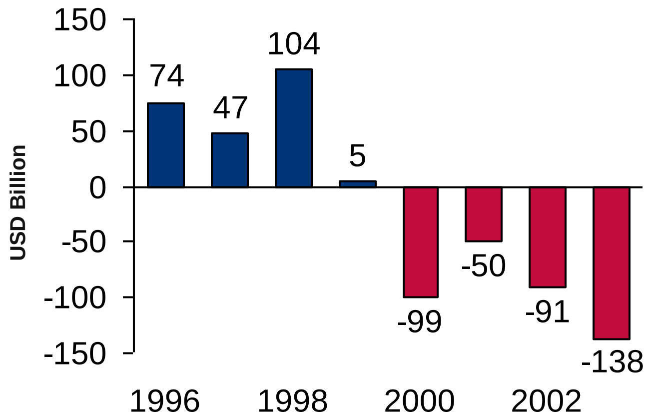
Theoretically, a free flow of capital should lead to a money transfer from rich to poor countries. Thereby, enabling investors to benefit from higher returns while emerging countries benefit from the investments. Reality, however, looks differently:

Theory	Reality
Capital flows from advanced to emerging economies	**Capital flows largely in the opposite direction, especially to the US**
Capital inflows increase GDP growth of the specific country	**Most empirical examinations show no clear relationship between them**
	A surge of capital inflow might lead to a economic shocks
Capital always follows to the most efficient investment place	**A *“home bias”* exists which leads to less investment in foreign countries**
FDI investments lead to technological spill-over from which countries might benefit	**Depending on the type of FDI, mostly foreign expertise is used, preventing spill-over effects**

Source) Block, B., Forbes, K. (2004); Kose, M.A., Prasad, E., Rogoff, K., Jin-Wei, S. (2006); Moghadam, R. (2011)

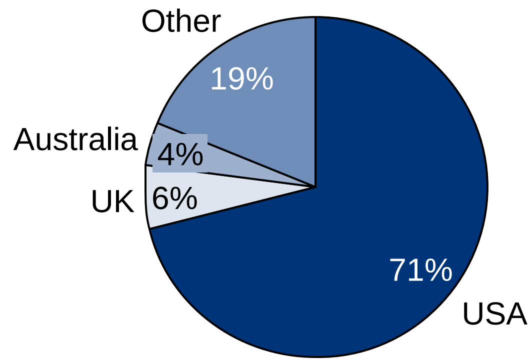
Empirical studies underline the presence of several problems. However, findings vary heavily between positive, neutral and negative effects

1. Net capital flows to emerging economies



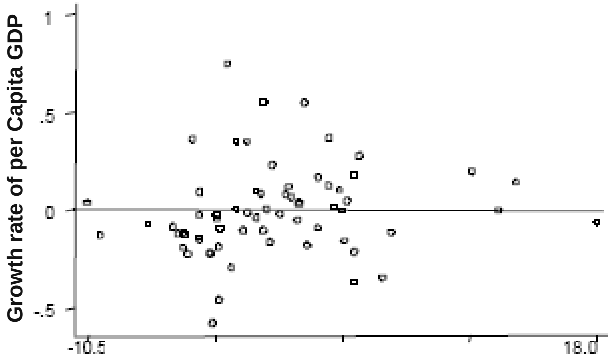
IMF Global Financial Stability Report 2004

2. Global Capital Importers



Global net capital import distribution, 2003
Prasad, Rogoff, Wei and Kose (2003)

3. Financial openness and growth



Change in capital account openness 1992 - 1997
IMF Global Financial Stability Report 2004

Key findings

- Theory suggests that capital should flow from advanced economies to emerging economies. Figure 1 shows, however, that since 2000, emerging countries have a negative net capital inflow (i.e. more capital flows out than in)
- Moreover, this has been different before 2000. Thus, a clear relationship cannot be explained
- The United States as the largest economy in terms of GDP should have large capital outflows. Nevertheless, 70% of global capital flows in the direction of the United States in the year 2003 (cf. Figure 2)
- According to theory, free capital flow is beneficial for financial growth. Measuring free capital flow in terms of financial openness, Figure 3 shows that no clear relationship can be found

Source) Haldane, A. (2011); Block, B., Forbes, K. (2011); Moghadam, R. (2011)

