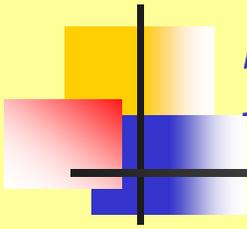# The Impact of Financial Services Trade Liberalization on Bank Loans to Emerging Countries: Implications for China

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This study explores the following issues:

- How would financial services trade liberalization affect capital flows, in particular, bank loans, to emerging market economies?

- Would it accelerate the pace of capital account liberalization by making capital account opening faster than expected?

- In the case of China, how would foreign bank entry make China's capital control more porous?
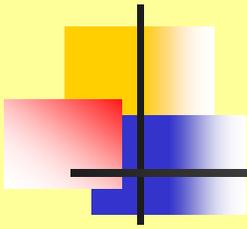
- *Financial Services Trade Liberalization* refers to removing trade barriers in financial services sector to allow foreign insurance, banking, and other related financial services sectors to enter the host country and enjoy national treatment.

- Such liberalization is governed by GATS (General Agreement on Trade in Services) under WTO. It specifies *general commitments, specific exemptions, and modes of supply of services.*
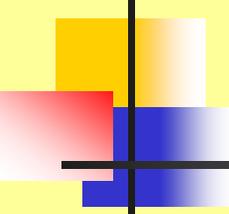
General Commitments

- **Most favored nation (MFN):** All liberalization measures must be extended to all WTO members equally (GATS Art. II and XVI).

- **National treatment:** WTO member countries can not discriminate between domestic and foreign firms, except when explicitly indicated at the time of joining the GATS (GATS Art. XVII)

- **Transparency:** Local regulations should be published and accessible (GATS Art. III)

- **Progressive liberalization:** Member states agree to increase the number of liberalized sectors and to eliminate exceptions within sectors by committing to future negotiating rounds (GATS Art XIX)

- **Dispute settlement mechanism:** All commitments are legally binding. Harmed states can initiate an arbitration procedure. If found harmed, the country can impose sanctions against the violating country (GATS Art. XXII and XXIII)
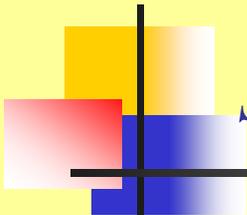
Specific Exemptions:

- **Prudential carve-out:** An exemption from GATS designed to ensure that governments can protect their domestic financial system and its participants in the case of need, through the application of prudential standards.

- **Exemption for government services:** activities of the central banks or other government authorities carrying out monetary and exchange rate policies are excluded from GATS.

- **Exemption for economic development related practices** such as industrial policies.
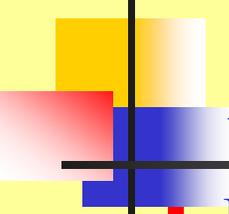
Modes of supply

- Mode 1: Cross-border supply: If a consumer in country A and a   supply in country B, the service crosses the border (e.g., A Chinese firms in China borrows from a bank located in Japan).

- Mode 2: Consumption abroad: The consumer of a service travels to the country where the service supplier is located in order to conduct the transaction (e.g., A Japanese company opens a bank account with a bank in China (a Japanese, other foreign, or a domestic Chinese bank) for transactions occurring in China).

- Mode 3: Commercial presence: A service in country A by a supplier in country B through a permanent place of business established in country A (e.g., A Japanese bank lends funds in China through its branch in China).

- Mode 4: Movement of natural persons: A service in country A is provided by country B with personnel from country B (e.g., A branch of a Japanese bank draws its management from its headquarters in Tokyo).
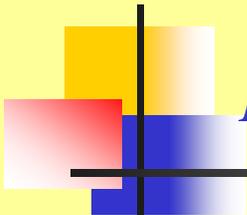
FSTL and Capital Account Transactions

- *In general, FSTL under the GATS is consistent with the current account transactions of the IMF Articles of Agreement. It does not cover capital account transaction.*

- Countries can still maintain their capital control regulations and policies.
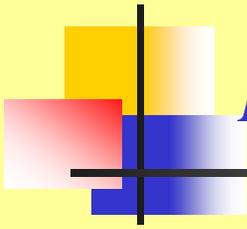
But FSTL often involve capital flows

- Example 1: Lending by a foreign bank abroad (Mode 1)

Table 2: Domestic versus international capital flows under FSTL

	Financial services provided by domestic banks	Financail services provided by foreign banks abroad
Loans involve domestic capital only	No financial services trade and international capital flows	Financial services trade only
Loans involve international capital only	International capital flow only	Both financial services trade and international capital flows

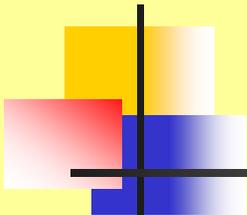Source: Kono and Schuknecht (2000) with author's change of classfication

- Example 2: Lending by a foreign bank establishes in the host country (mode 3)

Table 3: Domestic versus international capital flows under FSTL

	Financial services provided by domestic banks	Financial services provided by foreign banks in the country
Loans involve domestic capital only	No financial services trade and international capital flows	Financial services trade plus inward FDI
Loans involve international capital only	International capital flow only	Financial services trade plus FDI and international capital flows

