

Finance and growth in developing countries

L3 Financial Liberalization

What is financial liberalization?

- Financial liberalization can be defined as the process by which a country moves away from a state of **financial repression**

Financial Repression (Until 1970s...)

Leading government role in financial system:

- Ceilings on interest rates on bank deposits
- High reserve requirement on banks
- Government directed bank credit
- Micromanaging banks, little autonomy
- Restrictions on entry, especially foreigners
- Restrictions on capital flows

Financial liberalization

Relaxation of financial constraints :

- Elimination of interest rate controls
- Lowering of bank reserve requirements
- Reduced interferences with bank management decisions (focus on risks)
- Privatization of nationalized banks
- Foreign bank competition
- Facilitation of capital inflows

FL Potential Problems

- Interest rate decontrol: predatory bank competition and risk of failures
- Bank reserves: were not only a central bank revenue but a safety pool for banks
- Poor government monitoring of banks may facilitate fraud and excessive risk taking
- Privatized banks may fall under the control of a few large business group
- Foreign banks: may out-compete domestic banks and weakened them
- Capital flows: can be destabilizing

FR Assumptions and Omissions

The traditional liberalization thesis is based on the following implicit assumptions / omissions:

- Perfect information
- Perfect competition
- Institutions-free analysis
- No role for stock markets
- Ignores destabilizing effects of capital flows

- Combination of
 - imperfect information, imperfect competition, poor quality of institutions, inefficient stock markets, destabilizing influence of short-term capital flows
- could mean that financial liberalization may lead to:
 - too high real interest rates
 - macroeconomic instability
 - asset price bubbles
 - deterioration of asset quality in bank balance sheets
 - financial fragility and crisis

Today's Questions

1. *What Drives Financial Liberalization? Abiad and Mody, AER 2005*
2. *Does Financial Liberalization Foster Growth? Bekaert et al. JFS 2005*
3. *How does FL affect macroeconomic volatility? Prasad et al. NBER 2004*

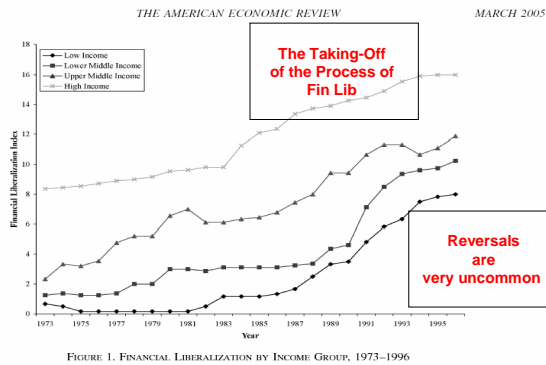
What Drives Financial Liberalization?

Abiad and Mody, AER 2005

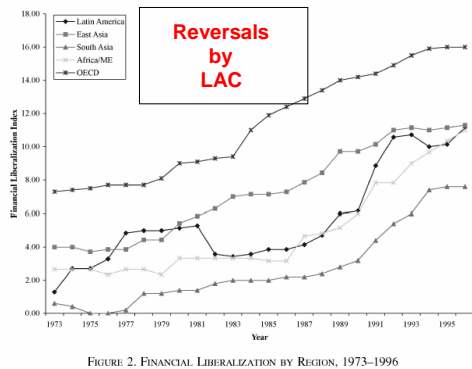
How did FL happened? How fast?

- 1973-1996
- 24 LDCs
- *Index captures: credit controls, interest rates controls, entry barriers in banking, operational restriction on banks (e.g. branches), privatization, and restrictions on international financial transations (e.g., multiple ERs)*

How did FL happened? How fast?



How did FL happened? How fast?



What accounts for the worldwide advance of financial reforms in the last quarter century?

Balance-of-payments crises spurred reforms, but banking crises set liberalization back.

Falling global interest rates strengthened reformers, while new governments went both ways.

In contrast, ideology and govt honeymoon (window of opportunity argument) had limited influence.