Potential problems due to a free capital mobility can be clustered into the following four main categories

Fear of Appreciation	■ Upward pressure on exchange value of currency ■ Domestic manufacturers less competitive in global markets
Fear of Hot Money	■ Sudden injection of funds into small markets can cause initial dislocation ■ Strains associated with sudden withdrawal ■ “Distrust of hot money”
Fear of Large Inflows	■ Large volumes of capital inflows on search for higher yields causes dislocations in the financial system ■ Foreign funds might fuel asset price bubbles, encourage excess risk taking by cash-rich domestic intermediaries
Fear of Loss of Monetary Autonomy	■ Exchange rate, monetary policy autonomy and open capital markets (trinity) not possible to have fixed ■ Giving up capital mobility might be more attractive than surrendering monetary policy autonomy

In the real world free capital flows might have various negative effects which policy makers want to prevent

Source: Magud, Reinhart, Rogoff, 2005, “Capital Controls – Myth and Reality A Portfolio Balance Approach to Capital Controls”

Due to the mixed potential outcomes of free capital mobility, capital control mechanisms might be an appropriate way of solving the problems

Any policy designed to limit or redirect capital account transactions

Neelly C.J. (1999), An introduction to capital controls.

Capital Controls on…	
…Capital Inflows	**…Capital Outflows**
Correct a Balance of Payments Surplus	Generate Revenue/ Finance a War Effort
Prevent Potentially Volatile Inflows	Financial Repression
Prevent Financial Destabilization	Correct a Balance of Payments Deficit
Prevent Real Appreciation	Preserve Savings for Domestic Use
Restrict Foreign Ownership of Domestic Assets	

Capital Controls have different intended effects and are targeted at different types of capital movements

Source: C.A. Hartwell (2011)

The view on capital controls has changed various times over the recent history. Nowadays, institutions tend to accept them as policy measure

Bretton Woods

- With Bretton Woods, capital controls were in place for the first time at a broad basis
- This system aimed at creating financial stability after World War 2

1970's to 1990's

- The tendency towards free market policies led to less and less capital controls
- The consequence of free capital flow was seen as beneficial for all parties

After Asian Crisis 1997

- The Asian Crisis was the first challenge to the positive view
- Capital control accepted as crisis measure
- Mostly economists and members of developing countries agree on this view

Crisis 2008

- The IMF accepts capital controls as crisis mechanism
- Several countries establish capital controls and keep them even after the crisis

Feb. 2010

- IMF: Usage of capital control can be a regular monetary policy tool, even if there is no crisis
- Nevertheless, it should be carefully used in order to prevent overuse and disharm

Today

- UN, World Bank & Asian Dev. Bank: Capital controls are adequate way for regulation
- However, concerns remain regarding their effectiveness

Klein M. W. (2012)

Different instruments of Capital Controls

Administrative

- Threshold investment requirements
- Approval procedure required for cross-border transactions
- Quantitative limits and/or quotas on investment
- Outright prohibition of repatriation or non-convertible currency

Transaction-based

- Non-interest bearing reserve requirements
- Taxes on portfolio flows (e.g. Tobin Tax)
- Discriminatory and disparate taxes on income resulting from foreign assets
- Credit rating requirements for borrowing abroad
- Time requirements, including stipulations that incoming funds have to stay in the country a certain amount of time
- Multiple exchange rate systems
- Increased and discriminatory reporting requirements

Thailand 1988

Banks' net foreign exchange positions must not exceed 20% of capital

Indonesia 1990

Discourage offshore borrowing

Reduce banks' limits

Colombia 1991

Commission increase on foreign exchange

47% reserve requirement on foreign currency liabilities for direct borrowing

Brazil 1992

Tax on foreign investment in stock market

Tax on investments in Brazil for foreigners raised

Thailand 1997

Introduction of two-tier exchange rate

Argentina 2001

Corralito: bank withdrawals restrictions

Dual exchange rate regime

Colombia 2002

Foreigners investing domestically must keep money in the country for at least 1 year