Source: Kono and Schuknecht (2000) with author's change of classfication

International banking businesses and capital flows are inseparable

Table 4: Financial Services Trade and Capital Flows under Different Modes of Supply (No Capital Account Restrictions)

Category of Banking and other Financial Services Business	Mode1: Cross-border supply Can FST occur without cross-border capital flow?	Mode 2: Consumption abroad Can FST occur without cross-border capital flow?	Mode 3: Commercial Presence Can FST occur without cross-border capital flow?
Acceptance of deposits	N	N	Y
Lending (consumer credit, mortgage, commercial loans)	N	N	Y
Financial Leasing	Y	N	Y
Payments and money transmission (credit cards, travelers checks, and bankers drafts)	N	N	Y/N[a]
Gurantees and commitments	N	N	Y
Securities trading			
Money market instruments	N	N	Y
Foreign exchange	N	N	N
Derivatives	N	N	Y/N[a]
Exchange rate and interest rate instruments	N	N	Y/N[a]
Transferable securities	N	N	Y
Other negotiable instruments	N	N	Y
Securities Issurance and Underwriting	N	N	Y/N[a]
Money Broking	N	N	Y
Asset Management (Pension, fund management, custodial, depository, and trust services)	N		Y/N[a]
Settlement and clearing servies for financial assets (securities, derivative products, and other negotiable	N		Y
Provision and transfer of financial information	Y		Y
Advisory, intermediation and other auxiliary financial services	Y		Y

Source: Adapted from Kono and Schuknecht (2000) and Kireyev (2002) with author's change of classifications

Legend: "Y" yes and "N" no.
Note: a, depending whether exteral funding is involved.

# Applying a consistent metric, we can quantify FSTL commitments under GATS

**Appendix II: Metrics used to calculate the financial services trade liberalization commitment**

Numerical Values	Score
No mention in the schedule or not a WTO member	0
Unbound against relevant mode	0.05
No new entry - unbound for new entry	0.1
Discretionary licensing - Economic needs test	
Licensing/Authorization Requirements; acquisition approval - not mentioning terms, conditions, or procedures	0.3
Voting/Ownership <50%	0.35
Limited Committments	0.4
License/Authorization by supervisor (central bank, association), acquisition approval - with indications or guiding principles	0.5
Minor limitations (grandfathering clause, legal form, number of observations, ownership >50%, types of operations, value of transactions/assets, reciprocity and registration requirements)	0.75
No limitations	1

Liberalization Committments in	
A - Insurance services (direct life and nonlife insurance, reinsurance, intermediation)	Mode 1: Cross-border supply
B- Banking services (deposits, lending, money broking, trading)	Mode 2: Consumption abroad
C- Securities services (underwriting, settlement, asset management)	Mode 3: Commercial presence
D- Other financial services (supply of financial information, payments and settlements)	

Source: Volckx (2002)

China's FSTL commitments are relatively liberal compared with its neighbors

Figure 1: Financial Services Trade Liberalization Commitment by Mode of Supply
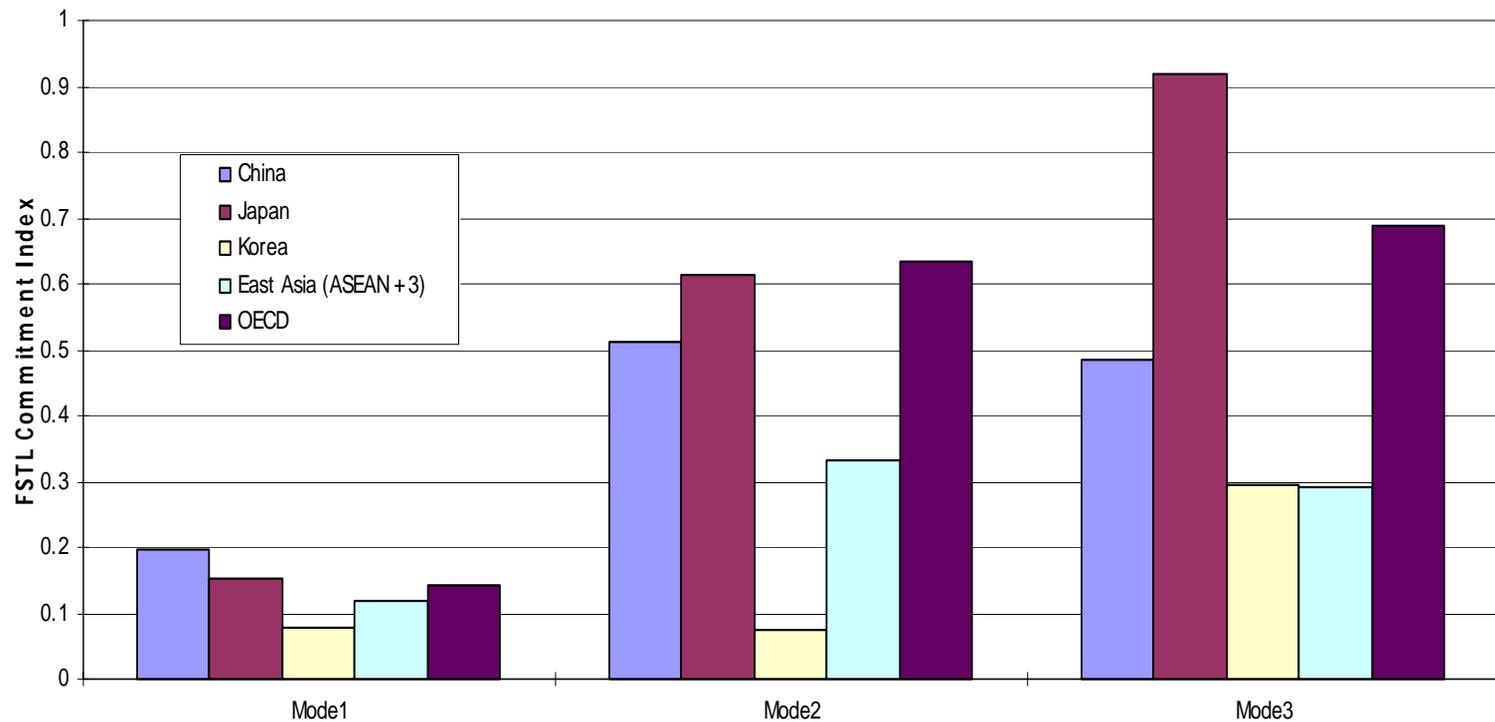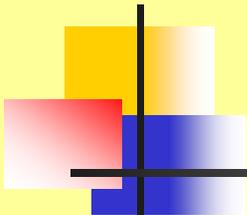
Foreign Bank Presence in China