**NOW THAT WE KNOW WHAT DRIVES FL,
NEXT QUESTION IS DOES FL WORK?**

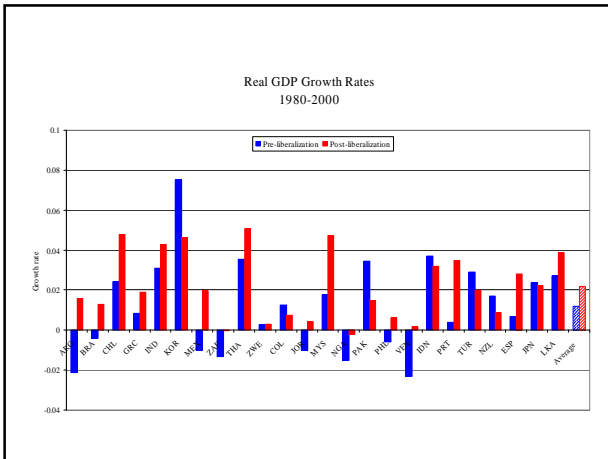
Does Financial Liberalization Spur Growth?

Bekaert, Harvey and Lundblad 2005

Measuring and Dating Financial Integration

Liberalization dates:

- Use Bekaert and Harvey (JF 2000) "official liberalization" dates
- These dates are based on a detailed chronology of important regulatory events
- This is needed for a before/after analysis



Financial Liberalization and Growth

Econometric Framework:

$$y_{i,t+k,k} = \beta Q_{i,1980} + \gamma X_{i,t} + \alpha Lib_{i,t} + \varepsilon_{i,t+k}$$

where

- $y_{i,t+k,k}$ is real per capita GDP growth between t and t+k
- $Q_{i,1980}$ is initial GDP,
- $X_{i,t}$ represents control variables
- $Lib_{i,t}$ is a Liberalization indicator variable

Financial Liberalization and Growth

Data: Four samples determined by availability of data

- Sample I: 95 countries
- Sample II: 75 countries [macroeconomic and demographic data]
- Sample III: 50 countries
- Sample IV: 28 countries [add financial development indicators]

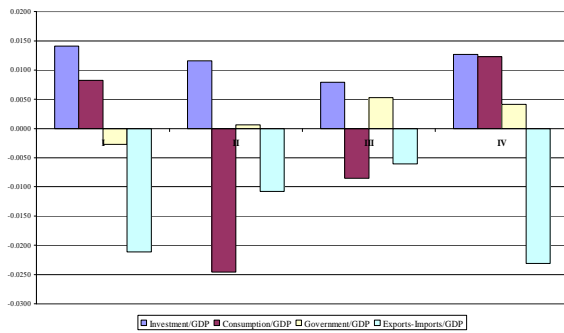
As data requirements become more stringent, the variance of GDP levels across countries in the sample decreases.

Classic Growth Regression and the Impact of Liberalization

	Sample I	II	III	IV
Constant	-0.2281	-0.2374	-0.1493	-0.2018
<i>Std. error</i>	0.0179	0.0214	0.0286	0.0658
Log(GDP)	-0.0094	-0.0088	-0.0115	-0.0158
<i>Std. error</i>	0.0007	0.0007	0.0008	0.0011
Govt/GDP	-0.0039	-0.0178	-0.0187	-0.0301
<i>Std. error</i>	0.0087	0.0098	0.0105	0.0165
Enrollment	0.0305	0.0112	0.0243	0.0566
<i>Std. error</i>	0.0077	0.0097	0.0116	0.0171
Population Growth	-0.5594	-0.5731	-0.8159	-1.1013
<i>Std. error</i>	0.0621	0.0691	0.0835	0.1151
Log(Life Expectancy)	0.0755	0.0781	0.0627	0.0838
<i>Std. error</i>	0.0049	0.0056	0.0076	0.0167
Official Liberalization Indicator	0.0095	0.0083	0.0113	0.0130
<i>Std. error</i>	0.0016	0.0017	0.0020	0.0036

Channels of increased growth:

Macroeconomic Impact of Liberalization



Liberalization, Total Factor Productivity and Capital Growth

	Sample I	II	III	IV
Official Liberalization Indicator	0.0055	0.0058	0.0047	0.0077
<i>Std. error</i>	0.0010	0.0011	0.0014	0.0033
Private Credit/GDP	0.0036	0.0037	0.0033	-0.0023
<i>Std. error</i>	0.0013	0.0013	0.0014	0.0019
Official Liberalization Indicator	0.0047	0.0049	0.0044	0.0081
<i>Std. error</i>	0.0010	0.0011	0.0014	0.0033

Accounting for the liberalization effect:

- To investigate whether part of the effect can be ascribed to
 - » macroeconomic reforms
 - » financial development
 - » other regulatory reforms

Accounting for the liberalization effect:

Macroeconomic reforms ...