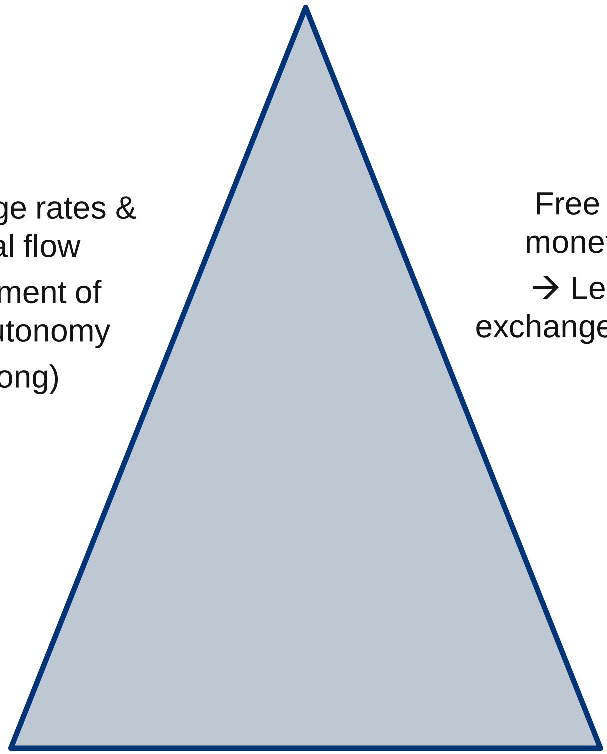
Source: Magud, Reinhart, Rogoff, 2005, "Capital Controls – Myth and Reality A Portfolio Balance Approach to Capital Controls"

Impossible trinity - The trilemma: It is not possible to reach all three overall goals without having to make sacrifices

Free Capital Flows

Fixed exchange rates & free capital flow
→Abandonment of monetary autonomy
(Hong Kong)

Free capital flow & monetary autonomy
→ Leads to flexible exchange rate regime (EU, USA)



Fixed exchange rates

Fixed exchange rate & preservation of monetary policy
→ Leads to restrictions on capital movement

Independent monetary policy

Most economic policy makers would like to achieve all three goals…

- **Use monetary policy as a tool to help stabilize economy**
  - CB can vary money supply and interest rates according to the economic cycle
- **Make country's economy open to international capital flows**
  - This encourages foreign investors to bring resources and expertise into the country
- **Keep stability in currency exchange rate**
  - Facilitates engagement and future planning of economic actors in the world economy

Impossible to reach all three goals!

Source: Bénassy-Quéré, (2010)

Effectiveness of capital controls

- Capital controls are expected to achieve multiple objectives
- Knowing what the stated expectations from implementing capital controls is necessary to assess whether the implementation was "effective" or "successful"
- One method to access the effectiveness is to confront data from before and after the implementation of capital controls with the expected objectives

Predictions : the level of domestic interest rates should decline (Edison and Reinhart, 1999)

- For Malaysia : the interest rate declines during control period and its level becomes more stable and persistent
- For Thailand : the level of interest rates rises post-control

➔ Controls seems to be effective for Malaysia, not for Thailand

Table 4 Malaysia, January 1, 1996 to July 23, 1999 : Descriptive Statistics for Daily Data

Variable	Mean No controls	Mean Control period	Equality in means t-test Probability	Standard deviation No controls	Standard deviation Control period	Equality in variance test 1/	Auto correlation No controls	Auto correlation Control period
Interest Rate	8.328	5.720	*0.000**	1.549	1.452	*0.000**	0.935	0.956
Change in interest rate	0.121	-0.545	*0.004**	0.386	0.140	0.157	0.212	0.219

Table 5 Thailand, January 1, 1996 to July 23, 1999: Descriptive Statistics for Daily Data

Variable	Mean No controls	Mean Control period	Equality in means t-test Probability	Standard deviation No controls	Standard deviation Control period	Equality in variance test 1/	Auto correlation No controls	Auto correlation Control period
Interest Rate	12.461	20.920	*0.000**	5.779	3.829	*0.000**	0.930	0.912
Change in interest rate	-0.0318	0.073	0.067	0.600	0.818	*0.000**	-0.061	0.202

Source: Reinhart, Carmen and Edison, Hali, 2001, "Capital controls during financial crises: the case of Malaysia and Thailand"

Effectiveness – Standardization of success as approach to empirically measure Chile as successful example of imposing Capital Controls on Capital Inflows

Main objectives analyzed

- Did Capital Controls **reduce the volume of capital flows**?
- Did Capital Controls **alter the composition of capital flows** (longer maturity flows, share of FDI, debt etc.)
- Did Capital Controls **reduce the real exchange rate pressure**?
- Did Capital Controls allow for **a more independent monetary policy**?

