

**The Role of Financial Integration in East Asia
in Promoting Regional Growth and Stability**

Chaipat Poonpatpibul
Surach Tanboon
Pornnapa Leelapornchai

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Motivation

- Previous papers: The need to improve various aspects of Thai economy in preparation for the New Asian economy
- With the rise of China and India, economic interdependence is growing, making regional cooperation indispensable
- Understanding the role of financial integration and cooperation is vitally important

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Why regional rather than global financial cooperation?

- Integrated market with diversified assets: more attractive
- Stronger voice in international arena
- Discipline for domestic reforms
- Should not be inward looking

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Main Questions

1. To what extent is East Asia financially integrated?
2. How can financial integration promote economic growth?
3. What is the role of financial cooperation in creating macroeconomic stability?

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What is the degree of financial integration in East Asia?

- Regulatory measures
- Quantity-based measures
- Price-based measures

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Regulatory measures

- One way to assess the degree of integration is examining barriers to capital movement
- Regulatory measures are de jure, not de facto, indication of integration

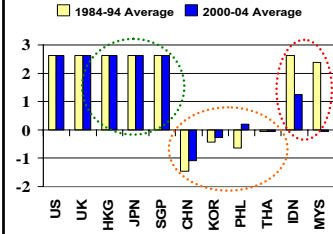
Summary features of controls on capital transactions

Controls on:	UK	JPN	US	SGP	KOR	THA	IDN	PHL	MYS	CHN
Capital and money market instruments										
Capital market securities			x	x	x	x	x	x	x	x
Money market instruments			x		x	x	x	x	x	x
Collective investment securities			x		x	x	x	x	x	x
Derivatives					x	x	x	x	x	x
Credit operations										
Commercial credits					x		x	x	x	x
Financial Credits				x	x	x	x	x	x	x
Direct investment	x	x	x		x	x	x	x	x	x
Liquidation of direct investment										x
Real estate transactions				x	x	x	x	x	x	x
Personal capital movements					x	x		x	x	x

x indicates that the specified practice is a feature of the exchange system

Source: Annual Report on Exchange Arrangements and Exchange Restrictions, 2005

East Asian financial openness has generally improved but still lagged behind developed economies



Index is based on

- Restrictions on current and capital accounts transactions
- FX surrender requirements for export proceeds
- Presence of multiple exchange rates

Higher value of index indicate more openness

Source: Chinn and Ito (2005)

Regulatory measures: Summary

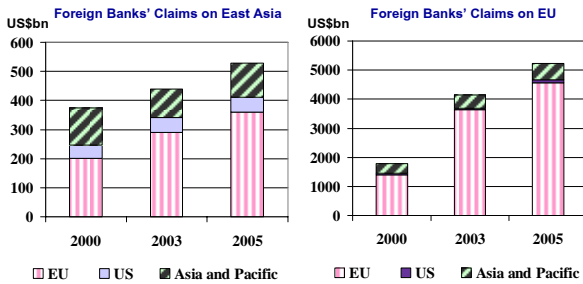
Financial openness in East Asia

- generally improves
- but still lags behind developed economies

Quantity-based measures

- Quantity-based measures reflect de facto financial integration
- Examples:
 - international bank lending
 - cross-country portfolio investment

East Asia is more integrated with developed economies in terms of bank lending



Source: BIS

Intraregional portfolio investment in East Asia is far below that in EU

Intraregional and Interregional Portfolio Investment in 2003

Source	NAFTA	EU15	East Asia	ROW	Total
Destination					
NAFTA	545	1776	747	1620	4688
EU15	1614	6058	804	1455	9931
East Asia	476	415	110	165	1166
ROW	823	1292	566	492	3173
Total	3458	9541	2227	3732	18958

USD billion

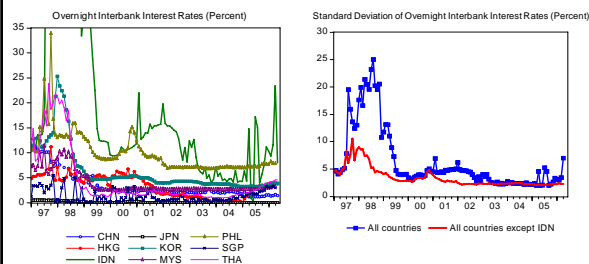
Source: Asian Bond Monitor

Financial integration in East Asia

- Lags behind integration with developed economies

- With capital flowing more freely, there are greater opportunities for arbitrage
- Price dispersion should decrease as integration advances
- Examples:
 - Cross-country standard deviation of money market rates
 - Exchange rate and stock price comovements