a) Foreign presence is still relatively small, 1.4% of total bank assets

Table 5: Foreign Bank Presence in China (Top 10 Banks by Assets in Millions of US$)

Rank	Bank Name	Assets
1	HSBC	7570.83
2	Citibank	6700.93
3	Tokyo-Mitsubushi	3333.36
4	Standard Chartered	3032.45
5	Mizuho	2923.57
6	UFJ	2858.42
7	SMBC	2463.76
8	Bank of East Asia	2121.63
9	Deutsch Bank	677.57
10	Dutch Commercial Bank	627.62
	Total Foreign Bank Assets	48050.85

Memorandom

Foreign Bank Assets Share		1.40%

Source: China Bank Regulatory Commission (2003)
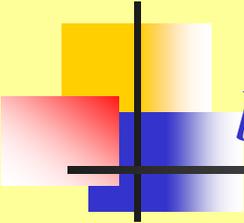
b) Form of entry: Branch

Table 6: Foreign Financial Institutions in China

	Foreign Bank	Subsidiary	Joint Venture Bank	Foreign Finance Company	Total
Subsidiary		14	10	3	27
Branch	162				162
Subsidiary Branch		9	4		13
Sub-Branch	15		1		16
Total	177	9	15	3	218

Data source: China Bank Regulatory Commission (2004).

Table 7: Comparision of Subsidiaries and Branches (Billions of US Dollars)