- » Liberalization not spuriously reflecting macroeconomic reforms
 - control for trade openness, inflation, black market premiums, and government deficits

Macroeconomic Reforms and Financial Liberalization

	Sample I	II	III	IV
Trade	0.0090	0.0105	0.0089	0.0084
<i>Std. error</i>	0.0007	0.0007	0.0010	0.0012
Log(1+Inflation) (Latin)	0.0010	0.0004	0.0011	-0.0003
<i>Std. error</i>	0.0017	0.0016	0.0017	0.0024
Log(1+Inflation) (Not Latin)	0.0088	0.0057	0.0036	-0.0450
<i>Std. error</i>	0.0021	0.0024	0.0053	0.0149
Log(1+Black Market Premium)	-0.0093	-0.0096	0.0005	0.0048
<i>Std. error</i>	0.0014	0.0015	0.0014	0.0071
Fiscal Deficit				-0.0738
<i>Std. error</i>				0.0178
Official Liberalization Indicator	0.0088	0.0072	0.0110	0.0074
<i>Std. error</i>	0.0011	0.0014	0.0017	0.0032

Accounting for the liberalization effect:

Financial development ...

- » Degree of banking and equity market development is important but independent boost from liberalization

– examine the size of private credit, equity market activity, and equity market size

Financial Development and Financial Liberalization

Banking sector development	Sample I	II	III	IV
Private Credit	0.0204	0.0234	0.0159	0.0298
<i>Std. error</i>	0.0030	0.0033	0.0046	0.0082
Private Credit*Lib indicator	-0.0213	-0.0244	-0.0131	-0.0329
<i>Std. error</i>	0.0031	0.0034	0.0045	0.0082
Official Liberalization Indicator	0.0195	0.0199	0.0178	0.0301
<i>Std. error</i>	0.0023	0.0027	0.0027	0.0056
<i>Impact on growth of increasing private credit from median of segmented countries to median of liberalized</i>				
Nonliberalizing country	0.0097	0.0101	0.0061	0.0101
Liberalizing country	0.0139	0.0126	0.0145	0.0145
Increment to growth by liberalizing	0.0042	0.0025	0.0084	0.0044
<i>Impact on growth resulting from liberalization with no change in private credit/GDP</i>				
Low level of private credit/GDP	0.0143	0.0130	0.0134	0.0156
High level of private credit/GDP	0.0042	0.0025	0.0084	0.0044

Accounting for the liberalization effect:

Other regulatory reforms ...

- » The financial liberalization/growth effect is not a post-banking crisis effect
- » The enforcement of law and institutions are important

In sum

- Financial liberalization spurs growth by 1% per annum over the five years
- Survives a battery of robustness experiments
- Liberalization effect not spuriously accounted for by a host of other events such as macro-economic reforms
- Financial liberalization has a POSITIVE and very important economic effect
- **CONSENSUS?**

Financial Globalization, Growth and Volatility in LDCs

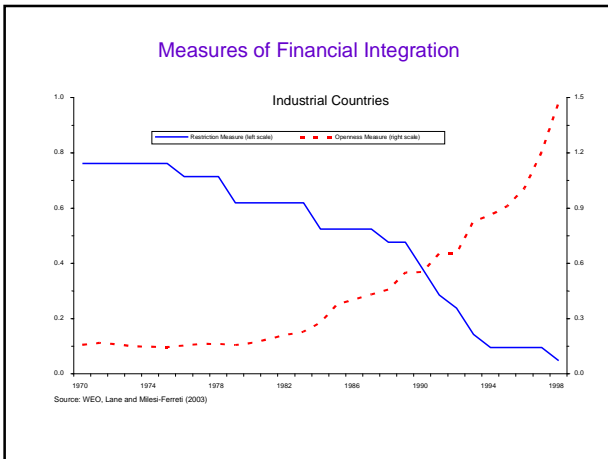
Prasad, Rogoff, Wei and Kose, 2004 (Dec)