Chilean measures – Successful Controls on Inflows

- Nonrenumerated 20 percent reserve requirement to be deposited at Central bank on liabilities in foreign currency
- Stamp tax on foreign loans
- Reserve requirement on liabilities raised to 30 percent

Country	Index	Reduce the volume of net capital inflows	Alter the composition of flows	Reduce real exchange rate pressures	Make Monetary Policy Independent	Country Average
Brazil	CCE	0.00	0.00	-0.67	0.00	0
	WCCE	0.35	0.35	-0.275	-0.225	0.05
Chile	CCE	-0.09	0.64	-0.27	0.45	0.18
	WCCE	0.03	0.67	-0.27	0.29	0.18
Colombia	CCE	-0.33	-0.33	0.00	0.67	0.00
	WCCE	-0.17	-0.17	0.00	0.07	-0.07
Czech Republic	CCE	-1.00	1.00	0.00	0.00	0.00
	WCCE	-0.50	0.10	0.00	0.00	-0.10
Malaysia	CCE	1.00	1.00	0.50	0.50	0.75
	WCCE	0.30	0.30	0.05	0.05	0.18
Thailand	CCE	1.00	1.00	1.00	1.00	1.00
	WCCE	0.10	0.10	0.10	0.10	0.10

+1: Yes **0:** question not adressed **-1:** No

CCE Index: Capital Controls Effectiveness

WCCE Index: Weighted Capital Control Effectiveness

Capital Controls in Chile were successful in changing the maturity of capital flows and making the monetary policy more independent. They did not succeed in reducing the volume of flows

Source: Magud, Reinhart, Rogoff, 2005, "Capital Controls – Myth and Reality A Portfolio Balance Approach to Capital Controls"

Effectiveness – One approach to empirically measure Malaysia as successful example of imposing Capital Controls on Capital Outflows

Malaysian measures – Successful Control on Outflows

- Strict regulation on offshore operations and most international operations in ringgit (local currency)
- Export and import allowed in foreign currency only
- 12-months waiting period for non-residents to sell profits from Malaysian securities
- Approval required to invest abroad
- Slow ease of measures during following two years

Country	Index	Reduce the volume of net capital flows	Alter the composition of flows	Reduce real exchange rate pressures	Make Monetary Policy Independent	Country Average
Malaysia	CCE	0.20	0.00	0.00	0.80	0.25
	WCCE	0.02	0.00	0.00	0.62	0.16
Spain	CCE	0.50	0.00	0.50	0.50	0.38
	WCCE	0.05	0.00	0.20	0.20	0.11
Thailand	CCE	0.50	0.00	0.00	0.00	0.13
	WCCE	0.05	0.00	-0.50	-0.50	-0.24