Cross-country standard deviation of money market rates has decreased



Sources: CEIC and authors' calculation

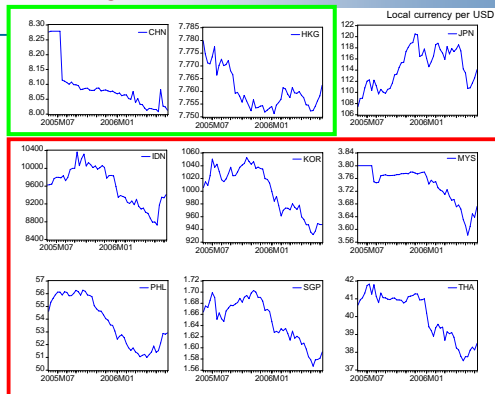
Degree of exchange rate comovement increases over time

Pairwise Correlation Matrices for Exchange Rates

1986:01-1995:12										2001:01-2005:07										
	CHN	HKG	IDN	JPN	KOR	MYS	PHL	SGP	THA		CHN	HKG	IDN	JPN	KOR	MYS	PHL	SGP	THA	
CHN										CHN	1.00									
HKG		1.00								HKG	0.21	1.00								
IDN			1.00							IDN	-0.09	0.29	1.00							
JPN				1.00						JPN	0.09	0.50	0.42	1.00						
KOR					1.00					KOR	0.27	0.38	0.37	0.82	1.00					
MYS						1.00				MYS	1.00	0.20	-0.09	0.07	0.24	1.00				
PHL							1.00			PHL	-0.17	-0.48	-0.45	-0.75	-0.70	-0.16	1.00			
SGP								1.00		SGP	0.16	0.37	0.41	0.92	0.91	0.13	-0.70	1.00		
THA									1.00	THA	0.04	0.48	0.58	0.84	0.81	0.02	-0.71	0.86	1.00	

Legend: correlation coefficient > 0.50 (pink), correlation coefficient ∈ [0.25, 0.50] (yellow). Sources: CEIC and authors' calculation

Exchange rate movements after CNY revaluation



Source: CEIC

Price-based measures: Summary

Degree of East Asian financial integration has increased

- Dispersion of money market rates decreases
 - Stock prices and exchange rates move together
- But integration is still low compared with that in Europe
- Dispersion is relatively high
 - Comovements of East Asian currencies are not uniform

Financial integration and economic growth

Financial integration through FDI potentially increases trade

$$\text{Export}_{ijt} = b_0 + b_1 \text{GDP}_{it} + b_2 \text{GDP}_{jt} + b_3 \text{Distance}_{ij} + Xb + e_{ijt}$$

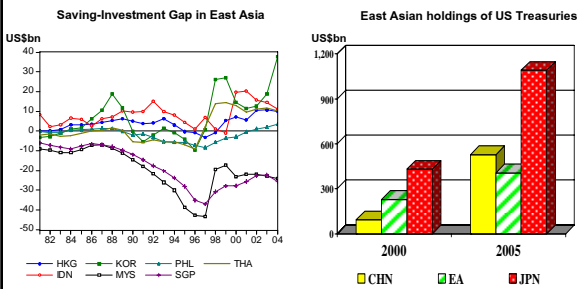
- GDP represents economic size
- Distance proxies trade costs, e.g. shipping costs, time elapsed
- X includes shared history, language, as well as FDI

Estimated coefficient of FDI: positive and significant

Second-stage Regression			
Dependent variable: Export			
Regressor	Coef.	t-stat	P-value
FDI	0.1361	2.27	0.02
Exporting Country's GDP	0.7998	3.22	0.00
Trading Partner's GDP	0.6950	4.90	0.00

Other channels through which financial integration can promote economic growth

Financial integration helps channel funds to investment in the region



Source: CEIC

Source: US Bureau of Economic Analysis

Other channels through which financial integration can promote economic growth

Financial integration provides opportunities for international risk sharing--- hence lower risk premium and cost of capital

- Lower cost of capital follows from elimination of country-specific risks
- Net present value turns positive for some investment projects, thereby inducing investment

Financial integration and growth: Summary

Channels through which integration provides an impetus to growth

- FDI and intraregional trade
- Efficient transfers between savers and borrowers within region
- Financial deepening in domestic markets
- International risk sharing (reducing risk premium and cost of capital)