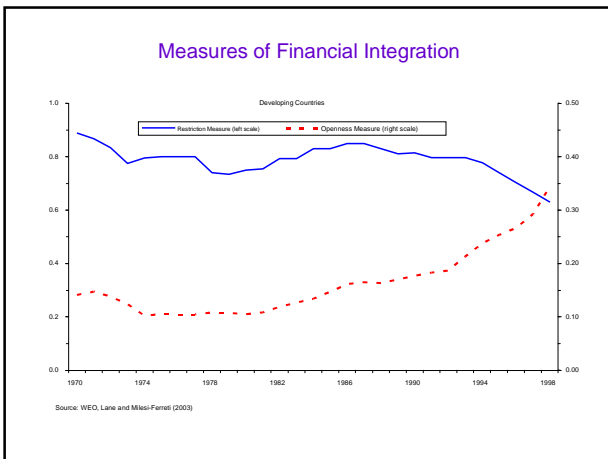
Three Main Questions:

1. Does financial integration help developing countries grow faster?
2. How does it affect macroeconomic **volatility** in these countries?
3. How can the benefits of financial globalization be fully harnessed?

Measuring Financial Integration

- Prasad et al. differentiate between:
 - *De jure* integration
Capital account liberalization, measured by official restrictions on capital flows
 - Actual capital flows (*de facto*)
Estimated gross stocks of foreign assets and liabilities as a share of GDP





Large increase in North-South capital flows since mid-1980s

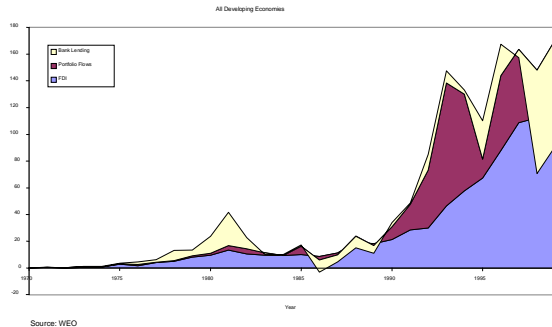
“Pull” factors include:

- Stock market liberalizations
- Privatization

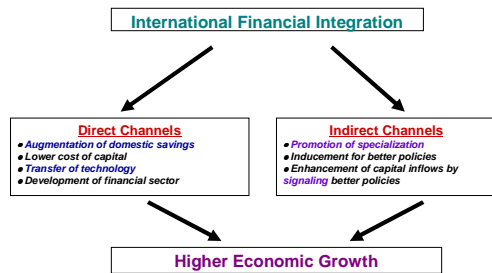
“Push” factors include:

- Business cycles conditions, interest rates in industrial countries
- Emergence of institutional investors (mutual funds, pension funds, hedge funds)

Net Private Capital Flows (Billions of USD)



Although there are SEVERAL Channels Through Which Financial Integration Can Raise Economic Growth...



Effects of FL on economic growth

Empirically, it is hard to identify a strong and robust causal relationship between financial integration and higher growth rates for developing countries.

Summary of Recent Research

Study	Number of Countries	Years Covered	Effect on Growth
Alesina, Grilli, & Milesi-Ferretti (1994)	20	1950-89	No effect
Grilli and Milesi-Ferretti (1995)	61	1966-89	No effect
Quinn (1997)	58	1975-89	Positive
Kraay (1998)	117	1985-97	No effect / mixed
Rodrik (1998)	95	1975-89	No effect
Klein and Olivei (2000)	Up to 92	1986-95	Positive
Chanda (2001)	116	1976-95	Mixed
Arteta, Eichengreen, & Wyplosz (2001)	51-59	1973-92	Mixed
Bekaert, Harvey, and Lundblad (2001)	30	1981-97	Positive
Edwards (2001)	62	1980s	No effect for poor countries
O'Donnell (2001)	94	1971-94	No effect, or at best mixed
Reisen and Soto (2001)	44	1986-97	Mixed
Edison, Klein, Ricci, and Sløk (2002)	Up to 89	1973-95	Mixed
Edison, Levine, Ricci, and Sløk (2002)	57	1980-2000	No effect