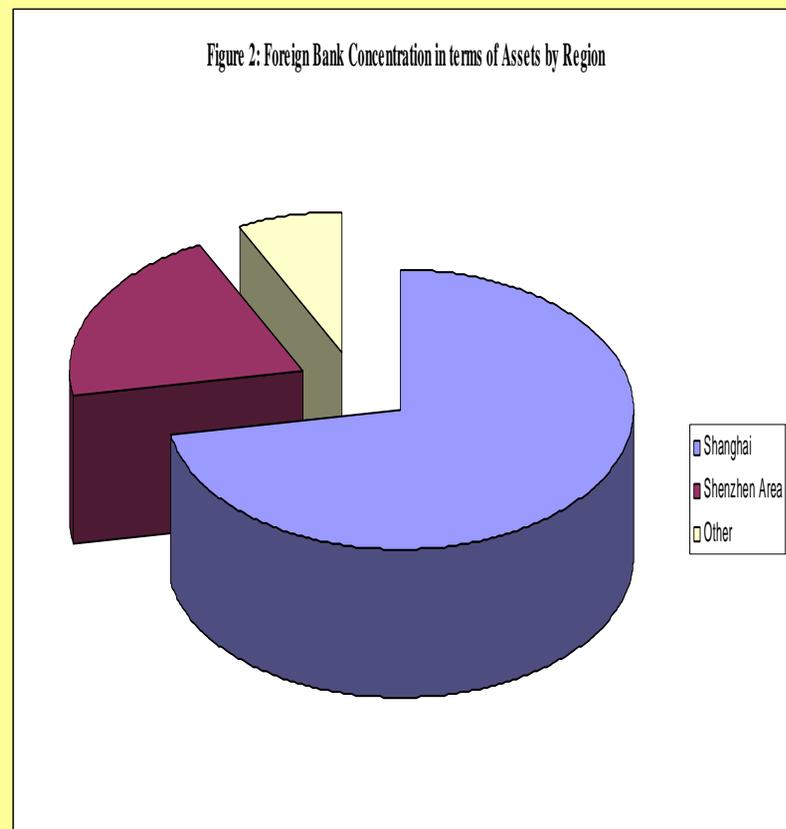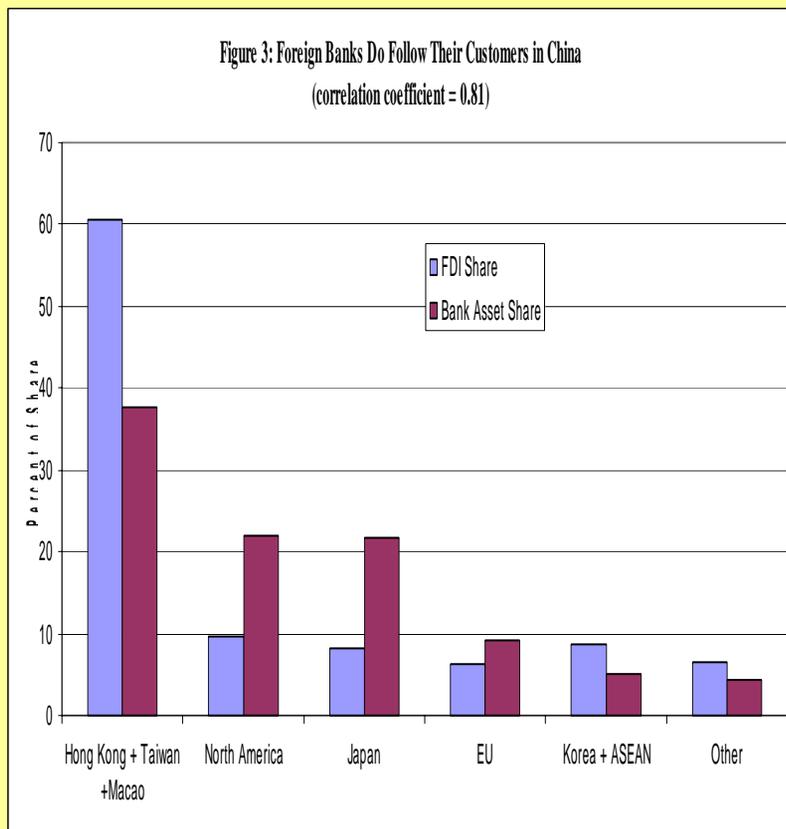|	Subsidiary	Branch	Total	Subsidiary/Branch Ratio
Assets	2.74	46.3	48.044	0.059
Loans	1.44	21.04	22.4	0.068
Liabilities	1.65	42.4	43.93	0.039
Deposits	0.8	11.97	12.4	0.067
Profitability	0.021	0.2	0.225	0.105
CAR (%)	35.88	8.17	9.68	4.392
NPL	4.92	2.79	2.93	1.763

Data source: China Bank Regulatory Commission (2004).
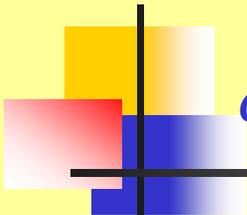
c) Sector and Currency

Table 8: Foreign Bank Loans by Sector (Millions of RMB)

| Sectors	Total Loans Outstanding	Percent of Total (%)
Manufacturing sector	119,283	55.8
Machinery Sector	12,539	5.9
Electronics Sector	25,969	12.1
Chemical Sector	26,316	12.3
Light Industry Sector	26,622	12.4
Other Manufacturing Sector	27,836	13.0
Real Estate Sector	27,324	12.8
Retail Sector	8,929	4.2
Other Sectors	58,316	27.3
Total	213,851	100.0
Memorandum		
Total Loans in RMB	84,448	39.49
Total Dollar Loan in RMB	165,043	60.51
Total Dollar Loan in Dollar	19,981	

Source: China Bank Regulatory Commission (June 2004)

d) Foreign banks follow their firms and are highly concentrated

Figure 3: Foreign Banks Do Follow Their Customers in China
(correlation coefficient = 0.81)