Financial integration and economic and financial stability

Financial integration and economic and financial stability

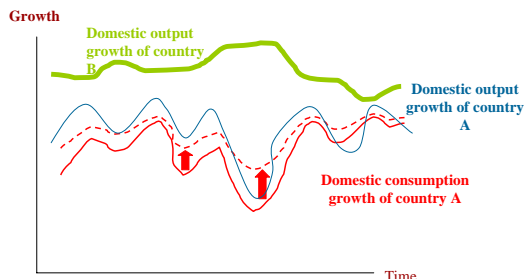
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- Benefits and costs on macroeconomic and financial stability
- The role of regional financial cooperation in enhancing macroeconomic and financial stability

Main benefits on economic and financial stability are on risk sharing and hence consumption smoothing

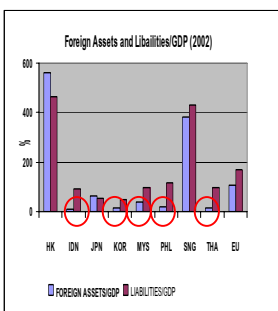
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Delink domestic consumption from domestic output and therefore help smooth domestic consumption

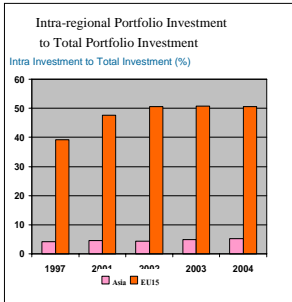


So far little benefit in EA due to low foreign asset holding and intra-regional investment

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Source: IFS



Source: CPIS,IMF

However, there is a scope for potential greater benefit as output growth is not uniform across countries

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Cross Correlation of Real Output Growth in East Asia (1995 – 2005)

	CHN	HKG	IDN	JPN	KOR	MYS	PHL	SGP	THA
CHN	1	0.25	0.80	0.60	-0.75	0.10	0.53	0.04	0.59
HKG	0.25	1.00	0.45	0.83	0.21	0.84	0.86	0.88	0.31
IDN	0.80	0.45	1.00	0.80	-0.53	0.19	0.60	0.13	0.28
JPN	0.60	0.83	0.80	1.00	-0.30	0.57	0.77	0.52	0.35
KOR	-0.75	0.21	-0.53	-0.30	1.00	0.47	0.10	0.54	-0.11
MYS	0.10	0.84	0.19	0.57	0.47	1.00	0.87	0.96	0.61
PHL	0.53	0.86	0.60	0.77	0.10	0.87	1.00	0.84	0.68
SPG	0.04	0.88	0.13	0.52	0.54	0.96	0.84	1.00	0.46
THA	0.59	0.31	0.28	0.35	-0.11	0.61	0.68	0.46	1.00

Source: IFS

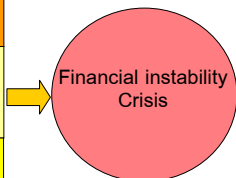
The shaded cell indicates that a cross correlation coefficient is less than 0.5

The main costs of regional financial integration are

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Costs

- More volatile capital flows
- New risks from financial innovations and greater liberalization
- Cross-border spillovers



From past experiences, financial liberalization in emerging markets led to recurrence of crises with sudden stops and reversals of capital flows

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Reversals in Net Private Capital Flows in 1990s as a percentage of GDP

Country/Episode	Period	Reversal
Argentina	1982-83	20
	1994-95	4
Chile	1981-83	7
	1990-91	8
Ecuador	1995-96	19
Hungary	1995-96	7
Indonesia	1996-97	5
Malaysia	1993-94	15
Mexico	1981-83	12
Mexico	1993-95	6
Philippines	1996-97	7
Venezuela	1992-94	9
South Korea	1996-97	11
Thailand	1996-97	26
Turkey	1993-94	10

Source:

Calvo and Reinhart (1999)

and more importantly often resulted in large contractions of output

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Severity of Crises

(Average numbers of months that it takes for GDP to reach its norm during tranquil period)

Period	Currency Crises			Banking Crises		
	Latin America	East Asia	Others	Latin America	East Asia	Others
1970-1994	48.1	14.0	9.0	21.6	2.8	7.3
1995-1997	25.4	40.0*	N.A.	8.3	15.0*	N.A.

* Difference from historic mean is statistically significant at standard confidence levels.

Source: Calvo and Reinhart (1999)

How to manage risks from greater financial integration?