Effects and Costs of Malaysian Capital Control

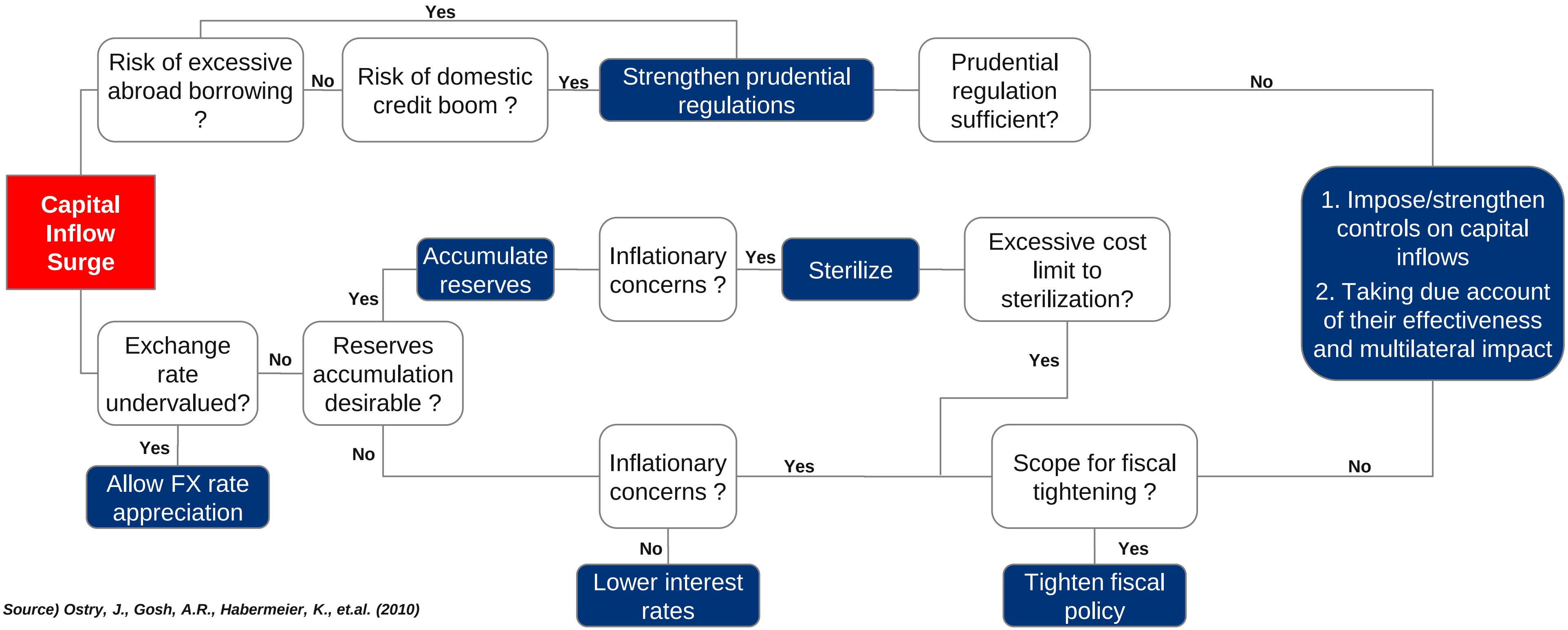
- ✓ Foreign exchange reserves increased immediately following the imposition of controls (rise from $ 20bn in late 1998 to $ 27bn in mid 1999)
- ✓ Capital Controls had a positive effect on the independent monetary policy
- × Less favoured country for investment funds because of the lack of liquidity of Malaysian securities
- × Drop in confidence in Malaysian market: downgrade of credit and sovereign risk because of anticipated threat to country's openness to trade and foreign investment
- × Access to foreign currency funding more costly as Malaysia's risk premium in international markets increased

Capital Controls were effective thanks to strict enforcement, however not without costs
Effectiveness dependent on many factors; Thailand not successful in implementing the same measures

Source: Magud, Reinhart, Rogoff, 2005, "Capital Controls – Myth and Reality A Portfolio Balance Approach to Capital Controls"

Various measures might be successful, as the response of a country to a capital inflow surge depends strongly on the specific situation

- There are several softer measures which can be implemented prior to imposing costly capital controls
- High administrative costs for controls implementation
- By using controls to shield domestic financial markets, may prevent adaptation to changing international circumstances and postpone necessary adjustments in policies in the context of financial globalization
- Negative market perceptions: it may be more difficult and more costly for countries with capital controls to access foreign funds



Source) Ostry, J., Gosh, A.R., Habermeier, K., et.al. (2010)

Capital controls from point of view of the international community

- In General economists agree that countries can gain substantial benefits from international economic integration, but the extent to which they should open themselves to international capital flows remains a controversial issue.
- After certain countries have shown success with some capital controls, the IMF changed its view towards thinking in response to the new exigencies of the crisis.

Why should the international community care about capital controls?	In what circumstances can capital controls be considered as useful and legitimate?
■ Need for international requirements in the course of increasing financial integration ■ Unforeseen currency appreciation in many developing countries as a consequence of capital flight into wealthy countries. ■ However, full control over capital flows implies full control over its trade balance, and hence the real exchange rate → Affecting trade flows ■ Yet periods of transformation are potentially dangerous, as countries search individually for solutions to problems of unemployment and insecurity that require collective action. .	■ Therefore exist a need for a new international financial architecture that promotes national policy autonomy while certain national strategies should be brought into line with beneficial co-ordination ■ Literature findings suppose, that it is optimal to impose a countercyclical Pigouvian tax on debt inflows in a boom to reduce the risk and heaviness ■ Interestingly, the optimal tax would apply basically on the inflows (short-term or foreign currency debt) that are the least likely to charge economic growth ➔ Obviously, capital controls are not a silver bullet. They are effective if they are used with moderation.