Figure 2: Foreign Bank Concentration in terms of Assets by Region

e) Funding source is largely from head offices

Figure 4: Funding Source of Foreign Bank Loans In China
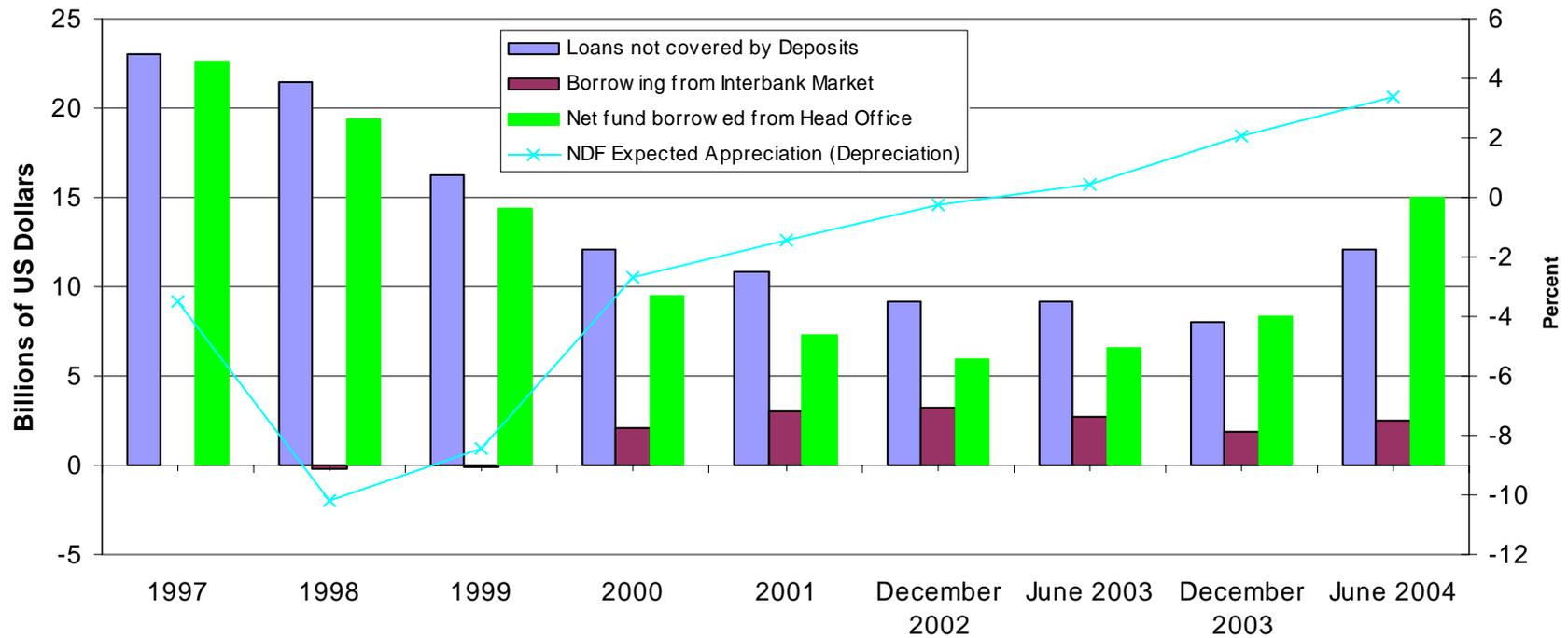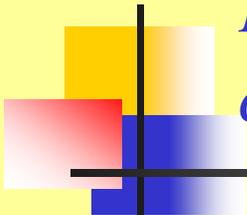
# *Foreign banks' influence on China's capital flows is considerable*

Table 10: Chinese External Debt Data by Borrowers

	1998	1999	2000	2001	2002	2003
Central Government	41.6	47.3	48.96	49.8	50.5	52.8
Chinese banks	33.98	34.4	29.84	30	29.1	33.3
Chinese non-bank financial institution	8	6.47	5.72	4.38	4.4	4.3
Chinese firms	15.5	14.7	13.52	11.2	10	7.6
Foreign Funded Enterprises	45.2	47.3	46.5	35.2	33.2	37.8
Foreign banks	..	..	..	17.04	14.5	20.7
Trade Credit				21.6	26.3	36.8
Others	1.76	1.63	1.16	0.88	0.5	0.3
Total	146.04	151.8	145.7	170.1	168.5	193.6

Data source: SAFE website in billions of US dollars.
Note: Reclassification of China's foreign indebtedness was made in 2001 in accordance to the International Standards. 1) Debt of foreign financial institutions are inlcuded as domestic debt and at the same time, foreign currency lending of foreign financial insitutions to China borrowers are deducted from the total foreign debt. 2) All trade credits (including 1-3 month) are included in the total foreign debt. 3) Long-term debt with expected payment within one year is also included as short-term debt.