Summary of the empirical literature on the effect of financial integration on economic growth

- A majority of the studies (11 out of 14) finds no effect or at best a mixed effect

Why is it so difficult to find a strong/robust effect? A synthesis

- Most of the difference in income per capita stems not from difference in capital/labor ratio, but from difference in **TFP**, which is explained by “social infrastructure”
- It is difficult to find a strong and robust effect of financial integration on economic growth in developing countries
- On the other hand, advanced countries are financially open; and most developing countries that have embraced it do not go back
- If not clear on growth, what about on VOLATILITY?

Financial Integration and Macroeconomic Volatility

Theory:

Effects on **income** volatility not clear

- Diversification opportunities for small economies
- But also potential for more specialization

Should reduce **consumption** volatility

- Consumption smoothing
- International risk sharing

Ratio of consumption volatility to income volatility is the relevant measure.

Compare OECD countries with LDCs, More FI and LessFI

Average Volatility of Income Growth

	1960-99	1970s	1980s	1990s
Industrial countries	2.73	2.99	2.54	1.91
MFI economies	5.44	5.43	5.45	4.78
LFI economies	7.25	9.64	7.56	4.59

Income volatility has declined in the 1990s for all groups of countries & MFI less volatile

MFI is “more financially integrated”, above median

Average Volatility of Consumption Growth

	1960-99	1970s	1980s	1990s
Industrial countries	1.86	1.84	1.58	1.38
MFI economies	4.34	4.19	3.43	4.10
LFI economies	6.40	6.50	6.34	4.79

Ratio of Consumption Volatility to Income Volatility

	1960-99	1970s	1980	1990s
Industrial countries	0.67	0.56	0.61	0.58
MFI economies	0.81	0.74	0.76	0.92
LFI economies	0.80	0.68	0.82	0.84

Financial Integration and Macroeconomic Volatility

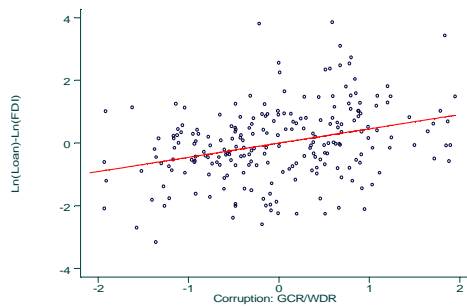
Evidence:

- Income volatility has, on average, declined in the 1990s for all groups of countries
- For MFI economies, however, consumption volatility increased in the 1990s
- Ratio of consumption volatility to income volatility also rose for MFI economies
- SOON Consider crises as special type of volatility...

Corruption reduces FDI

- An increase in corruption in host country from a very low to a very high level in the sample has the same negative effect on FDI as raising the tax rate by 50 percentage points.
- Attracting FDI: tax giveaway vs. better governance

Corruption Tilts the Composition of Capital Flows Towards Borrowing from Foreign Banks



In sum

1. Hard to find a strong and robust causal effect on economic growth
2. Might have increased macro volatility
3. Governance is quantitatively as well as qualitatively important

Financial globalization should be approached cautiously, with good institutions and macro framework viewed as important preconditions.

RECAP

- Economic crisis seem to drive FL
- First studies (or maybe studies that focus on a specific aspect of FL such as SM liberalization) find positive impact
- IMF review evidence and doesn't find strong evidence though... suggests emerging consensus is "no strong effect"
- On volatility the jury is also still out!
- FDI is less volatile than portfolio

Discussion Questions

According to the available econometric evidence, what are the main determinants of FL? What are the policy implications one can derive from this evidence?

How strong is the evidence on the relationship between FL and economic performance (growth and financial development)? What role do institutions play in mediating this relationship?

How does FL affect macroeconomic volatility?