Source: - J. Olivier, J. Williamson, A. Subramanian (2012): "Who Needs to Open the Capital Account?"
- IMF (2011): "Recent Experiences in Managing Capital Inflows – Cross-Cutting Themes and Possible Policy Framework"

Pros and Cons

Pros +	Cons -
■ In certain circumstances capital controls are effective in reaching the intended aim ■ Controls may help to support a weak financial system ■ Controls on Inflows seem to make **monetary policy more independent, alter composition, reduce real exchange rate pressures** ■ Controls on Outflows seem to be effective in **reducing capital outflows, making monetary policy more independent**	■ Disability of international capital flows ■ Capital controls might reduce a country's ability to receive multifaceted benefits (technology, access to international networks) ■ High administrative costs of imposing capital controls ■ Possible prevention of adaptation to changing international circumstances ■ Necessary adjustments in policies in the context of financial globalization might be postponed ■ Negative market perceptions: it may be more difficult and more costly for countries with capital controls to access foreign funds ■ No discretionary policy

Difficult to measure the entire effects of Capital Controls as many different factors play a role. In some countries the same measures might be successful and in others they might not

The success of Capital Controls is defined in many different ways

Reflection

Can Capital Controls be seen as a macro-prudential tool?

"We see a role for capital controls, but it is a quite well-defined, very narrow role. We do think capital controls are useful in the right circumstances, but we don't think they're a substitute for taking more fundamental measures that may be needed,"

Tamim Bayoumi (2012), deputy director in the IMF's Strategy, Policy and Review Department to Emerging Markets

Major issue: Capital Controls are no discretionary policy!!

Why should the international community care?

- European Union countries might need to resort to capital controls if Greece leaves the single currency

→ To prevent a flight of assets

  - Illegal under European law
  - Get-out clause for up to 6 months in exceptional circumstances

- The countries that intervene in turn, with a net effect of much less international capital movement than all countries
- A possible solution might be coordination across countries

Thank you for your attention – Any questions?

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Overview actual situation

Tables

Table 2: Inflow Control Categories for 1995-2010		
Persistently Open (16)	Persistently closed (10)	Episodic controls (18)
Austria (ADV)	China (EME)	Argentina*(*4*) (EME)
Belgium (ADV)	Colombia (EME)	Australia (ADV)
Canada (ADV)	India (EME)	Brazil*(*3*) (EME)
Denmark (ADV)	Indonesia (EME)	Chile (EME)
Egypt (EME)	Malaysia (EME)	Czech Republic*(*2*) (EME)
Finland (ADV)	Morocco (EME)	France (ADV)
Greece (ADV)	Philippines (EME)	Germany (ADV)
Italy (ADV)	Russia (EME)	Hungary (EME)
Japan (ADV)	South Africa (EME)	Iceland*(*3*) (ADV)
Netherlands (ADV)	Thailand (EME)	Ireland*(*1*) (ADV)
New Zealand (ADV)		Korea (EME)
Norway (ADV)		Mexico*(*2*) (EME)
Spain (ADV)		Peru*(*1*) (EME)
Switzerland (ADV)		Philippines (EME)
United Kingdom (ADV)		Poland*(*1*) (EME)
United States (ADV)		Portugal*(*2*) (ADV)
		Sweden*(*1*) (ADV)
		Turkey*(*2*) (EME)
*(*n*) = Imposed controls in *n* different years between 1995 and 2010. Other countries in Episodic group only removed existing controls but did not impose new controls during sample period.		
Geometric Average of GDP Per Capita, 1995 – 2010 (in PPP-adjusted 2005 US Dollars)		
$27,212	$4,876	$17,433
Number of Country-Year Observations with Controls on Any Categories of Assets (DI Excluded)		
0 out of 256	160 out of 160	157 out of 288 (55%)
Number of Country-Year Observations with Controls on All Categories of Assets (DI Excluded)		
0 out of 256	111 out of 160 (69%)	26 out of 288 (9%)
Number of Country-Year Observations with Controls on 4 or 5 Categories of Assets (DI Excluded)		
0 out of 256	149 out of 160 (93%)	43 out of 288 (15%)