China's short-term debt has surged since 2001

International Bank loans Claims on China by Maturity
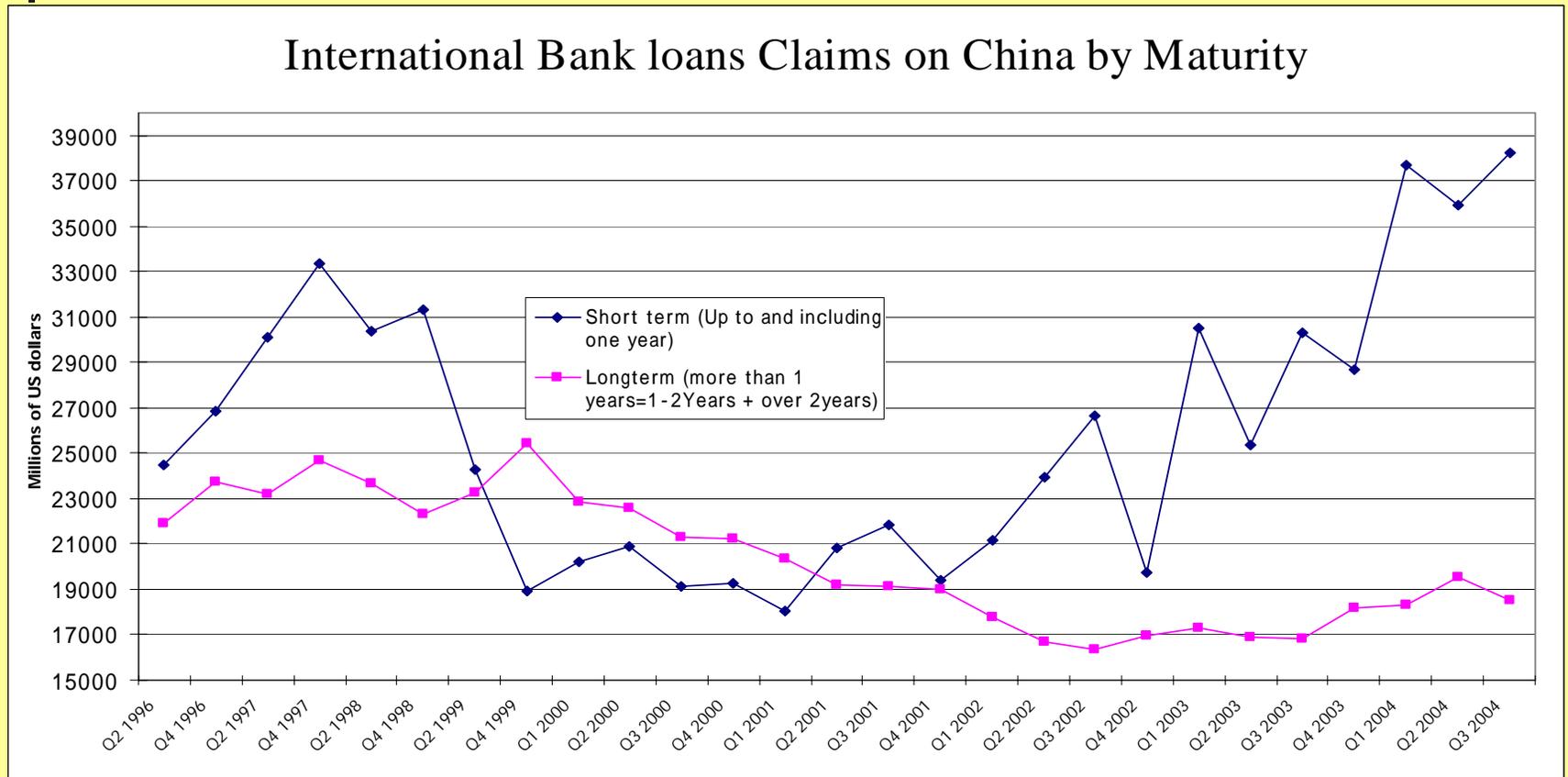
Substantial interest rate differentials between onshore and offshore give rise to arbitrage opportunities

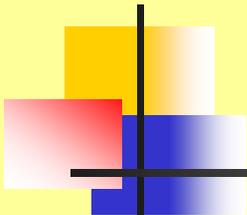Figure 6: Interest Rate Differentials and Short-Term Capital Inflows
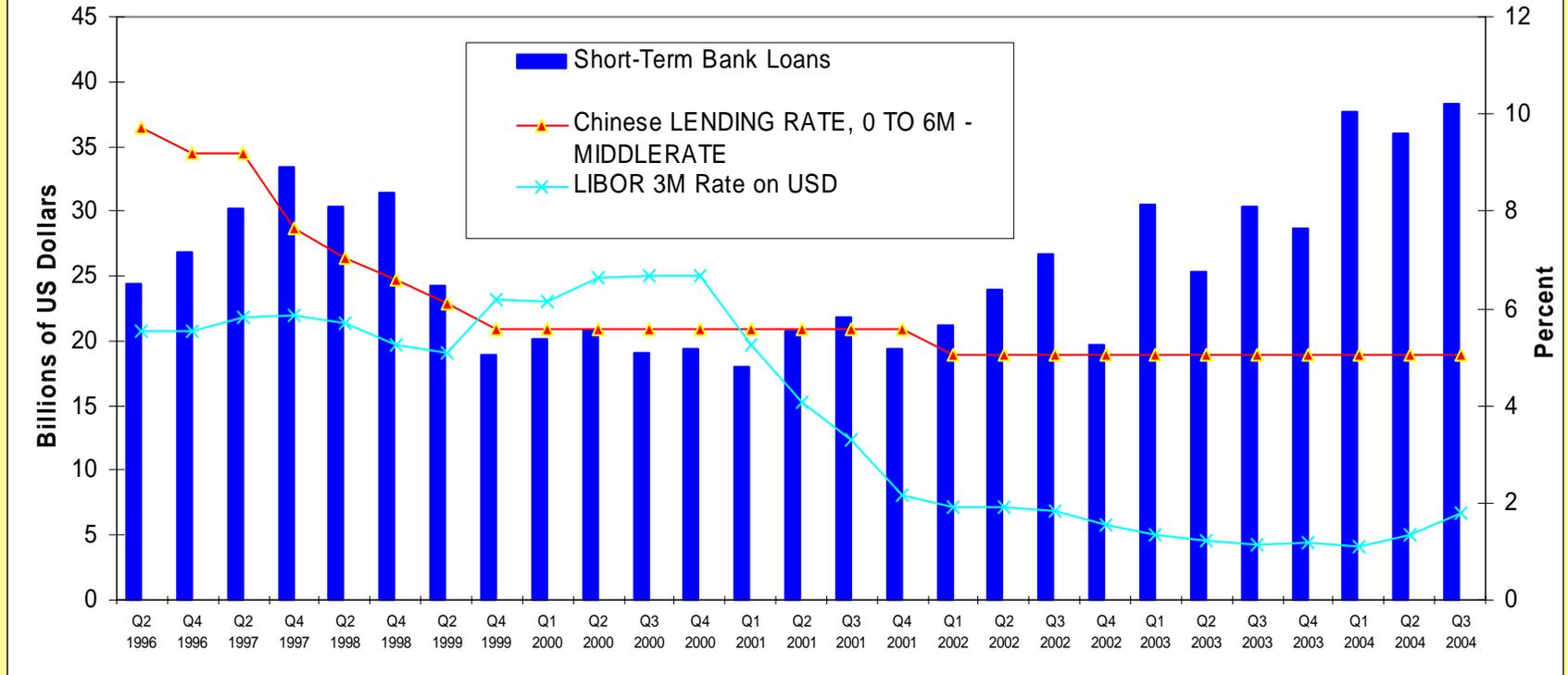
Table 11: Determinants of China's Short-Term Bank Loans (Dependent Variable: Log Short-Term Bank Loans)