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At the domestic level

Since crisis, several positive developments in

Monetary and exchange rate frameworks

Composition of capital flows

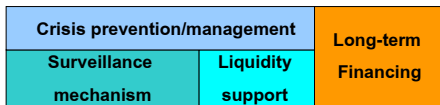
Financial sector development

Financial regulation and supervision

Transparency

At the regional level,

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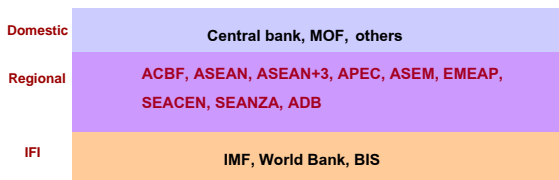
An effective surveillance mechanism is crucial for crisis prevention/management because of

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- Potential cross-border risks
- Need for appropriate deployment of a liquidity support mechanism in time of crisis

Who do it?

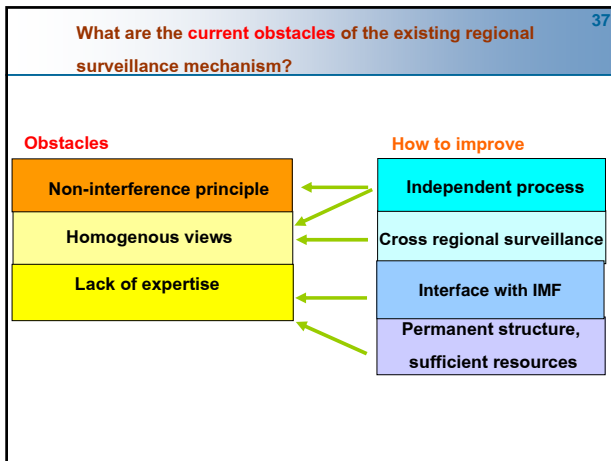
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Why is regional surveillance needed?

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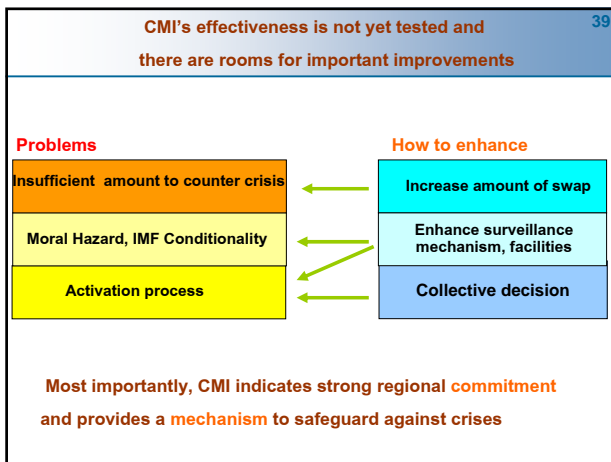
- Need to understand linkages among regional economies
- Need specific knowledge from regional experts and private sector
- Greater incentives for peer pressure to avoid cross-border contagion
- IFI's surveillance not adequate from crisis experiences



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Liquidity support is a necessary cushion and can be obtained from

Domestic	Regional	IMF
Foreign reserves • Opportunity cost • Sterilization cost • Low rate of returns • Negative effect on CB balance sheet	Chiang Mai Initiative (CMI) ASEAN Swap Arrangements Bilateral Swap Arrangements	IMF's lending programs • Strict conditionality • Restricted by quotas • Depending on credibility of program



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Regional cooperation on bond market development is also crucial for

- reducing dependence on short-term foreign fund and currency mismatches
- paving the path for further integration

Asian Bond Fund (ABF)	Asian Bond Market Initiatives (ABMI)
• To recycle Asian savings to Asian economies • Mechanism to identify market impediments	• Capital market infrastructure • Enabling environment • Regulations & supervision • Incentives

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- However, further cooperation needs to focus on
- More diverse participants
 - Asset securitization
 - Transparency and governance
 - Derivatives market development
 - Regional credit rating agencies

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- To Conclude**
- Regional financial integration renders the regional capital market more attractive to international investors, stronger voice in the international rule and standard setting, and reform enhancement.
 - Although financial integration within East Asia lags behind integration with developed economies, it has been on an increasing trend.

To conclude

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- Financial integration potentially benefits economic growth as it helps enhance intra-regional trade, reduce cost of capital, and deepen the financial markets.
- However, it also entails risks to stability. Therefore, effective prudential safeguards and close cooperation, are needed for reaping full potential benefits from further integration.