Explanatory Variable	Coefient
Interest Rate Differentail Between Libor and Chinese 0-6M Lending Rate	0.05
	(4.25)***
Capital Control Indexes	-1.49
	(-3.1)***
Standard and Poor Sovereign Rating	0.32
	(9.0)***
Trade Balance	-0.001
	(-2.6)**
Constant	6.5
	(8.64)***
Adjusted R Square	0.84
Sample Size	33

Note: Signs of ***, **, * represent 99, 95, and 90 percent of statistical significance. Numbers in parenthese are t statistics.
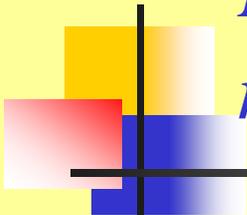
But does FSTL affect bank loans to emerging markets in general?

- Adopt a gravity model to examine the impact of FSTL on bank loans to LDCs

- Similar applications on the effect of the WTO on global trade are done by Rose (2003) and Subramanian and Wei (2003).

$$\log(BL_{ij}) = \sum_{k} \beta_k Z_{ijt} + \sum_{k} \lambda_k M_j + \sum_{k} \gamma_k X_{ijk} + \sum_{k} \delta_k Y_{jk} + \sum_{k} \varepsilon_k Z_{jk} + \mu_{ij}$$
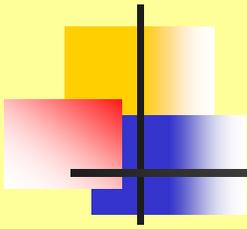
- Log(BL*ij*) represents BIS reporting country bank loans from developed country *i* to less developed country *j*.

- Vector Zijt represents gravity variables such as economic size, per capita income, and distance between a lending country *i* and borrowing country *j*.

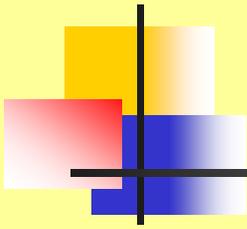- Adjusted by country fixed effect of loan recipient economies in Vector Mj.

- Adjusted by economic linkage variables in Vector X_{ij} (bilateral trade, ODA, border, colonial ties, and common language).

- Adjusted by country risk indicators as represented in Vector Y_j

- Then we can assess the impact of financial services trade liberalization commitment indexes in Vector Z_j

Table 12: Core Regressions, Panel and 5-year Average (1998-2002)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log distance	-0.78 ***	-0.78 ***	-0.78 ***	-0.78 ***	-0.88 ***	-0.88 ***	-0.88 ***	-0.88 ***
	0.09	*0.09*	*0.09*	*0.09*	*0.16*	*0.16*	*0.16*	*0.16*
Log GDP lender	0.37 ***	0.37 ***	0.37 ***	0.37 ***	0.46 ***	0.46 ***	0.46 ***	0.46 ***
	0.05	*0.05*	*0.05*	*0.05*	*0.09*	*0.09*	*0.09*	*0.09*
Log GDP borrower	-0.42 *	-0.37 *	-0.42 *	-0.37 *	0.71 ***	0.57 ***	0.71 ***	-0.10
	0.24	*0.23*	*0.24*	*0.23*	*0.14*	*0.19*	*0.14*	*0.21*
Log GDP per capita lender	0.28 **	0.28 **	0.28 **	0.28 **	0.24	0.24	0.24	0.24
	0.13	*0.13*	*0.13*	*0.13*	*0.23*	*0.23*	*0.23*	*0.23*
Log GDP per capita borrower	0.42	0.31	0.42	0.31	1.24 ***	-0.11	1.24 ***	0.22
	0.62	*0.61*	*0.62*	*0.61*	*0.21*	*0.26*	*0.22*	*0.23*
Common border	0.44	0.44	0.44	0.44	0.28	0.28	0.28	0.28
	0.29	*0.29*	*0.29*	*0.29*	*0.35*	*0.35*	*0.35*	*0.35*
Common language	0.23 *	0.22 *	0.23 *	0.22 *	-0.12	-0.12	-0.12	-0.12
	0.12	*0.12*	*0.12*	*0.12*	*0.23*	*0.23*	*0.23*	*0.23*
Colonial past	1.35 ***	1.36 ***	1.35 ***	1.36 ***	1.68 ***	1.68 ***	1.68 ***	1.68 ***
	0.17	*0.17*	*0.17*	*0.17*	*0.28*	*0.28*	*0.28*	*0.28*
Bilateral trade	0.24 ***	0.24 ***	0.24 ***	0.24 ***	0.29 ***	0.29 ***	0.29 ***	0.29 ***
	0.04	*0.04*	*0.04*	*0.04*	*0.09*	*0.09*	*0.09*	*0.09*
Exchange rate volatility	-0.02	0.00	-0.02	0.00	-0.15 *	0.08	-0.15 *	0.03
	0.11	*0.11*	*0.11*	*0.11*	*0.08*	*0.07*	*0.08*	*0.07*
IMF crisis dummy	-0.03	-0.02	-0.03	-0.02	0.32	-0.05	0.31	-0.89 **
	0.14	*0.15*	*0.14*	*0.15*	*0.73*	*0.46*	*0.76*	*0.45*
Capital account restrictions	-0.04	-0.12	-0.04	-0.12	-0.02	0.33 *	-0.02	0.37 **
	0.27	*0.23*	*0.27*	*0.23*	*0.09*	*0.17*	*0.09*	*0.18*
Deposit insurance	0.25	0.26	0.25	0.26	0.16	0.70	0.16	3.44 ***
	0.40	*0.40*	*0.40*	*0.40*	*0.47*	*0.65*	*0.48*	*0.74*
Financial sector Development	-0.15	-0.16	-0.15	-0.16	-0.56	-1.66 ***	-0.52	-1.29 ***
	0.29	*0.29*	*0.29*	*0.29*	*0.61*	*0.46*	*0.66*	*0.50*
Fiscal sector sustainability	-0.33	-0.34	-0.33	-0.34				
	0.24	*0.24*	*0.24*	*0.24*				
GDP volatility	0.02	0.02	0.02	0.02	-1.14 ***	-0.16	-1.14 ***	-0.40 *
	0.04	*0.04*	*0.04*	*0.04*	*0.16*	*0.25*	*0.16*	*0.24*
Corruption	-0.08	-0.09	-0.08	-0.09	-1.38 ***	0.76	-1.38 ***	0.53
	0.18	*0.18*	*0.18*	*0.18*	*0.37*	*0.50*	*0.37*	*0.43*
Short-term debt	0.04	0.03	0.04	0.03	0.62 ***	0.17 *	0.62 ***	0.22 *
	0.07	*0.07*	*0.07*	*0.07*	*0.10*	*0.10*	*0.11*	*0.12*
ODA Stock	0.28 ***	0.28 ***	0.28 ***	0.28 ***	0.21 ***	0.21 ***	0.21 ***	0.21 ***
	0.02	*0.02*	*0.02*	*0.02*	*0.04*	*0.04*	*0.04*	*0.04*
WTO score total	-0.03				0.04			
	0.06				*0.09*			
WTO score banking			-0.03				0.03	
			0.06				*0.08*	
WTO score total – Latin America		-0.04				0.41 **		
		0.12				*0.19*		
WTO score total – ASEAN+Korea		3.51				0.30 ***		
		6.85				*0.09*		
WTO score total – China		1.01 ***				0.15		
		0.30				*0.17*		
WTO score total – offshore		0.74 ***				0.99 ***		
		0.18				*0.25*		
WTO score banking – Latin America				-0.04				0.42 **
				0.11				*0.19*
WTO score banking – ASEAN+Korea				3.35				0.73 ***
				6.53				*0.13*
WTO score banking – China				0.97 ***				0.63 ***
				0.29				*0.20*
WTO score banking – offshore				0.72 ***				0.97 ***
				0.18				*0.25*
Borrower fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time effects	Yes	Yes	Yes	Yes				
Number of observations	2202	2202	2202	2202	663	663	663	663
Sample	Panel	Panel	Panel	Panel	5-yr aver	5-yr aver	5-yr aver	5-yr aver
R-square	0.941	0.941	0.941	0.941	0.739	0.739	0.739	0.739
Root mean squarre error	1.330	1.330	1.330	1.330	1.361	1.361	1.361	1.361

Note: signs ***, **, and * indicate statistical significance at 99, 95, and 90 percent, respectively. Numbers in italics indicate standard deviation.
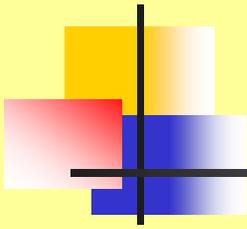
- *Result 1:* Gravity model variables, economic linkages help explain banks loans to recipient countries well
- *Result 2:* Capital controls as measured by the IMF capital control indexes do not appear to matter
- *Result 3:* FSTL commitments do not help every country. However, certain countries such as China will benefit from increased bank. FSTL help promote bank loans to emerging economies strongly but not evenly
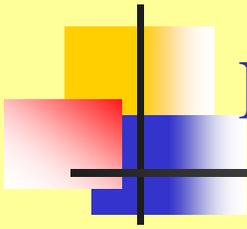
Policy Implications (PI)

- ***PI-1***: Depending on country characteristics, FSTL can have serious implications on capital flows (bank loans).

- ***PI-2:*** Large capital flows may affect the existing capital control regime in a host economy. In light of large foreign bank presence, policy makers should anticipate the regime shift of capital flows.

- ***PI-3:*** If China's capital controls are becoming more porous, corresponding adjustments regarding bank supervision, exchange rate regime, and monetary targets are also required.